



## ARE GREEK SPECIAL EDUCATION TEACHERS IN FAVOUR OF THE INCLUSION OF PUPILS WITH INTELLECTUAL DISABILITY? AN ONLINE SURVEY

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### **Abstract:**

Few studies have been conducted in Greece focusing on the inclusion of pupils with Intellectual Disability (ID) in general classes. The aim of this quantitative study was to explore the attitudes of Special Education Teachers (SETs or SET) towards the inclusion of pupils with ID in general classes. A structured questionnaire was sent out. It consisted of 10 demographic questions and of 6 structured closed-ended questions about the inclusion of this group of pupils in general classes, using a 5-point Likert scale. The study sample consisted of 150 SETs [129 (86%) females and 21 (14%) males]. The questionnaire data were analysed via descriptive and inferential statistics (SPSS version 21). The results of the research showed that the majority of SETs had a positive attitude towards the fact that the special and general education teacher should jointly adapt the classroom according to the needs of the pupil with ID and that inclusive education is appropriate for these pupils. The SETs had a neutral to positive attitude about whether pupils with ID should be educated in general settings with pupils without disabilities and whether they should be removed less frequently from general education settings in order to be given more help with their difficulties. Finally, there were some dependent variables that played a major role in participants' responses, such as education, work experience, work and the structure of employment. In conclusion, SETs point out that they are in favour of the inclusion of pupils with ID. Finally, the results of the study are discussed.

**Keywords:** special education teachers, Greece, inclusion, attitudes, intellectual disability

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## 1. Introduction

Attitudes, knowledge and perceptions about the education of children with special educational needs and disabilities (SEND) have changed profoundly over recent years. There has been a major shift from educating children with SEND in a segregated environment towards increasingly including them in general classes (Hastings & Oakford, 2003; O'Leary, Henderson, Jacobs & Cooper, 2016). That is why in recent decades inclusive education has been a recurring theme in educational reforms (Civitillo, De Moor & Vervloed, 2016).

Inclusive education is a timely issue that concerns many researchers both in Greece and abroad. It constitutes a new impetus for the development of today's school. In fact, it is an applied policy, a philosophy of pioneering change in its broadest sense. It can be viewed as a dynamic and ongoing process of organisational and pedagogical reorganisation. Its main goal is to prevent student segregation and isolation by embracing diversity and advocating for a common curriculum for all pupils based on various fundamental principles, such as equal opportunities, educational equity, and social justice (Gallego-Ortega & Rodríguez-Fuentes, 2021, p. 2). Ainscow (2005) defines inclusive education as a process whose main objective is the inclusion of all pupils with SEND in school in order to have learning outcomes and conditions to further their social development. In practice, inclusion means teaching in heterogeneous classes in which pupils with varying individual needs exist (Takala, Pirttimaa & Törmänen, 2009). It is about the active presence, meaningful participation and acceptance of the pupil with SEND in a general education classroom (Humphrey & Lewis, 2008). It ensures a feeling of 'belonging' and the shared responsibility of teachers for all pupils in the school (Takala et al., 2009). Proper functioning of inclusion means accepting diversity and removing exclusion at all levels (social, economic, academic, racial, gender, etc.) (Slee, 2011), adapting teaching (pedagogical methods) and curriculum, teacher collaboration, and support from the headmaster/director of the school (Takala et al., 2009). It is, therefore, according to Stasinou (2016, p. 59) *"the design of a curriculum and an organisational strategy in mainstream schools that respond to the full spectrum of pupil diversity and diversity as a whole"*. In short, the term "inclusion" refers not only to the placement of a child with SEND in the regular school, but also to the conditions under which all children can be effectively educated (Angelides, Stylianou & Gibbs, 2006). Soulis (2008) correctly states that inclusion is not just a personal matter of SETs in the general school, thereby relieving the general education teacher of responsibility for its implementation. Inclusion can only be realised and achieved when all stakeholders are involved. For this reason, teachers are required to create learning environments that encourage the use of practices to empower these pupils. Consistent inclusion requires teachers with high levels of self-efficacy (Slee, 2010) and positivity around accepting children identified with special educational needs (Pantic & Florian, 2015). Teacher cooperation is essential. Hughes and Murawski (2001) consider that collaboration means interaction between at least two teachers with different

specialisations and includes dialogue, planning, shared and creative decision-making, as well as feedback aimed at providing appropriate services to pupils.

There is a widespread belief that the effectiveness of inclusion is dependent on the role of teachers. Teachers are regarded as one of the most important factors in promoting or obstructing inclusion processes. Both general and special educators are the primary agents responsible for creating less restricted environments in their classrooms. Their beliefs will be defining for the classroom behaviours observed, as these conceptions have a huge influence on their attitudes and inclusive practices when it comes to meeting the needs of pupils with SEND (Jordan, 2018, as cited in Gallego-Ortega & Rodríguez-Fuentes, 2021). Attitude is defined as a person's proclivity to think (cognitive component i.e. thoughts, knowledge and beliefs about the attitude object), feel (affective component, i.e., feelings toward the attitude object), and behave (behavioural component, i.e., intended behaviour toward the attitude object) in certain ways toward certain defined targets (Arnold, Silvester, Patterson, Robertson, Cooper & Burnes, 2005; Krischler & Pitten Cate, 2019). Attitudes toward inclusion among teachers were found to be related to specific types of disability (Avramidis, Bayliss, & Burden 2000a), experience with inclusive education (Avramidis & Norwich, 2002), and class size (Moberg, 2003).

