



General and Special Early Childhood Educators' Attitudes Towards Co-teaching as a Means for Inclusive Practice

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Abstract

Co-teaching has been proposed as a meaningful method in addressing the challenges that can accompany classroom diversity. In the present study teachers' attitudes were investigated regarding co-teaching and the inclusion of students with disabilities in general classes. A total of 104 early childhood educators responded to a questionnaire (51.9% general educators and 48.1% special educators). The questionnaire examined the conditions that need to be met for the successful implementation of co-teaching as well as the benefits for the co-teachers. Our findings revealed that while special educators are more willing to co-teach, they are at a disadvantage because general educators typically make the decisions related to the planning and evaluation of the activities in the general classroom. However, most general early childhood educators stated that they benefit professionally from co-teaching. According to our findings, co-teaching is perceived to be successful when the two co-teachers collaborate, during their formal meetings even though their shared collaboration time usually is quite limited. Moreover, female educators seemed more open to inclusive practices and most of them agreed that the appropriate arrangement of the classroom successfully affects the implementation of co-teaching. Finally, it was pointed out that the co-teachers' knowledge of special educational needs and their skill to modify the curriculum seem to affect co-teaching.

Keywords Co-teaching · Early childhood education · Inclusion · Special education needs · Special class

Introduction

Inclusive education as defined by the Salamanca Statement (United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994), states that general education must be provided for all children without exception. The main aim of any inclusive policy is to promote equality for all students and to ensure free, and effective education which responds to their individual needs (UNESCO, 1994). The very essence of inclusive education is that all children without exception have a common curriculum with an emphasis on the needs of each individual, and that all students have equal access to services in the school environment (Ainscow, 2005; Booth & Ainscow, 1998, 2011; Sebba & Ainscow, 1996). During the past 30 years, co-teaching has emerged as the model that

may provide the appropriate conditions to promote inclusion of all students in general school settings.

Co-teaching is commonly defined as a partnership between a general education teacher (GET) and a special education teacher (SET) or other specialist, and includes shared planning, instruction, and assessment of students with and without disabilities (Cook & Friend, 2010; Friend, 2008; Friend et al., 2010). Both teachers deliver instruction to a diverse group of students, including those with disabilities or other special needs, in a general education setting and in a flexible way that meets all students' learning needs (Friend, 2008).

The concept emerged from the notion that special education and its related services should be offered in general education settings through partnerships between professionals (Bauwens et al., 1989). During the 1990s, co-teaching was occasionally implemented in schools as an inclusive effort; the main aim was the integration of students with disabilities into general classrooms, often to foster social, as much as academic opportunities (Friend et al., 2010). However, the critical factor of inclusion is not the coexistence of children in the same classroom but the implementation of

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student-centered teaching methods and practices (Mitchel, 2004). Thus, curriculum revision was gradually considered necessary in order to adapt to each student's individual needs and to exceed the holistic effectiveness of the school programme for the benefit of all students (Vislie, 2003). The key factor that intensified the interest in co-teaching was the No Child Left Behind Act of 2001. This legislation's main requirement was that all students should access the general curriculum and be taught by appropriately qualified teachers. Three years later, the reauthorisation of the Individuals with Disabilities Education Act (IDEA) of 2004 increased the emphasis on educating all students in the least restrictive environment. The twenty-first century marked significant changes in educational legislation and co-teaching quickly emerged as a model through which new requirements for special needs support could be met (Brinkmann & Twiford, 2012; Friend & Cook, 2013).

For educators, the shared experience of co-teaching with a colleague provides the opportunity for a reflection on teaching strengths and weaknesses as a common process. This relationship can effectively transform each educator's assumptions about teaching and learning (Crow & Smith, 2005; Ghaye & Ghaye, 1998). With this process it is more likely that renewed professional skills will be practiced through collaborative learning (Chanmugam & Gerlach, 2013; Rabin, 2020). Furthermore, the formation of collaborative relationships between co-teachers serves as an important resilient factor (Benard, 2004) and promotes professional satisfaction (Bill & Melinda Gates Foundation, 2015). Finally, successful co-teaching models have the potential to create ethical relations that foster the possibility of caring becoming a primary purpose of education both for students and educators (Rabin, 2020).

