Collaboration Towards the Inclusion of Children with Autistic Spectrum Disorders

The views of the general and special education teachers in Greek primary schools

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Collaboration Towards the Inclusion of Children with Autistic Spectrum Disorders: The Views of the General and Special Education Teachers in Greek Primary Schools
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Abstract

It has been reported an increase in the children diagnosed with ASD over the last decades. As a result of that more and more children with ASD attend the mainstream schools, towards the implementation of the concept of inclusion. For achieving that goal GET and SET share their expertise and form collaborative relationships with each other. The following study is an investigation of the perceptions of the GET and the SET on their collaboration that aims in the successful inclusion of the children with ASD in the classrooms. A survey was conducted in the Greek primary schools and questionnaires were distributed to the co-teachers of those schools. The questions focused on their views about the benefits of their collaboration, their current collaboration, the collaborative practices and the school-based supports which facilitate collaborative teaching. Since it is a quantitative study, a sample of 34 co-teachers was drawn from the population of the eastern part of Thessaloniki's district and SPSS software program was used for the data analysis. The findings showed that the main co-teaching approach is the “one teach, one observe” and that the co-teachers believe that their collaboration has a positive influence the academic and the social development of both the students with ASD and their “typical” peers. Moreover factors like gender, education level, experience and working position found that do not influence the perceptions of the co-teachers for their collaboration and no significant differences detected in the perceptions of the co-teachers about how they perceive their collaboration. There was significant difference, though, between the value the co-teachers place on the collaborative practices and support services, and the degree they implement them or have access to them. Additionally this study provides suggestions for further research on the topic, and possible ways of implementing the findings.
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Abbreviations

**ASD**: Autistic Spectrum Disorders

**GET**: General Education Teachers

**IEP**: Individual Education Plan

**SET**: Special Education Teachers

**SNE**: Special Needs Education

**UNESCO**: United Nations Education Scientific Cultural Organization
# Table of Contents

1 Introduction .................................................................................................................. 1
  1.1 Background of the Study .......................................................................................... 2
    1.1.1 The Global Perspective ..................................................................................... 2
    1.1.2 The Local Perspective ....................................................................................... 3
    1.1.3 The Personal Perspective .................................................................................. 4
  1.2 The Research Problem .............................................................................................. 5
    1.2.1 Statement of the Topic and the Research Questions ............................................ 5
    1.2.2 Rationale of the Study ....................................................................................... 6
  1.3 Structure of the Thesis ............................................................................................. 7

2 Background ................................................................................................................... 9
  2.1 SNE and Children with Autistic Spectrum Disorders ................................................ 9
    2.1.1 Historical background of Special Needs Education ............................................ 9
    2.1.2 Definition and Characteristics of Children with ASD .......................................... 12
    2.1.3 The Need for Inclusion ..................................................................................... 16
    2.1.4 The Need for Collaboration ............................................................................. 18

3 Theoretical Framework and Literature Review ............................................................. 20
  3.1 Defining Collaboration ............................................................................................. 20
  3.2 Defining Co-teaching .............................................................................................. 22
  3.3 Elements for Effective Collaboration and Co-teaching ............................................ 26
  3.4 Supporting Collaboration and Co-teaching ............................................................... 28
  3.5 The Teachers Views on their Collaboration ............................................................. 29
    3.5.1 International Research Findings ....................................................................... 29
    3.5.2 Local Research Findings .................................................................................. 30

4 Methodology .................................................................................................................. 33
  4.1 Introduction .............................................................................................................. 33
  4.2 The Research Design ............................................................................................... 33
  4.3 Population, Sample and Sampling Procedure .......................................................... 35
    4.3.1 Population Characteristics and Sample ............................................................. 35
    4.3.2 The Sampling Procedure .................................................................................. 35
  4.4 Sample and Procedure of the Data Collection ......................................................... 36
  4.5 Instrument ............................................................................................................... 37
Chapter 4.6 Procedure of Data Analysis

Chapter 4.7 Reliability and Validity

Chapter 5.8 Ethical Considerations

Chapter 5 Presentation of the Results

Section 5.1 Demographic Data

Section 5.2 The Co-teaching Method

Subsection 5.2.1 What is the prevailing co-teaching method?

Subsection 5.2.2 Does the co-teaching method influence the views of the co-teachers on the benefits their collaboration has on the academic and social progress of their students?

Subsection 5.2.3 Does the co-teaching method influence their views on collaboration?

Section 5.3 Factors that May Influence the Views of the Co-teachers

Subsection 5.3.1 Does the gender of the co-teachers affect their views?

Subsection 5.3.2 Is education an important factor for shaping the co-teachers views?

Subsection 5.3.3 Do the years of experience influence the views of the co-teachers?

Subsection 5.3.4 Does the working position affect the views of the co-teachers regarding their collaboration?

Section 5.4 The Views of the Co-teachers

Subsection 5.4.1 Do both the general and the special education teachers believe that their collaboration benefits the educational, as well as the social development of all the students?

Subsection 5.4.2 Is there a difference in the views between the GETs and SETs regarding their current collaboration?

Subsection 5.4.3 Is there a difference in the views between the GETs and the SETs about the Collaborative Practices and the school-based supports?

Subsection 5.4.4 Is there a difference between the value the co-teachers place on the collaboration practices and supportive services and their actual implementation/access of them?

Chapter 6 Discussion of the Findings

Section 6.1 General Assumptions about the Population

Section 6.2 Influence of the Co-teaching

Section 6.3 Shaping the Views of the Co-teachers

Section 6.4 The Perceptions of the Co-teachers

Chapter 7 Conclusion, Limits and Recommendations

Section 7.1 Conclusion

Section 7.2 Limitations of the Study

Section 7.3 Suggestions for Further Research

XII
References .......................................................................................................................... 78
Appendix 1 .......................................................................................................................... 86
Appendix 2 .......................................................................................................................... 91
Appendix 3 .......................................................................................................................... 102
Appendix 4 .......................................................................................................................... 111
Appendix 5 .......................................................................................................................... 113
Appendix 6 .......................................................................................................................... 114
Appendix 7 .......................................................................................................................... 117

Figure 2.1 Autism Inclusion Collaboration Model ................................................................. 19
Figure 3.1 Co-teaching approaches .................................................................................... 24
Figure 5.1 Used methods of co-teaching .......................................................................... 44
Figure 5.2 Collaboration benefits of the educational and social development of the student with ASD ........................................................................................................ 50
Figure 5.3 Collaboration benefits of the educational and social development of the rest of the students ........................................................................................................... 51
Figure 5.4 Establishment of good Collaboration ................................................................. 52
Figure 5.5 Collaboration improves Teaching .................................................................... 52
Figure 5.6 Co-teachers contribution .................................................................................. 53
Figure 5.7 Collaboration as a valued experience ................................................................. 53
Figure 5.8 Exchange and Benefit from Feedback ............................................................... 54
Figure 5.9 Employ of Daily Planning practice .................................................................. 55
Figure 5.10 Value of Shared Management ....................................................................... 56
Figure 5.10 Employ of Shared Teaching .......................................................................... 57
Figure 5.11 Employ of Shared Feedback ......................................................................... 58
Figure 5.12 Employ of Separate areas of Responsibility .................................................... 59
Figure 5.13 Time for Planning Value vs Access ................................................................. 63
Figure 5.14 Administration’s Support Value vs Access ....................................................... 63
Figure 5.15 Teaching Aids Value vs Access ..................................................................... 64
Figure 5.16 Classroom Modifications Value vs Access ..................................................... 65
1 Introduction

My intention with the present study is to explore the general and special education teachers’ views on their collaboration. Do they believe that their collaboration benefits the student with ASD? What are the collaboration practices they value and employ? Do they have access to school-based supports? Those are some of the questions I will try to answer through this study.

General and special education teachers play and important role in developing inclusive education. The Greek modern philosopher and educator E. Papanoutsos have written an article about the most valuable characteristics every teacher should acquire. According to him:

“Teacher is the person who can be kid and at the same time remains an adult. [...] He must have one goal, concerning his students: how to be useless to them and [...] to love his students.”

From the ancient times, the teacher was placed in the center of the education system. Over the centuries the education of the children evolved into a public matter, though the teacher continued to be the one in charge with educating the young students. The one thing that did not change was that the education was concerning only the “normal” children and those with any kind of disability were left on the marge or were confined in asylums or special training centers.

After the 50s the education of the children with disabilities started to be legislated and systematized. This is the starting point for the development of the special needs education and, consequently, for the appearance of the special education teachers. Until recently they were merely accountable for the education of the children with disabilities, but since the signing of the Salamanca Statement (1994), the concept of inclusion was adopted on an almost global scale and the children with disabilities have now the right to be educated together with the non-disabled children. For this new concept to function, the collaboration between the general and the special education teachers is of paramount importance.
1.1 Background of the Study

1.1.1 The Global Perspective

Special needs education is a relatively new field in the sector of education, which is specializing in educating children with special educational needs. Since its beginning in the 19th century until nowadays, special needs education has advanced rapidly and has enriched the education field with new innovative ideas and concepts (Friend, 2011).

The most recent and highly controversial one is the concept of inclusion. According to Friend and Pope (2005), inclusion is: “the understanding that all students—those who are academically gifted, those who are average learners, and those who struggle to learn for any reason—should be fully welcomed members of their school communities and that all professionals in a school share responsibility for their learning” (as stated in Murawski, 2010). The debate around inclusion is concentrated on the following two topics: one the one hand, its advocates claim that, the only way to ensure that the students with disabilities will develop their social and interactive skills, is by including every student in the general education environment on a full time basis. On the other hand, those who are skeptical about the concept, worry about the academic development of the student with disabilities and if their special educational needs will be met in the general education schools (Friend, 2011). Therefore the general education schools should be enhance, both in their material structure and in their personnel qualifications.

In this endeavor, collaboration plays a crucial part in systematizing and making the instruction beneficial for all the students. Specifically the collaboration between the general and the special education teachers is essential for the classroom environment. Among its advantages are that the educators who are engaged in a collaborative relationship, are able to meet the diverse needs of the inclusive classroom, assist each other in problem solving situations and work effectively towards common goals (Mastropieri & Scruggs, 2007, Villa et al., 1996). For implementing a successful collaboration practice, general and special education teachers use a number of different methods, with co-teaching being in the center of them.
Concerning the inclusion of children with ASD, the collaboration between the general and special education teachers is fundamental for meeting their educational needs. Since it is very common for student with ASD to have IEPs, it is the general’s and special’s education teachers responsibility to carry them out.

1.1.2 The Local Perspective

At the beginning of the 20th century, the first attempts for establishing a special education system in Greece came to being. The initiative for those actions came from the private sector and was based on the ideas of mercy and philanthropy towards the persons with disabilities (Zoniou-Sideri, 1998, 2009). After the 2nd World War and until the 1950, the special needs education was based heavily on private foundations, aiming on the protection of the children and providing them with basic knowledge and technical skills. The primal goal was not to include the persons with special needs in the society, but to confine them within a limited environment so that they would not create problems to the rest of the society's groups (Soulis, 2002). The first law, that was concerning exclusively the Special Need Education, was legislated at 1981. The special education became a completely separate branch of the general education and the children with special needs were being stigmatized and marginalized from the rest of the "normal" population (Zoniou-Sideri, 1998). At 2000 was legislated the law for the promotion and implementation of the inclusion. Nevertheless, it still promoted an individual system for the special education that existed parallel of the system for the general education (Zoniou-Sideri, 2009).

The most recent law in Greece, concerning the special needs education, was legislated at 2008. The special needs education becomes an integral part of the public education and the gap between the special and the general education diminishes. The disability is defined as another part of the human nature, focusing mainly on the participation and contribution of the people with disabilities in the social life. Additionally, it will be provided educational support to the persons with special mental skills and talents. The "Centers of Differential Diagnosis, Diagnosis and Support for Special Educational Needs" and are responsible for the assessment of the type and the degree of difficulties the children with special educational needs face, for the formulation of the IEPs, for providing counseling and support to the teachers and anyone else who is involved in the educational process, as well as to the parents of the children with
special needs, for suggesting interventions, and for deciding the kind of the helping educational services that are needed, for enabling the learning process of the children.

There were also mentioned for the first time that the children with complicated emotional, social and learning difficulties or delinquent behavior are categorized as children with special needs. Moreover the children who are unable to serve themselves have the opportunity to study at the mainstream schools with the presence of special helping staff. For ensuring the accessibility of the persons with disabilities, not only in the educational programs, but also in the buildings and equipment, the principles of the "Design for all" are applied. Lastly the children with autism, Down syndrome or any other kind of mental retardation can study at the mainstream schools and not at the special education schools, with the exception of the extremely severe situations. For the implementation of this practice, special education teachers are placed at the mainstream classes in order to support the students with special needs, collaborating with the general education teacher (Persidou, 2010, Boutsouki, 2014).

The students with ASD have the right, according to the recent law, to study primarily in the mainstream schools and only in the extremely severe cases they attend the special schools. In order to accomplish the maximum level of their academic and social development, it has started to implement a form of collaborative teaching, which has been called "parallel support". In the Greek reality this form of collaboration is assembling with the concept of co-teaching. This means that the students with ASD are studying in the mainstream classes, where the general education teacher and a special education teacher collaborate in order to support both the learning and the social advancement of the student.

The "Centers of Differential Diagnosis, Diagnosis and Support for Special Educational Needs" are the ones that recommend the use of the "parallel support" (co-teaching) and the parents submit this recommendation, in the beginning of the school year at the management of the school and request it officially.

1.1.3 The Personal Perspective

The student population with ASD is considered one of the most challenging among the general education teachers. A substantial number of them believe that they should be placed in the special schools, since they feel incompetent, on their own, to address their diverse
needs. Additionally the general education teachers are used to be solely responsible for planning and instructing their class and struggle with having to share management responsibilities with a second party like the special education teachers, especially when they have to change partners every year due to the annual replacement of the special education teachers. Overall the education of the children with ASD is perceived as a “problem” with the SETs being the ones responsible for handling it, since the GETs are reluctant to diverge from their typical roles and share responsibility. That view is also reinforced by the current legislation, which on the one hand makes the SETs the prime responsible party for the advancement of the students with ASD, and on the other hand requires the collaboration of the teachers for achieving the child’s inclusion. It is apparent that the law is self-contradictory and promotes confusion on the practice field. Additionally, having in mind that collaboration and co-teaching, as concepts, are relatively new for the Greek educational reality, I find it extremely fascinating to explore the views of both the general and the special education teachers about how they experience their collaboration, in association with such a demanding student population as it is the students with ASD.

1.2 The Research Problem

1.2.1 Statement of the Topic and the Research Questions

The aim of the study is to get an overview of the thoughts and beliefs the general and special education teachers have, concerning their collaboration in the general education schools and the affect they think it has on the students with ASD.

Whereas the Greek educational law states that every student with ASD has the right to be educated in the general education schools and is entitled into a special education teacher, it does not clarify the way the two teachers is supposed to collaborate, to what extent and what methods to use. That results in confusion about the nature of collaboration and its limits and leads to either negative views about the whole collaborative concept or to limited use of actual collaboration practices.

The main research question
What are the views of both the general and the special education teachers about their collaboration in classrooms including students with ASD in Greece?

In order to acquire a thorough understanding of the phenomenon under study, the following sub-questions were formed:

1) Do both the general and the special education teachers believe that their collaboration benefits the educational, as well as the social development of all the students?

2) What is the prevailing method of co-teaching and does it influence their collaboration views, as well as their views about the positive impact it has on the academic and social development of their students?

3) Factors like gender, education level, experience and working position influence their views?

4) Is there a difference in the views between the general and the special education teachers regarding their current collaboration?

5) Is there a difference in the views between the general and the special education teachers about the collaborative practices and the school-based supports?

6) Is there a difference in the value they place on the collaboration practices and supportive services and their actual implementation/access to them?

1.2.2 Rationale of the Study

Since the concept of inclusion, and especially the collaboration between the general and the special education teachers counts only a few years of practice in Greece, there is not enough body of research about the views of the co-teachers concerning their collaboration. This study tries to provide some insight on the subject, stimulate the need for further investigation towards that direction and sensitize the authorities to take steps towards the improvement of the education, not only for the children with special needs but for the whole student population, coupled with providing more support to the teachers for achieving an efficient collaboration. A more straightforward and accurate legal framework would also be most
welcome towards that direction. Additionally, the results of the study are considered to be useful for the general and special education co-teachers and assist them in improving their everyday practice.

1.3 Structure of the Thesis

The present thesis is organized in 7 major chapters, which is briefly described in this section of the paper.

Chapter 1, “Introduction”, introduces the reader to the topic of the research, as well as to the background and the significance of the study. It is a presentation of the global, local and personal dimensions of the issue at hand and gives to the reader a first account of the content of the study.

Chapter 2, “Background”, illustrates the historical background of the Special Need Education and the development of the field through the decades until nowadays. The definition and characteristics of people within the autistic spectrum are included, emphasizing on the importance of their inclusion in the mainstream education system and explaining the fact that the collaboration between the teachers plays a crucial role towards that direction.

Chapter 3, “Theoretical framework and literature review”, contains the definitions of the concepts of collaboration and co-teaching, accompanied with the necessary factors for their efficient implementation and with the appropriate supportive aids. An overview of past relevant researches is also presented in this chapter.

Chapter 4, “Methodology”, outlines the design of the research, informing the reader about the characteristics of the population and the sample, and describing the sampling procedure, as well as the data collection and analysis procedures. Furthermore there is a presentation of the instrument used in the study, the ethical considerations and the establishment of the validity and reliability of the research.

Chapter 5, “Presentation of the results”, as it is apparent from the title, displays the findings of the research and provides answers to all of the research questions. First and foremost the demographic data are being exhibited, followed by a thorough account of the views of the co-
teachers about the co-teaching concept, the perceptions of the co-teachers regarding the
degree they think their collaboration benefits their students, their current collaboration, the
collaborative practices and the school-based supports which facilitate the collaborative
teaching. There is also a presentation of the factors that influence those views.

Chapter 6, “Discussion of the findings”, constitutes a summary of the whole thesis, discussing
the research findings and comparing them with the findings of past researches.

Chapter 7, “Conclusions, limitations and recommendations”, the last chapter of the study, the
reader can find the conclusion and the limitations of this current study, as well as suggestions
for future studies in the field.
2 Background

2.1 SNE and Children with Autistic Spectrum Disorders

2.1.1 Historical background of Special Needs Education

The right to education has been legislated as one of the most fundamental human rights, not only in the legislation system of the vast majority of the countries worldwide, but also in both the International Declaration of Human Rights (1948) and in the International Covenant on Educational, Social and Cultural Rights (ICESCR) (1966). Concerning the right of education for the disabled children, a wide range of international agreements has been occurred, mostly created by the United Nations, as the Declaration on the Rights of Mentally Retarded Persons (1971), the Declaration of the Rights of the Disabled Persons (1975), the World Program of Action Concerning Disabled Persons (1982) and the Standard Rules on the Equalization of Opportunities for People with Disabilities (1993) (Kokkala et al, 2006).

