

## 'Inclusion in Practice': Programme Practices in Mainstream Preschool Classrooms and Associations with Context and Teacher Characteristics

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### ABSTRACT

This study observed the extent to which teachers supported the inclusion of children with disabilities into mainstream classrooms and involved monitoring 52 mainstream preschool settings in Greece. The association between programme quality, context and teacher characteristics was also tested. Findings showed that the quality of inclusion ranged from 'low' to 'minimal', with teachers more frequently implementing practices that only partially promoted participation for children with disabilities in academic and social classroom activities. The analysis also revealed that the quality of programming was not influenced by the model of special education provision, the group size, the number of children with disabilities, the training teachers had in special education or their teaching experience. The results are discussed both at a national and international level, revealing areas that need further examination into preschool inclusion quality.

### KEYWORDS

Classroom quality; descriptive observational methods; early years; Greece; Inclusive Classroom Profile; inclusive education; programme practices

## Introduction

Inclusion supports the right of every child, regardless of ability, to participate as a full and equal member in a broad range of activities and social contexts. From an educational point of view, 'inclusive experiences' for children with disabilities may promote a sense of belonging and membership, positive social relationships and friendships, as well as development and learning, enabling them to reach their full potential both in and out of school (DEC/NAEYC, 2009).

While, all experiences shape who we are and what we will become, regardless of when they occur, there are still many arguments that provide a legitimate basis to advocate that inclusive experiences should start as early as possible in a child's educational life. As a matter of fact, apart from the legal, moral and rational arguments (for an extensive analysis of these arguments, see Bailey, McWilliam, Buisse, & Wesley, 1998), preschool inclusion is based on quite strong empirical foundations. A growing number of published reports document that initial placement in full-inclusion programmes during early childhood years may have longitudinal benefits; it may create a momentum that can result in further enrolment in

full or partial inclusion programmes in subsequent levels of education (Guralnick, Neville, Hammond, & Connor, 2008).

Additionally, it has been shown that preschool inclusive programmes provide: (a) developmental advantages in language, cognition, and motor skills for children with disabilities (Hundert, Mahoney, Mundy, & Vernon, 1998); and (b) social advantages such as increased positive social interactions and friendships, with peers (Hollingsworth & Buysse, 2009) and social acceptance (Odom et al., 2006). It also provides educational advantages since children with disabilities are actively engaged in the activities and routines of the preschool inclusive classroom at similar levels to their non-disabled peers (Jolivet, Stichter, Sibilsky, Scott, & Ridgley, 2002). Even more compelling is the fact that little scientific evidence exists to suggest that segregated programmes result in superior outcomes for young children (Buysse & Bailey, 1993).

For the above reasons, in 2012 and in collaboration with the United Nations International Children's Emergency Fund the World Health Organization published a discussion paper in order to provide impetus for governments throughout the world to ensure high-quality early care and education for young children with disabilities in the mainstream service provision (World Health Organization & UNICEF, 2012). Yet, in spite of legal and moral imperatives, the inclusion of preschool children into typical early childhood programmes continues to develop in some countries such as: Canada, the United States, Australia, Italy, and Sweden and is just beginning to be an option in other countries, such as Greece.

In light of the above, the present study focuses on the quality of programme practices in 52 'inclusive' preschool settings in Greece. To be more specific, the aim of this study was to investigate: (a) the extent to which the practices that preschool teachers use to support access and participation in classroom routines and activities for children with disabilities; and (b) the relationship between the quality of the above practices with context and teacher characteristics.