According to Avramidis, Bayliss and Burden (2000b) teacher attitudes can act either to facilitate or limit the implementation of policies. The success of innovative and demanding programming depends on the cooperation and commitment of those who are directly involved. Teacher attitude is a variable that can positively or negatively affect the implementation of an inclusion programme and educational practice; that is the teaching interventions that teachers will choose for children, whether they are to be successful and effective (de Boer, Pijl & Minnaert, 2011), as well as the teaching goals of their educational interventions (Padeliadu et al., 1998, p. 14, as cited in Mavropoulou & Padeliadu, 2000).

The findings of studies on teachers' attitudes on inclusion have revealed a perplexing picture (de Boer et al., 2011). Teacher's positive attitudes and expectations are critical for successful inclusion (de Boer et al., 2011), and especially for the outcomes of pupils with SEND (Male, 2011). Also, teachers who have a positive attitude toward inclusion are more willing to modify their approaches in order to benefit all learners with a variety of learning needs (Subban & Sharma, 2006). While the majority appears to support inclusive education (Rose, 2001), there are teachers who do not want to be involved in inclusive education in their own teaching practice (Anderson, Klassen, & Georgiou, 2007). Also, a study by Hettiarachchi and Das (2014) revealed that diversity in school and classroom populations may induce higher stress levels in mainstream teachers.

Inclusion also applies to pupils with ID, and the benefits are many and lasting, especially with regard to the social benefits of interacting with classmates within the general classroom. ID is a condition with reduced or incomplete development, which does not allow the person to keep up with the social environment (Luckasson, Borthwick-Duffy, Buntinx, Coulter, Craig, & Reeve 2002). According to the American Association of

Intellectual and Developmental Disability, ID is characterised by significant constraints in both intellectual function and adaptive behaviour which is manifested in conceptual, social and practical adaptive skills. It is diagnosed before the age of 22 (AAIDD, n.d.; Schalock, Luckasson, & Tassé, 2021). ID is determined by individual standard assessment providing ratings below 70 (100 being the population average), and the impaired ability to adapt to the demands of normal life. ID affects about 1 to 3 percent of the population (Luckasson et al., 2002).

Given the literature's general agreement that the success of policies of inclusion, acceptance, and accommodation of pupils with ID in general education settings is dependent on teachers' attitudes (Varcoe & Boyle, 2014), and that inclusion can only be achieved if teachers are supported in developing all aspects of knowing, doing, and believing (Loreman, Sharma, & Forlin 2013), an understanding of their attitudes toward the concept and process of inclusion appears critical (e.g., Khochen & Radford, 2012; Lappa & Mantzikos, 2018).

## 2. The Greek context

In Greece, there are a number of laws and presidential decrees which were introduced to determine how to educate pupils with SEND in special and general education classrooms. Article 1 of the first such piece of legislation, Law 1143/1981, defines the student population, the intentions of the special education provided and the principles for the establishment of the study structures. The goal of this law is to provide special education and specialised vocational training to people who deviate from what is considered normal, as well as to introduce social measures and promote their subsequent integration into social life and professional productivity, by implementing specific educational programmes in conjunction with medical and other social issues.

In the mid-1980s, Law 1566/1985 was introduced, which continued more or less in the same manner as the aforementioned law. In 2000, Law 2817 introduced the operation of KEDDY (Greek Public Diagnostic and Assessment Centres for the Support of Special Educational Needs) at the headquarters of each prefecture. In addition, pupils with SEND can attend a general education class while receiving parallel support (in-class support) or in a specially organised and staffed integration class which functions in the mainstream education setting and is provided by a SET. The SET may help these pupils in some or all courses depending on their needs (Sarris, Riga & Zaragas, 2018). Finally, in the same line as the previous law is the Law 3699/2008 on Special Education (Deropoulou-Derou, 2012).

Based on this law, pupils with SEND may attend general education classes (Parallel Support or Integration Class) based on the judgement and written declaration of the KEDDY [later called Educational and Counseling Support Centres (KESY) and now Counseling and Support Evaluation Diagnostic Centres (KEDASY)]. Moreover, in providing general education classes a basic criterion is the type as well as the degree of disability of the student, with priority being given to those who are blind or diagnosed

with Autistic Spectrum Condition (Drakotou & Zoniou-Sideri, 2016; Kontoleon & Deropoulou-Derou, 2013; Lampadari & Garavelas, 2018; Novakos, 2018).