The concept that serves the education of the disabled children is the special education. There are a lot of terms, trying to define the concept of special education. Tomlinson (1986) adapts a sociological perspective and defines special education as a profitable form of education both for the industrialized society that promotes a competitive education system with massive production of "educated people", and for the personnel (doctors, psychologists, teachers etc) that works in that system (Zoniou-Sideri, 1998). The federal law of the U.S.A establishes the special education as a cost-free, specially designed instruction, in order to facilitate the disabled child in a variety of settings as the classroom, home, hospital, institutions etc, and in the physical education (Friend, 2011). It attempts a more holistic approach to meet the needs of the disabled child not only in the school environment but also in other aspects of the everyday life. On the other hand, the recent law of Greece, concerning the special education, defines it as "all the educational services provided to the students with disabilities and ascertained special educational needs" (Law 3699/2008). It provides a more narrow perspective of special education and confines it in the context of school.
Nevertheless, special education is a developing and evolving field of the education sciences and has undergone changes in its practices, throughout the centuries. One of the firsts, who supported the need for education of the disabled people, was Comenius, though until the end of the 19th century there was no organized official structure for the education of the disabled and was heavily depended on private initiatives, charity organizations and asylums (Zoniou-Sideri, 1998).

From the beginning of 20th century and until the late 60's, an increasing number of schools and classes, especially for the disabled people, were founded. That was mainly the result of the legislation of the mandatory education and so provisions were taken, to establish the right in primary education, even for the children with disabilities. Although the education of the disabled children was taken place separately from the other children, promoting segregation and stigmatization and the children with severe mental or physical disabilities were excluded completely from that system (Crossley, 2000, Stainback, 2000). The dominant model implemented at the field of special education, at that time, was the medical model. According to that, priority was given to the identification of the problems of the individual and then designing the proper course of medical and educational action for curing them. The goal was the rehabilitation of the individual in order to integrate in the existing physical and social environment to the higher possible extent (Kokkala at al, 2006, Olkin, 1999).

The decades of 60's and 70's are considered as an important turning point in the history and progress of special education worldwide. Strong critic and doubt was raised for the effectiveness of the special education, as it was implemented, under the influence of movements for the human and political rights of various social groups, for the rights of children and of the disabled people (Lampropoulou & Panteliadou, 2000). During the same period of time, a new model made its appearance in the field of defining and understanding disability: the social model. In contrast with the medical model, it views disability not as a deficiency of the individual but as a deficiency of the society to provide the necessary socio-political changes to the disabled persons. Consequently are not the persons disabled but the society they are living in (social construction of the disability) (Kountatos, 2000, Olkin, 1999,).

Coupled with the gradual prevalence of the social model in the scientific circles, a number of changes were contacted in the practical field of special education towards the placement of the children with disabilities in the mainstream schools. As a part of that trend, the concept of
integration was established. According to that concept, the children with disabilities would be placed in the mainstream schools with the children without disabilities, would use the same facilities and resources and would follow the same curriculum with their fellow students. The main goal was, not only to achieve the physical integration of the children with disabilities, but also the academic and social integration in the school environment (Tilstone et al, 1998, Yoshida & Ketzenberger, 2000).

The first attempts for the legislation of the integration occurred at the U.S.A. at 1975 with the "Education for all Handicapped Children Act". With this law the access to the mainstream public education of the children with disabilities was ensured, at the least restrictive environment possible (Tzouriadou, 1995). At 1986 the "Regular Education Initiative-REI" was legislated for supplying services at the students with special needs who were educated in the mainstream classes, with the collaboration of special and general education (Karagiannis, Stainback & Stainback, 1996). This law was modified a lot of times until 1990, when changed its name in "Individuals with Disabilities Education Act-IDEA" (Boudah & McCorkle, 2000).

At Europe the integration of the children with disabilities started the decade of 80's. After 1985, the European Union started to promote and fund a series of supporting programs for the educational and social integration of the children with disabilities in its countries-members (HELIOS I, II). Obviously every country interpreted the integration model in accordance with its own education and social policy (Tzouriadou, 1995).

After 15 years of appliance in various countries, the integration model was criticized negatively, due to the fact that its core was about the assimilation of the students with disabilities to the existing education system and its curriculum. With these foundations, the change of the social constructions for disability and the social attitude towards the persons with disabilities, in order to achieve their inclusion in the society, was not possible to achieve (Tilstone et al, 1998, Zoniou-Sideri, 1998).

The ineffectiveness of the integration model was the main reason for the appearance of a new concept in the field of special education, the inclusion. It started to be developed in the beginning of the 90's, when the definition of disability included the social exclusion and racism experienced by the persons with disabilities in their everyday lives. The movement of the disabled people was empowered and they claimed their rights in equity and respect for their diversity (Lampropoulou & Panteliadou, 2000).
The decisive step towards the inclusion of all the children in the mainstream schools was made with the signing of the Salamanca Statement (1994), which introduced a political shift from addressing the education of the students with special needs in special schools or classes, to coping with the diversity of the students’ population within the mainstream schools (Vislie, 2003). UNESCO defines inclusion as a "dynamic approach of responding positively to pupil diversity and of seeing individual differences not as problems, but as opportunities for enriching learning" (Kokkala at al, 2006, p.21). With other words, inclusion aims to remove any obstacles and discrimination barriers from the educational procedure, in order for all the students to feel welcome and accepted in the school premises, participating actively at the educational activities of the class and enrich the learning environment with their diversity. All resources, facilities and curriculum have to be modified towards the needs of every student and not the other way around (Tilstone at al, 1998).

2.1.2 Definition and Characteristics of Children with ASD

A large part of the students with special needs’ population is consisting by the children with ASD. The term autism was first established more than 60 years ago in the independent paper works of Leo Kanner (1943) in the U.S and Hans Asperger (1944) in Austria. Both of them were investigating groups of children that were detected with a number of problems from their birth, with the most prominent to be a kind of inability to create appropriate affective relationships. From that specific characteristic the term of autism came into being, inspired by the Greek work "autos" that means "self". It is indicative of the tendency of these children to withdraw to themselves and leave a little, if any, room for interaction with the social world (Wolfberg, 1999).

Since then, the research about the children and adults with autism has come a long way, concerning the causality, the identification and the treatment of the disorder. The most current used term to describe this condition is autistic spectrum disorder and was introduced by Lorna Wing in 1996. As the term suggests by itself, there is a wide variety of characteristics and intensity of them that the individuals, who are labeled with this diagnosis, share with each other. So it is imperative to have in mind that not even two individuals within the autistic spectrum experience the disorder in the same way. According to the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition-Text Revision (DSM-IV-TR), individuals within
the autistic spectrum are faced with delayed or abnormal functioning in at least one of the following areas: a) social interaction, b) communication, c) patterns of behavior (e.g., restricted, repetitive, stereotyped), interests and activities (Jones, 2002).

The difficulties individuals with autism are faced in their social development are the most prominent ones. Struggling with understanding social behavior and social signs, as well as with their proper response to them in order to establish an effective dialogue are basic components of their everyday interpretation. Consequently they oppose difficulties when they have to split their attention between a task at hand and the social aspect of it. That does not necessarily mean that individuals with autism are all together not interested in social relationships (Jones, 2002). Wing and Gould (1979) had formulated three categories of social behavior that are indicative of children with autistic spectrum disorders: 1) the aloof children, 2) the passive children and 3) the active and odd children. The first are those who appear to avoid totally any kind of social interaction, even eye contact and physical touch. Their behavior towards people is similar to the one towards inanimate objects, addressing them only to fulfill their needs and desires. The children in the second type appear to have some kind of interaction with the people around them, without taking any kind of initiative. The third category is consisted with children with autism who enjoy and welcome the interaction with other people but their approach to them may be in an inappropriate manner, due to lack of social perceptiveness and awareness. Their inadequacy to grasp the elements of the social perspectives of other people, has lead the scientists to assumed that they are unable to develop a "theory of mind" which is the capacity of one person to understand ant recognize the thoughts, feelings, emotions, desires, intentions of the others (Wolfberg, 1999).

The difficulties children with autism oppose in their communication efforts may derive from delays in acquiring language and speech. There is also the possibility of being able to formulate sentences, even complex ones, but lack the ability to use them effectively. The non-verbal aspects of communication baffle them and that can result in an aversion of social interaction (Kluth, 2003, Wolfberg, 1999).

Concerning the behavior of children with autism, it can be said that it lacks flexibility to the point that when something disturbs their daily routine, it can cause an extreme reaction from their side. Having in mind the difficulties they confront until they understand a particular situation, it is not hard to comprehend their anxiety and distaste when something is changed. That is the reason why most of them are more liable to engage in repetitive activities, or
having a special interest which consume much of their time and energy, following their own agenda and excluding everyone else, so that they have the control of what happens (Jones, 2002, Wolfberg, 1999).

It is also common for children with autism to have some movement and sensory difficulties such as excessive, atypical or loss of typical movement, sensitivity in some particular sounds, smells, tastes, sights and touch. The movement difficulties may affect the way a children with autism walk and balance or their movements and gestures in general, without being able to control it. They, additionally, may affect their production of speech and chewing. The complexity of disturbed movements may vary from simple to those affecting overall levels of activity and behavior. Their level of sensitivity may also vary from under-sensitive children to those who are extremely sensitive to different kind of stimuli (Jones, 2002, Kluth, 2003).

The children within the autistic spectrum may be challenge concerning their intellectual abilities. Their intelligence may range from those who have severe or profound learning difficulties to those of well above-average intelligence. This diversity within the autism population may cause problems in detecting the autistic disorder, either why the intelligence skills of the children with autism are very high and they are able to convey their learning difficulties or why their learning difficulties are so severe that the autism condition is overlooked (Jones, 2002).

As far as the causality of the autism is concerned, at the decades of 50s and 60s the psychogenetic theories were on the front line, introducing the notion that the "refrigerator mother" was to blame for driving their babies into the autistic state by not showing them the care and affection they need in order to develop both intellectually and emotionally. Bernard Rimland (1964) was the first to suggest that the autism is more a form of biogenetic disorder than an environmental one (Wolfberg, 1999). Now with the on-going advancement in the field of genetic research, it is becoming clearer that the autism is linked in an interrelation of genetic factors and environmental ones (Kirk, Samuel A. et. al., 2011). The age of onset is not always possible to be determined but it is widely agreed that the onset of autism can be detected for the majority of the children within their first 36 months of life. It is established that they are three subgroups related with the age of onset. First, there are children who their condition is noticed almost from the moment of their birth. Second, there are the children who seem to have a normal development until to the age of 15 to 24 months, and who could loose
the social skills and speech acquired until that point. Finally, there are some children who develop normally but suddenly show severe regression in many areas (Jones, 2002).

Apart from the fact that, as it was mentioned above, the autistic spectrum disorder is a variety of relevant disorders and each individual within it has its own unique characteristics, there is still a tendency to divide them in various categories that have some common features. The Asperger's syndrome and high functioning autism is a category that has gained a lot of publicity over the past few years. It includes those with average or above-average intelligence, who are in position to demonstrate a satisfying level of oral language and development. However, their exceptional skills in certain areas do not result in high functional skills in their everyday life. Another category is the semantic and pragmatic disorder, which is often given to children who, on the one hand, display an adequate level of structural language skills, but, on the other hand, present difficulties with meaning and in understanding how to use language in social situations (Jones, 2002). The Rett syndrome is also included in the autistic spectrum disorders since its symptoms resemble autism. It is defined as a progressive neurological disorder in which the individuals reveal a loss of muscle functions, hand flapping and autistic behavior. All the other combinations of criteria, that are indicative autism are held under the umbrella-term pervasive developmental disorder-not otherwise specified (PDD-NOS) (Jones, 2002, Kirk, Samuel A. et. al., 2011).

Despite all these categories, there is no medical, biochemical or psychological test for indicating autism, so there is the possibility for under- or over-identification. That is the reason why accurate figures for the actual number of the individuals with autism do not exist. Until this day and age the diagnostic criteria for autism are highly dependable on observation strategies and the skills and knowledge these children possess. A screening test can be used to the population to find the ones who do not have and the ones who might have in order to be assessed more thoroughly. Nonetheless there are ethical issues to be considered, in the case that a child with autism, who had not previously diagnosed, was discovered (Jones, 2002).

The case of children identified with autistic spectrum disorder has yet been increasing over the last decades. Fombonne (2003) estimates a prevalence of 4.8/10,000 or about 1 in every 2,000 children. Other estimations suggest the high prevalence of 1 in every 1,000, when the Centers for Disease Control (2009) estimate 1 in every 100. This increase is illustrated as a result of a raised sensitivity to the condition of autism rather than a condition of "mental retardation" or emotional disturbance. In addition the children with Asperger's syndrome and
high functional autism were included under the term of autistic spectrum disorders. Another fact is that autism is more highly observed in the male population than in the female; almost four boys for one girl.

The treatment for the autism is not, of course, some kind of medication but it passes through education and training. Therefore early identification is of extremely importance, since language and social development is decisive from ages 18 months to 3 years and in addition to imitation of motor behaviors and using eye gaze as a form of communication. The earlier they will be identified with autism, the sooner the language therapy will begin, in coupled with improvements in their social relationships with their peers and with the adults surrounding them (Kirk, Samuel A. et. al., 2011).

It is crucial to have always in our minds the role of society in constructing the notion of disability, in general and the autism, in particular. A significant number of the difficulties, individuals with autism encounter with every day, are not derived from their situation but they are more a product of the ideas society and culture have decided that are the norm of people's appearance, communication, interaction, behavior and movement. Although it is a fact that people within the autistic spectrum disorders experience things with different ways that the people without them do (the "neurotypical individuals" as they suggest to refer to the people without autism), it is also a fact that autism is aggravated by an inflexible society. As Paula Kluth suggests: "Autism is a social construction; it is a phenomenon that is created and recreated through culture, interaction, and social circumstances" (2003, p.19). The degree of the feeling of being disabled can vary on any given day, on the basis of proper providing support and of communicate in a conventional manner. In order to make a person able to participate in our society it is imperative to provide him/her the appropriate context in order to do so. Our society is not a society of homogenization, but a pluralistic society in which every individual has its role and can make its own contribution in accordance with its capabilities (Kluth, 2003).

### 2.1.3 The Need for Inclusion

Historically, children with disabilities have been educated apart from the rest of their peers and excluded from the society as adults (Karagiannis, Stainback & Stainback, 1996). The last
couple of decades this segregation has followed a decreasing course and more and more students with disabilities, in general, and with ASD, in particular, have been included within the mainstream classrooms, together with their non-disabled peers. This turn in the educational practises was the result of progress in the field of education, as new evidence for the effectiveness of more inclusive methods, came to light (McDonnell, 1998).

The advantages for the children with ASD, when they are taught in inclusive classes are manifold and are concentrated in two main categories: 1) the cognitive/academic category and 2) the adaptive/social category (Ferrraioli & Harris, 2011). Children with ASD have showed significant development in their IQ level, in their communication and socialization skills, as well as in their play expertise. Moreover they achieve more advanced goals in their individualized educational plans, than their peers who continue their studies in segregated classrooms (Harrower & Dunlap, 2001). Improvement in their adaptive skills and social competence were also reported for the children with ASD studying in the inclusive classrooms. Their social interaction length was increased, their play and conversation initiative was boosted and they displayed high language engagement and joint attention (Ferrraioli & Harris, 2011).

Nevertheless, it is not only the children with ASD, who benefit from the concept of inclusion, but their typically developing peers as well. Children, who are familiarized with the characteristics of ASD, show more tolerance around their diagnosed peers and are more prone to engage in positive interactions with them (Eldar, Talmor & Wolf-Zukerman, 2010). Friendships can grow and give-and-take relationships can be established, where all the engaged parties are active participants and interact with one another (Hunt & Goetz, 1997). There are some considerations that studying in classrooms together with children with ASD would hinder the academic development of the typically developing children, though research has not justified these assumptions. On the contrary both student groups demonstrate progress on the academic topics, without causing a negative impact one to the other, but working harmoniously (Ferrraioli & Harris, 2011).
2.1.4 The Need for Collaboration

For the inclusion of the students with ASD at mainstream schools, the teachers (both the general and the special education teachers) are primarily responsible. The special education teacher is the one, who the general education teacher depend heavily upon, for supporting the endeavor to include the students with ASD in the classroom environment. To achieve the maximum potential of their co-existence in the classroom, the special and the general education teachers need to collaborate with each other (Vlachou & Zoniou-Sideri, 2009). Through collaboration the teachers become more efficient in teaching and including students with disabilities, in general, and with ASD, specifically, in the mainstream classes (Rodriguez et al., 2012).

The inclusion of the student with ASD is not the only reason that makes collaboration between the general and the special education teachers imperative. The struggles that the students with ASD face, both in their social interactions, as well as their cognitive functions, can be a source of distress from the side of the classroom teacher. The majority of the students with ASD are in need of different kind and degree of interventions or IEPs for their academic and social advancement. In these cases the individual teacher is not able to cope on his/her own, and find himself/herself in dire need of a specialized colleague with whom he/she will work with towards a common goal (Kirk et al., 2011).

For accommodating the collaboration between the co-teachers (one general education teacher and one special education teacher), the Autism Inclusion Collaboration Model was designed (Simpson et al., 2003). Four are the main components of the model: 1) Environmental and curricular modifications and general education classroom support. Since the students with ASD have unique educational and other kind of needs, a wide range of modifications and support services is in need. Changes in the classroom environment, provision of appropriately trained personnel and paraprofessionals, as well as establishing collaborative relationships between them and the general education teacher are the first steps for supporting the students with ASD. 2) Attitudinal and social support. All the persons who are participated in the educational procedure (administrators, general and special education teachers, the students with ASD and their typically developing peers) should understand, respect, support and collaborate with each other for accomplishing the higher level of success. 3) Coordinated
team commitment. All the members of the support group should work towards a common
goal, which is to assist and include the students with ASD in all the programmed activities, in
any type of environment. 4) Home-school collaboration. The inclusion of the students with
ASD is completed when the teachers and the parents cooperate together for organizing a
personalized program based on the student’s individual needs and for expanding its outcome
to the home and community environment (Friend, 2011).

Figure 2.1 Autism Inclusion Collaboration Model
3 Theoretical Framework and Literature Review

3.1 Defining Collaboration

Within the concept of inclusion the role of the general education teacher becomes more expanded than it used to be before, due to the fact that he/she is responsible for corresponding promptly to the diverse educational needs of all of the students in the classroom, with or without disabilities. The social acceptance and inclusion of the students with disabilities become of paramount importance, since the students with disabilities must feel accepted and safe and have a feeling of belongingness, both in the physical and the social environment of the classroom (Stainback & Stainback, 1996). For achieving this, the general education teacher must have himself/herself a positive attitude towards the children with disabilities in order to infuse it to the other students as well (Jakupcak, 1998). He/she must have access to means and materials and the freedom to use them as he/she see fit in order to address the needs of the students. For this reason usage of alternative forms of education, a flexible curriculum, additional education on their profession coupled with training within the field of special education, support and collaboration with various services like school counsellors, colleagues, interdisciplinary teams etc. are considered vital for the implementation of inclusion (Zoniou-Sideri, 2009).

The above, clarifies the complexity of the role of the general education teacher within the diverse class, which becomes gradually a reality for the educational systems across the globe, in the path towards inclusion. The general education teachers realize that they are not able to cope with the needs of the students on their own and are in need to work together with, not only the parents of their students, but also with other professionals (Cook & Friend, 2010). Under these new conditions, collaboration becomes the key-concept in the ongoing effort for the implementation of the inclusion.
There is a lot of confusion and misunderstanding around the definition of collaboration. Friend and Cook define collaboration as "a style for direct interaction between at least two coequal parties voluntarily engaged in shared decision making as they work toward a common goal." (Friend & Cook, 2013, p. 6). Thus collaboration is perceived as a style of interaction, focusing primarily on the way someone communicates with others than on the content of the communication.

Furthermore, the characteristics of collaboration are apparent from the definition alone. Collaboration needs, first of all, to be voluntary, meaning that the people, who engage in a common task, do it with their own free will, without anyone forcing them to the collaborative relationship. It also depends upon parity among the participants, indicating that everyone's contributions are equally valued from one another and there is an equal distribution of power in the decision making. Two more characteristics of the collaboration practice are that the participants need to have, at least one, common goal and to share not only the responsibility for participation and decision making, but also to share their resources. Finally, since the decision making is shared from all the members of the collaboration team, the accountability for the outcomes of these decisions is divided equally to everyone (Friend, 2011).