## Preschool inclusion in Greece

In Greece, the current legislative frameworks are thought to be in alignment with the early childhood inclusive education movement since they assert that young children with disabilities can participate in regular day care centres/nurseries (the Ministry of Health and Welfare Resolution P1b/G.Poik.116847, 2002) or in kindergartens (the Special Education of Persons with Disability and Special Educational Needs Act of 2008 [PL 3699]). Specifically, in the 2008 legislation well-defined measures were established as important factors for supporting the individual needs of children with disabilities and promoting their inclusion. Such measures include adaptations of the classroom environment and the curriculum; use of assistive technology and alternative communication systems; planning of Individualised Educational Programmes; and collaboration between practitioners and parents. While these measures are deemed to be in line with the literature on recommended evidence-based practices in early childhood special education (Buysse, 2011; Division for Early Childhood, 2014), concerns do exist about how stated policies can be put into actual practice. For instance, while legislation applies to preschool inclusion, still no reliable up-to-date data exists with regard to how many children with disabilities are actually in mainstream early care and education.

It is also important to note, that little evidence exists in relation to the quality of the provision offered and/or of the education practices employed in mainstream settings. A

relatively early study that involved 55 state run day care centres found that the majority of infants, toddlers, and pre-schoolers with special needs were grossly under-served (Polyzoi & Polyxronopoulou, 2000). In a more recent study it was found that the degree of involvement in learning/academic and social activities for children with disabilities depended heavily on teachers' personal attitudes towards inclusion and inclusive education as well as the type, nature and quality of the strategies teachers used (Barbas, Birbili, Stagiopoulos, & Tzivinikou, 2006). Both groups of researchers highlighted the lack of relevant empirical data and the urgent need for further research in the area of programme quality and preschool inclusion. Before, however, embarking into any further analysis, we consider it important to discuss some of the issues involved in the conceptualisation and measurement of the notion of 'preschool inclusion quality'.

### Preschool inclusion quality

It has already been argued that high-quality provision in centre-based settings is a prerequisite for improving children's developmental progress and, presumably, their future school success (Peisner-Feinberg & Yazejian, 2010). However, when the question of quality is directed towards preschool settings that serve diverse learners, it is unclear as to which specific programming elements constitute high-quality inclusion (Odom, Buysse, & Soukakou, 2011).

In 2009, the Division for Early Childhood (DEC) of the Council for Exceptional Children and the National Association for the Education of Young Children (NAEYC) defined a high-quality preschool inclusive programme as one that ensures access, participation, and support (DEC/NAEYC, 2009). More specifically: (a) *access* is concerned with removing physical and structural barriers through providing multiple ways to promote learning and development; (b) *participation* is about designing and implementing individualised instructional approaches to enhance active engagement in play and learning activities as well as encourage a sense of belonging in the peer group; and (c) *supports* which relate to system-level services that are necessary to support all individuals involved in the process of inclusion (e.g. professional development opportunities for staff).

Based on these criteria, Soucacou (2007) developed the Inclusive Classroom Profile (ICP); a scale designed to assess the quality of practices employed by teachers in daily classroom processes, which promote preschool inclusion. The notion of quality underlying ICP is considered as a unidimensional construct that includes a set of items which reflect distinct inclusive practices. This profile requires the deliberate adaptation of 'the environment, activities, and instruction in ways that encourage access and active participation in the group, through supports that might differ from child to child' (Soukakou, 2012, p. 481).

Studies that used the ICP, disclosed some important findings. In England, Soucacou (2007) assessed the quality of inclusive practices in 45 preschool classrooms where it was revealed that: (a) across the participating classrooms the quality of practices ranged from inadequate to minimal; and (b) quality was correlated with specific structural characteristics of the settings such as the type of early years provision and the percentage of children with disabilities per setting. A higher quality of practices was observed in classrooms that were under the auspices of the LEA and those that had a higher percentage of children with disabilities. In a more recent study conducted in North Carolina (USA) in 51 inclusive preschool classrooms, the type of the programme was again found to be a strong predictor of quality (Soukakou, West, Winton, & Sideris, 2013; Soukakou, Winton, West, Sideris, & Rucker, 2014).

Lastly, Muccio and her colleagues used the ICP to explore the level of quality in preschool inclusive programmes in a mid-Atlantic Metropolitan area in the USA (Muccio, Kidd, White, & Burns, 2014). Of the nine preschool inclusive classrooms that the researchers observed, about 66% were ranked as deploying inclusive practices of good quality. There were no classrooms with poor or excellent ICP ratings.