However, there are possible challenges to successful co-teaching. The most frequently mentioned obstacle is the need for common planning time for co-teachers (Murray, 2004; Scruggs et al., 2007), thus the lack of shared collaborative time seems to affect co-teachers' relationships (Kohler-Evans, 2006). According to Ginther et al. (2007), the main challenges of co-teaching are the additional planning time required as well as any power imbalances between the instructors. Prior research has indicated that special educators frequently act as classroom assistants rather than teaching partners (Scruggs et al., 2007).

In Greece, educational policies seem to favour inclusion and contribute towards the creation of inclusive schools; special education plays an important role, highlighting various programmes that aim to include students with special educational needs (SEN) in the general school. Nonetheless, inclusive strategies seem limited to the mere placement of students with SEN in general school settings (Angelides et al., 2004; Koutrouba et al., 2006), with their educative support relying on the general and the special educators'

knowledge and personal skills. Unfortunately, the appropriate inclusion of students with SEN depends on the implementation of many diverse programmes that arrange the educational practices within the general education settings (Strogilos, 2012).

According to Greek legislation (Law 3699/2008), the access of students with disabilities to the general education curriculum is promoted by the implementation of two different inclusive instructional models. Formerly, special education services were provided outside the regular classroom (pull-out model), in special classrooms within the local general schools. The latest instructional approach is the co-teaching model, according to which, special education support takes place within the general classroom (pull-in model), where the general educator co-teaches with a SET.

The aforementioned legislative initiative defines a certain procedure for the assessment and teaching support of students with SEN in the Greek educational system. Multidisciplinary teams in diagnostic centers identify and diagnose the special educational needs of a student, and then recommend the most effective inclusive model. Students with SEN either attend the general class and simultaneously a special class for several hours every week, or they attend the general class supported individually by a SET who co-teaches with the GET. The Greek Ministry of Education is responsible for the allocation of SETs in special classes or for the supportive teaching of students with disabilities in co-teaching practice. Research in the field showed that the co-teaching model is under major consideration since not all students have a part-time SET in the general classroom (Strogilos et al., 2016) and in many cases, SETs are appointed in the middle of the school year.

Ainscow and Sandill (2010), discussed the roles of co-teachers and their collaboration as the main parameters of successful co-teaching. Co-teaching involves a holistic redirection of special education towards the needs of the general class. As opposed to the pull-out model which focuses on the intensive instruction of SEN students outside the general classroom, the pull-in model brings new demands on instruction within the classroom. SETs become involved in the daily routine of the general classroom while also concentrating on delivering the relevant support to SEN students (Friend et al., 2010; King-Sears et al., 2018; Scruggs & Mastropieri, 2017). Nonetheless, the most common co-teaching application is the 'one teach one assist', in which the GET takes the main responsibility for teaching while the SET offers individual instruction to students (Bryant et al., 2012; Cartey & Farrell, 2018; Strogilos et al., 2016). The increase in the teacher-pupil ratio is also relevant and benefits teachers in their attempt to meet the individual needs of their students (Friend et al., 2010; Krammer et al., 2018). However, Murawski (2008) stated that this situation is an example of in-class support by SETs and not true co-teaching.

As mentioned before, a positive relationship and smooth collaboration between the teachers play an important role in the perceived successful co-teaching. When disagreements arise between GETs and SETs, inside or outside the classroom, their common teaching goals fail (Stefanidis & Strogilos, 2015). Furthermore, teachers' attitudes are defined as the primary element for the success of inclusion (Miesera & Gebhardt, 2018).

There are several factors that influence teachers' attitudes regarding co-teaching. The greatest challenge which educators usually must overcome is the mismatch between pre-service preparation and actual working conditions (Billingsley et al., 2004). Previous research has shown that GETs' doubts regarding inclusion are raised due to their lack of graduate and post-graduate training in the subject, and specifically their lack of knowledge in teaching methods and assessment in classes with both SEN and non-SEN students (Koutrouba et al., 2006). Furthermore, effective teaching should be emphasised with a flexible curriculum for students with SEN which will result in a significant impact on students' achievement (Strogilos et al., 2016; Trela & Jimenez, 2013). Thus, teachers should be trained in varied teaching strategies that will aid them in modifying the curriculum and evaluating students with differentiated needs (Naraian, 2010).