All these characteristics of course do not occur from one moment to the other. Collaboration is a process, where the participants need to develop trust, respect and a sense of community among each other. Consequently, the above characteristics emerge slowly as the collaboration relationship unfolds, until they create strong roots among the individuals. So time is of paramount importance for the whole procedure to bloom and give fruits (Friend & Cook, 2013).

Collaboration is the answer to the constant pressure of the ongoing changes in the labor needs of the modern society and the rapid advancement in technology and information (Ansell & Gash, 2007, Gobillot 2011). Therefore, it is not unexpected that collaboration has infiltrated within the school context. School collaboration can take many forms. There is teacher-teacher collaboration, especially in middle school (Graham, 2007), school-university partnerships (Gillespie et al., 2010), peer collaboration (Meadan & Monda-Amaya, 2008) and the collaboration of the school administrators with both the students and the school's personnel.

Nevertheless, collaboration does not come without challenges or obstacles to override. The existing school structure is the first barrier that collaboration practice has to surpass, in order
to be established. The majority of the teachers in schools are used to work independently and on their own (Pomson, 2005). In that way they feel they have the control of the educational process. Professional socialization is another barrier to the collaboration practice. Through their professional training, teachers are encouraged to work alone, depending only on their own powers, skills and knowledge, and consequently they adopt the belief that their professional role is an isolated one. This tradition in the field also leads the teachers, to either be in power in their relationships with their colleagues, or to accept that someone else of their colleagues is in power (Friend, 2011). Last but not least there are general pragmatic issues that hinder the collaboration among teachers like the limited time for planning (Carter et al., 2009).

3.2 Defining Co-teaching

As it was mentioned above, the inclusive practices, that the schools nowadays need to employ, are placing the collaboration among special educators and general education teachers at the center of attention (Cahill & Mitchell, 2008). One way to implement them is through the concept of co-teaching. Co-teaching is defined as:

A service delivery model in which two educators - one typically a general education teacher and one a special education teacher or other specialist - combine their expertise to jointly teach a heterogeneous group of students, some of whom have disabilities or other special needs, in a single classroom for part of or all the school day. (Friend, 2011)

From the definition emerge the primal characteristics of the concept. In co-teaching participates at least two professionals, who have equivalent credentials and employment status, and consequently they can form an authentic partnership. The dynamic of the partnership lies on the fact that they both contribute to the everyday practice with their different kind of expertise (Friend & Cook, 2013). Since they are equal peers they also share the decision making and the delivery of the instruction, having energetic roles in the teaching procedure and enriching it by making it more efficient for the whole classroom (Wilson, 2008). The classroom consists by a blended group of students, who may have special needs or other kind of diversities. So it is the responsibility of the co-teachers to ensure that all the students are included, academically and socially, in the classroom's environment (Seglem &
VanZant, 2010). The classroom, as a physical space, are the same both co-teachers. This means that the co-teaching is happening in a single physical environment (Friend & Cook, 2013).

The professionals who are involved in the practice of co-teaching need to collaborate effectively in order to address the unique learning needs of their students. For designing their course of action, it is imperative to consider the factors that influence the educational process, like the needs of their students, the environment of the classroom, the demands of the curriculum, how comfortable they are and the skills they have for teaching and co-teaching, and the amount of time that is available for co-teaching practices. Under the light of these elements, co-teachers can employ a number of different strategies for making co-teaching, as much beneficial as they can, for their students. There are six different co-teaching approaches: 1) one teaching, one observing, 2) station teaching, 3) parallel teaching, 4) alternative teaching, 5) teaming and 6) one teaching one assisting. The co-teachers can use more than one of these approaches in their everyday practice or change them periodically to add variety in the way they deliver the instruction (Friend & Cook, 2013).
To achieve a better understanding of the co-teaching approaches, each one of them will be described thoroughly. In the one teaching, one observing approach one of the co-teachers is responsible for designing and delivering the educational instruction to the entire classroom, while the other observes and collects information for the academic and social functioning and progress of a single student, or for a small group of students or for the entire class. The nature of the collected data is preferred to be decided jointly from the co-teachers in order to be able to examine specific behaviors of specific students and to analyze them. Additionally these observations should be systematic and shared so that both the co-teachers can discuss them, draw conclusions out of them and make instructional decisions based on them. The positive aspects of this approach are that

1) the general education teacher can withdraw from being the sole classroom manager and focuses on what is happening with the students,
2) the special education teacher can target a student who struggles and gain information on the better way to
support him/her and 3) the students understand that both teachers share the leadership of the class. The negative aspect is that if this approach is used frequently, it can lead to the point where one of the co-teachers (typically the special education teacher) is confined in the role of the assistant. That is the reason why the co-teachers need to exchange roles regularly.

In the station teaching approach both teachers are actively involved in the instruction procedure. The instructional content is divided and each of them is responsible for planning and delivering part of it. The classroom is divided in stations with different instructional content and the students move from one station to the other, based on a predetermined schedule. Nevertheless the co-teachers should be careful in the division of the instruction, so that the students' understanding of the curriculum is not disrupted and that they stay focused on the task at hand. The advantages of the approach are that, though both teachers share the planning and the way which the instruction is divided between them, each of them is responsible for the delivery of the instruction and employ different teaching styles during the procedure. Furthermore the students benefit from the low teacher-student ratio and since each teacher takes turn in instructing the entire class the equality among them is being maximized and parity is installed. The disadvantage of the method is that it may cause high amounts of noise and movement that can be disruptive for the educational process.

The parallel teaching is a co-teaching approach where again the teachers share the planning of the instruction and deliver it separately, though this time the class is divided in half to two heterogeneous groups of students. Both groups are instructed at the same time with the same information and only the way of delivering the instruction is changed, to address the diverse educational needs of each group. This strategy also reduces the student-teacher ratio and gives the opportunity of participation even to the shiest of the students. In addition, it is important that both teachers feel confident in delivering the assigned content and that both groups will receive the same quality of instruction. On the drawback of the approach are that issues of noise and distraction may occur.

In the alternative teaching approach a small group of students is selected by the co-teachers to be instructed differently than the rest of the class. This method may be needed when some students have special educational needs and are in need of preteaching or reteaching or need a different way of delivering the instruction. The co-teachers should take turns in the teaching of the small group and pay attention so that the members of the group do not stay the same and avoid the stigmatization of one or more students.
Teaming is the most advanced method of co-teaching. Both co-teachers plan and deliver the instruction to the whole class. This approach requires high levels of trust, commitment and collaboration between the co-teachers. It is crucial to feel comfortable inside their partnership and to match their teaching styles. Not all professionals can reach this level of cooperation, due to lack of mutual understanding or employing very different instructional strategies. Teaming is an extremely challenging way of co-teaching which, if it is applied successfully, it is reported that raises the students’ participation and prompts the teachers to use innovative techniques and activities which they would not have tried on their own (Friend & Cook, 2013).

The last co-teaching approach is the one teaching, one assisting. It is the most frequently used approach of all (Scruggs, Mastropieri & McDuffie, 2007). In this method, one teacher is the sole manager of the classroom and delivers the instruction, while the other moves around the class and assists the students in need. Therefore joint planning is of little importance and it is a suitable strategy if one of the two co-teachers (mainly the special education teacher) does not feel competent to teach the whole classroom. One the other hand, this approach can lead to a series of problems, if it is used constantly. First of all it undermines the role of the special education teacher to a mere assistant of the general education teacher and their professional and collaborative status becomes unequal. In addition, the constant move of one of the teachers around the room can cause visual and auditory distraction to the students. It can also encourage the students to be dependent learners and not trying on their own or take initiative (Friend & Cook, 2013). Thus, it is imperative for the co-teachers to use this approach limitedly and take turns among the roles of the leading teacher and of the assistant, for making the approach beneficial for the students’ learning.

### 3.3 Elements for Effective Collaboration and Co-teaching

Collaboration and, consequently, co-teaching are not easy tasks to be accomplished; on the contrary they can be very challenging and stressful for the participants. The relationship that the co-teachers will build is of paramount importance for the effectiveness of the approach.
Time for planning is one of the most challenging factors for the effectiveness of collaboration and co-teaching. It is anticipated that activities that are carried out collaboratively need longer time to plan and evaluate than the activities that are executed by one person. Therefore the co-teachers are in need, not only for planning time, but for mutual planning time to set their course of action. Of course, both of them need to be willing to spent time for planning, as well as for the school to provide them with the necessary time (Friend, 2011, Friend & Cook, 2013). Ultimately, as any other kind of relationship, the co-teachers' partnership will evolve and prosper over time. As time passes, the co-teachers learn each other and how to work harmoniously and more efficiently without causing problems during the educational process that occurs in the classroom (Friend & Cook, 2013).

Furthermore, the co-teachers should be willing to use different teaching styles, share responsibility and rely to one another. On the one hand, this procedure could be profoundly challenging, but on the other could be highly motivating and exciting for some of the professionals (Gurur & Uzuner, 2010, Ploessl et al., 2010). Flexibility is another crucial quality co-teachers should have, as well as commitment to the success of their relationship (Arguelles, Hughes, & Schumm, 2000, Murawski & Dieker, 2008). Strong interpersonal skills and tolerance towards diversity can also enhance their collaboration practice, as well as trusting each other and be critical with the obtaining information that will use in their teaching procedure (Cook & Friend, 1995, Friend, 2007, Snell & Janney, 2000).

Additionally the co-teachers should decide the goals they want to accomplish by using this method towards meeting the needs of their students. They need to examine the demands of their new roles and how to address them properly. An example of these demands is the amplification of the students' educational options and the elimination of the stigma for the students with special needs, in general, and with ASD in particular (Cook & Friend, 1995). Once they have established these goals, the actual teaching procedure is to be determined. It is important for the co-teachers to feel that they are coequal partners and that they both contribute in delivering instruction.

Another essential component for creating an effective collaborative relationship between the co-teachers is the reflection upon their collaboration and the regular exchange of feedback. Through these practices, the co-teachers will be able to improve, not only their collaborative relationship, but also to enhance their teaching practices (Pratt, 2014). According to Friend and Cook (2013) there are some specific characteristics for employing an effective feedback:
1) to describe the occurred situation rather than evaluate it or give advice, 2) be specific, 3) be about things that can be change from the involved parties, 4) be precise and accurate, 5) be simple-phrased and straightforward.

Appropriate support is also essential not only for the co-teachers, but also for all the specialists who are involved in the procedure (Cook & Friend, 1995).

### 3.4 Supporting Collaboration and Co-teaching

For establishing an efficient collaboration and enhance the implementation of the co-teaching approach, a series of supporting services should be at the disposal of the teachers involved in a collaborative relationship. These tools are the following: provision of time for mutual planning of the instruction delivery, support from the administration of the school, provision of learning material appropriate for the diverse educational needs of the students, training opportunities and allowance to proceed to classroom modifications (Austin, 2001).

It is indisputable the fact that the co-teachers should communicate with each other in order to co-plan and prepare for the daily teaching procedure (Morgan et al., 2013). So time is of the essence, not only for arranging meetings for discussions but also for having the time to discuss and resolve their issues.

Administrative support is another decisive factor for the success of the co-teaching strategy (Boscardin, Mainzer & Kealy, 2011, Friend, 2007). According to Friend and Cook (2013), there are a number of issues that the administrators should take care of: the scheduling of both the teachers and the students, mechanisms for problem solving when complications occur, opportunities for classroom modifications, provision for teaching aids and supplies and shared planning time for the co-teachers.

The provision of appropriate learning materials for addressing the different educational needs of the students is an indirect measure for facilitating collaboration and co-teaching. For example, students with ASD have a desire for structure and organization (Kirk et al, 2012). This desire can be met by visual representations of the program of the day and of complex educational and social concepts. The work of the co-teachers would be supported if they could have access to this kind of teaching aids.
Training can help in multiple ways. Not only towards the direction of creating positive attitudes for the inclusion of the students with ASD by informing the teachers of their needs and specialties, but also towards the direction of familiarizing themselves with the collaboration practices and introducing the different co-teaching approaches they can employ. Training increases the feelings of self-esteem and self-efficacy that contribute to higher levels of flexibility and adaptability for the teachers, as professionals (Engstrand & Roll-Pettersson, 2014).

In order for the student with disabilities to be included in the classroom and for the co-teachers to be able to employ any co-teaching approach they find suitable, classroom modifications and accommodations are crucial. By altering the classroom environment the co-teachers achieve various goals with one stroke: they create a convenient and friendly environment for the fostering of their collaboration, they create an environment where the students with disabilities can improve their academic and social skills and create a place where everyone feels welcome, respected and can be their optimal selves (Barger-Anderson et al, 2013).

3.5 The Teachers Views on their Collaboration

3.5.1 International Research Findings

There is a difference in the knowledge, views and beliefs each teacher has and applies into the practice of teaching. In a potential collaboration, these differences can be used in a creative way, in order to establish a common ground (Naraian, 2010). There is a number of professionals although who are reluctant to collaborate with their colleagues. The research of Kwakman at 2003 with Dutch teachers showed that, most of the times the teachers prefer to be responsible for a distinct rage of activities than to share responsibility with their colleagues (Rytivaara & Kershner, 2012). On the contrary, the research of Rytivaara & Kershner (2012) demonstrated that the co-teachers, despite the fact that they were acting independently at the beginning, started to collaborate and to share responsibility. In general, the results from the researches support the view that the teachers learn and evolve as professionals through dialogue and collaboration.
The research of Walther-Thomas (1997) was significant in the field, since it presented proof about the effectiveness of co-teaching. The participants expressed that there were a lot of advantages by using this method, not only for themselves, but also for all their students, either having special needs, or not. They noticed that there was progress, both during their performance in the class, and with the academic achievements of their students. That discovery boosted their self-confidence and their self-esteem. There were a number of teachers although who reported that they had faced difficulties concerning the planning of the program, the development of the relevant skills and the work load.

The research of Austin (2001) about co-teaching showed that both the general and the special education teachers agreed that the first contribute more in the teaching procedure, within the inclusive classroom. That was happening because the special education teachers were mainly responsible for the modification of the lessons and were focusing their attention primarily in assisting the students with special needs, whereas the general education teachers had the responsibility for the majority of the planning and delivering of the instruction. They also reported that they exchanged feedback and, as a whole, the co-teaching method was beneficial both for their professional improvement, as well as for the academic development of their student.

A corresponding research of Malian and McRae (2010) confirmed that the co-teaching has a positive effect upon the participants. Specifically, the results illustrated that the characteristic which favored the most the co-teaching method was the mutual trust between the co-teachers. They felt confident in using their skills and admitted their mistakes during their collaboration, since both of them had a common goal. The majority of the co-teachers assessed their experience as efficient and attributed that efficiency at the attachment they grew for one another.

### 3.5.2 Local Research Findings

Since the practice of collaboration and co-teaching is a rather new concept in the education praxis in Greece, there is not enough body of research to examine. However there are a number of researches and master thesis that provide a range of information about the
inclusion of the students with special needs and about the relationship between the co-teachers.

Flourou (2007) explored the views of the general education teachers about the inclusion of the students with disabilities. The results showed that the majority of the teachers believed that the inclusion was not effectively implemented, due to lack of specialized personnel, appropriate teaching material and infrastructure. For a successful inclusion, the collaboration between the general and the special education teachers considered to be of paramount importance, coupled with the communication with the parents and re-training opportunities. The research also showed that the majority of the general education teachers believed that the inclusion was affecting positively the social development of the students with special needs and was not a hindrance for the academic development of the rest of the students. On the contrary, the non-disabled students showed high levels of tolerance towards diversity when they studied in inclusive classrooms.

Staikopoulos (2009) conducted the same research as Florou (2007) only from the point of view of the special education teachers. The results showed that the majority of the special education teachers held the same opinions as their colleagues of general education for what are the fundamental elements of an efficient inclusion (the collaboration between the general and special education teachers, the collaboration with the parents, the appropriate infrastructure and re-training opportunities). Considering the method of the co-teaching, the special education teachers thought that it is necessary to be a clarification of the roles of the co-teachers and what co-teaching strategy they are going to follow. The majority of them chose to switch roles during the educational procedure. Moreover, they stated that the co-teaching benefits greatly the learning outcomes for the students, is morally rewarding for the co-teachers and they expand their teaching skills.

Persidou (2010) examined the role of the special education teachers as consultants. Her research demonstrates that the collaboration between the general and the special education teachers is limited, occasional and only after request from the one or the other party. They mostly cooperate as far as it concerns their mutual communication with the parents and not about the education and the assessment of the students. That is resulting from the perception of the general education teachers that the education of the students with special needs is the sole responsibility of the special education teachers.
Stogilos and Tragoulia (2013) explored the role and responsibilities of the co-teachers and the parents. Their result showed that the majority of the co-teachers used the "one teach, one assist" co-teaching strategy, with the special education teacher primarily in the role of the assistant. It is also significant, the fact that the special education teachers were accepting their role and did not try to change it. The shared planning time was limited and, as a result, each teacher was responsible for planning and teaching for a specific group of students (the special education teacher for the student/s with special needs and the general education teacher for the rest of the students).

The most recent research is the one of Mpoutsouki (2014) about the experiences and perceptions of the elementary teachers who participated in the "parallel support" (co-teaching) method. There were considerations about the efficiency of the infrastructure and the lack in appropriate teaching materials. They were also disappointed about the re-training opportunities offered by the state. Concerning their collaboration, the research showed that it was satisfying in the majority of the cases. The collaboration with the administration was confined within typical frameworks, in contrast with the parents who showed great initiative. They also mentioned that the co-teaching method influenced positively both themselves and their students.

The concept of co-teaching is a relatively new practice in the education field of Greece and there is a great need for research, in order to detect its flaws and work towards its improvement.
4 Methodology

4.1 Introduction

The goal of this research is to get an overview of the personal views and opinions of both the general and the special education teachers, concerning their collaboration, when it comes to the inclusion of a child with autistic spectrum disorders in the mainstream class of the public elementary schools. As the Greek education system attempts to implicate the concept of inclusion in the mainstream primary schools, the collaboration among the general education and the special education teachers becomes gradually an everyday-phenomenon. This chapter illustrates the chosen research design, gives a thorough description of the population, the sample and the sample procedure, presents the instrument that was used, describes the data collection and analysis procedure, establishes the reliability and validity of the research and outlines the possible ethical considerations of the study.

4.2 The Research Design

The research design of this study is a survey design, since it “provides a quantitative or numeric description of trends, attitudes and opinions of a population by studying a sample of that population. From the sample results, the researcher generalizes or draws inferences to the population.” (Creswell, 2014, p. 155-156). Investigating the views and opinions of the sample to draw conclusions for the population is the goal of this research, so a quantitative survey is concerned to be the appropriate research design. From a philosophical perspective, quantitative research is more closed to postpositivist point of view, which was used broadly at scientific research. Postpositivism is a deterministic philosophic movement that is preoccupied with discovering the causes behind the problems that have an impact at the outcomes, as well (Creswell, 2014).

The survey is cross-sectional, since the interest of the research lies on the current opinions of the population. Since the nature of the survey analysis is twofold (one the one hand to
describe the sample, and on the other, to find and to analyze the causes of the problem), this survey, as well, is both descriptive, when it comes to the description of the examined situation, through literature and former theories, and the participated sample, and analytical with the use of statistics, when it comes to draw conclusions, generated in the whole population (De Vaus, 2002).