Previous research on the ICP instigated the present study which addresses the following research questions: (a) to what extent the practices that the participating Greek preschool teachers use support access and participation in classroom routines and activities for children with disabilities; and (b) whether there is a relationship between the quality of the above practices and context (i.e. model of special support provision, group size, number of children with disabilities) and teacher profiles (i.e. years of teaching experience and professional training in special education).

## Method

### Sample

#### Settings

This study was conducted in 52 mainstream preschool settings located in different geographical areas of Greece both urban and rural: North, West and Central Greece. Investigators used a random sampling process to select regular preschool programmes run by the state for children between 4 and 6 years of age and which had at least one child on their register with identified disabilities.

The settings were representative of the various models for providing special education support to children with disabilities within the mainstream school context in Greece (the Special Education of Persons with Disability and Special Educational Needs Act of 2008 [PL 3699], § 199–6): pull-out programme ( $n = 22$ ; 42.3%); in-class support ( $n = 17$ ; 32.7%); and no additional provision ( $n = 13$ ; 25%).

In the vast majority of participating classrooms ( $n = 42$ ; 80.8%), enrolment was between 11 and 20 pupils (with and without disabilities). In each class the number of children with disabilities ranged from 1 to 5 ( $M = 1.79$ ,  $SD = 1.13$ ). Across the classrooms the number of teachers ranged from 1 to 3 ( $M = 1.87$ ,  $SD = 0.49$ ). The observed mean teacher–child ratio was 1:9.

#### Participants

Ninety-six teachers worked in the participating classrooms, 58 (60.4%) were regular teachers and 38 (39.6%) were special preschool teachers. With two exceptions, all of the early childhood professionals were female. Most participants in both groups held a bachelor's degree in preschool education. Among the regular preschool teachers, most participants ( $n = 36$ ; 62.1%) fell in the groups of 6–10 (32.8%) and more than 20 years (29.3%) of teaching experience. In contrast, the majority of their special education colleagues ( $n = 30$ ; 79%) had between 1 month and 5 years of teaching experience in special education. Of the 38 special education teachers, the vast majority ( $n = 36$ ; 94.7%) had completed substantial training or masters programmes in special education. Of the 58 regular education teachers only 11 had received at least some informal training in supporting pupils with disabilities.

Ninety-three children with disabilities (65 boys and 28 girls) also participated in this study. The mean age of the children was 72.68 months (SD = 9.81; Range = 52–92 months). The majority of the children (93.5%) had received a formal diagnosis provided by official diagnostic and evaluation centres. By reviewing the exact terminology used in disability statements provided for these children, the most prevalent diagnostic category was that of autistic spectrum disorder (40.9%) followed by developmental delay (28%), intellectual disability (16.1%), neurological problems (14%) and hearing impairment (1.1%).

## **Measures**

### ***Quality of inclusive preschool programmes***

The Greek version of the ICP was used in order to assess the extent to which teachers adapt certain aspects of the regular classroom practices in order to support the inclusion of children with disabilities. For the translation of the ICP, back-translation procedures were followed. The Greek version of the instrument was further assessed by two experts in the field of early childhood education and inclusion.

ICP is a structured observation rating scale, which consists of 11 items reflecting practices that are believed to promote positive learning and social outcomes for young children with disabilities. These are: adaptations of space and materials/equipment; adult involvement in peer interactions; adult guidance of children's play (free-play); conflict resolution; membership; adult-child social-communicative interactions; social communication; adaptations of group activities; transitions between activities; feedback; and the planning and monitoring of children's individual needs and goals. Each item is presented as a 7-point scale, with descriptors for 1 (inadequate), 3 (minimal), 5 (good) and 7 (excellent). Under each descriptor there is a set of quality indicators that take the form of qualitative descriptions of teacher practices defining each level of quality. Indeed, the ICP includes 122 indicators. Based on information gathered through direct observation as well as teacher interview and document review (when identified on the scale), each quality indicator might be assessed with 'Yes', 'No' or 'Not Applicable (NA)' according to the scoring guidelines set by the author of the scale.