The aim of integration classes was redefined by Law 4368/2016 (Article 82) (Government Gazette 21/A/2016) in order to prevent learners from being discriminated against because they were pulled out of mainstream classes to attend integration classes. The fundamental goal of integration courses, according to Law 4368/2016, is for children with SEND to be fully integrated into the classroom environment. In this environment, integration classroom instructors, in collaboration with class teachers, provide help to pupils in mainstream classrooms. They differentiate activities and teaching procedures while also adapting educational materials and environments. Only on a rare occasion is one-on-one assistance provided in a separate integration classroom. The main goal of instructional intervention in this scenario is the pupil's future full inclusion in the mainstream class. The majority of learners with SEND have their needs met in these types of mainstream settings. When it becomes extremely challenging for children with SEND to attend mainstream schools or integration courses due to their needs, they:

- 1) attend special education schools;
- 2) attend schools or departments that operate as self-contained units or annexes of other schools within certain hospitals, rehabilitation units, juvenile detention centres, and chronic disease centres that cover children with SEND; and
- 3) if they are unable to attend school due to short- or long-term health issues, they can get tuition at home (see also: Warren, Soukakou, Foster, Ng, & Deropoulou-Derou, 2021).

KEDASY competencies include making appropriate school-setting recommendations. When picking a school for their child, parents take this into account. A number of different policies have been implemented to address the requirements of disabled pupils and promote their educational inclusion. These are some of them:

- 1) free assessment and counselling services;
- 2) the provision and implementation of Individual Education Plans (Article 6(5));
- 3) the provision of one-to-one school nurses (4186/2013, Article 28(18), Circular 91409/Δ3/3-6-2016) and special support staff (Law 3699/2013, Article 18(1) and (2), as amended by article 56 of Law 3966/2011, and Circular, issued by the Deputy Minister No. 90911/Δ3/9-6-2015);
- 4) co-educational programmes between mainstream and special schools (Article 82 (3)(a) of Law 4368/2016), which aim to raise awareness and close the gap between special and mainstream schools;
- 5) relevant in-service training for teachers and other participants, with a particular focus on issues of differentiation and accessibility; and accessible educational and instructional materials (European Agency for Special Needs and Inclusive Education, 2021).

As a result, educational policies have evolved into real vectors for the development of positive communities that contribute to the creation of an inclusive

society (Batarello et al., 2016; Clipa & Greciuc, 2018; Monsenet al., 2014; Unianu, 2012, 2013, as cited in Mata & Clipa, 2020).

## **2.1 Literature review on the attitudes of teachers toward inclusion of individuals with ID**

This literature review is based on the search of the well-known international databases (e.g., ERIC, Scinapse, PubMed, ScienceDirect, etc) for sources related to this topic.

### **2.1.1 The attitudes of general education teachers toward inclusion of individuals with ID**

Several studies conducted in a variety of countries revealed varying attitudes of general educators toward inclusion. A large number of studies have been conducted to investigate teachers' attitudes toward the inclusion of pupils with ID in general educational settings (Takala et al., 2009).

Ojok and Wormnæs (2013) examined the attitudes of 125 school teachers from Karamoja in north-eastern Uganda. They used the Opinions Relative to Mainstreaming Scale (ORMS), developed by Larrive and Cook (1979). The findings showed that teachers had slightly more positive than negative attitudes. They also feel more willing to teach pupils with ID. One more finding showed that the attendance of teachers at various workshops and seminars has a positive impact on their attitudes and willingness towards the inclusive education of these pupils.

Memisevic and Hodzic (2011) examined the attitudes of teachers of a Bosnian Primary School to the inclusion of pupils with ID in general classes. The findings of their research showed that the majority of the Bosnian educators in the study expressed their support for the inclusion of pupils with ID. However, teachers also expressed their fears and concerns about the availability of appropriate training for teachers to support mentally disabled pupils in the general education classroom. Meanwhile, teachers who had experience teaching lower elementary pupils tended to have more supportive prospects for the inclusion of pupils with ID than those teachers who had experience teaching higher elementary pupils.

Hastings and Oakford (2003) used the Impact of Inclusion Questionnaire to look at pre-service trainee teachers' attitudes towards including pupils with ID, emotional and behavioural difficulties. The participants showed more positive attitudes towards the inclusion of pupils with ID and more negative attitudes towards the inclusion of pupils with emotional and behavioural difficulties. The concerns of pre-service trainee teachers had to do with the negative impact of the inclusion of pupils with emotional and behavioural difficulties on their peers, teachers and the general school environment.

Alghazo and Naggar Gaad (2004) conducted a survey with a questionnaire that consisted of a series of structured interviews to explore the prospects of teachers from the United Arab Emirates about inclusive education of children with SEND in general education schools. According to the findings of their study, teachers have negative attitudes toward the inclusion of pupils with ID in general education classes. In

particular, teachers were more opposed to inclusive education for pupils with severe ID, while male teachers showed even more negative perceptions compared to female teachers. Another important finding was that teachers who had five years of teaching experience showed greater acceptance towards including this group of pupils in their classrooms.