Specifically the research is aiming to study the degree that both educators believe that their collaboration is successful and what are the factors that influence their opinion upon the matter. Factors like gender, educational qualifications, professional experience in the field and working position are being studied, in order to define the degree of influence they have upon the educators' opinions. Moreover their opinions about the consequences their collaboration has upon the student with autism as well as the rest of the students of the class are taking into consideration coupled with the support providing by the school to facilitate their collaboration.

The prime hypothesis of this research is that both the general and the special education teachers would value the practice of collaboration and co-teaching by itself, but that they would not employ it to the highest extend. That is resulting both from the limited to no supporting background the educational system provides for collaboration practices and from the traditional educational modal that is still prevailing which is based in the notion that the general education teacher is solemnly responsible for the planning and execution of the lessons and the special education teachers is there only to assist.

It is also expected that the general education teachers who have some specialty in the field of special education or/and have less years of experience (which is an indicator of their younger age) would employ more the concept of collaboration and co-teaching than the rest of their colleagues. That is being anticipated because the concept of inclusion and, consequently, the concept of collaboration and co-teaching are relatively new to the Greek educational praxis. Only the past few years, introduction classes for explaining the concept of inclusion have been added to the curriculum of general education teachers’ bachelor studies. It is mostly the special education teachers and those who have some specialty in the field that have been trained and prepared for collaboration practices.

The prevailing co-teaching approach is anticipated to be the "one teach, one assists". This approach is the most frequent used, according to research, both in national (Strogilos &
Tragoulia, 2013) and international level (Scruggs et al, 2007). Consequently, it is expected that both the general and the special education teachers would believe that this approach of co-teaching would be beneficial for the academic development of the child with autism, as well as the rest of the classroom because each educator focuses on the field of his/her expertise: the general education teacher to teach the whole class and the special education teacher to teach the child with special education needs. Though, as the social development of the child with autism is concerned, both teachers would believe that it is not of the higher degree, since most of the time the child interacts only with the special education teacher and the communication with his/her classmates is confined outside the classroom.

4.3 Population, Sample and Sampling Procedure

4.3.1 Population Characteristics and Sample

First and foremost it is highly needed to define the characteristics of the population of the research. The population is the general education teachers and the special education teachers in the primary schools, who collaborate with each other and co-teach in the classroom, with a focus on the inclusion of a child with autistic spectrum disorders in that environment. The population is also restricted geographically in the eastern part of Thessaloniki's district, which is the second largest district in Greece. This limitation is considered necessary for making the procedure of sampling more efficient and the sample more representative for the population. Since the characteristics of the population are defined, a sample was drawn from that population to represent it (De Vaus, 2002).

4.3.2 The Sampling Procedure

The type of the sample is a probability one, since it ensures more validly that the acquired sample would be representative for the population and unbiased, in order to be possible to make generalizations for the whole population (De Vaus, 2002, Muijs, 2004). Specifically the simple random sampling (SRS) was used in order to draw the sample. According to De Vaus (2002) there are five steps in acquiring a SRS:
1) Obtain a complete sampling frame. The sampling frame was acquired from the District's Primary Education Office.

2) Give each case a unique number starting at one.

3) Decide on the required sample size. The required sample size was decided to be 15 schools.

4) Select numbers for the sample size from a table of random numbers.

5) Select the cases that correspond to the randomly chosen numbers.

That sampling procedure was chosen as the most appropriate one, since a good sampling frame was available and the area of the population was geographically restrained, thus the data collection would undergo without significant obstacles. The selection of the sample is additionally based on the following criteria:

- the teachers would be both general and special education teachers,
- they would be collaborating in mainstream classrooms,
- in the classroom would be at least one child with autistic spectrum disorders,
- they would teach in primary public schools,
- they would teach in different classes, for example teachers from 1st grade, 2nd grade, 3rd grade, etc.,
- the schools that they will be working, would be located in both urban and rural areas,
- there would be both large and small schools, depending on the student population.

### 4.4 Sample and Procedure of the Data Collection

15 mainstream elementary schools participated in the present study from the eastern part of Thessaloniki’s district. First I contacted the district's primary education office, in order to acquire a list with all the schools which had applied for a special education teacher for supporting a student with ASD. A list with 75 schools was provided to me from which was drawn the sample of 15 schools, using the sampling procedure that was described above. Before distributing the questionnaires, I arranged personal meetings with the principals of the schools for explaining to them the purpose of my study and asking them for their permission to enter the school premises and conduct my research. All of them granted me their
permission, after they were reassured that the survey was anonymous and strictly oriented towards the teachers and no child would be included in the research. They were also very helpful, informing the teachers about my research and asking them to participate in it. I chose to administer the questionnaires personally to the participants, for explaining the topic of my research, reassuring them that their participation was confidential and arranging the time-frame they needed for answering it. Some of them filled it in immediately and some of them returned it to me after a couple of days. The administration of the questionnaires took place during break-time, as well as the collecting of them. In some cases, for the collection of the questionnaires, I had to visit the schools several times before the final delivery. When the questionnaires were delivered back to me, I always took some time to look at them, to ensure that they were fully completed. When that was not the case, I asked the participants nicely to re-examine them and ensure they have thoroughly answered them. In that way all the questionnaires were completed and my sample was consisted of 34 questionnaires.

### 4.5 Instrument

The instrument considered appropriate for collecting the data is a questionnaire. Questionnaires have a high level of structure and provide a very direct approach for collecting the desirable data (De Vaus, 2002). Since the focus of the research is the beliefs and the opinions of the people who consist the sample and, by implication, of the whole population, the formulated questions in the questionnaires would reveal these beliefs.

The questionnaire is based in the survey instrument designed by Vance L. Austin and it is called "The Perceptions of Co-teaching Survey" (Austin, 2001). After electronical correspondence with Vance L. Austin, permission was granted to use it. Some questions have been altered to correspond with the Greek education system and some others have been added in order to include the effect the collaboration of the general and special education teachers has on the inclusion of the student with autism in the classroom. It consists of two parts: in the first part the demographic characteristics of the sample are presented (gender, working position, education level and previous experience) and in the second part there is information about the teachers' perceptions of their collaboration and co-teaching, divided in three categories. The categories are the following: their perceptions on their current experience, the
collaborative practices they recommend and the school-based supports that facilitate their collaboration. In the first category, the questions the participants are requested to answer are about the benefit they think their collaboration have on the educational and social development of both the student with ASD and the rest of the “typical” peers. Additionally there are questions about the co-teaching approach they use and some general questions about how they perceive their current collaboration (if they work good together, if their collaboration has improve their teaching skills and if it is a valued professional experience, who contributes more and if they exchange feedback). In the second category, the content of the questions is about the daily meetings and planning of the teaching instruction, the sharing of management, teaching and feedback material and the maintaining of specific areas of responsibilities. In the last category, the questions explore the support system for the collaboration practice by examining the provision of time for planning, teaching aids, training opportunities, classroom modifications and overall support from the administration. I was personally responsible to translate the questionnaire from the English to the Greek language. All the questionnaires were accompanied with a cover letter that would explain the nature of the research, the purpose of the questionnaire and reassure the participants for all the ethical and confidentiality issues that may trouble them. They were administered face-to-face for optimizing the response rate.(Appendix 1 & 2)

The questions included in the questionnaire are closed or forced-choice questions, in which the participants are provided by a number of possible answers to choose from for every question. The advantages of choosing closed form questions are that they are quick and easy to answer, do not tire the participants and give the opportunity for everyone to answer and to be heard, even if they are not the talkative type of persons. They are also easily coded for the researchers and transformed into statistical graphics (De Vaus, 2002). The majority of the questions use Likert scales as an approach to estimate attitudes. The participants acknowledge the degree of their agreement or disagreement with the statement formulated by the questions.

4.6 Procedure of Data Analysis

For the interpretation of the collected data, the Statistical Package of Social Sciences (SPSS v.22) software program was used. Although SPSS is a powerful tool that simplifies the
analytic procedure, it does not have a mind of its own and the responsibility to choose the right form of variables and statistics is substantial (Connoly, 2007). For analysing the data it was necessary to convert the answers of the questionnaires into numbers, since the SPSS program is capable of interpreting only numerical data. This process is called "coding" according to De Vaus (2002).

In this study both univariate and bivariate analysis are used. Univariate analysis is appropriate when one variable is in the centre of the analysis and bivariate when two variables are intended to analyse. The univariate analysis includes the descriptive statistics and the inferential statistics, while the bivariate analysis contains a variety of different methods and used to examine if there is a relation between two variables (De Vaus, 2002).

For determining the frequency of responses of collaborative general and special education teachers on the demographic categories consisted the first part of the questionnaire, cross-tabulations were used in the case of nominal data and T-tests of paired samples, in the case of ordered or interval data. Cross-tabulations were also used to determine the frequency of responses of the general and special education co-teachers on the data from the second part of the questionnaire. The Wilcoxon's matched-pairs signed-ranks test was used to compare the responses of the participants for each survey item and between the "value" and "employ" or "access" categories. This specific test was chosen due to its design which enables the analysis and comparison of data both between paired sources and their respective responses under two categories.

### 4.7 Reliability and Validity

According to De Vaus (2002) reliability exists when the measure used give the same result every time that it is used, over repeated occasions. To increase reliability as much as possible in this study, the instrument that was used has been tested for reliability by other researchers by being used in multiple studies providing the same results over time (Austin, 2001).

Additionally multiple indicators was used in the scales consisting the answers to the majority of the questions and appropriate coding was used. As a final measure to assure the reliability of the scale items, the Cronbach's alpha coefficient was used. In the present study, the
Cronbach's alpha coefficient is calculated at 0.819 which indicates a satisfactory reliability level for the scale and is acceptable since it is higher than 0.7 (Pallant, 2007).

Validity is accomplished when the used measure achieves to measure what it was anticipated to measure (De Vaus, 2002). The first step towards that direction is to clarify the concept under study. The concepts of the study have been examined thoroughly on the previous chapters. The next step is to evaluate the extent to which the developed indicators measure the content of the concept, in all its different aspects. The content validity has been established by conducting a detailed literature review for identifying the different indicators of the variables and by adopting an instrument whose validity has been confirmed in prior studies, ensuring as well the construct validity.

As an additional measure to verify the validity of the study the definitions of the terms "co-teaching" and "inclusion" were provided to the participants, in order to avoid any misconceptions when the questionnaires were completed.

### 5.8 Ethical Considerations

Ethical guidelines are a necessary condition that every research has to follow in order to ensure that the participants' privacy will be respected and no harm will come to them. There are five major ethical responsibilities towards the participants that need to be taken into consideration in every survey: voluntarily participation, informed consent, no harm, confidentiality and privacy (De Vaus, 2002).

The principle of voluntarily participation protects the participants' right to refuse to participate in the survey at any time. In this study it was explicitly explained to the participants that their participation is voluntary. The participants was personally met and informed about how important their contribution to the study is. Luckily, all the teachers, who were asked to participate, accepted gladly. The voluntarily participation is closely connected with the principle of informed consent. That implies that it is not only important to give the choice of participation, but also to provide detailed information about the content and nature of the research. The participants of the study were informed both verbally and in writing about the purpose of the research (Appendix 2). Since this research is a survey, there is no physical
harm for the participants involved in it, as well as no psychological harm from answering the questionnaire. All the questions were formulated in view of not causing any form of distress or embarrassment to the participants. The principle of confidentiality is of paramount importance for the participants, due to the fact that 1) improve the quality and honesty of responses, especially on sensitive issues, 2) encourage participation in the study and thus to improve the representativeness of the sample, 3) protect a person's privacy (De Vaus, 2002). On that account, the participants were not required to provide any kind of personal information and all the questionnaires were anonymous. Last but not least, the principle of privacy was assured, since the collected data was only used for the purpose of this research and the participants are not going to be contacted by third parties, as companies and survey researchers.
5 Presentation of the Results

The present study is founded on a number of research questions, which are been addressed and answered in that chapter, coupled with a display of the demographic characteristics of the sample. Additionally, a summary table of the frequencies from every survey item can be found on Appendix 3.

5.1 Demographic Data

First of all the whole sample is consisted of 47,1% general education teachers and of 52,9% of special education teachers. They are teaching in all 6 grades of primary school with the majority of both the general and the special education teachers teaching in the 4th and 5th grade (62,6% and 55,6% accordingly).

The majority of both the general and the special education teachers are females (68,8% of the general and 83,3% of the special education teachers) and only a very small of the participants are males (31,3% of the general and 17,7% of the special education teachers).

Concerning their education level, the majority of the participants are holders of bachelor degrees (93,8% of the general and 72,2% of the special education teachers) and very few are owners of master degrees (6,3% of the general and 27,8% of the special education teachers). None of the general education teachers have a degree inside the field of the special education needs, whereas all the special education teachers are trained in the field.

As far as the previous experience of the participants is concerned, the continuous variable (years of experience) was collapsed into groups for a more efficient interpretation of the data. Consequently, the majority of the general education teachers (56,3%) have an experience of 11-20 years (the median is 18,5 years), 31,3% of them have more than 21 years of experience and a percentage of 12,5% have 0-10 years of experience. On the contrary, the majority of the special education teachers (94,4%) have an experience of 0-10 years (the median is 2 years) and only a percentage of 5,6% have 11-20 years of experience.
Regarding the years of collaborative work, a percentage of 50% of the general education teachers have been collaborating for 2 years (the median is 2 years) and 37.5% for 1 year. The majority of the special education teachers have also been collaborating for 1-2 years (the median is 2 years). Specifically, 33.3% are collaborating for 1 year, 33.3% for 2 years and the remaining 33.4% for 3-4 years.

In the matter of experience teaching in a class with a child with ASD, the majority of the general education teachers (68.8%) have 1 year of experience, while the average years of experience for the special education teachers are the 2 years.

For these last three interval variables, T-Test of paired samples was used, in order to determine if there is a significant difference in the responses between the general and the special education co-teachers. (Appendix 4) Concerning the years of teaching experience, the co-teachers have, there is a significant difference between the years of experience of the general education co-teachers and the years of experience of the special education co-teachers (t(15)=6.00, p=.000<.05). Specifically, the general education co-teachers have more years of experience (M=18.43, SD=8.65) compared with the special education co-teachers (M=3.75, SD=2.88). The mean decrease in years of experience scores is 14.68 with a 95% confidence interval ranging from 9.47 to 19.90.

Concerning the years of collaborative work, there is no significant difference between the general and the special education co-teachers (t(15)=1.38, p=.18>.05). Specifically, the special education co-teachers have more years of collaborative teaching (M=2.25, SD=1.12), in comparison with the general education co-teachers (M=1.81, SD=.83). The mean decrease in years of collaboration scores is .43 with a 95% confidence interval ranging from −.23 to 1.11.

Regarding the years of experience teaching in a class with a student with ASD, there is a significant difference between the general and the special education co-teachers (t(15)=2.3, p=.03<.05). Specifically, the special education co-teachers are more experienced teaching in a class with a student with ASD (M=2.00, SD=.96) than the general education co-teachers (M=1.31, SD=.47). The mean decrease in years of experience scores is .69 with a 95% confidence interval ranging from 0.5 to 1.32.
5.2 The Co-teaching Method

5.2.1 What is the prevailing co-teaching method?

The co-teaching approach used from the majority of the co-teachers is the one teach, one assist, as it was expected. The second most favorable was the alternative teaching. Since the paired co-teachers use the same approach, there will be only one graph presenting the findings.

Figure 5.1 Used methods of co-teaching

5.2.2 Does the co-teaching method influence the views of the co-teachers on the benefits their collaboration has on the academic and social progress of their students?

Cross-tabulations were used to determine the frequencies between the co-teaching method and the benefits the co-teachers thinks it has on the educational and social development of
their students. The majority of the co-teachers, regardless their chosen co-teaching approach, believe that the student with ASD has been benefitted educationally “very much-a lot”. The only exception is the co-teachers who use the “station teaching” approach, who thinks that the student with ASD has been benefitted educationally “a little”. Concerning the social development of the student with ASD the majority of the co-teachers, regardless their chosen co-teaching approach, believe that the student with ASD has been benefitted “very much-a lot”.

Regarding the educational development of the rest of the students, the majority of the co-teachers who use the “one teach, one observe”, “alternative teaching” and “one teach, one assist” approach believe that the students have been benefitted “very much-a lot-enough”. The co-teachers who use the “parallel teaching” approach are split in half, between “a lot” and “a little” and the co-teachers who use the “station teaching” approach believe 100% that the students have been benefitted “not at all”. When it comes to the social development of the rest of the students, the majority of the co-teachers, regardless their chosen co-teaching approach, believe that the students have been benefitted “very much-a lot”.

Overall, the findings show that the co-teaching approach of choice does not have any impact on the views of the co-teachers regarding the degree their collaboration benefits the academic and social development of their students.

5.2.3 Does the co-teaching method influence their views on collaboration?

Cross-tabulations were also used to determine the frequencies between the co-teaching method and the co-teachers perceptions about their current collaboration. The majority of the co-teachers, no matter their chosen co-teaching approach, “strongly agree-agree” that they collaborate well with their partner, their collaboration has improve their teaching skills and it is a valued professional experience, and they benefit from the feedback they exchange with one another. Additionally, the majority of them, regardless of their chosen co-teaching approach, “disagree-strongly disagree” that they are the ones who offer the most in their collaborative relationship. Therefore the conclusion is that the co-teaching method does not influence their views regarding their collaboration relationship.
5.3 Factors that May Influence the Views of the Co-teachers

5.3.1 Does the gender of the co-teachers affect their views?

For establishing the influence the gender has in shaping the perceptions of the general and special education co-teachers about their collaboration, the Mann-Whitney U test was used, since is the major nonparametric test for detecting differences between two unrelated samples of scores. If the significance level (p) is larger than .05, then the result is not significant. It was examined if there was any difference in the answers given by the two genders (male and female) in all the survey items from the second part of the questionnaire (perceptions on their current collaboration, perceptions on the collaborative practices and perceptions on the school-based supports that facilitate collaborative teaching) and the significance level (p) was found larger than .05. Consequently the results are not significant and the gender does not influence the views of the co-teachers about their collaboration.

5.3.2 Is education an important factor for shaping the co-teachers views?

For examining the influence the education level has in shaping the perceptions of the general and special education co-teachers about their collaboration, the Mann-Whitney U test was used, as above. Statistically significant differences were found between the education level of the co-teachers, on the following variables: the employ of daily planning, the employ of sharing feedback and the access to administration support.

Specifically, the Mann-Whitney U test revealed significant difference in the employ of daily planning of the co-teachers with bachelor (Md= 2, n=28) and the co-teachers with master degrees (Md= 4, n=6), $U=33.5, z=−2.41, p=.02<.05$. So as the education level increases, there is a decrease in the use of daily planning. The Mann-Whitney U test revealed significant difference also in the employ of sharing feedback of the co-teachers with bachelor (Md= 2, n=28) and the co-teachers with master degrees (Md= 4, n=6), $U=27.5, z=−2.69, p=.007<.05$. 
So as the education level increases, there is a decrease in the use of sharing feedback. Furthermore, the Mann-Whitney U test revealed significant difference in the access in the administration support of the co-teachers with bachelor (Md=2, n=28) and the co-teachers with master degrees (Md=1.5, n=6), $U=40.5$, $z=-2.05$, $p=.04<.05$. So as the education level increases, there is an increase in the access of administration support.

Consequently, the education level of the co-teachers plays an influential role in shaping the co-teachers views regarding the employ of daily planning, the employ of sharing feedback and the access to administration support.