Factor analysis has been conducted to determine the structural validity of the Greek version of the scale in our sample of 52 mainstream preschool classrooms (see Fyssa, & Vlachou, 2015). Consistent with the author of the scale, a single dominant factor was detected with an eigenvalue of 6.549 explaining about 72.764% of the variance. However, a key finding was that in our sample the construct of quality entailed nine items not including the 'Planning and monitoring of children's individual needs and goals' item. Also, the 'Conflict resolution' item, as permitted by the scale, was excluded because of missing values. Internal consistency (Cronbach alpha) of the nine-item scale was .95.

### ***Structural elements of the preschool programmes***

A questionnaire designed for the purposes of this study was used to collect information on selected structural elements of the participating mainstream preschool classrooms. The questionnaire included questions about: (a) the organisational features of the regular preschool classroom (i.e. group size, number of children with disabilities and model of special educational provision); and (b) demographic characteristics of both regular and special education teachers (i.e. years of teaching experience and professional training in special education).

## Procedure

Prior to conducting this study, the second author completed a reliability training, led by the author of the ICP, at the University of North Carolina at Chapel Hill. All data used in this study was collected after obtaining official approval from the Greek Ministry of Education. Systematic observations (of at least 2.5–3 h) were conducted across the 52 participating classrooms to assess the quality of inclusive preschool programmes. After the observation in each classroom, the observer conducted a short interview with the teachers in order to score indirect assessments of quality for specific items of the scale and to collect information on the structural features of the programme.

In addition, inter-observer agreement was established in five classrooms (9.6% of the entire sample). At indicator-level (122 indicators), point-by-point agreement ranged from 87.3 to 98.1%, with a mean agreement of 92.5%. At item-level (11 items) mean weighted kappa scores was .87 (Range = .71–1.00).

## Data analysis

Data was analysed by using the Statistical Package for the Social Sciences (SPSS) version 20. Mean scores and standard deviations of the ratings for every individual ICP item as well as the total composite score were calculated in order to estimate the level of quality of inclusive practices in participating Greek preschool settings. Descriptive analyses were also performed at the indicator-level across all the ICP items, by computing frequencies and percentages of the observed practices used by both special and regular education teachers. Further, analysis of variance (ANOVA) and *t*-test comparisons were applied to account for differences in programme quality between classrooms that differentiated in terms of: (a) special education provision models, (b) the number of children with disabilities being served, and (c) teachers' qualifications with regard to special education. Finally, Spearman's rho correlations were performed to describe the associations between programme quality, years of teaching experience and group size of children with and without disabilities.

## Results

### *Quality of inclusive programme practices in mainstream preschool classrooms*

Descriptive analysis was conducted to examine the quality of inclusive programme practices, as measured by the ICP, employed in participating classrooms. Table 1 presents means and standard deviations obtained for the nine items of the ICP. Mean scores varied between 2.58 (Membership) and 3.69 (Adaptations of physical space and materials). Three of the items presented mean scores that indicate the presence of 'minimal' quality (i.e. slightly above 3), while the remaining six items presented mean scores that suggest 'inadequate' quality (i.e. below 3). The composite quality of inclusive practices scores for the participating classrooms was 3.00 (SD = 1.23; Range = 1.00–5.67).

In order to explore the qualitative nature and frequency of the practices *most* and *least* often used by teachers to support the access and active participation of children with disabilities across the nine items of the mainstream preschool programmes, we focused our analysis at the indicator-level. Frequencies and percentages were calculated in this way.

**Table 1.** Descriptive statistics for quality of inclusive practices.

Item	N <sup>a</sup>	M	SD
Adaptations of space and materials/equipment	52	3.69	1.50
Adult involvement in peer interactions	52	2.73	1.40
Adult's guidance of children's free-play	49	2.96	1.73
Membership	52	2.58	1.58
Adult-child social-communicative interactions	52	3.37	1.14
Support for social communication	52	2.88	1.42
Adaptations of group activities	51	2.73	1.54
Transitions between activities	52	2.92	1.45
Feedback	52	3.17	1.25
Total composite score of ICP	52	3.00	1.23

<sup>a</sup>Number of the classrooms observed.