Moreover, in-service training of teachers is important as the better they are trained and qualified, the more positive they feel towards inclusive education (Cameron, 2017). Previous findings have indicated that preschool teachers lack the necessary knowledge for teaching inclusive classes (Bruns & Mogharberran, 2009; Crane-Mitchel & Hedge, 2007; Sucuoğlu et al., 2013; Strogilos et al., 2018). The teachers' age also plays an important role, as young teachers usually hold a more positive attitude towards inclusion (Galaterou & Antoniou, 2017). Finally, experienced teachers and those who are more self-assured are usually more positive regarding either pull-in or pull-out models (Idol, 2006; Moberg et al., 2020).

Aim of the Study

The aim of the study is to explore the attitudes of Greek early childhood educators regarding the inclusion of children with SEN, and specifically, the teachers' attitudes towards co-teaching. An attempt was made to answer the following questions:

What are the perceived benefits, if any, that early childhood educators receive through co-teaching?

How does the communication between general early childhood educators (GECEs) and special early childhood

educators (SECEs) contribute to perceived successful co-teaching?

What conditions must be met for perceived successful co-teaching?

What are some of the obstacles of perceived successful co-teaching?

What are the early childhood educators' attitudes when comparing individual instruction of students with SEN and co-teaching?

Methods

Instrument and Sampling Method

The study employed a quantitative method and a questionnaire served as the data collection instrument. For the investigation of teachers' attitudes, questions from the 'Co-Teacher Relationship Scale' by Noonan et al. (2003) ($\alpha=0.90$), as well as the 'Attitudes of Co-Teaching Survey' by Austin (2001) were selected. For the second instrument, "as a confirmatory step in the refinement process, a draft of the survey was submitted to nine experts for review" (Austin, 2001, p. 247). A total of 18 questions were formulated for the questionnaire and the respondents indicated their degree of agreement on a five-point Likert scale, where 1 means 'strongly disagree' and 5 'strongly agree'.

Cluster random sampling was used for the collection of the data. The thirteen central education directories responsible for early and primary childhood education in Greece were divided in six clusters and three of them were randomly selected. The questionnaires were sent by the selected directories to general and special early childhood educators and returned to the researchers.

Participants

A total of 104 early childhood educators responded to the questionnaire. The group was comprised of 54 GECEs and 50 SECEs, which resulted in a 51.9 and 48.1% response rate, respectively. SECEs either worked in special classes within general schools or they co-taught in general classes. Seventy-nine percent of the respondents were females ($n=82$) and 21.2% were males ($n=22$). Of the 104 participants, 63.5% had a bachelor's degree in general education, 31.7% held a master's degree in special education and finally, five of them (4.7%) held a Ph.D. ($SD=0.58$). Twenty-six teachers were between 25 and 35 years of age (25%), 44 teachers were between 35 and 45 years of age (42.3%), and the remaining 34 teachers were between 45 and 55 years old (32.7%). Finally, the teaching experience of the respondents ranged from 0 to 10 years (36, 34.6%) and from 11 to

20 years (36, 34.6%). There were also 32 teachers (30.8%) with 21 to 30 years' experience (30.8%).

Results

First, Cronbach α was performed for the examination of the questionnaire's validity. The Cronbach α of the questionnaire for the present study was 0.74, therefore it was within the acceptable limits (Field, 2013).

Principal Component Analysis (PCA) with orthogonal rotation of the axes (Varimax) was implemented on the data and in this solution the criterion of eigenvalue determined the number of components which were preserved (Kaiser, 1960). The investigation of differences between the participants was applied on two levels, dichotomous and ordered. When the independent variable contained two categories (dichotomous) such as gender, and teachers' specialty (GECE or SECE), *t*-tests for independent samples were conducted for the means' comparison. However, when the independent variable contained more than two categories (orderable) such as teaching experience, age, and academical qualifications, one-way ANOVAs were performed.