5.3.3 Do the years of experience influence the views of the co-teachers?

To explore if the years of experience influence the perceptions of the general and special education co-teachers about their collaboration relationship, the Spearman correlation coefficient was used. Spearman correlation coefficient is the appropriate statistical technique for exploring relationships between one interval and one ordinal variables.

There was conducted a separate examination for the total years of teaching experience, the years of collaborative experience and the years of teaching in a class with a student with ASD experience. Concerning the total years of teaching experience, a moderate negative correlation was found between the years of experience and the access the co-teachers have on teaching aids ($\rho=-.39$, $n=34$, $p=.02<.05$) and they share 15.21% of their variance. That means that as the years of teaching experience increase, there is also an increase in the access the co-teachers have on teaching aids. Concerning the years of collaborative experience, a moderate positive correlation was found between the years of collaborative experience and their views on being the one who offers more in the collaborative relationship ($\rho=.47$, $n=34$, $p=.005<.05$) and share 22.09% of their variance. So as the years of collaborative experience increase, the co-teachers believe that they are not the ones who offer more in the collaborative relationship. Concerning the years of teaching in a class with a student with ASD experience, there was found no statistical significant correlation. (Appendix 5)
So, the conclusion is that the years of general teaching experience influence the views of the co-teachers about their access on the teaching aids, the years of collaboration experience influence their views about who is the main contributor of their collaborative relationship and last but not least, the years of teaching experience in a class with a student with ASD have no impact in shaping their views on collaboration.

5.3.4 Does the working position affect the views of the co-teachers regarding their collaboration?

For examining the influence the difference in the working position (general vs. special education teachers) has in shaping the perceptions of the co-teachers about their collaboration, the Mann-Whitney U test was used, as above. Statistically significant differences were found between the working position of the co-teachers, on the following variables: the value on sharing management and the value on teaching aids.

Specifically, the Mann-Whitney test revealed a significant difference in the value on sharing management of the general (Md= 2, n=16) and the special education teachers (Md= 1, n=18), U=86, z= −2.13, p=.03<.05. So the special education co-teachers place more value on sharing classroom’s management than the general education co-teachers. The Mann-Whitney test revealed a significant difference, as well, in the value on teaching aids of the general (Md= 1.5, n=16) and the special education teachers (Md= 1, n=18), U=96, z= −2, p=.04<.05. That means that the special education co-teachers place more value on the teaching aids than the general education co-teachers. (Appendix 6)

Therefore, the working position influences the co-teachers perceptions about the value of sharing management responsibilities and the value they place on the teaching aids.

5.4 The Views of the Co-teachers

For the data from each survey item in the 2nd Part cross-tabulations were conducted to determine the frequency of responses of the general and special education co-teachers. Additionally, those responses were compared with each other, as well as between the “value”
and “employ” or “access” categories, by using a Wilcoxon’s matched –pairs signed ranks test. (Appendix 7) This test was chosen principally because of its design, which enables the researcher to analyze and compare data both between paired sources (general vs special education co-teachers) and their various responses under two categories (“value” vs “employ”). The categories “value” and “employ” or “access” are considered a pair and are compared as one, since they come from the same source of the sample (in one case from the group of the general and in the other case from the group of the special education co-teachers). The views of the general and special education co-teachers are examined as a pair since they also work as a pair in the same classroom.

5.4.1 Do both the general and the special education teachers believe that their collaboration benefits the educational, as well as the social development of all the students?

The educational and social progress of the student with ASD

The perceptions of both the general and the special education teachers are quite similar to one another, concerning their current collaboration and the detected differences were limited. First and foremost it was examined their opinion about the efficiency of their collaboration in both the academic and the social progress of the student with ASD. The majority of the co-teachers agreed that their collaboration is highly beneficial for the educational advancement of the student with ASD, as well as for the student’s social development. Wilcoxon’s test also confirmed that the difference in the responses between the general and the special education co-teachers, concerning the educational and social progress of the student with ASD, is not significant ($z=−.31, p=.75>.05$ and $z=−.73, p=.46>.05$).
The educational and social progress of the “typical” students

The picture is a little bit different, considering their views about the efficiency of their collaboration on the academic and social progress of the rest of the class. Even though the majority of both the general and the special education teachers perceive their collaboration as beneficial for the academic and social advancement of the students, there is a more equal distribution among the positive categories (“very much”, “a lot”, “somewhat”) and also the percentages in the negative categories (“a little” and “not at all”) are higher than the ones concerning the development of the student with ASD. Additionally, there is a slight difference in the opinions of the co-teachers. While in the previous questions the majority of both the general and the special education teachers were on the same category (“very much”), in these questions the majority of each group is on a different category. Specifically, 37,5% of the general education teachers believe that their collaboration has been “very much” beneficial for the educational development of the students, while 33,3% of the special education teachers believe that has benefit “a lot” the educational development of the students. Concerning the social development of the students, 43,8% of the general education teachers view their collaboration as “very much” beneficial, while the special education teachers have the same percentage (38,9%) on both the “very much” and “a lot” categories.

Nevertheless, the Wilcoxon’s test demonstrates that the difference in the responses between the general and the special education teachers, concerning the educational and social progress
of the students is not significant, since the significant level (p) is higher than .05 (for the educational development $z = -0.09$, $p = .92 > .05$ and for the social development $z = -0.38$, $p = .70 > .05$).

Figure 5.3 Collaboration benefits of the educational and social development of the rest of the students

5.4.2 Is there a difference in the views between the GETs and SETs regarding their current collaboration?

The degree of efficiency of the collaboration

The majority of the co-teachers agreed (“strongly agree”) that they have a good collaboration with each other, although there is a significant percentage of the special education teachers that just “agree” (33,3%) with that statement and a percentage of 11,1% that disagree. Wilcoxon’s test showed that the difference between the responses of the general and special education co-teachers, concerning the efficiency of their collaboration is not significant ($z = -0.42$, $p = .66 > .05$).
Figure 5.4 Establishment of good Collaboration

**Improvement of their teaching skills**

Despite the fact that both groups of co-teachers agree that their collaboration has a positive influence on their teaching, the majority of the general education teachers “strongly agree” with that statement, whereas the majority of the special education teachers merely “agree”. Again the Wilcoxon’s test found that the difference in the responses between the general and the special education co-teachers is not significant ($z = -1.18$, $p = .23 > .05$).

Figure 5.5 Collaboration improves Teaching

**The main contributor**

Furthermore, both groups of co-teachers disagree that they are the ones offering the most in their collaboration relationship, implying that they are equal co-partners. There is a slight difference in the degree of disagreement: 50,0% of the general education teachers “disagree”, whereas 44,4% of the special education teachers “strongly disagree”. It is also observed a
percentage of 22.2% of the special education teachers who expressed no opinion upon the matter. The difference in the responses between the general and the special education co-teachers was proven to be not significant (z=.00, p=1.0>0.5).

Figure 5.6 Co-teachers contribution

Evaluating the collaboration experience

The majority of both groups of co-teachers perceive their collaboration as a valued professional experience and the differences among the positive and the negative categories are almost insignificant. Consequently the Wilcoxon’s test demonstrated no significance in the difference of responses (z= -.36, p=.71>.05).

Figure 5.7 Collaboration as a valued experience
Exchange of feedback

Feedback is asked for and viewed as beneficial from the majority of both groups of co-teachers, though that majority is unevenly dispensed for the two groups. There is also a percentage of 16.7% of the special education teachers that do not exchange feedback with their partners. Once more the difference in the responses between the general and the special education co-teachers was not significant (z = −.48, p = .62 > .05).

![Figure 5.8 Exchange and Benefit from Feedback](image)

Consequently there is no statistical significant difference between the views of both the GETs and SETs about their current collaboration relationship.

5.4.3 Is there a difference in the views between the GETs and the SETs about the Collaborative Practices and the school-based supports?

For exploring that research question it was found crucial to examine, not only the collaborative practices that the co-teachers elaborate or the access they have on supportive services, but also the degree of value they have for them. That duality was considered critical, due to different kind of hindrances that may affect the actual act of collaboration. Since the purpose of the study is to examine the views of the co-teachers both on the collaboration as a
concept and on their existing collaboration, each survey item is divided into two categories: the “value” and the “employ” category.

**Daily planning**

One of the most important elements of collaboration is the mutual planning of the teaching procedure, which is recommended to occur on a daily basis. While the majority of both groups of co-teachers recognize the importance of the daily planning, their responses are not so straightforward considering the actual application of the practice. Specifically, the majority of the special education teachers (38.9%) choose the “no opinion” answer, which indicates that they want to avoid giving a clear answer because it may not be the political correct answer. Additionally, a sum of 25.1% of the general education teachers state that there is no use of this practice in their collaborative relationship.

Wilcoxon’s test demonstrate that there is no difference of the responses between the general and the special education co-teachers, concerning both the “value” and the “employ” category ($z=-1.74$, $p=.08>.05$ for the value, and $z=-1.39$, $p=.16>.05$ for the access).

![Figure 5.9 Employ of Daily Planning practice](image)

**Sharing management**

Another essential element of the collaboration practice is the sharing responsibilities for the management of the class, as well as for the teaching procedure. On the one hand the majority of the co-teachers support the concept of sharing management (a sum of 62.5% of the general and a sum of 88.9% of the special education teachers), but on the other a percentage of 25% of the general education teachers express no opinion, which indicates that probably they are
against the concept but are not willing to express it directly. There is also 12.6% of the general education teachers that are openly against that practice against a 0% of the special education teachers. It is noticeable the fact that there is 26.4% more special education teachers supporting the practice of sharing management than general education teachers. On the topic of implementing shared management, the majority of the co-teachers agree on using it in their collaborative relationship (a sum of 56.3% of the general and a sum of 55.6% of the special education teachers), although there is a percentage of 27.8% of the special education teachers who express no opinion on the matter and a sum of 31.3% of the general education teachers who state that there is no implementation of the practice in their collaborative relationship.

Wilcoxon’s test shows that the difference in the responses between the general and the special education co-teachers, considering both the “value” and the “employ” category are not significant (z = −.62, p = .53 > .05 for the value, and z = −1.10, p = .26 > .05 for the access).

Figure 5.10 Value of Shared Management

**Sharing delivery instruction**

Regarding the shared teaching practice, the group of the general education teachers is split almost in half about its value. 50% are supporting it and 37.6% are against it. The special education teachers group is more apparent since a sum of 72.2% support the value of the practice and only 16.7% do not value it. On the category of employing the practice the division in the group of general education teachers is even more obvious: a sum of 43.8% are using it and a sum of 37.6% are not. The results are quite the same for the special education teachers as well: a sum of 44.5% are using it and a sum of 38.9% are not.
There is no significant difference in the responses between the general and the special education co-teachers, concerning both the “value” and the “employ” category \((z = -1.37, p = .17 > .05)\) for the value, and \(z = -.31, p = .75 > .05\) for the employ).

![Figure 5.10 Employ of Shared Teaching](image)

**Sharing feedback**

Exchanging feedback material is a necessary component for the formulation and the ongoing improvement of the collaborative relationship. Although both groups of co-teachers values the concept of sharing feedback (a sum of 87.5% of the general and a sum of 94.4% of the special education teachers), when it comes to the implementation of the practice the picture is not the same. Still the majority of both groups employ the practice, but the percentage of the special education teachers is remarkably low in comparison with the percentage on the value: only a sum of 50% declare using the practice. Additionally, 27.8% of the special education teachers do not implement the practice and 22.2% do not express an opinion.

The difference in the responses between the general and the special education co-teachers, both on the “value” and “employ” categories, is not significant \((z = -1.38, p = .16 > .05)\) for the value, and \(z = -.73, p = .46 > .05\) for the employ).
Sharing responsibility

The last survey item of this part is the distinctive areas of responsibilities. For an effective collaboration, the responsibility should be shared between the co-teachers. They should feel that they can rely on one another in order to also share the management and teaching responsibilities of the classroom. The majority of the co-teachers in the study support the value of separate areas of responsibilities (a sum of 56.3% of the general and a sum of 72.2% of the special education teachers), whereas there is a sum of 25.1% of the general education teachers who do not value the concept and 18.8% who have no opinion. The majority of the co-teachers also employ the practice (a sum of 56.3% of the general and a sum of 55.6% of the special education teachers), but the majority percentage of the special education teachers is lower at 16.6% than it was on the value category. Furthermore 27.8% of the special education teachers do not employ the practice and there is a raise in the percentage of the general education teachers who do not have an opinion (25%).

Wilcoxon’s test, on this item, demonstrates no significant difference in the responses between the general and the special education co-teachers, on both the “value” and “employ” categories (z = −.65, p = .51 > .05 for the value, and z = −.81, p = .42 > .05 for the employ).
Time for planning

Since one of the most fundamental elements of collaboration is the mutual planning of the teaching procedure, time for making the planning possible is highly needed. The majority of the co-teachers in the study also value the provision of time for the mutual planning (a sum of 87.5% of the general and a sum of 100% of the special education teachers. Nevertheless the time providing to them for planning is limited. The majority of the co-teachers indicate that the amount of time for planning is ranging from “little” to “not at all” (a sum of 68.8% of the general and a sum of 61.1% of the special education teachers).

The difference in the responses between the general and the special education co-teachers, on both the “value” and the “access” categories is not significant ($z= -0.25, p=.08>.05$ for the value, and $z= -0.28, p=.16>.05$ for the access).

Supportive administration

Another type of support that can be utterly helpful for the development of the collaboration practice is the support from the administration. The majority of the co-teachers have the same opinion about its decisive role and appreciate its value: a sum of 93.8% of the general and a sum of 83.3% of the special education teachers evaluate it as “very useful” or “useful”. Their access though to that kind of support is not without restrictions. Despite the fact that the majority of the general education teachers feel the support of the administration (a sum of 68.8%), the percentage of them, who feel from “little” to “not at all” support, is considerable (a sum of 31.4%). The same difference, in the group of the special education teachers, is even smaller. 55.6% feel that the administration’s support is accessible to them and 44.4% that it is not.
The difference in the responses between the general and the special education co-teachers, on both the “value” and the “access” categories is of no significance ($z = -0.97, p = 0.32 > 0.05$ for the value, and $z = -0.47, p = 0.63 > 0.05$ for the access).

**Teaching aids**

Another school-based support that facilitates the practice of collaborative teaching is the use of teaching aids, which help with the learning procedure of the students. The majority of the co-teachers value the existence of such support tools (a sum of 81.3% of the general and a sum of 94.4% of the special education teachers). When it comes to the provision and use of these tools in the teaching reality, the group of the general education teachers is divided in half: 50.1% report that they have access to teaching aids and the other 49.1% that they have little to none access to them. The percentage of the special education teachers who report that they have little to none access to teaching aids is even greater: 66.6% against 34.4%.

Wilcoxon’s test shows that the difference in the responses between the general and the special education co-teachers, on both the «value» and the «access» categories of the teaching aids is not significant ($z = -0.63, p = 0.53 > 0.05$ for the value, and $z = -0.73, p = 0.46 > 0.05$ for the access).

**Training opportunities**

For a collaborative relationship to evolve, additional training opportunities are of prime importance. The majority of the co-teachers agree that training services are significant for the advancement of their collaboration practice (a sum of 93.8% of the general and a sum of 88.9% of the special education teachers). However the majority of them state that there are “little” to “not at all” providing training opportunities for their professional development (a sum of 81.3% of the general and a sum of 83.3% of the special education teachers). From them, 43.8% of the general education teachers report that they have none training opportunity and 50.0% of the special education teachers report little access to training services.

Once more the difference in the responses, concerning the training opportunities between the general and the special education co-teachers, on both the “value” and the “access” categories is not significant ($z = -0.08, p = 0.93 > 0.05$ for the value, and $z = -1.70, p = 0.09 > 0.05$ for the access).

**Classroom modifications**
The last survey item of the study is the opportunities the co-teachers have for modifying the classroom according to their teaching needs and goals. Classroom modifications can be convenient, not only for boosting the flexibility of the collaborative relationship, but also for addressing the special education and other needs of the student with ASD. The majority of the co-teachers recognize the value of the classroom modifications (a sum of 81.3% of the general and a sum of 100% of the special education teachers), whereas their access to these opportunities are not equivalent with their inclination. The majority of the co-teachers reveal that they have “little” to “not at all” access to classroom modification opportunities (a sum of 68.8% of the general and a sum of 61.2% of the special education teachers). Nevertheless there is a percentage of 31.3% of the general and 38.9% of the special education teachers who acknowledge the fact that they are able to modify their classroom “all the time” or “a lot”.

The Wilcoxon’s test demonstrates no significant difference in the responses between the co-teachers on both the “value” and the “access” categories of the classroom modification (z = −.97, p = .30 > .05 for the value, and z = −.63, p = .68 > .05 for the access).

The findings suggest that there is no statistical significant difference in the views between the GETs and the SETs regarding their collaborative practices and school-based supports, on both the “value” and “employ”/“access” categories.

5.4.4 Is there a difference between the value the co-teachers place on the collaboration practices and supportive services and their actual implementation/access of them?

In that last research question, the potential difference between the “value” and “employ”/“access” categories, the co-teachers have about their collaborative practices and the supportive services, is explored. The co-teachers were asked to evaluate the value they place in each of the collaborative practices and support services, coupled with the use/access they make/have in each one of them. The rational for that choice is the same it was for the previous part: whereas the co-teachers may be prone to the collaborative practices and supports, these same practices and supports might be not used by them or be accessible to them, and since a holistic view of the co-teachers perspectives is to be acquired, responses of both aspects of the issue are collected.
Daily planning

Wilcoxon’s test demonstrate that there is no significant difference in the responses between the “value” and “employ” category, concerning both groups of co-teachers (for the general education co-teachers z= −1.60, p=.10>.05, and for the special education co-teachers z= −.28, p=.77>.05).

Sharing management

Wilcoxon’s test shows that there is no significant difference in the responses between the “value” and “employ” categories of the special education co-teachers (z= −1.30, p=.19>.05). The significant difference of this item is in the responses between the “value” and “employ” categories of the general education teachers (z= −2.07, p=.03<.05).

Sharing delivery instruction

There is no statistical significant difference in the responses between the “value” and the “employ” categories of the general education co-teachers (z= −1.00, p=.31>.05). The significant difference is located in the responses between the “value” and “employ” categories of the special education co-teachers (z= −2.30, p=.02<.05).

Sharing feedback

The difference in responses between the “value” and “employ” categories of the special education co-teachers is of no statistical significance (z= −1.45, p=.14>.05). The significant difference is found in the responses between the “value” and “employ” categories of the general education co-teachers (z= −2.23, p=.02<.05).

Sharing responsibility

No significant difference is found in the responses between the “value” and “employ” categories of both the general and special education co-teachers (z= −.82, p=.41>.05 for the general, and z= −1.03, p=.30>.05 for the special education co-teachers).

Time for planning
Statistical significant difference is found in the responses between the “value” and the “access” categories of both the general and the special education co-teachers (z = −3.37 for the general, and z = −3.45 for the special education co-teachers, p = .001 < .05 for both of them).

![Figure 5.13 Time for Planning Value vs Access](image)

**Supportive administration**

The difference in the responses between the “value” and the “access” categories of both the general and special education co-teachers is of significance (z = −2.59 for the general, and z = −2.49 for the special education co-teachers, p = .01 < .05 for both of them).

![Figure 5.14 Administration’s Support Value vs Access](image)

**Teaching aids**

63
The difference in the responses between the “value” and the “access” categories of both the general and the special education co-teachers is significant (z= −2.70, p=.007<0.5 for the general, and z= −3.32, p=.001<.05 for the special education co-teachers).

![Image](image1.png)

Figure 5.15 Teaching Aids Value vs Access

**Training opportunities**

Statistical significant difference is found in the responses between the “value” and “access” categories of both co-teachers (z= −3.21 for the general, and z= −3.34 for the special education co-teachers, p=.001>.05 for both of them).