As shown in Table 2, teachers in the participating classrooms were observed to use practices of 'minimal' quality for all nine items more frequently. Cases in which teachers employed 'good' practices, are also presented. However, these practices were recorded at a lower frequency.

As far as the category of 'excellent' practices is concerned, the results showed that only in 4.1% (mean percentage; Range = 1.9–19.2%) of the sample of teachers employed practices that concurrently nurtured individual objectives for children with disabilities and facilitated their inclusion in classroom activities and interactions with their peers. The 'highest' percentage was detected in the 'Adaptations of physical routines/activities' item. More specifically, in 10 (19.2%) cases teachers were found to consciously organise the physical space and materials/equipment in order to promote interactions between a child with a disability and his/her peers.

Lastly, with regard to the 'inadequate' category of practices, it was found that in a mean percentage of 9.3% classrooms (Range = 1.9–28.8%), teachers used 'inappropriate' practices of inclusion. For instance, with regard to the 'Adult's guidance of children's play' item, it was found that in 15 cases (28.8%) teachers made no attempt to become involved in children's free-play. In relation to the 'Adaptations of group activities' item, it was revealed that in 27.5% ( $n = 14$ ) of the sample, children with disabilities were observed either not to interact at all with materials or others (peers or teachers), or to interact in ways that disrupted the group activity. With regard to the 'Transition' item, it was found that in 13 classrooms (25%), teachers provided children with disabilities no support or help with transition between classroom activities resulting in frustration and confusion.

### ***Relations between quality of inclusive practices and structural characteristics of the preschool programmes***

Correlation and/or comparison analyses were conducted to examine the relationship(s) between overall quality (ICP total score) and specific structural features of the preschool programmes such as the model of special provision; group size of the classroom; number of children with disabilities; years of teaching experience; and teachers' professional training in special education needs (SEN).



**Table 2.** Frequency (%) of indicative practices of 'minimal' and 'good' quality used by teachers.

Practices of 'minimal' quality	<i>n</i>	%	Practices of 'good' quality	<i>n</i>	%
<i>Adaptations of physical space and materials/equipment</i>					
Classroom organisation provided some access to the physical space and to support provision	49	94.2	Many classroom areas were adapted to children's individual needs (e.g. using labels with pictures, words or signs)	30	58.8
Classroom organisation provided access to limited materials	42	80.8	Teachers promoted children's purposeful interaction with materials (e.g. giving hand over hand assistance)	27	51.9
			Children had access to a variety of educational materials	19	37.3
<i>Adult-child social-communicative interactions</i>					
Neutral interactions among teachers and children	49	94.2	Many positive interactions between teachers and children	33	63.5
Teachers and children engaged in simple basic social interactions	46	88.5	Teachers were highly responsive to issues involving children expressing interest or concern	26	50.0
			Reciprocal interactions between teachers and children	18	34.6
<i>Feedback</i>					
Some feedback was provided to children such as praise for discipline	49	94.2	Feedback focused on children's learning experiences and was process-oriented	25	48.1
Some feedback was oriented to children's learning experiences	41	78.8	Various forms of feedback were provided responsive to children's age or needs	19	36.5
			Positive feedback was provided individually to children	18	34.6
<i>Adult's guidance of children's free-play</i>					
Basic limits were placed on children's play to encourage appropriate use of toys, space and safe play interactions with materials and peers	31	63.3	Children were encouraged to decide how to play. Teachers intervened when children remained uninvolved	22	44.9
Children were allowed to decide on play topic, playmates and explore toys that they liked during free-play time	30	61.2	Teachers enjoyed playing with children	20	40.8
Some opportunities were provided for social play	29	59.2			
<i>Transitions between activities</i>					
Children sometimes were allowed some extra time to complete a task and/or prepare for activities	38	73.1	Advanced verbal notice was given to all or to individual children about upcoming activities	25	48.1
Transitions were a clear part of the daily schedule	34	65.4			
<i>Support for social communication</i>					
The pace of communication with children occasionally adjusted to their needs	44	84.6	Verbal communication was adapted to individual level of understanding of children with disabilities	25	48.1
Teachers occasionally recognised children's attempts to communicate and respond to them promptly	40	76.9	Teachers were well aware of children's with disabilities communicative attempts of children with disabilities and responded to them promptly	20	38.5
<i>Adult involvement in peer interactions</i>					
Teachers allowed children to participate in many classroom activities and routines with peers	39	75.0	Teachers maintained a balance between getting involved in and allowing the development of natural and spontaneous interactions among children	13	25
Teachers occasionally acknowledged and/or responded to children's interactions in encouraging ways	28	53.8	More socially competent children were encouraged to model for or interact with peers who experienced difficulties in forming social relationships	11	21.2