Advantages and Disadvantages of Co-teaching for the Educators

A total of 14 questions were removed from the first analysis, as they could not be analysed one-dimensionally. The second analysis removed another question. The remaining five questions extracted only two components. The first component was renamed 'Advantages and disadvantages of co-teaching' and included four questions (4, 9, 12, 13), the second component included one question (17), 'The course that serves as an obstacle for co-teaching' ($M = 1.4$, $SD = 0.6$) (see Table 1). The KMO index was 0.92 and thus, the data were suitable (De Vaus, 1991). The descriptive statistics of the variables can be found in Table 2.

The majority of the participants agreed with the fourth question of the questionnaire, 'Successful co-teaching offers professional satisfaction to the GET'. There was a significant difference ($F = 3.9$, $p = 0.04$, $\omega = 0.64$) between those who had a master's degree ($M = 2.3$, $SD = 0.1$) and those who had a bachelor's degree ($M = 1.4$, $SD = 0.1$). Most of the participants ($M = 3$, $SD = 0.7$) agreed on the ninth question, 'The lack of knowledge of GETs for children with SEN is the main obstacle for the success of co-teaching'. The majority of the participants agreed with the twelfth question, 'The demanding curriculum of general school is the main obstacle for successful implementation of co-teaching'. A statistically significant difference ($F = 8.6$, $p = 0.01$, $\omega = 0.62$) was found between teachers with a master's degree ($M = 2.46$,

Table 1 Principal component analysis with orthogonal rotation of the axes (Varimax)

Variables	Components			
	1	2	3	4
1				0.7
2				0.8
3			0.8	
4	0.54			
5				0.54
6				0.6
7			0.7	
8			0.7	
9	0.63			
10			0.7	
12	0.63			
13	0.8			
14			0.62	
15			0.55	
16				0.7
17		0.83		
18				0.7
Eigen value	2.08	0.52	2.77	2.67

Components: 1. Advantages and disadvantages of co-teaching, 2. The course that serves as an obstacle for co-teaching, 3. Co-teaching and its implementation, 4. Educators and co-teaching

Table 2 Means, standard deviation and range of all variables

	M	SD	Range
1	2.7	0.2	2
2	2	1.1	2
3	1.6	0.8	3
4	2.8	0.6	3
5	2.5	0.6	3
6	3.1	0.6	3
7	3	0.6	2
8	3.2	0.7	3
9	3	0.7	3
10	3.2	0.6	2
11	2.4	1.4	2
12	2.6	0.6	2
13	2.8	0.7	3
14	3.1	0.6	2
15	1.6	0.8	3
17	1.4	0.6	2
18	2.5	1.4	2

$SD = 1.22$) and those with a bachelor's degree ($M = 1.32$, $SD = 0.1$).

Most of the teachers agreed with the thirteenth question, 'GETs should possess knowledge for children with

SEN for perceived successful co-teaching'. A statistically significant difference ($F = 14.9$, $p = 0.02$, $\omega = 0.57$) was found between the participants who held a bachelor's degree ($M = 2.1$, $SD = 0.7$) compared to those with a Ph.D. ($M = 1$, $SD = 0.28$).

The analysis of the second component (question 17) showed that many teachers disagreed that 'The lesson that is less appropriate for co-teaching is Mathematics' ($M = 1.4$, $SD = 0.6$).

Co-teaching and Its Successful Implementation

Seven questions (1, 2, 5, 6, 11, 16, 18) were removed from the initial set of questions to be analysed (1, 2, 3, 5, 6, 7, 8, 10, 11, 14, 15, 16, 18) because they could not be analysed one-dimensionally. The third component entitled 'Co-teaching and its implementation' consisted of six questions (3, 7, 8, 10, 14, 15) (see Table 1). The KMO index was 0.72.

Most participants disagreed with the third question, 'Co-teaching cannot be implemented without a negative impact on the instruction of children without disabilities'. A statistically significant difference was found ($t = 2.67$, $p = 0.009$, $r = 0.53$) between SECEs who strongly disagreed ($M = 3.2$, $SD = 0.6$) and GETs ($M = 0.9$, $SD = 0.7$). Most respondents ($M = 2.2$, $SD = 0.5$) agreed on the seventh question of the questionnaire, 'The lack of collaboration time between the teachers is the main obstacle for perceived successful co-teaching'. Most teachers ($M = 2.3$, $SD = 0.6$) agreed on the eighth question, 'Children with moderate to severe educational needs can be taught mainly in the general classroom and they can be pulled-out a few hours a week for individualised teaching'. There was a statistically significant difference ($F = 4.7$, $p = 0.01$, $\omega = 0.64$) between teachers who held a bachelor's degree ($M = 1.2$, $SD = 0.4$) and those with a master's degree ($M = 2.1$, $SD = 1.1$). A statistically significant difference ($F = 3.9$, $p = 0.04$, $\omega = 0.62$) was also found between the highly experienced educators (21–30 years of experience) ($M = 2.4$, $SD = 1$) and those who had 0–10 years of experience ($M = 1.6$, $SD = 0.6$).