![Image](image2.png)

Figure 5.4 Training Opportunities Value vs Access
Classroom modifications

The significant difference is detected in the responses between the “value” and “access” categories of both the co-teachers ($z=-3.11$ for the general, and $z=-3.14$ for the special education co-teachers, $p=.002<.05$ for both of them).

Overall, there is statistical significant difference between the value and the employ views of the co-teachers regarding the following collaborative practices: for the GETs there is difference between the value and the employ categories concerning sharing management and sharing feedback, and for the SETs there is a difference between the value and employ categories concerning sharing teaching responsibilities. There is also found significant difference between the value and access views of both co-teachers regarding all the supportive services (time for planning, supportive administration, teaching aids, training opportunities and classroom modifications).
6 Discussion of the Findings

6.1 General Assumptions about the Population

The population of the study is the general and special education teachers in the primary schools of the eastern part of Thessaloniki’s district, who collaborate with each other and co-teach in the classroom, with a focus on the inclusion of a child with autistic spectrum disorders in that environment. The survey showed that the majority of the co-teachers are females and that the general education co-teachers have no previous training in the field of special needs education, fact that also is evident in the research of Mpoutsouki (2014), whereas the special education co-teachers are all educated in the field, holding either bachelor or master degrees. It is found that there is a significance difference in the years of teaching experience between the general and the special education co-teacher, with the first being far more experienced than the latter (median of 18.5 years for the first and 2 years for the later). Concerning the years of collaboration experience, there is no significance difference between the co-teachers, since both groups have a median of 2 years of collaborative teaching. Nevertheless there is a significance difference between the general and the special education teachers in teaching in a class with a student with ASD, with the latter being more experienced that the first.

Consequently the population of the co-teachers is consisted mainly by females, trained special education teachers and untrained general education teachers in the field of special needs education, with the first being more experienced teaching children with ASD and the latter being more experienced teaching in general and both of them having the same amount of experience in collaboration practices. That findings confirm the hypothesis that the special education teachers would be primarily the ones with training inside the special needs education field and that neither of the co-teachers would have a lot of experience in collaborative relationships since the concept of collaboration is recently attached in the teaching reality.
6.2 Influence of the Co-teaching

The study showed that the prevailing co-teaching approach is the “one teach, one assist”, as it is found in the research of Strogilos and Tragoulia (2013), it is also supported from the literature (Friend & Cook, 2013) and confirmed the hypothesis that this co-teaching approach is the one the co-teachers would have employed and the SET would be mainly the assistant of the GET, who would be the leading teacher of the class.

Except from the co-teachers using the “station teaching”, who differ from the rest since they believe that the student with ASD has been benefited “little” academically, there is a consensus that the collaboration is beneficial for the educational and social progress of the students with ASD, regardless of the chosen co-teaching approach. It is also found in the literature that the different co-teaching strategies can address the diverse educational needs of the children with disabilities (Friend et al., 2010, Scruggs et al., 2007). When it comes to the social development of the rest of the students the co-teachers agree that, regardless the co-teaching approach they employ, their collaboration benefits it. The difference is found in the co-teachers views about the educational development of the rest of the students, since the co-teachers who use the “one teach, one observe”, “alternative teaching” and “one teach, one assist” approach believe that the students are benefited from their collaboration, the co-teachers who use the “parallel teaching” approach are divided in half and the ones who use the “station teaching” approach believe that the students are not at all benefited from their collaboration.

In the research question if the method of co-teaching the co-teachers choose to employ influence their views on their collaboration, it is found that the co-teaching method does not influence the views of the co-teachers about their collaboration in every survey item: it does not have an impact in their perceptions about the efficiency of their collaboration, the improvement of their teaching skills through collaborating, the value of collaboration as a professional experience, the benefit from exchanging feedback and their opinion about the main contributor of the collaborative relationship.
Therefore, it is concluded that the co-teaching approach of choice does not fundamentally affect the views of the co-teachers neither on the development of their students, nor on their collaboration in general.

6.3 Shaping the Views of the Co-teachers

In this study the following factors have been examined to determine if they influence the views of the co-teachers about their collaboration: gender, education, experience and working position.

It is found that the gender does not influence the views of the co-teachers, as it is also evident in the research of Staikopoulos (2009).

Concerning the education level of the co-teachers (possessing bachelor or master degrees) it is found that it influences their views on employ of daily planning, on having access in administration support and on employ of sharing feedback. Specifically, as the level of education increases, the use of daily planning and of sharing feedback decreases and the access in administration support increases. These findings imply that the co-teachers with high education degrees, like master degrees, are using less time for planning their daily course of teaching and do not exchange often feedback material to each other, although they receive support from the part of the administration.

The experience-factor is dived in three branches: general teaching experience, collaboration experience and experience teaching in classrooms with students with ASD. The first branch is influencing the access the co-teachers have on teaching aids, meaning that the co-teachers with many years of teaching experience are also those with increased access on teaching aids. The second branch is influencing the views of the co-teachers about being the one who offers more in the collaborative relationship, in the following way: the co-teachers who are more experienced in using collaborative practices believe that they offer the same with their partner. The third branch is not playing any influential role in the forming of the co-teachers’ views.

The last factor examined in this study is the working position. It is found that the working position influence the views of the co-teachers about the value of sharing the management of
the classroom and about the value teaching aids have on the learning procedure. Specifically
the special education co-teachers place more value on sharing the classroom’s management
and on using teaching aids than the general education co-teachers.

Consequently, in the research question if the above factors influence the views of the co-
teachers about their collaboration, the gender has zero influence, the education level influence
their views on employ of daily planning, on having access in administration support and on
employ of sharing feedback, the working position influence their views on the value of
sharing management responsibilities and on the value of teaching aids, and the experience, as
general teaching experience, influence their views on their access on teaching aids, as
experience on collaboration relationships, influence their views on who is the main
contributor of their relationship and, as teaching children with ASD experience, has no
influence on their opinions.

6.4 The Perceptions of the Co-teachers

The prime aim of the study is to explore the views the co-teachers have about their
collaboration, when a student with ASD is included in the classroom. Thus, first, their
perceptions about the degree their collaboration has benefited the educational and social
development of the student with ASD would be analyzed. Both the general and the special
education co-teachers agree that their collaboration is highly beneficial for the educational
advancement of the student with ASD, as well as for the student’s social development and no
significant difference in their answers has been detected. These findings can also be found in
other researches about the academic and social benefits, the collaboration of the teachers have
Ward, 2003,). So in the research question if both the general and the special education
teachers believe that their collaboration has a positive effect in the educational and social
development of all the students, both with ASD and without, the answer is that both parties
agree that their collaboration has benefit all their students in both those areas of development.

Concerning the educational and social development of the rest of the students, the views of
the co-teachers are not as polarized as they are about the development of the student with
ASD. Generally, both the general and the special education teachers believe that their
collaboration benefits the advancement of the “typical” students, which is also supported by the study of Austin (2001) showing the majority of the co-teachers believe co-teaching contributed positively to the academic advancement for all the students, as well as from other researches (Luckner, 1999, Rice & Zigmond, 2000), but not in the same degree as it benefits the student with ASD. It also partially confirmed the hypothesis that both co-teachers would believe that their collaboration has a positive effect in the academic advancement of all their students, but it rejects the part that the co-teachers would believe that their collaboration does not benefit the social development of the students with ASD in the highest possible degree. While there are few co-teachers who believe that their collaboration has benefited in a small degree the academic progress of the students with ASD, there are more of them who believe that their collaboration has benefited in a small or even in zero degree the educational development of the rest of the students. Moreover, it is detected a difference between the general and the special education teacher in the degree they think their collaboration has benefited the educational development of the typical students, with the first to choose the “very much” degree and the latter to choose the “a lot” degree. There are also more co-teachers in the “somewhat” and “a little” categories for the social development of the typical students than there is in the same categories for the social advancement of the students with ASD. Overall, both the general and the special education co-teachers are more skeptical about the benefit their collaboration have on the educational and social progress of the typical students than of the students with ASD.

Concerning their views on their present collaboration, there are no significant differences between the views of the general and the special education teachers, confirming the hypothesis that both co-teachers would be prone to the concept of collaboration. The co-teachers believe that their collaboration is efficient, has improved their teaching skills and is a valued professional experience. Additionally, they confirm that they exchange feedback and have been benefited from that practice. The same results were found in the research of Austin (2001) about the co-teachers perceptions that they collaborate efficient with each other, solicit from each other’s feedback, enhance their teaching and have benefited from the whole collaboration experience. Other researches also support that the co-teachers have benefited on a professional level from their collaboration (Buckley, 2005, Rice & Zigmond, 2000). They also indicate that they are co-equal partners in their collaborative relationship, which is contradictory to the Austin’s findings that both co-teachers believe that the general education teachers offer more in the collaborative relationship, although a significant portion of the
special education co-teachers refuse to reveal their opinion on the matter. That fact suggests a feeling of distress from their part that leads to the assumption that they view themselves as not co-equal partners in the collaborative relationship.

Regarding the co-teachers views on the collaboration practices, the survey shows that there is no significant difference between the perceptions of the general and the special education co-teachers about the value and the employ they have on daily planning, sharing management, sharing delivery instruction, exchanging feedback and sharing responsibility. All in all, they value these collaboration practices, but they use them in a more limited way, confirming the main hypothesis that both co-teachers would value the practice of collaboration and co-teaching, but do not employ it in the same extent. Nevertheless, significant difference is found between the value they have and the use they make on sharing management on behalf of the general education teachers, on sharing teaching practices on behalf of the special education teachers and on exchanging feedback on behalf of the general education teachers. While, on the one hand, the special education teachers value the practice of sharing delivery instruction, on the other they do not employ it on the same extend. The situation is similar for the general education teachers and the practice of sharing management and feedback exchanging: they value the practice but do not employ it on the same extent. Similar findings are mentioned in the survey of Austin (2001) and in the research of Strogilos and Tragoulia (2013) which supports the fact that the general education teachers are the ones responsible for planning and delivering instructions for the class. Furthermore this study shows that the co-teachers define and implement separate responsibilities areas, which is also evident in other researches (Austin 2001, Strogilos, 2012, Kohler-Evans, 2006). Problems in the applying of sharing management and teaching responsibilities, as well as arranging meetings for reflection are not unlikely to happen while the general and special teachers are involved in co-teaching approaches (Friend et al., 2010, Gurgur & Uzuner, 2011, Scruggs et al., 2007). Both co-teachers value the practices of daily planning meetings, shared classroom management and instructional duties but they do not implement them. Additionally, on both the value and the employ categories there are large percentages of co-teachers who do not express their opinion, leading to the assumption that they may have negative perceptions that they do not want to disclose.

At last, the perceptions of the co-teachers about the school-based supports that facilitate collaboration are examined. Once again there is no significance difference in the responses
between the general and the special education teachers, about both the value and the access
they have on time for planning, on support from the administration, on teaching aids, on
training opportunities and opportunities for classroom modifications. The differences are
found between the value and the access both the general and the special education co-teachers
have on every single one of the school-based supports, confirming the assumption that they
would have limited to no access to the providing supports. These findings are supported also
in the study of Austin (2001), which found the same results in this category. There are also
other researches, showing that there is lack of time for planning for the co-teachers, or, even
when there is, it is sporadic, irregular and unofficial and there is insufficient support from the
part of the administration (Carter et al., 2009, Friend & Cook, 2013, Strogilos & Tragoulias,
2013). Moreover, training is a crucial component for achieving a successful co-teaching
(Buckley, 2005, Rice & Zigmond, 2000, Villa et al., 2008) and, although the co-teachers
believe that additional training is necessary, especially in the field of special needs education,
there is little to no provision for training opportunities (Strogilos & Tragoulias, 2013). Both co-
teachers affirm that all these school-based supports are valued and important for their
collaboration, but they are having confined access to them. The greater differences between
the value and the access categories are found in the time for planning, training opportunities
and opportunities for classroom modifications.
7 Conclusion, Limits and Recommendations

Having in mind that the main research question is to investigate the views of both the general and the special education teachers about their collaboration in classrooms including students with ASD in Greece, it is concluded that both parties highly appreciate their collaboration and find it extremely useful for the inclusion of the students with ASD in the classroom environment. The findings from the formulated sub-questions are only supporting that outcome and provide a detailed presentation of its aspects.

7.1 Conclusion

The study aimed to get an insight in the views of the general and special education teachers about their collaboration, which is targeting towards the inclusion of a student with ASD in the mainstream primary schools. The teachers reported that they are pleased from their collaboration and that they find it an enriched and remarkable experience, which help them become better professionals and teachers. They also acknowledge the fact that they both are equal contributors in their collaboration relationship.

The fact that both the general and the special education teachers reported that they have been engaged in collaborative relationships with their colleagues for only 2 years on average, it is an indicator of how extremely new the concepts of collaboration and co-teaching are for the Greek education reality, as it was expected. In the light of that, it can be understandable that the prevailing co-teaching approach is the “one teach, one assist”, as expected, which is the first method of co-teaching the majority of the co-teachers employ before they develop their collaboration. Additionally the law is ambiguous regarding the boundaries and the responsibilities of the co-teachers, clarifying only the part that the special education teachers are placed in the classroom to address the unique educational needs of the children with ASD. Perhaps that is the reason why the co-teachers acknowledge a lack in the supports, the school is supposed to provide, for promoting the collaboration practices.
Factor like gender, education level, experience and working position (general vs special education teachers) are found that, overall, do not influence the shaping of the views of the co-teachers concerning their collaboration. The only important findings on this part are that the special education co-teachers place more value in sharing the management of the classroom than their general education partners, probably because they feel underestimated in the mere role of the assistant, and that they place more value in the use of teaching aids, fact that may derive from their training in the field of special needs education, training which the general education teachers do not acquire. Furthermore the more experienced the co-teachers are in using collaboration practices, they tend to perceive their collaborative partners as co-equal to themselves.

Concerning the educational and social development of the student with ASD, as well as the rest of its “typical” peers, the majority of the co-teachers believe that both their collaboration, in general, and their chosen co-teaching approach, in particular, are beneficial and influence them in a positive way. Nevertheless there were slightly more negative responses on behalf of the progress of the “typical” students, which leads to the conclusion that the co-teachers are more certain about the advantages their collaboration has on the students with ASD than on the rest of their students.

There are no significant differences detected in the perceptions of the general and the special education teachers about how they perceive their collaboration. Their views are quite unanimous both in the value they place on the collaboration, its practices and on the school-based supports, and in the use/access they make/have on the collaboration practices and the support they get from the school services. Significant differences are revealed between the value and the employ/access perceptions. Both co-teachers express their appraisal for the all the collaboration practices, like daily planning meetings, sharing management and teaching responsibilities, exchanging feedback and for all the school-based supports facilitating collaboration, like time for mutual planning, support from the administration, access to teaching aids and opportunities for further training and classroom modifications. On the contrary, they admit that they make limited use of sharing management and teaching responsibilities, as well as feedback exchanging, having, additionally, limited access to the above supports and, consequently, they are asked to collaborate but are not provided with the appropriate utilities for accomplishing that goal.
As it was emphasized in the introductory part, the inclusion of the students with ASD in the Greek mainstream schools is legislated quite recently, providing the co-teachers only with a few years, so far, to familiarize themselves with the collaboration and co-teaching practices. Coupled with the fact that the general education teachers are complete novices in the field of special needs education, it was anticipated that while on the one hand they approve and praise the concept of collaboration, on the other hand, they do not employ it fully and they feel they do not receive the appropriate support. There is still a long way to go for collaboration in Greece and as Murawski (2010) has mentioned, for building an efficient collaboration relationship “baby steps” are in need. Time and perseverance are of the essence, as well as placing the advancement of ALL the students in the center of the attention.

7.2 Limitations of the Study

The present study intended to investigate the views of the general and special education teachers, concerning their collaboration and if they think it influence positively the inclusion of students with ASD in the mainstream elementary schools. Nevertheless, due to limited time for the data collection, the area where the survey was conducted was geographically restricted to only a half of a district, so the conclusions that are drawn, cannot be generalized to a national level. The findings can be generalized for the population of the district, but a survey, which would include samples from more districts, would be more representative for the whole population.

The quantitative nature of the study could be considered as an additional limitation since the goal of the study is to get an insight in the thoughts and opinions of the co-teachers. It is more likely that a mixed method design, including both quantitative and qualitative data, would provide a deeper understanding of the co-teachers perceptions and bring into light a more holistic approach of the subject under study. Additionally the use of only forced-choice questions in the questionnaire has the downside are that they do not take into account the qualifiers of the participants, when they select a specific answer and that there is the possibility for the participants to misunderstand some aspect of the question or to choose an answer thinking that it is the "political correct" answer. The choice of not using open-ended questions was made because they are more time-consuming in filling them out and the co-
teachers may be reluctant to use the appropriate time to answer them. Furthermore no pilot study was conducting due to the limited timetable since the special education teachers were placed in the schools later than it was anticipated.

Since it is the first time for me conducting a quantitative study, I experienced a lot of challenges during the statistical analysis of the data. I used the SPSS system for the first time and I had a hard time deciding upon the appropriate statistical tests I was going to use, how to use them and how to interpret the results. I did the best I could, but as a novice there is always room for improvement.

### 7.3 Suggestions for Further Research

The aim of the current study was to explore the views of the general and special education teachers about their collaboration when there is a student with ASD included in the classroom. Therefore only their subjective opinions were taken into consideration. Further research could include the views of the children themselves (both the children with ASD and their “typical” peers) about their teachers’ collaboration, or even the perceptions of the parents or/and the administration. Apart from the participants views, there could also be examined the actual practice of collaboration, through observation of the collaborative relationship and how it works during the teaching time.

Since the sample size is small and restricted geographically, the same research could be repeated with a larger and more geographically spread sample, for drawing conclusions and generalize them in a broader, even national, level. Additionally the participants can be interviewed, in order to gain a more thorough insight in their thoughts and beliefs and be able to express more freely and share the sheer range of their reflections upon the matter.

Moreover a comparative study would be highly recommended between Greece and a country more experienced in collaboration and co-teaching among teachers. The information that would arise from the data could be useful for the improvement of the current collaboration practice in Greece by detecting the structural gaps in comparison with a more advanced country in this field and by learning from the other country’s successes.
The conclusion of the study implies that there is a gap between the supports the co-teachers should receive for facilitating their collaboration and the support they actually obtain. Thus the state should take these findings into consideration and improve the support services which enhance the collaboration practices. That can result in providing the co-teachers with a more clear framework for their collaboration relationship, by administering to them extra time in the curriculum for mutual planning, motivating them to continue their training by offering education services on collaboration and co-teaching concepts so they would be more prepared and familiarized with those terms and their mechanics and supplying the schools with the appropriate teaching aids for the different learning levels of the students.

Moreover the state should reconsider the practice of relocating the special education personnel every year. The collaboration relationship needs time to thrive, time that the co-teachers do not have in their disposal in the present situation. Even in the cases where the co-teachers achieve to build a good collaboration relationship, they are forced to separate and start again from the top, with different partners the next year. Under these circumstances neither sustainable collaboration relationships can grow, nor it is beneficial for the educational and social progress of the children with ASD, who are in need of stable environments for their advancement.

Additionally, the survey showed that even though all the special education teachers are educated within the field of special needs education, which does not apply in the case of the general education teachers. On the contrary the general education teachers of the sample have no former training within the field of special needs. In that case how can they be competent to implement the concept of inclusion, not only for the students with ASD and other form of disabilities, but also for other minority groups of student?