(Continued)



**Table 2.** (Continued).

Practices of 'minimal' quality	<i>n</i>	%	Practices of 'good' quality	<i>n</i>	%
<i>Adaptations of group activities</i>					
Teachers usually allowed children to participate in some group activities with their peers	33	64.7	Children engaged in the same type of activity as their peers, although they were working on individual goals	18	35.3
Children interacted with materials or others in compliance with the overall demands of group activity	30	58.8	Teachers modified the objectives of the activities, materials or their instructional support to promote children's engagement	16	30.8
<i>Membership</i>					
Children were provided some opportunities to make choices regarding daily routines and activities	38	73.1	Peers showed understanding and respect for children's differences	16	30.8
Children were provided some opportunities to assume social roles and responsibilities	17	32.7	Teachers provided children with the necessary support to make choices and decisions about their own learning experiences (e.g. using a picture schedule to help a child choose an activity)	10	19.2
Teachers generally intervened to stop bullying or persistent teasing between children with and without disabilities	16	30.8			

### **Model of special education provision**

A one-way ANOVA was conducted to determine differences in quality ratings for classrooms that varied in terms of the model of special provision that was available for children with disabilities. The results showed that quality was higher in classrooms operating an in-class support model ( $M = 3.51$ ,  $SD = 1.25$ ) compared to classrooms adopting a pull-out programme ( $M = 2.75$ ,  $SD = 1.09$ ) or without additional provision ( $M = 2.76$ ,  $SD = 1.27$ ). However, this difference was not statistically significant [ $F(2, 49) = 2.31$ ,  $p = .110$ ,  $\eta_p^2 = .29$ ].

### **Group size**

A Spearman's rho correlation was computed between quality and group size consisting of the number of children with and without disabilities in each classroom (a variable not normally distributed). The analysis did not identify a significant relationship;  $r_s = -.028$ ,  $p = .842$ .

### **Number of children with disabilities**

A *t*-test comparison was applied to examine differences in quality between classrooms that served only 1 child with an identified disability ( $n = 29$ ) and classrooms that served more than one child ( $n = 23$ ). On average, in cases where 1 child was present teachers employed practices of a higher quality ( $M = 3.23$ ,  $SD = 1.33$ ) than those with more than one child ( $M = 2.72$ ,  $SD = 1.04$ ). However, the difference detected was not statistically significant [ $t(50) = 1.55$ ,  $p = .126$ ,  $r = .22$ ].

### **Teachers' years of teaching experience per classroom**

Spearman's rho correlations were performed to determine relationships between programme inclusion quality and teachers' (both regular and special) years of teaching experience. In cases where more than one teacher was present, the scores in data analysis reflected an aggregate of the years of teaching experience of all regular or special educators. A negative correlation was found between programme quality and regular teachers' years of teaching experience ( $r_s = -.237$ ), with quality being higher in classrooms where teachers had fewer years of experience. This relationship approached, but did not reach, statistical significance

$p = .09$ . Likewise, no significant correlation was found between special teachers' years of teaching experience and the quality of inclusive practices employed,  $r_s = -.189, p = .255$ .