Most teachers ($M = 2.3$, $SD = 0.5$) agreed with the tenth question of the questionnaire, 'Good interpersonal communication between GETs and SETs is the cornerstone of perceived successful co-teaching'. Most respondents agreed with the fourteenth question, 'The teachers who participate in co-teaching must share the same educational values'. A statistically significant difference was found ($t = 2.46$, $p = 0.01$, $r = 0.51$) between men ($M = 2.2$, $SD = 1.1$) and women ($M = 1.6$, $SD = 0.7$). A statistically significant difference was also found ($t = 4.45$, $p = 0.001$, $r = 0.58$) between SETs ($M = 3$, $SD = 0.5$) and GETs ($M = 1.4$, $SD = 0.6$).

Most participants disagreed ($M = 2.5$, $SD = 0.5$) while a few agreed ($M = 1.4$, $SD = 0.5$) with the fifteenth question that 'Co-teaching should be implemented only after

the GETs' consent'. A statistically significant difference ($F = 9.7$, $p = 0.01$, $\omega = 0.64$) was found between teachers with 21–30 years of teaching experience ($M = 0.6$, $SD = 0.4$) and those who had 0–10 years ($M = 1.5$, $SD = 0.6$). A statistically significant difference ($F = 5.7$, $p = 0.02$, $\omega = 0.64$) was also found between the teachers who held a master's degree ($M = 2.4$, $SD = 0.7$) and those with a bachelor's degree ($M = 1.4$, $SD = 0.6$).

Finally, a statistically significant difference ($F = 3.7$, $p = 0.03$, $\omega = 0.62$) was revealed between teachers 25 to 35 years old ($M = 2.1$, $SD = 0.7$) and those 45 to 55 years old ($M = 1.2$, $SD = 1.1$).

Educators and Co-teaching of Children with SEN

The fourth component consisted of the remaining seven questions (1, 2, 5, 6, 11, 16, 18). The majority of the participants agreed with the first question, 'Children with mild educational needs should be taught in the general classroom and only in exceptional cases should they be pulled out for individual instruction'. A statistically significant difference was found ($F = 11.7$, $p = 0.04$, $\omega = 0.56$) between teachers who held a bachelor's degree ($M = 0.9$, $SD = 0.1$) and teachers with a master's degree ($M = 1.4$, $SD = 0.1$).

The majority of the respondents agreed on the second question, 'Co-teaching requires that both the GET and the SET should know how to adapt the curriculum to the needs of students with disabilities'. A statistically significant difference was found ($t = 2.07$, $p = 0.04$, $r = 0.55$) between women ($M = 2.3$, $SD = 0.6$) and men ($M = 1.7$, $SD = 0.4$). In addition, a statistically significant difference was found ($F = 8$, $p = 0.03$, $\omega = 0.57$) between teachers with a master's degree ($M = 3.3$, $SD = 1.2$) and those with a bachelor's degree ($M = 1.2$, $SD = 0.7$).

The fifth question, 'Increased opportunities for collaboration between teachers during co-teaching can contribute to the professional development of GETs' provided a statistically significant difference ($t = 4.3$, $p = 0.001$, $r = 0.55$) between GECEs ($M = 2.5$, $SD = 0.6$) and SECEs ($M = 1.3$, $SD = 1.7$). There was also a statistically significant difference ($F = 8.7$, $p = 0.02$, $\omega = 0.62$) between those with a master's degree ($M = 2.3$, $SD = 0.8$) and those with a bachelor's degree ($M = 1.5$, $SD = 0.9$).