Overall, education is the key element for the development of the competence level of the teachers both in the field of collaboration and in the field of inclusion. Access to education services and field practice can contribute significantly towards the empowerment of the teaching staff and reinforce the endeavor towards the inclusion of the children with ASD in the mainstream school environment.
References


80


Appendix 1

The original survey instrument «The Perceptions of Co-Teaching Survey» provided by Vance L. Austin

# _____

Perceptions of Co-Teaching Survey

The purpose of this survey is to learn from your experience of collaborative teaching. The results of this survey will be used to help improve teaching practices. Your participation in this survey is voluntary. Your responses will be kept strictly confidential, no identifiers will be used, and all responses will be presented as aggregate data.

PART ONE

Teacher Information

Definition of Terms

Collaborative Teaching or Co-Teaching refers to the assignment of a general education teacher and a special education teacher to work together, sharing responsibility for the planning and execution of instruction.

Collaborative Teachers or Co-Teachers, as defined for the purposes of this study, are general and special education teachers who are teamed for providing instruction to a heterogeneous class for one or more periods of instruction per day.

General Education Teacher refers to any teacher certified to provide instruction in an elementary level classroom or a secondary level subject area.

Special Education Teacher refers to any teacher certified to provide instruction to any student in grades K-12 who is classified as having one or more disabilities.

1. Please mark the grade level of the collaborative class(es) that you teach.

Elementary
Middle School/Junior High
High School

2. Check the content area(s) of the class(es) that you teach collaboratively.

Reading
Social Studies
Sciences
English/Language Arts
Mathematics
Fine Arts
Physical Education/Health
Foreign Language
Business
Technology
ESL/Bilingual
Practical Living/Home and Careers
Other: ____________________ (please specify)

3. Please mark the area of certification in which you are currently employed.
   - SpecialEducation K-12
   - General Education (Elementary K-6)
   - General Education (Secondary 7-12)

4. Check the highest level of education you have achieved.
   - Bachelors
   - Masters
   - Masters +
   - Doctorate

5. How many total years of teaching experience do you have? ________ years

6. What is your gender?
   - Male
   - Female

7. Please write the number of:
   - Years as a collaborative teacher ________ years
   - Years taught with this co-teacher ________ years
   - Number of teachers with whom you co-teach daily ________ teachers
   - Number of classes you teach collaboratively in a day ________ classes
   - Number of subjects you teach collaboratively in a day ________ subjects

8. Did you volunteer for this collaborative teaching experience? Please check one answer.
   - Yes
   - No

PART TWO

Co-Teacher Perceptions of Current Experience

Please circle a number from 1 to 5 to indicate your level of agreement or disagreement with each statement below about co-teaching.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree Neither</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. My co-teaching partner and I work very well together. 1 2 3 4 5
2. Collaboration has improved my teaching. 1 2 3 4 5
3. In my collaborative experience, I do more than my partner. 1 2 3 4 5
4. Co-teaching is a worthwhile professional experience. 1 2 3 4 5
5. My partner and I solicit each other’s feedback and benefit from it. 1 2 3 4 5

Other Comments ________________________________
________________________________
__________________________________________

Recommended Collaborative Practices

Please circle a number from 1 to 5 to indicate your level of agreement or disagreement with each statement below about co-teaching. You are asked to rate each statement according to: (a) your belief in the value of the practice (the column titles “value”), and (b) whether you currently employ the practice (the column titles “employ”).

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Value</th>
<th>Employ</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Co-teachers should meet daily to plan lessons.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>Co-teachers should share classroom management responsibilities.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8</td>
<td>Co-teachers should share classroom instruction.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9</td>
<td>Co-teachers should regularly offer feedback.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10</td>
<td>Co-teachers should establish and maintain specific areas of responsibility.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Other collaborative practices you find effective ________________________________________________
____________________________________________________
____________________________________________________

Teacher Preparation for Collaborative Teaching

What kinds of academic preparation do you think would be beneficial to collaborative teaching? Please circle the number from 1 to 5 beside each of the following academic preparations that best describes your perception of its usefulness to a collaborative teacher.

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Very Useful</th>
<th>Somewhat Useful</th>
<th>Of Limited Use</th>
<th>Not Useful</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Student teaching placement in</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
School-Based Supports that Facilitate Collaborative Teaching

What kinds of school-based services should be provided in order to facilitate collaborative teaching? For the purpose of this study, school-based services are defined as services including teaching materials/equipment, administrative support, and provision of adequate planning time.

Please circle a number from 1 to 5 to indicate the importance you place on each of the following school-based supports. You are asked to rate each statement according to (a) your belief in the value of the school-based service (column titles “Value”) and (b) whether you currently have access to or receive the school based service (column titles “Access”).

<table>
<thead>
<tr>
<th>Very Useful</th>
<th>Somewhat Useful</th>
<th>Of Limited Use</th>
<th>Not Useful</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>5</td>
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</tbody>
</table>

18. Provision for scheduled mutual planning time.  
19. Administrative support of collaboration.  
20. Adequate teaching aids and supplies appropriate to learning levels.  
21. In-service training opportunities provided (workshops, etc.).  
22. Summer planning time allocated.  
23. Opportunities to modify classroom configuration.
Other


Appendix 2

The questionnaire of the present survey and the accompanied information letter in Greek followed by their English translation

Η παρούσα έρευνα γίνεται στο πλαίσιο του Μεταπτυχιακού Προγράμματος Σπουδών του Τομέα Ειδικής Αγωγής της Παιδαγωγικής Σχολής του Πανεπιστημίου του Όσλο, για τις ανάγκες συγγραφής της διπλωματικής εργασίας. Με το παρόν ερωτηματολόγιο επιχειρείται η διερεύνηση των αντιλήψεων των εκπαιδευτικών Γενικής και Ειδικής Αγωγής Πρωτοβάθμιας Εκπαίδευσης ως προς την μεταξύ τους συνεργασία και συνδιδασκαλία αναφορικά με την συνεκπαίδευση (inclusion) ενός παιδιού με αυτισμό στο πλαίσιο της τάξης.

Συνδιδασκαλία ορίζεται ως ένα μοντέλο παροχής υπηρεσιών, όπου δύο εκπαιδευτικοί (συνήθως ένας εκπαιδευτικός γενικής και ένας ειδικής αγωγής) ενώνουν τις ειδικότητές τους για να διδάξουν από κοινού μια ετερογενή ομάδα μαθητών, κάποιοι από τους οποίους μπορεί να έχουν κάποια μορφή αναπηρίας ή άλλες ειδικές ανάγκες, στο πλαίσιο μιας σχολικής τάξης για ένα μέρος ή για την ολότητα μιας σχολικής μέρας (Friend, 2011). Συνεκπαίδευση θεωρείται η πλήρης εκπαιδευτική και κοινωνική ένταξη των παιδιών με ειδικές ανάγκες, μέσα σε μια μαθητική κοινότητα συνομιλήκον (Norwick, 1990). Κατά την εφαρμογή της συνεκπαίδευσης τα παιδιά με ειδικές ανάγκες παρακολουθούν από την αρχή της σχολικής φοίτησης τη συνηθισμένη τάξη, με ή χωρίς παράλληλη διδασκαλία από ειδικό παιδαγωγό, ανάλογα με τη μορφή των δυσκολιών τους. Στην έρευνα μας αναφέρομαστε στην πλήρη ένταξη ή συνεκπαίδευση (inclusion) και όχι στην ένταξη (integration).

Το ερωτηματολόγιο συμπληρώνεται ανώνυμα.

Σας ευχαριστούμε θερμά για τη συμμετοχή σας
Σοφία Σεβαστοπούλου

Ερωτηματολόγιο
Μέρος 1ο

1. Φύλο:
☐ Άνδρας
☐ Γυναίκα

2. Σημειώστε εάν εργάζεστε ως:
☐ Εκπαιδευτικός γενικής αγωγής
☐ Εκπαιδευτικός ειδικής αγωγής

3. Σημειώστε τον υψηλότερο τίτλο σπουδών που έχετε:
☐ Πτυχίο Πανεπιστημίου
☐ Μεταπτυχιακό Δίπλωμα
☐ Διδακτορικό Δίπλωμα

4. Σημειώστε ποιόν/ποιού τίτλους σπουδών έχετε με κατεύθυνση την Ειδική Αγωγή:
☐ Πτυχίο Πανεπιστημίου
☐ Μεταπτυχιακό Δίπλωμα
☐ Διδακτορικό Δίπλωμα
☐ Κανένα από τα παραπάνω

5. Πόσα συνολικά χρόνια διδακτικής εμπειρίας έχετε; _______ χρόνια

6. Είστε εκπαιδευτικός σε τάξη:
☐ Α’ Δημοτικού
☐ Β’ Δημοτικού
☐ Γ’ Δημοτικού
☐ Δ’ Δημοτικού
☐ Ε’ Δημοτικού
☐ Στ’ Δημοτικού

7. Πόσα χρόνια έχετε συνεργαστεί με άλλον εκπαιδευτικό στην ίδια τάξη; ____ χρόνια
8. Πόσα χρόνια έχετε διδάξει σε τάξη με παιδί διαγνωσμένο με αυτισμό; _____ χρόνια

Μέρος 2ο

Απόψεις των εκπαιδευτικών για την τρέχουσα συνεργασία τους

Κυκλώστε την απάντησή σας.

9. Πιστεύετε πως η συνεργασία σας ωφελεί την μαθησιακή εξέλιξη του μαθητή με αυτισμό;

   Πάρα πολύ   Πολύ   Αρκετά   Λίγο   Καθόλου

10. Πιστεύετε πως η συνεργασία σας ωφελεί την κοινωνική εξέλιξη του μαθητή με αυτισμό;

    Πάρα πολύ   Πολύ   Αρκετά   Λίγο   Καθόλου

11. Πιστεύετε πως η συνεργασία σας ωφελεί την μαθησιακή εξέλιξη των υπόλοιπων μαθητών της τάξης;

    Πάρα πολύ   Πολύ   Αρκετά   Λίγο   Καθόλου

12. Πιστεύετε πως η συνεργασία σας ωφελεί την κοινωνική εξέλιξη των υπόλοιπων μαθητών της τάξης;

    Πάρα πολύ   Πολύ   Αρκετά   Λίγο   Καθόλου

13. Ποια/-ες από τις παρακάτω μεθόδους συνδιδασκαλίας χρησιμοποιείτε με τον/την συνάδελφο σας;

   α) ένας διδάσκει, ο άλλος παρατηρεί
   β) σταθμοί διδασκαλίας
   γ) παράλληλη διδασκαλία
   δ) διαφοροποιημένη διδασκαλία
ε) ομαδική διδασκαλία
στ) ένας διδάσκει, ο άλλος βοηθάει

Παρακαλώ κυκλώστε έναν αριθμό από το 1 έως το 5 που θα υποδηλώνει τον βαθμό που συμφωνείτε ή διαφωνείτε με κάθε μια από τις παρακάτω δηλώσεις σχετικά με την τρέχουσα συνεργασία σας.

<table>
<thead>
<tr>
<th>Συμφωνώ απόλυτα</th>
<th>Συμφωνώ</th>
<th>Δεν έχω άποψη</th>
<th>Διαφωνώ</th>
<th>Διαφωνώ απόλυτα</th>
</tr>
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</tbody>
</table>

14. Ο συνεργάτης μου και εγώ δουλεύουμε πολύ καλά μαζί.                1   2   3   4   5
15. Η συνεργασία έχει βελτιώσει την διδασκαλία μου.                         1   2   3   4   5
16. Εγώ προσφέρω περισσότερα στην συνεργασία μας.                                      1   2   3   4   5
17. Η συνδιδασκαλία είναι μια αξιόλογη επαγγελματική εμπειρία.       1   2   3   4   5
18. Ο συνεργάτης μου και εγώ επιζητούμε την ανατροφοδότηση ο ένας του άλλου και επωφελούμαστε από αυτήν.    1   2   3   4   5

Προτεινόμενες πρακτικές συνεργασίας

Παρακαλώ κυκλώστε έναν αριθμό από το 1 έως το 5 που θα υποδηλώνει τον βαθμό που συμφωνείτε ή διαφωνείτε με κάθε μια από τις παρακάτω δηλώσεις σχετικά με την συνδιδασκαλία. Σας ζητείτε να αξιολογήσετε κάθε δήλωση, αναφορικά με α) κατά πόσο πιστεύετε στην αξία της κάθε πρακτικής (η στήλη που τίτλοφορείται ως "αξία") και β) εάν εφαρμόζεται επί του παρόντος την κάθε πρακτική (η στήλη που τίτλοφορείται ως "εφαρμογή").

<table>
<thead>
<tr>
<th>Συμφωνώ απόλυτα</th>
<th>Συμφωνώ</th>
<th>Δεν έχω άποψη</th>
<th>Διαφωνώ</th>
<th>Διαφωνώ απόλυτα</th>
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</thead>
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<td>3</td>
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<td>5</td>
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</tbody>
</table>

Αξία     Εφαρμογή
19. Οι συνδιδάσκαλοι πρέπει να συναντιούνται καθημερινά για να σχεδιάζουν την πορεία διδασκαλίας.

20. Οι συνδιδάσκαλοι πρέπει να μοιράζονται τις ευθύνες διαχείρισης μιας τάξης.

21. Οι συνδιδάσκαλοι πρέπει να μοιράζονται την ευθύνη διδασκαλίας σε μια τάξη.

22. Οι συνδιδάσκαλοι πρέπει να προσφέρουν συχνά υλικό για ανατροφοδότηση ο ένας στον άλλον.

23. Οι συνδιδάσκαλοι πρέπει να καθορίσουν και να διατηρήσουν συγκεκριμένα πεδία ευθυνών.

Δομές του σχολείου που διευκολύνουν την συνεργασία

Παρακαλώ κυκλώστε στον αριθμό από το 1 έως το 5 που υποδεικνύει πόσο σημαντική θεωρείτε κάθε μία από τις παρακάτω σχολικές δομές. Κατατάξτε τις παρακάτω δηλώσεις ανάλογα με α) κατά πόσο πιστεύετε στην αξία της συγκεκριμένης σχολικής δομής (η στήλη που τίτλοφορείται ως "αξία") και β) κατά πόσο έχετε πρόσβαση ή εάν λαμβάνετε επί του παρόντος τη συγκεκριμένη σχολική δομή (η στήλη που τίτλοφορείται ως "πρόσβαση").

<table>
<thead>
<tr>
<th>Αξία:</th>
<th>Πολύ χρήσιμη</th>
<th>Χρήσιμη</th>
<th>Λίγο χρήσιμη</th>
<th>Καθόλου χρήσιμη</th>
<th>Δεν γνωρίζω</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Πρόσβαση:</th>
<th>Πάρα πολύ</th>
<th>Πολύ</th>
<th>Πολύ Λίγο</th>
<th>Ελάχιστα</th>
<th>Καθόλου</th>
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<tbody>
<tr>
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<td>4</td>
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<table>
<thead>
<tr>
<th>Αξία</th>
<th>Πρόσβαση</th>
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<td></td>
</tr>
</tbody>
</table>

95
24. Παροχή χρόνου για από κοινού προγραμματισμό της διδασκαλίας. 1 2 3 4 5 1 2 3 4 5
25. Υποστήριξη της διεύθυνσης για την συνεργασία. 1 2 3 4 5 1 2 3 4 5
26. Διδακτικό και βοηθητικό υλικό κατάλληλο για το επίπεδο μάθησης των μαθητών. 1 2 3 4 5 1 2 3 4 5
27. Υπηρεσίες για επιπλέον κατάρτιση. 1 2 3 4 5 1 2 3 4 5
28. Ευκαιρίες για την τροποποίηση της διαμόρφωσης της τάξης. 1 2 3 4 5 1 2 3 4 5

Σας ευχαριστώ για τον χρόνο σας!

Translation in English:

The present survey is contacted in the context of the Master Programme of the Department of Special Needs Education of the Faculty of Education, University of Oslo, for the writing of my master thesis. The present questionnaire attempts to explore the perceptions of the general and special education teachers of the primary schools about their collaboration and co-teaching experiences, towards the inclusion of a child with autism in the classroom environment.

Co-teaching is defined as a service delivery model in which two educators (typically one general education teacher and one special education teacher) combine their expertise to jointly teach a heterogeneous group of students, some of whom may have disabilities or other special needs, in a single classroom for part of or all the school day (Friend, 2011). Inclusion is considered the complete educational and social integration of children with special needs, within the school community of their peers (Norwick, 1990). For implementing the inclusion, the children with special needs attend from the beginning of their studies the mainstream classroom, with or without the support of a special education teacher, depending on the degree of their needs. The present survey is referring in the inclusion rather than the integration of the children with special needs.
The questionnaire is completed anonymously.

Thank you for your participation

Sofia Sevastopoulou

**Questionnaire**

*Part 1*

1. What is your gender?
   Male
   Female

2. Please mark the area of certification in which you are currently employed.
   General Education
   Special Education

3. Check the *highest* level of education you have achieved.
   Bachelors
   Masters
   Doctorate

4. Check the academic certifications you have on Special Education.
   Bachelors
   Masters
   Doctorate
   None of the above

5. How many years of teaching experience do you have? _____ years
6. Check the level of the class you are currently teaching in.
1st grade
2nd grade
3rd grade
4th grade
5th grade
6th grade

7. How many years have you exercised co-teaching?  ____years

8. How many years have you taught in a classroom with a child with autism?  ____years

**Part 2**

Co-Teacher Perceptions of Current Experience

Circle your answer.

9. Do you believe that your current collaboration benefits the student with autism in his/her academical development?

   Very much      A lot      Enough      A little      Not at all

10. Do you believe that your current collaboration benefits the student with autism in his/her social development?

    Very much      A lot      Enough      A little      Not at all

11. Do you believe that your current collaboration benefits the rest of the students in their academical development?

    Very much      A lot      Enough      A little      Not at all
12. Do you believe that your current collaboration benefits the rest of the students in their social development?

Very much    A lot    Enough    A little    Not at all

13. Which of the following co-teaching approaches do you use currently with your partner?

one teach, one observe
station teaching
parallel teaching
alternative teaching
teaming
one teach, one assist

Please circle a number from 1 to 5 to indicate your level of agreement or disagreement with each statement below about co-teaching.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>I have no opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

14. My co-teaching partner and I work very well together.

15. Collaboration has improved my teaching.

16. In my collaborative experience, I do more than my partner.

17. Co-teaching is a worthwhile professional experience.

18. My partner and I solicit each other’s feedback and benefit from it.

**Recommended Collaborative Practices**

Please circle a number from 1 to 5 to indicate your level of agreement or disagreement with each statement below about co-teaching. You are asked to rate each statement according to: (a) your belief in the value of the practice (the column titles “value”), and (b) whether you currently employ the practice (the column titles “employ”).
Strongly Agree       Agree       I have no opinion       Disagree       Strongly Disagree
1                     2                     3                     4                     5

Value                         Employ

19. Co-teachers should meet daily to plan lessons.  1 2 3 4 5  1 2 3 4 5
20. Co-teachers should share classroom management responsibilities.  1 2 3 4 5  1 2 3 4 5
21. Co-teachers should share classroom instruction.  1 2 3 4 5  1 2 3 4 5
22. Co-teachers should regularly offer feedback.  1 2 3 4 5  1 2 3 4 5
23. Co-teachers should establish and maintain specific areas of responsibility.  1 2 3 4 5  1 2 3 4 5

School-Based Supports that Facilitate Collaborative Teaching

Please circle a number from 1 to 5 to indicate the importance you place on each of the following school-based supports. You are asked to rate each statement according to (a) your belief in the value of the school-based service (column titles “Value”) and (b) whether you currently have access to or receive the school based service (column titles “Access”).