### **2.1.2 The attitudes of special and general education teachers toward inclusion of individuals with ID**

Arcangeli, Bacherini, Gaggioli, Sannipoli and Balboni (2020) examined the attitudes of teachers toward ID using the ATTID questionnaire. Their study sample was 307 mainstream teachers and 237 SETs from Italy. They revealed that the SETs group held more positive attitudes. A very interesting finding is that this group of teachers had higher levels of perceived efficacy of ID knowledge, showed less discomfort and were more willing to interact with individuals with ID. But mainstream teachers showed that they have a greater knowledge of the capacity and rights of these disabled individuals.

Vernier (2012) explored the impact of an in-service training programme on the attitudes of special and general education teachers, comparing the changes in the prospects of both the special and general education teachers before and after the programme was drawn up. While analysis of the post-test data showed an improvement in the attitudes of both teacher groups, SETs had higher pre-test values/rates for positive prospects for the inclusion of pupils with ID than general education teachers. The study appears to attribute this difference to pre-test responses to the possibility that SETs have had prior previous training in inclusive education in the form of a required course of study which must be completed in order to obtain the license to practise as a special educator. However, her research did not show the relationship between teachers' attitudes and other variables that were collected, such as years of teaching experience and teaching levels.

Multiple studies, on the other hand, reported teachers' negative attitudes toward inclusion. A survey by Anagnostopoulou and Deropoulou-Derou (2012) studied the attitudes of teachers (preschool, primary, and junior high school) about ID. Their sample was comprised of 103 teachers from the general overall educational district of Piraeus in Greece and teach in general education classes, special classes, and integration classes. The results of their research showed that teachers often refused to include pupils with physical disabilities, pupils with learning disabilities and pupils with Greek as a second language, while intellectual, sensory disabilities and disorders related to behavioural problems were to be avoided to a significant extent.

Alquraini (2012) conducted a survey in Saudi Arabia and studied the attitudes of general education teachers and SETs for the inclusion of pupils with severe ID in general education classes. The researcher concluded that teachers had comparatively negative attitudes towards the inclusion of seriously disabled pupils in general education state schools. Teachers who had previous educational experience with pupils with SEND, however, showed fewer negative attitudes towards inclusion of pupils with severe ID.

Finally, the results of his research showed that teachers working in large-size classes showed more negative attitudes and more concerns about the inclusion of pupils with severe ID.

## 2.2 The purpose of the study

The present study, examines the attitudes of SETs towards the inclusion of pupils with ID in general education classes. The present study pursued the following objectives:

- To study the attitudes of SETs towards the inclusion of pupils with ID in general education classes.
- To study whether the attitudes of SETs to the education of this group of pupils are positive, negative or neutral.
- To study whether SETs will have a positive, negative or neutral attitude towards the inclusion of pupils with ID and whether they should modify the classroom according to the needs of these pupils.
- To study whether SETs will have a positive, negative or neutral attitude towards the fact that pupils with ID could be more effectively trained in general education settings.

## 3. Methodology of the study

### 3.1 Research hypotheses

Based on the preceding review of the relevant literature, the researchers formulated the following research hypotheses:

**Hypothesis 1:** It is expected that SETs will have ambiguous attitudes towards the education of individuals with ID.

**Hypothesis 2:** It is expected that SETs will not have a positive attitude towards the inclusive education of pupils with ID and that they would want to modify the classroom according to the needs of these pupils.

**Hypothesis 3:** SETs are expected to have a cautious attitude towards the fact that pupils with ID can be more effectively trained in general education settings.

### 3.2 Sample

The final sample consisted of 150 SETs. The characteristics of the SETs comprising the sample were as follows:

The gender distribution was 86% women, 14% men. In terms of age, 47.3% were aged 26 to 35. 28.7% were aged 22 to 25, followed by 19.3% aged 36 to 45. The 46 to 55 age bracket accounted for 4.7%. With reference to length of service, the 0-5 years option accounted for the highest percentage of responses (66%) followed by the 6-10 years option with 22%, the 11-15 year option with 6.7%, the 16-20 years option with 4% and the more than 20 years option with just 1.3%. 61.3% of individuals in the sample said they were primary school teachers and 38.7% said they were secondary school teachers. 48.7% declared they had a postgraduate qualification in special education, while 4% said they

had a postgraduate qualification in school psychology. 33.3% said they had an undergraduate degree in special education, 13.3% had attended seminars in special education lasting 250 to 600 hours and 0,7% had attended a two-year academy. Asked whether they were working during the current school year (2017-2018), 78% responded in the affirmative. 22.7% declared they worked in parallel support (in-class support), 18% worked in integration classes and 18.7% in special schools. 14.7% declared they worked in a private educational/therapeutic setting and 4% said they worked for KEDASY, while 22% were not yet in work. Asked about how many years the teachers had had pupils with ID in their classroom, the majority 86% responded 0 to 5 years, 12.7% chose the next option (6 to 10 years), 0,7% said 11 to 20 years and 0,7% said 20 years plus. With respect to the number of pupils with ID in the classroom in the last 2 school years, it was clear that the average number of pupils for the year 2016-2017 was 1.29 and for 2017-2018 was 1.30.