The majority of the participants ($M = 3.1$, $SD = 0.6$) agreed with the sixth question, 'Increased opportunities for collaboration between teachers during co-teaching can contribute to the professional development of SETs'.

Many of the participants agreed on the eleventh question, 'The physical arrangement of the classroom affects the success of co-teaching'. A statistically significant difference was found ($t = 2.98$, $p = 0.03$, $r = 0.51$) between women ($M = 2.5$, $SD = 0.1$) and men ($M = 1.7$, $SD = 2.6$). There was also a statistically significant difference ($F = 3.4$, $p = 0.03$, $\omega = 0.55$)

between teachers with 21 to 30 years of teaching experience ($M=2.3$, $SD=0.2$), and those who had 0 to 10 years of experience ($M=1.1$, $SD=0.7$).

The majority of respondents agreed with the sixteenth question, ‘Teachers who co-teach should possess high communicational skills’. A statistically significant difference was found ($F=5.2$, $p=0.03$, $\omega=0.55$) between teachers with a bachelor’s degree ($M=2.4$, $SD=1.4$) and those who had a master’s degree ($M=1.4$, $SD=1.2$).

Finally, most of the participants disagreed with the eighteenth question, ‘In case of a disagreement between co-teachers and if a decision must be made, the opinion of the GET must prevail’. A statistically significant difference ($F=10.2$, $p=0.001$, $\omega=0.57$) was found between teachers with a master’s degree ($M=0.5$, $SD=1.4$) and those who had a bachelor’s degree ($M=1.5$, $SD=1.1$).

Discussion

Benefits that Early Childhood Educators Receive Through Co-teaching

Prior research has showed that GETs seem to benefit from the experiences they gain, especially by observing the work of SETs (Scruggs et al., 2007). According to our findings, most early childhood educators felt professionally satisfied by co-teaching. The majority of GECEs agreed that co-teaching contributes to their professional development while SECEs highly evaluated co-teaching opportunities for collaboration with GECEs. Previous research has pointed out that educators appear professionally satisfied when their students’ performance improves based on their instruction (Boudah et al., 1997). Through co-teaching, students’ individual educational needs are met successfully, and teachers benefit by learning ways to address these needs (Heisler & Thousand, 2021). Therefore, it seems likely that co-teaching provides satisfaction to both students and teachers because it creates excitement in children and improves their teachers’ performance.

The Role of Communication in Co-teaching

Our findings indicated that efficient communication between GECEs and SECEs contributes positively to the perceived successful co-teaching, while encouraging their collaboration. According to Scruggs and Mastropieri (2017), the necessary characteristics of good communication involve teachers’ interest in their partners with the avoidance of comments of a personal nature.

In our research, the exchange of views during the planning and the differentiation of the curriculum seemed to depend heavily on the interpersonal skills of the co-teachers.

GECEs and SECEs communication should be organised rapidly from the beginning of every school year since young children should adjust to the early childhood school setting quickly. Co-teachers need to exchange information, ideas, and opinions, both verbally and in writing, while they negotiate and decide the best teaching plan regarding their students’ learning process. Thus, two professionals who bring to the table different backgrounds, viewpoints, and values, need to clearly organise their communication channels, and put their interpersonal skills into practice daily, in order to process, accept, and create a path that can be followed as they develop their collaboration.

The Conditions for Co-teaching Perceived to be Successful and the Main Obstacles

Clearly, the conditions that should be met for perceived successful co-teaching are the avoidance of conflicts and the combination of co-teachers’ opinions. The importance of effective communication and coordination between early childhood educators is more evident since they are responsible for young children adjusting to school for the first time. In the beginning of every school year adjustment problems are quite common for young children with or without SEN. Thus, the contribution of a second teacher in the classroom seems not only helpful but almost essential during lesson instruction as well as during ‘difficult’ times for the management of behavioural problems.

In addition, early childhood educators also agreed that it is helpful to share the same educational values when they co-teach. SECEs seemed more certain about this, which can be explained due to their supportive role in planning and instruction. Prior research has revealed that the dominant model of co-teaching is supportive teaching (Friend et al., 2010; Scruggs et al., 2007; Strogilos et al., 2016). It has been found that even though SETs assist during co-teaching, they usually do not participate in the planning of lessons, or during actual instruction time (Murawski & Lochner, 2011). Thus, the ‘one teach one assist’ model may be that most commonly applied between an experienced ‘supervisor’ GECE and an inexperienced ‘assistant’ SECE.