Value: Very Useful    Somewhat Useful    Of Limited Use    Not Useful    Don’t know
1                             2                              3                     4                    5

Access:     All the time        A lot        Little        Very little       Not at all
1                    2               3                  4                    5

Value       Access

24. Provision for scheduled mutual  1 2 3 4 5  1 2 3 4 5
planning time.

25. Administrative support of collaboration.

26. Adequate teaching aids and supplies appropriate to learning levels.

27. In-service training opportunities provided (workshops, etc.).

28. Opportunities to modify classroom configuration.

Thank you for your time!
# Appendix 3

## Summary Table of Frequencies

### Demographic part

<table>
<thead>
<tr>
<th>Question</th>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: What gender are you?</td>
<td></td>
<td>GET</td>
<td>SET</td>
</tr>
<tr>
<td>Q2: What is your working position?</td>
<td>GET</td>
<td>SET</td>
<td>16</td>
</tr>
<tr>
<td>Q3: What is the higher level of education you have achieved?</td>
<td>Bachelor</td>
<td>Master</td>
<td>Doctorate</td>
</tr>
<tr>
<td>Q4: What is the higher degree you have on Special Education?</td>
<td>Bachelor</td>
<td>Master</td>
<td>Doctorate</td>
</tr>
<tr>
<td>Q5: How many years of teaching experience do you have?</td>
<td>0-10 years</td>
<td>11-20 years</td>
<td>21 years and up</td>
</tr>
<tr>
<td>Q6: How many years have you been collaborating?</td>
<td>1 year</td>
<td>2 years</td>
<td>3 years</td>
</tr>
</tbody>
</table>
**Q7:** How many years have you taught in a classroom with a student with ASD?

<table>
<thead>
<tr>
<th>1 year</th>
<th>2 years</th>
<th>3 years</th>
<th>4 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
</tr>
<tr>
<td>11</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Q8:** What is the level of the class you are currently teaching in?

<table>
<thead>
<tr>
<th>1st grade</th>
<th>2nd grade</th>
<th>3rd grade</th>
<th>4th grade</th>
<th>5th grade</th>
<th>6th grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Co-teachers Perceptions of Current Experience**

**Q9:** Do you believe that your current collaboration benefits the student with ASD in his/her academic development?

<table>
<thead>
<tr>
<th>Very much</th>
<th>A lot</th>
<th>Somewhat</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Q10:** Do you...
<table>
<thead>
<tr>
<th>Q11: Do you believe that your current collaboration benefits the student with ASD in his/her social development?</th>
<th>Very much</th>
<th>A lot</th>
<th>Somewhat</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>5</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Q12: Do you believe that your current collaboration benefits the rest of the students in their academic development?</th>
<th>Very much</th>
<th>A lot</th>
<th>Somewhat</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Q13: Which of the following co-teaching approaches do you use currently with your partner?

<table>
<thead>
<tr>
<th>Approach</th>
<th>One teach, one observe</th>
<th>Station teaching</th>
<th>Parallel teaching</th>
<th>Alternative teaching</th>
<th>Teaming</th>
<th>One teach, one assist</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
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<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Q14: My co-teaching partner and I work very well together.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET SET GET SET GET SET GET SET</td>
<td>11</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

Q15: Collaboration has improved my teaching.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET SET GET SET GET SET GET SET</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

Q16: In my collaborative experience, I do more than my partner.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET SET GET SET GET SET GET SET</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Q17: Co-teaching is a worthwhile professional experience.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
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<tbody>
<tr>
<td>GET SET GET SET GET SET GET SET</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Q18: My partner

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>
and I solicit each other's feedback and benefit from it.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q19a: Co-teachers should meet daily to plan lessons. (value)</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
</tr>
<tr>
<td>Q19b: Co-teachers should meet daily to plan lessons. (employ)</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
</tr>
<tr>
<td>Q20a: Co-teachers should share classroom management responsibilities. (value)</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
</tr>
<tr>
<td>Q20b: Co-teachers should share classroom management responsibilities. (employ)</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
<td>SET</td>
<td>GET</td>
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</table>

Recommended Collaborative Practices
<table>
<thead>
<tr>
<th>Question</th>
<th><strong>Co-teachers should share classroom instruction. (value)</strong></th>
<th><strong>Strongly agree</strong></th>
<th><strong>Agree</strong></th>
<th><strong>No opinion</strong></th>
<th><strong>Disagree</strong></th>
<th><strong>Strongly disagree</strong></th>
</tr>
</thead>
<tbody>
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<td>Q21a:</td>
<td>GET SET GET SET GET SET GET SET GET SET GET SET SET</td>
<td></td>
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<td></td>
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<td></td>
<td>2 8 6 5 2 2 5 2 1 1</td>
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<td>Q21b:</td>
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<td>Q22b:</td>
<td>GET SET GET SET GET SET GET SET GET SET GET SET SET</td>
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</table>
establish and maintain specific areas of responsibility.

<table>
<thead>
<tr>
<th>Q24a: Provision for scheduled mutual planning time. (value)</th>
<th>Very Useful</th>
<th>Somewhat Useful</th>
<th>Of Limited Use</th>
<th>Not Useful</th>
<th>Don’t know</th>
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<tr>
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<th>All the time</th>
<th>A lot</th>
<th>Little</th>
<th>Very little</th>
<th>Not at all</th>
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</table>

<table>
<thead>
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<th>Q25a: Administrative support of collaboration. (value)</th>
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<th>Somewhat Useful</th>
<th>Of Limited Use</th>
<th>Not Useful</th>
<th>Don’t know</th>
</tr>
</thead>
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<table>
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<tr>
<th>Q25b: Administrative support of collaboration. (access)</th>
<th>All the time</th>
<th>A lot</th>
<th>Little</th>
<th>Very little</th>
<th>Not at all</th>
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<table>
<thead>
<tr>
<th>Q26a: Adequate teaching</th>
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<th>Somewhat Useful</th>
<th>Of Limited Use</th>
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<td>Q26b: Adequate teaching aids and supplies appropriate to learning levels. (value)</td>
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<td>A lot</td>
<td>Little</td>
<td>Very little</td>
<td>Not at all</td>
</tr>
<tr>
<td>---------------------------------</td>
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<table>
<thead>
<tr>
<th>Q27a: In-service training opportunities provided (workshops, etc.). (value)</th>
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<th>Somewhat Useful</th>
<th>Of Limited Use</th>
<th>Not Useful</th>
<th>Don’t know</th>
</tr>
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<table>
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<tr>
<th>Q27b: In-service training opportunities provided (workshops, etc.). (access)</th>
<th>All the time</th>
<th>A lot</th>
<th>Little</th>
<th>Very little</th>
<th>Not at all</th>
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</table>

<table>
<thead>
<tr>
<th>Q28a: Opportunities to modify classroom configuration. (value)</th>
<th>Very Useful</th>
<th>Somewhat Useful</th>
<th>Of Limited Use</th>
<th>Not Useful</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Q28b: Opportunities to modify classroom configuration. (access)</td>
<td>All the time</td>
<td>A lot</td>
<td>Little</td>
<td>Very little</td>
<td>Not at all</td>
</tr>
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<td>4 5</td>
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## Appendix 4

### T-Test of Paired Samples Tables

#### Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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</thead>
<tbody>
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<td>Pair 1 Years of Experience (gen)</td>
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<td>16</td>
<td>8,65616</td>
<td>2,16404</td>
</tr>
<tr>
<td></td>
<td>3,7500</td>
<td>16</td>
<td>2,88675</td>
<td>.72169</td>
</tr>
</tbody>
</table>

#### Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 Years of</td>
<td>16</td>
<td>-.251</td>
<td>.348</td>
</tr>
<tr>
<td>Experience (gen) &amp; Years of Experience (spe)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Paired Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Std. Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>9,78924</td>
<td>2,44731</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>16</td>
<td>9,47118</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>19,90382</td>
<td>6,001</td>
</tr>
<tr>
<td></td>
<td>Upper</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>tailed)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 Experience Teaching Child with ASD (spe)</td>
<td>2,0000</td>
<td>16</td>
<td>.96609</td>
<td>.24152</td>
</tr>
<tr>
<td></td>
<td>1,3125</td>
<td>16</td>
<td>.47871</td>
<td>.11968</td>
</tr>
</tbody>
</table>

#### Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 Experience Teaching Child with ASD (spe) &amp; Experience Teaching Child with ASD (gen)</td>
<td>16</td>
<td>-.288</td>
<td>.279</td>
</tr>
</tbody>
</table>
## Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Std. Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Experience Teaching Child with ASD (spe) - Experience Teaching Child with ASD (gen)</td>
<td>.68750</td>
<td>1.19548</td>
<td>.29887</td>
<td>.05047</td>
<td>1.32453</td>
<td>2.300</td>
</tr>
</tbody>
</table>

The table above presents the paired samples test results for comparing the experience teaching child with ASD (spe) and the experience teaching child with ASD (gen). The results show a statistically significant difference (p < .05) between the two groups.
Appendix 5

Spearman’s Correlation Test Tables

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Experience (Years)</th>
<th>Teaching Aids (Access)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's rho</td>
<td>Correlation Coefficient</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Teaching Aids (Access)</td>
<td>Correlation Coefficient</td>
<td>-.383*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.025</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Collaboration (Years)</th>
<th>Offering More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's rho</td>
<td>Correlation Coefficient</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Offering More</td>
<td>Correlation Coefficient</td>
<td>.471**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.005</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).
Appendix 6

Mann-Whitney U Test Tables

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Education</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Planning (Employ)</td>
<td>bachelor</td>
<td>28</td>
<td>15.70</td>
<td>439.50</td>
</tr>
<tr>
<td></td>
<td>master</td>
<td>6</td>
<td>25.92</td>
<td>155.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Statistics(^a)</th>
<th>Daily Planning (Employ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>33,500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>439,500</td>
</tr>
<tr>
<td>Z</td>
<td>-2.411</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.016</td>
</tr>
<tr>
<td>Exact Sig. [2*(1-tailed Sig.)]</td>
<td>.020(^b)</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Education
b. Not corrected for ties.

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Education</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Feedback (Employ)</td>
<td>bachelor</td>
<td>28</td>
<td>15.48</td>
<td>433.50</td>
</tr>
<tr>
<td></td>
<td>master</td>
<td>6</td>
<td>26.92</td>
<td>161.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Statistics(^a)</th>
<th>Shared Feedback (Employ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>27,500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>433,500</td>
</tr>
<tr>
<td>Z</td>
<td>-2.692</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.007</td>
</tr>
</tbody>
</table>
Exact Sig. [2*(1-tailed Sig.)] .008a

a. Grouping Variable: Education
b. Not corrected for ties.

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Education</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administration Support (Access)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bachelor</td>
<td>Administration Support (Access)</td>
<td>28</td>
<td>19,05</td>
<td>533,50</td>
</tr>
<tr>
<td>master</td>
<td>Administration Support (Access)</td>
<td>6</td>
<td>10,25</td>
<td>61,50</td>
</tr>
<tr>
<td>Total</td>
<td>Administration Support (Access)</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Test Statisticsa | Administration Support (Access) |     |           |              |
|                 | Mann-Whitney U    | 40,500 |           |              |
|                 | Wilcoxon W       | 61,500 |           |              |
|                 | Z                | -2,050 |           |              |
|                 | Asymp. Sig. (2-tailed) | .040 |           |              |
|                 | Exact Sig. [2*(1-tailed Sig.)] | .047b |           |              |

a. Grouping Variable: Education
b. Not corrected for ties.

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Work Position</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shared Management (Value)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>general educator</td>
<td>Shared Management (Value)</td>
<td>16</td>
<td>21,13</td>
<td>338,00</td>
</tr>
<tr>
<td>special educator</td>
<td>Shared Management (Value)</td>
<td>18</td>
<td>14,28</td>
<td>257,00</td>
</tr>
<tr>
<td>Total</td>
<td>Shared Management (Value)</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Test Statisticsa | Shared Management (Value) |     |           |              |
|                 | Mann-Whitney U     | 86,000 |           |              |
|                 | Wilcoxon W         | 257,000 |           |              |
|                 | Z                | -2,132 |           |              |
|                 | Asymp. Sig. (2-tailed) | .033 |           |              |
|                 | Exact Sig. [2*(1-tailed Sig.)] | .046b |           |              |

a. Grouping Variable: Work Position
b. Not corrected for ties.
### Ranks

<table>
<thead>
<tr>
<th>Work Position</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Aids (Value)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>general educator</td>
<td>16</td>
<td>20.50</td>
<td>328.00</td>
</tr>
<tr>
<td>special educator</td>
<td>18</td>
<td>14.83</td>
<td>267.00</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Test Statistics

<table>
<thead>
<tr>
<th>Teaching Aids (Value)</th>
<th>Mann-Whitney U</th>
<th>Wilcoxon W</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
<th>Exact Sig. [2*(1-tailed Sig.)]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>96,000</td>
<td>267,000</td>
<td>-.2055</td>
<td>.045</td>
<td>.102b</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Work Position  
b. Not corrected for ties.
## Appendix 7

### Wilcoxon Matched – Pairs Signed Ranks Test Tables

<table>
<thead>
<tr>
<th>Ranks</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Sharing Management (gen) - Employ Sharing Management (gen)</td>
<td>5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.00</td>
<td>15.00</td>
</tr>
<tr>
<td></td>
<td>0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>11&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th>Value Sharing Management (gen) - Employ Sharing Management (gen)</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-2.070&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.038</td>
</tr>
</tbody>
</table>

**Notes:**

- a. Value Sharing Management (gen) < Employ Sharing Management (gen)
- b. Value Sharing Management (gen) > Employ Sharing Management (gen)
- c. Value Sharing Management (gen) = Employ Sharing Management (gen)

### Value Sharing Teaching (spe) - Employ Sharing Teaching (spe)

<table>
<thead>
<tr>
<th>Ranks</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Sharing Teaching (spe) - Employ Sharing Teaching (spe)</td>
<td>8&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.13</td>
<td>41.00</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>9&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th>Value Sharing Teaching (spe) - Employ Sharing Teaching (spe)</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.00</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Notes:**

- a. Value Sharing Teaching (spe) < Employ Sharing Teaching (spe)
- b. Value Sharing Teaching (spe) > Employ Sharing Teaching (spe)
- c. Value Sharing Teaching (spe) = Employ Sharing Teaching (spe)
### Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>Value Sharing Teaching (spe) - Employ Sharing Teaching (spe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-2.308&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.021</td>
</tr>
</tbody>
</table>

a. Wilcoxon Signed Ranks Test  
b. Based on positive ranks.

<table>
<thead>
<tr>
<th>Ranks</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Sharing Feedback (gen) - Employ Sharing Feedback (gen)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Ranks</td>
<td>5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Ties</td>
<td>11&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Value Sharing Feedback (gen) < Employ Sharing Feedback (gen)  
b. Value Sharing Feedback (gen) > Employ Sharing Feedback (gen)  
c. Value Sharing Feedback (gen) = Employ Sharing Feedback (gen)

### Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>Value Sharing Feedback (gen) - Employ Sharing Feedback (gen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-2.236&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.025</td>
</tr>
</tbody>
</table>

a. Wilcoxon Signed Ranks Test  
b. Based on positive ranks.

<table>
<thead>
<tr>
<th>Ranks</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Planning Time (gen) - Access Planning Time (gen)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Ranks</td>
<td>14&lt;sup&gt;a&lt;/sup&gt;</td>
<td>7.50</td>
<td>105.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Ties</td>
<td>2&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Value Planning Time (gen) < Access Planning Time (gen)  
b. Value Planning Time (gen) > Access Planning Time (gen)
c. Value Planning Time (gen) = Access Planning Time (gen)

### Test Statistics

<table>
<thead>
<tr>
<th>Value Planning Time (gen) - Access Planning Time (gen)</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-3.370&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.001</td>
</tr>
</tbody>
</table>

-<sup>a</sup> Wilcoxon Signed Ranks Test
-<sup>b</sup> Based on positive ranks.

### Ranks

<table>
<thead>
<tr>
<th>Value Planning Time (spe) - Access Planning Time (spe)</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Ranks</td>
<td>15&lt;sup&gt;a&lt;/sup&gt;</td>
<td>8.00</td>
<td>120.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Ties</td>
<td>3&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-<sup>a</sup> Value Planning Time (spe) < Access Planning Time (spe)
-<sup>b</sup> Value Planning Time (spe) > Access Planning Time (spe)
-<sup>c</sup> Value Planning Time (spe) = Access Planning Time (spe)

### Test Statistics

<table>
<thead>
<tr>
<th>Value Planning Time (spe) - Access Planning Time (spe)</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-3.453&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.001</td>
</tr>
</tbody>
</table>

-<sup>a</sup> Wilcoxon Signed Ranks Test
-<sup>b</sup> Based on positive ranks.

### Ranks

<table>
<thead>
<tr>
<th>Value Supportive - Access Supportive (gen)</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Ranks</td>
<td>8&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.50</td>
<td>36.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Ties</td>
<td>8&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Test Statistics

<table>
<thead>
<tr>
<th>Value Supportive Administration (gen) - Access Supportive Administration (gen)</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-2.588&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**a. Wilcoxon Signed Ranks Test**

**b. Based on positive ranks.**

### Ranks

<table>
<thead>
<tr>
<th>Value Supportive Administration (spe) - Access Supportive Administration (spe)</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Ranks</td>
<td>9&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.67</td>
<td>51.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Ties</td>
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<tr>
<td>Total</td>
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</table>

**a. Value Supportive Administration (spe) < Access Supportive Administration (spe)**

**b. Value Supportive Administration (spe) > Access Supportive Administration (spe)**

**c. Value Supportive Administration (spe) = Access Supportive Administration (spe)**

### Test Statistics

<table>
<thead>
<tr>
<th>Value Supportive Administration (spe) - Access Supportive Administration (spe)</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
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<tbody>
<tr>
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**a. Wilcoxon Signed Ranks Test**

**b. Based on positive ranks.**
### Ranks

<table>
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<tr>
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<th>Value Teaching Aids (gen) - Access Teaching Aids (gen)</th>
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<th>Mean Rank</th>
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- a. Value Teaching Aids (gen) < Access Teaching Aids (gen)
- b. Value Teaching Aids (gen) > Access Teaching Aids (gen)
- c. Value Teaching Aids (gen) = Access Teaching Aids (gen)

#### Test Statistics

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- a. Wilcoxon Signed Ranks Test
- b. Based on positive ranks.

### Ranks

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<thead>
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- a. Value Teaching Aids (spe) < Access Teaching Aids (spe)
- b. Value Teaching Aids (spe) > Access Teaching Aids (spe)
- c. Value Teaching Aids (spe) = Access Teaching Aids (spe)

#### Test Statistics

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a. Wilcoxon Signed Ranks Test
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a. Value Training Opportunities (gen) < Access Training Opportunities (gen)
b. Value Training Opportunities (gen) > Access Training Opportunities (gen)
c. Value Training Opportunities (gen) = Access Training Opportunities (gen)

### Test Statistics<sup>a</sup>

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</table>

a. Wilcoxon Signed Ranks Test
b. Based on positive ranks.

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<tr>
<td>Ties</td>
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a. Value Training Opportunities (spe) < Access Training Opportunities (spe)
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c. Value Training Opportunities (spe) = Access Training Opportunities (spe)

### Test Statistics<sup>a</sup>
### Value Training Opportunities (spe) - Access Training Opportunities (spe)

<table>
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a. Wilcoxon Signed Ranks Test  
b. Based on positive ranks.

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a. Wilcoxon Signed Ranks Test  
b. Based on positive ranks.

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<table>
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a. Wilcoxon Signed Ranks Test
b. Based on positive ranks.