### **3.3 Data collection tool-Process**

According to Avramidis and Kalyva (2006), a research tool should always be developed based on the research questions or the research hypotheses posed by the researchers, as well as the types of data, in order for the questions to be answered in the context of their research. However, the same authors go on to say that researchers can also use questionnaires that are based on the literature, or can develop their own research questionnaire, or can employ a combination of both. In addition, they mention that researchers who adopt an existing questionnaire can supplement it with their own questions.

In this specific case, the researchers relied on both Greek and international bibliography, to find questions relevant to their topic. The researchers relied on the philosophy that underpins the questions in the survey developed by Cullen, Gregory, and Noto (2010) "Teacher Attitudes Toward Inclusion Scale, TATIS", since it was considered suitable for developing their own questionnaire. That specific questionnaire has been used in quite a few studies. More specifically, it was used by Wilkerson (2012), in her doctoral thesis, to assess the attitudes of teachers towards inclusion of pupils with autism, by Yunkis (2015) to study the attitudes of pre-service teachers towards inclusion of deaf pupils, by Pervin (2016), in her master's dissertation, to explore the attitudes of general education teachers towards inclusion of pupils with autism, and by Sharma and Nuttal (2016) to investigate the impact of training on the attitudes, concerns and effectiveness of pre-service teachers in implementing inclusion. The questions were chosen in order to quantitatively examine the attitudes and stances of SETs about the inclusion of pupils with ID in general classes.

The questionnaire was generated using Google Forms. 10 questions about demographic details were used as well as 6 structured questions which examined attitudes about the inclusion of children with ID into general education classes. Closed-ended, 5-step Likert scale items were used, where 1 corresponded to Strongly disagree, and 5 to Strongly agree, with 3 representing the median in the scale and corresponding

to the option Neither agree nor disagree. Before sending the research tool, the researchers conducted a pilot study on six teachers to determine possible difficulties or ambiguities in the wording of the statements

The researchers gathered all the information about the schools from the personal website of the special education school advisor. They found all the e-mails of schools which are located in Larissa, Karditsa, Trikala and Magnesia (Greece). The total number is 176 general and special primary and secondary education schools. In the second phase, they sent the questionnaire to all these schools by e-mail.

The authors considered that data collected using social media is an important solution because it has many advantages. The international literature mentions the advantages and disadvantages of this methodology (e.g., Boyer, Olson & Jackson, 2001; Fricker & Schonlau, 2002; Medlin, Subroto & Theong, 2005; Metha & Sivadas, 1995; Van Selm & Janovski, 2006; Wright, 2005; Zhang, 1999). The reason that they used this methodology is that teachers use the internet and social media in their daily lives (i.e., Facebook or Gmail) (Kamtsios & Lolis, 2016). On the other hand, there are many surveys which have been done with this methodology (see the references: Garrad, Rayner, & Pedersen, 2018; Kamtsios & Lolis, 2016; Lappa, Mantzikos & Paraskevopoulos, 2019; Parsons, 2014; Parsons & Lewis, 2010; Parsons, Lewis & Ellins, 2009; Winter & Bunn, 2019). So, they sent it to general and special education teachers' associations, the association of graduates of special education departments and to groups of SETs on the social media and they sent it as a personal message (on Facebook) to special and general education teachers. The survey was conducted between September 2017 and June 2018.

Participants were informed about the topic, the structure of the research tool and the time they would need to spend on the survey. The code of conduct on confidentiality and anonymity was followed. Participation in the study was voluntary, meaning that only those who filled out the entire questionnaire were included in the sample.

### **3.4 Reliability of the data collection tool**

Examining the reliability of the questions, given that the Cronbach's Alpha internal consistency value is above 0.6, the tool is considered to be very reliable. The Cronbach's Alpha reliability value is high at 0.750. Consequently, all questions have been answered reliably.

### **3.5 Data analysis**

The data in the sample was analysed using SPSS version 21 (Statistical Package for the Social Sciences). Initially a descriptive statistical analysis was performed. Then the dependence of the questionnaire's variables on the demographic characteristics of the survey sample was tested (statistical inference). Given the sample's large size, this related to checking the average values and was done using a t-test for independent samples in subgroups generated using the variables of demographic and general characteristics of the individuals in the sample where there were 2 subgroups, and by carrying out an ANOVA analysis of variance in the case of more than 2 subgroups. To examine the

existence of a correlation between the evaluation of the statements and the number of pupils with ID per year, a correlation test was carried out. The presentation of the descriptive measures and the test of dependence on the demographic characteristics are shown per group of questions comprising the survey tool. The significance value used is  $p=0.05$ .