According to Villa et al. (2008), supportive teaching involves less structured coordination between co-teachers, and hence it is suitable in the early stages of co-teaching. In our study, SECEs with many years of experience in inclusion did not consider the consent of GECEs necessary for co-teaching. On the contrary, inexperienced young SECEs stated that the consent of GECEs is important, perhaps because they feel insecure. In line with previous research (Friend et al., 2015), it becomes apparent that GECEs’ opinions about the lesson instruction are valued more in comparison to inexperienced SECEs’ opinions.

Nonetheless students' inclusion and their adequate support through co-teaching need equal contributions from co-teachers during preparation of lessons as well as during instruction (Cook & Friend, 2010). Our research showed that many GECEs seemed ill-prepared to teach in a general classroom with SEN children. In other words, they felt ill-equipped to address their students' educational needs and behaviour. This was revealed when participants were asked about the importance of special education knowledge and training in the successful implementation of co-teaching. Thus, in line with previous findings (Strogilos & Tragoulia, 2013; Friend et al., 2010), the dominant notion held by GECEs that SECEs should be mainly responsible for the instruction of children with SEN can be easily explained.

Furthermore, our findings pointed out that GECEs' lack of knowledge may create problems not only in the achievement of positive learning outcomes for children with SEN but also in co-teaching. Bruns and Mogharberran (2009) have stated that all teachers should be capable of detecting and identifying the difficulties that a child faces in the learning process in order to address them adequately. This seems extremely important in early childhood education since mild learning disabilities (MLD) are often detected when students enter the educational system. Thus, GECEs' insufficient SEN knowledge leads to difficulties both in the identification of MLD and co-teaching.

Interestingly, female early childhood educators agreed that both GECEs and SECEs should be able to modify the curriculum in addressing their students' needs. Similarly, they stated that the physical arrangement of the classroom and the ability to accommodate necessary adaptations contribute to co-teaching. When two teachers coexist in the same classroom, they set rules that organise the classroom according to their teaching plan and the needs of the children. Therefore, the classroom's appropriate physical layout may favour teachers' communication and cooperation as well as their efforts to support students in the best possible way.

In our study, one of the most significant challenges faced by GECEs and SECEs during co-teaching is the demanding curriculum. Educators that held a master's degree or Ph.D. seemed more confident at making changes. It is possible that their additional knowledge allows them to use differentiated strategies, enabling them to modify the curriculum more easily. Therefore, collaboration between teachers seems the most important element of success in addressing the curriculum demands (Solis et al., 2012).

At this point, another important obstacle that was stated by both GECEs and SECEs in our research, concerns the lack of time for sufficient collaboration between teachers. In co-teaching, collaboration time comprises primarily, the identification of the educational needs of the students and secondly, the modification of the curriculum to meet any

individual needs (Cook & McDuffie-Landrum, 2020). Prior study on the experiences gained from co-teaching, has found that the lack of collaboration time had a negative effect on inclusive education (Kohler-Evans, 2006). More recent findings have revealed that co-teachers considered the time they had for the planning and evaluation of their shared activities to be inadequate. Teachers have also stated that during their informal and formal meetings there was no time allocated to design any shared activities (Strogilos et al., 2016). Thus, adequate collaboration time between early childhood educators for the evaluation of students, self-reflection on their teaching practice, and planning of shared activities should be seriously taken into consideration as one of the most important issues in achieving perceived successful co-teaching.

Teachers' Attitudes Towards Inclusion of Children with SEN

As mentioned before, the inclusion of children with SEN depends on teachers' attitudes towards them but also towards the quality of inclusive education for children without SEN (Moberg et al., 2020). Our findings revealed that the GECEs' acceptance of children with SEN is related to their previous teaching experience. In line with prior findings, GECEs with extensive teaching experience seemed more tolerant and patient in dealing with children with SEN, and thus they intervened more effectively (Cook et al., 2000). In other words, GECEs are more confident in addressing the SEN of their students when they have experience, in contrast to inexperienced teachers (Pancsofar & Petroff, 2013).