#### 4. Results

Although the analysis of the questionnaire data shows that 41.3% of SETs hold a neutral attitude on whether the education of pupils with ID is better in general classes rather than in special classes, it is remarkable that a large percentage (65.4%) believes that inclusive education is the most suitable for these pupils and 66.7% believe that inclusion can be achieved for these pupils, even though they are lacking in some areas of their development. Also, 75.3% of SETs have a positive attitude towards the need to modify the classroom taking into account the needs of pupils with ID.

On the other hand, there are issues on which some SETs hold a neutral and others a positive attitude. In particular, 34.7% neither agree nor disagree with regard to whether pupils with ID should be educated in general classes, while 49.3% either agree or strongly agree. Additionally, 27.3% hold a neutral attitude on whether pupils with ID should be removed from general classes less frequently, while 46.7% agree or strongly agree.

Consequently, the survey data analysis shows that SETs are in favour of the inclusion of pupils with ID, which will lead to their general inclusion in the school community and to reducing their social exclusion (Figure 1).

##### 4.1 Examination of questions per demographic characteristic of the sample

In order to identify possible dependence of questions on people's demographics, average values are applied. The results are as follows:

In terms of past experience, there is statistically significant dependence on question (3): *The special educator together with the general educator should adapt the general class according to the needs of the child with an ID* ( $F(2.145)=5.505$ ,  $p=0.005<0.05$ ). From the sub-group's average sub-sample quiz values and from the multiple average value comparisons, it appears that teachers with extensive work experience tend to support the statement but only to a moderate degree. On the other hand, teachers with less work experience tend to support it to a higher degree.

In terms of education, statistically significant dependence is found in the case of two questions,

**Figure 1:** Comparative presentation of mean values and standard deviations and distribution of frequencies and percentages of responses of SETs

	Mean	SD		Absolutely disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1. Pupils with ID should be educated in general education classes with non-disabled pupils.			N	2	22	52	59	15
	3.42	.907	%	1.3%	14.7%	34.7%	39.3%	10.0%
2. Pupils with ID should be removed much less frequently from general education classrooms, in order to be helped in the difficulties they encounter.			N	6	33	41	57	13
	3.25	1.024	%	4.0%	22.0%	27.3%	38.0%	8.7%
3. The SET with the general teacher should adapt the general education classroom according to the needs of the child with ID.			N	3	15	19	77	36
	3.85	.965	%	2.0%	10.0%	12.7%	51.3%	24.0%
4. Pupils with ID can be trained more effectively in general education classrooms than in special education classrooms.			N	8	33	62	35	12
	3.07	.994	%	5.3%	22.0%	41.3%	23.3%	8.0%
5. Inclusive Education is considered suitable for children with ID.			N	3	9	40	76	22
	3.70	.865	%	2.0%	6.0%	26.7%	50.7%	14.7%
6. Inclusive Education cannot be applied to children with ID because they lack academic and social skills.			N	31	69	34	15	1
	2.24	.917	%	20.7%	46.0%	22.7%	10.0%	0.7%

- question (3): *The special educator together with the general educator should adapt the general class according to the needs of the child with an ID* ( $F(2,140)=5.219, p=0.007<0.05$ ). The tendency to support the statement is similar among all three groups, though the teachers who have gone through a training seminar, who declared the lowest score comparatively speaking, tend to support the statement more.

- question (6): *Inclusive education cannot be applied to children with ID because they lack academic and social skills* ( $F(2,140)=4.927, p=0.009<0.05$ ). Teachers with postgraduate studies tended not to support the statement and disagreed with it to a greater extent.

In terms of work, there appeared to be a statistically significant dependence on the following questions (2): *Pupils with an ID should be removed less frequently from the general education classes in order to be helped more in the difficulties they encounter* ( $t(148)=-2.070, p=0.040<0.05$ ) and (5): *Inclusive education is considered suitable for children with intellectual disability* ( $t(148)=-2.050, p=0.042<0.05$ ). The tendency is to support these statements, but the difference is that people without work experience are more in support of them.

Regarding the employment structure, there is a statistically significant dependence on question (2): *Pupils with an ID should be removed less from the general education classes in order to help their difficulties* ( $F(2,139)=2.618, p=0.038<0.05$ ). Regarding the above statement, teachers involved in the inclusion sector, and those in parallel support groups declared themselves mostly in agreement with the statement and those not in work mainly declared themselves in agreement, while the rest showed mostly disagreement.

A statistically significant relationship between the participants and the questions arises, concerning the number of pupils in the year 2017-2018: Questions (2): *Pupils with ID should be less frequently removed from the general education classes in order to be helped to overcome the difficulties they face* ( $r=-.175$  negative and weak), (4): *Pupils with ID can be trained more effectively in general education classes than in special classes* ( $r=-.170$  negative and weak), and (5): *Inclusive education is considered suitable for children with ID* ( $r=-.283$  negative and weak). Finally, statistically significant dependence was not shown in relation to age, the number of years of working with pupils with ID or the number of pupils in the school year 2016-2017.