According to our results, GECEs argued that co-teaching may have a negative impact on children without SEN. On the contrary, SECEs stated that inclusion of children with SEN will not cause any difference in the development of children without SEN. This is perhaps due to SECEs' appraising the benefits that all children derive from coexisting in the same classroom. However, GECEs with a master's or doctoral degree stated that children with moderate or severe SEN benefit more when they are co-taught in the general classroom and simultaneously receive part-time individual instruction in special classrooms. Previous research has shown that teachers welcome the inclusion of students with SEN in the general classroom if there are appropriate resources and a second teacher to fully support them (McLaughlin & Rhim, 2007; Saloviita & Schaffus, 2016).

Furthermore, prior findings have revealed that most students who are supported by a SET in general classrooms show MLD (Strogilos et al., 2016). The GECEs in our study agreed that children with MLD should be taught in the general classroom and only in exceptional cases should they be pulled-out to a special classroom. Obviously, they believed that children with mild SEN benefit from interaction with children without SEN. Nonetheless, there is a

hidden contradiction in the GECEs' notions concerning the inclusion of students with MLD and the possible effects on students without SEN which may arise from their lack of knowledge about the benefits of inclusion for all children. Previous research has shown that teachers are more concerned with the inclusion of children with MLD than children with more severe needs. Teachers usually have a clear negative attitude towards the inclusion of students with serious learning difficulties (Avramidis & Norwich, 2002).

As aforementioned, the inclusion of children with SEN seems to depend heavily on the GECEs' attitudes towards them, despite the support of SECEs. According to our research, SECEs with many years of teaching experience showed a very positive attitude towards co-teaching. This finding is in line with the study of de Boer et al. (2010), but in contrast with Saloviita's (2018), finding that younger SETs co-taught significantly more than older SETs. These conflicting results can be explained by differences in the co-teaching models that are delivered between countries. Moreover, positive prior experiences of co-teaching probably relate to teachers' positive attitudes towards inclusive education (Moberg et al., 2020). These assumptions show the important impact of perceived successful co-teaching in the formation of positive attitudes towards inclusion to all educators.

The Ministry of Education should organise major in-service training and in-class practice, aiding GECEs to acquire appropriate skills in identification and support for students with disabilities. During these seminars, SECEs could assist thoroughly, providing any necessary practical information. Training and practice would increase GECEs' confidence by improving their teaching skills while the change of roles between the educators would encourage their equal contribution. These seminars should include varied teaching methods (e.g., collaborative learning, differentiated instruction, and modification of the curriculum). However, the sufficient teaching of students with SEN involves not only acquiring more sophisticated teaching skills but also adopting an inclusive philosophy. An in-service training and practice for GECEs with SECEs would ensure that co-teaching is delivered to all students in the classroom while balancing the co-teachers' roles. Potentially, GECEs would embrace the inclusive practice and eventually their negative attitudes towards children with SEN would be transformed.

One main limitation of the present study is the nature of the methodology. Qualitative research may provide better insight into such a phenomenon. Another limitation concerns the small number of respondents as well as the unbalanced ratio between male and female participants, even though the second factor was expected in early childhood education.

As mentioned above, all school stakeholders (educators, parents, and students) should contribute to the

implementation of inclusion. Thus, future studies could investigate parental attitudes regarding inclusion in early childhood education. There is also a need for further research that explores co-teaching's impact on student motivation, learning, and participation, as this could influence teachers to implement more co-teaching practices.

Conclusion

"A school that is inclusive of all students develops itself a more inclusive ethos, where adults learn from each other and from their students". (UNICEF, 2014, p. 24). The complexities of providing high quality early childhood education to students with or without SEN require fruitful communication, shared values, adequate collaboration time between educators, and common educational planning followed by shared implementation. However, in-service training and in-class practice for all early childhood educators concerning SEN, curricula modification, collaborative learning and co-teaching seems important in order to achieve successful implementation of inclusion.

Statements on Open Data, Ethics and Conflict of Interest

Data from the questionnaire are available for review. Authors will retain data for five years as per University guidelines. Permission to access the data can be provided by emailing the authors. Details on ethics are provided in the text and abide by the Nicosia University Ethical Guidelines.

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