## 5. Discussion

The majority of the limitations that people with SEND face are directly or indirectly related to negative attitudes toward them. A negative attitude toward any type of disability, and particularly ID, leads to discrimination (Corrigan, 2006; Corrigan & Watson, 2002). Thus, many people with SEND are socially marginalised. According to the WHO report (2011, as cited in Mezquita-Hoyos, Sanchez-Monroy, Morales-Martinez, Lopez-Ramirez, & Reyna-Gonzalez, 2018), people with SEND have no access to quality jobs and are poor and vulnerable in terms of health care. This unfavourable social situation is exacerbated for people with ID, who have also limited access to regular education programmes (Dávila, Naya & Lauzurika, 2010; WHO, 2011, as cited in Mezquita-Hoyos et al., 2018).

International conventions (UNESCO, 1994; United Nations, 2006) have overwhelmingly supported the idea that pupils with ID should be included in mainstream formal educational settings and educated in general education classrooms (Sermier Dessemontet & Bless, 2013). That is why, academic research aimed at achieving successful school inclusion and improving academic goal achievement for people with ID is expanding (Francis, Gross, Blue-Banning, Haines & Turnbull, 2016). Many countries have already passed legislation and implemented practices that promote inclusive education for children with ID (Ferguson, 2008), and the topic has garnered a lot of academic attention in the last 40 years (Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2011).

It is well known that teachers' attitudes toward pupils with SEND are a crucial factor in successful inclusive education (Carrington, 1999; Garrad et al., 2018). Any attitude- positive, negative and neutral- may affect the behaviour of teachers

(Rosenzweig, 2009) and the education of the pupils with SEND. According to Mata and Clipa (2020) investigating teachers' attitudes helps teachers identify the most appropriate influence measures in order to establish relationships based on mutual valorisation and the promotion of equal participation opportunities. That is why the purpose of this quantitative survey was to study the attitudes of SETs towards the inclusion of children with ID in general education classes. From the statistical analysis of the data, it seems that the results are remarkable.

According to this research, the majority of SETs believe that the SET and general education teacher should collaborate to adapt the classroom to the needs of intellectually disabled pupils and that inclusion is appropriate for these pupils. There is agreement with the Weng, Walker, and Rosenblatt (2015) study, which found that SETs have positive attitudes toward including children with SEND in mainstream classrooms. Teachers are willing to make curriculum changes in order to include pupils with SEND in their classrooms.

Most SETs also accept the idea that inclusion can be applied to children with ID. This finding complements and strengthens the above view of the feasibility of inclusive education of children with ID in the general education classes. The international and Greek literature (Carrington, Berthelsen, Nickerson, Nicholson, Walker & Meldrum, 2016; Freeman & Alkin, 2000; Holahan & Costenbader, 2000; Lappa & Mantzikos, 2018; Mantzikos, Lappa, Siamanta & Charoumenou, 2018; Mastropieri, Scruggs, Graetz, Norl, Gardizi, & McDuffie, 2005; Oh-Young & Filler, 2015; Ruijis & Peetsma, 2009; Salend & Garrick Duhaney, 1999; Smogorzewska, Szumski, & Grygiel, 2018; Vaughn, Elbaum, Schumm & Hughes, 1998; Vianello & Lanfranchi 2015; Wehmeyer, Shogren, & Kurth, 2021; Williamson, McLeskey, Hoppey & Rentz, 2006) mention that the inclusive education is very beneficial for pupils with SEND. Some of these benefits are in the cognitive, social, emotional and behavioural field of human development.

However, this research has shown that there are a percentage of SETs who have ambiguous attitudes towards the inclusion of children with ID. Their attitudes seem to be neutral and sometimes neutral along with positive attitudes. In particular, neutral attitudes relate to whether pupils with ID could be trained in general education classes rather than in special classes. Their choice indicates that they believe that pupils with ID should be trained in special classes. On the other hand, their attitudes on whether pupils with ID should be educated in general education classes with non-disabled pupils and whether they should be removed less frequently from the general education classroom in order to be better helped to the difficulties they face were positive and neutral. Similar findings from other studies (Srivastava, De Boer & Pijl, 2015; Srivastava, De Boer & Pijl, 2017) are in agreement with the findings of this research.

In particular, Srivastava et al. (2015) examined teachers' attitudes and knowledge of four disabilities (Attention Deficit Hyperactivity Disorder, Dyslexia, Intellectual Disability and Autism). Their study sample consisted of 79 teachers from private and regular primary schools in Jaipur city. Their findings revealed that teachers had neutral attitudes towards inclusive education. Two years later these researchers (Srivastava et al.,

2017) conducted a similar study. Their study sample consisted of 115 regular primary school teachers. The results of their study revealed that teachers hold neutral attitudes towards inclusion of these pupils.

It seems that many teachers dealing with ID have low levels of knowledge pertaining to the topic. Many times, incomplete knowledge of ID has a rather negative impact, especially on the education of pupils with ID. If teachers do not receive repeated and meaningful training, it creates stress, anxiety and tension for both teachers and pupils in the classroom, especially when that classroom includes pupils with various disabilities (Ross-Hill, 2009). In general, resistance to inclusion is demonstrated by teachers who have limited education in ID. Unfortunately, general education teachers are often deprived of the experience and training needed for effective intervention in dealing with pupils with ID in their classrooms. This is because historically, SETs are the ones who have been involved in the education of these pupils (Dingle, Falvey, Givner & Haager, 2004; Fuchs, 2010; Lohrmann & Bambara, 2006).

However, teachers' attitudes can be changed by increasing their knowledge of inclusion in order to develop a better attitude that reflects how they think, feel, and behave, particularly in relation to inclusion. Teachers, who play critical roles in education, should have a thorough understanding of educational changes and acquire specific skills to improve their competency as teachers to all learners. When more pupils with emotional and behavioural difficulties and severe ID are included in general classrooms, more trainings, resources, and supports are required.

Professional development for mainstream teachers should be expanded to include pupils with ID in mainstream educational settings. Further enrichment and guidance are likely to improve mainstream teachers' ability to implement inclusion (Holdheide & Reschly, 2008) leading to the formation of pro-inclusive attitudes (Cornoldi, Terreni, Scuggs, & Mastropieri, 1998) and the academic success of inclusive pupils in mainstream educational settings (Evans, 1998). Every country's education stakeholders must consider developing teachers' attitudes toward inclusive education by enacting appropriate policies, providing adequate resources, and facilitating adequate pre-service and in-service training for teachers in order for them to understand and apply inclusive educational practices in their classrooms. The effort to achieve inclusive and quality education in all educational and social areas is one of the Sustainable Development Goals for 2030 that will help to combat inequality (Gallego-Ortega & Rodríguez-Fuentes, 2021). The present study found that SETs are generally all in favour of the inclusion of pupils with ID, which will lead to their general inclusion in the school community and to a reduction in their social exclusion. That is why Bhatnagar and Das (2014) suggest that in order to create successful inclusion, teachers' attitudes and knowledge of inclusion should be maintained.

The present study has also highlighted the crucial role of some dependent variables- especially demographic factors- such as education, previous experience including work and employment structures. However, there are but few studies in the international literature that confirm the essential role of these variables. This study only

confirms a single correlation. This correlation relates to experience; mainly that of ample past experience. In particular, research has shown that teachers who have extensive past experience are in favour of inclusive education and agree with the Alghazo and Naggar Gaad (2004), Alquraini (2012), Gilmore, Campbell, and Cuskelly (2003) surveys. These showed that past experience with pupils with ID played a key role in the attitudes of educators on inclusive education, as there was acceptance of the concept of inclusion of this group of pupils in their general education classrooms.

### **5.1 Limitations of the study and implications for future research**

Two important limitations emerge in the present study. The first limitation concerns the sample size. The sample is not considered representative, as the researchers only aimed to collect data from a considerable number of SETs compared to the total number of SETs in Greece. This affects the generalisability of the study's results. The second limitation concerns data collection. Specifically, the researchers found it better to conduct an online survey to collect data for the purpose of this study. Although with developments in technology, web-based surveys have been increasingly used to collect data in recent years, it is possible for respondents to falsify their demographic information and use the internet to obtain information about the questions asked in the survey, which, in turn, undermines the reliability and accuracy of the results and the validity of conclusions drawn from the findings (Braunsberger, Wybenga & Gates, 2007; Lefever, Dal & Matthíasdóttir, 2007, as cited in Rakap, Balikci, & Kalkan, 2018, p.179). Furthermore, online surveys might have a low response rate and high coverage error (i.e., the difference between the defined target population and who actually responded to the survey; Couper, 2000, as cited in Rakap et al., 2018, p. 179).

In this respect, we want to suggest some future directions to other researchers in this field. One possible avenue is to investigate the attitudes of mainstream teachers and SETs toward inclusion in the era of COVID-19 and the difficulties and barriers that these individuals have to face in these difficult times that humanity is experiencing. Another avenue is to investigate the strategies that promote the inclusion of these individuals in the general education classroom.

## **6. Conclusion**

From the present study, it appears that hypotheses 1 and 3 are verified. In particular, SETs did have ambiguous attitudes (neutral along with positive attitudes) towards the education of children with ID. Question 2, which corresponds to the first research hypothesis, showed that SETs agree more strongly that pupils with such disability should be less frequently excluded from the general classroom to be helped in the difficulties they face. In a nutshell, they consider that the general education classrooms are quite useful for these pupils. On the other hand, with regard to the third research premise, teachers had a cautious attitude towards whether these pupils should be trained in general education classes. This reluctance is understood through their neutral attitude. It

could also be the case that they consider that pupils with ID must also study in special classes according to the level of functionality they present. Finally, with regard to the second hypothesis, this does not seem to be verified. SETs have been positive about adapting the classroom according to the needs of these pupils, and that inclusive education can be implemented and positively benefit them. In conclusion, this research demonstrates that SETs seem to be in the favour of including pupils with ID in general education classes.

### **Conflict of interest statement**

The authors declare no conflicts of interests.

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