### *Teachers' professional training in SEN per classroom*

A *t*-test analysis was conducted to account for differences in quality between classrooms where at least one teacher (usually the special teacher) had completed a long-term programme resulting in the acquisition of recognised qualifications in special education ( $n = 32$ ) and classrooms where teachers had had no formal training ( $n = 20$ ). A higher quality was found in classrooms where trained teachers were working ( $M = 3.17, SD = 1.12$ ) than those in which teachers had had no training in special education issues ( $M = 2.74, SD = 1.34$ ). However, the effect of this variable was not found to be statistically significant [ $t(50) = -1.25, p = .216, r = .17$ ].

## Discussion

The aim of this study was to explore quality practices in 52 mainstream preschool classrooms in Greece by assessing: (a) the extent to which teachers' practices encouraged access and participation in the academic and social activities of the classroom for children with disabilities; and (b) whether specific context and teacher characteristics were related to the quality of these programme practices. The small sample size of the study, though representing all three models of special provision in the Greek mainstream education system, does not allow the generalisation of the findings to all teachers and children with and without disabilities across the whole physical geography of the country. However, the results reported here advance existing theories and practices by presenting guidance as to possible considerations that merit further research in the development of high-quality inclusive programmes in preschool education.

Findings from this study indicated that the quality of specific practices for children with disabilities, as measured through the ICP scale (Soucacou, 2007), was generally of low to minimal standard (2.58–3.69). Areas of major concern, that is domains of practices where quality of inclusion was low, included: membership; adult involvement in peer interactions; adaptations of group activities; support for social communication; transitions between activities; and adult guidance of children's play. In contrast, areas of relative strengths of the participating settings, that is, domains which fell in the minimal range of scores, were: adaptations of space and materials; adult-child social communicative interactions; and feedback.

The results of this study differ slightly from those of other studies which were conducted in different educational settings, mainly in industrially developed countries, where inclusive education has a much longer history of policy and implementation. In England, a more diverse range of ratings (2.51–4.54) was found even though none of the ICP items accumulated high-quality mean scores. The items 'Adaptations of group activities' and 'Adult's guidance of children's play' had the first ( $M = 4.54$ ) and the second ( $M = 3.82$ ) highest mean scores respectively (Soucacou, 2007). In the USA study, all items averaged equally or above the ICP criterion score of 4 (Range = 4.00–5.22) (Muccio et al., 2014). In fact, all programmes received a good rating in their adaptations of group activities ( $M = 5.00$ ) and their methods of organising and modifying transitions between classroom activities ( $M = 5.22$ ).

The low to minimal mean scores detected at the item level of the ICP scale in the Greek sample pose significant challenges to the processes currently operating in preschools for

supporting the inclusion of children with disabilities. Further analyses of the results indicated that in the majority of the participating classrooms, teachers employed practices that promoted access and participation for children with disabilities to the learning and social milieu of the classroom only to a small degree. The results also revealed that, in a significant minority of cases, teachers used inappropriate practices, which may, among other disadvantages, place children with disabilities at yet another risk of experiencing exclusion.

Given that advances in the field identify high quality preschool inclusion practices as programmes that nurture every child's goals and promote not only their active participation but also social relationships and learning progress (Odom et al., 2011), the evidence reported here raises serious concerns about the benefits children with disabilities gain out of relatively low quality inclusion programmes. Previous studies that examined the experiences of children with disabilities in low quality settings have demonstrated a 'state of relative marginalisation' by their peers; patterns of low complexity in relation to their engagement during a range of class activities; limited access to information and materials within the classroom due to the absence of alternative systems; and inadequate support of their individual objectives (Boavida, Aguiar, McWilliam, & Pimentel, 2010; Brown, Packer, & Passmore, 2013; Kemp, Kishida, Carter, & Sweller, 2013).

In an effort to identify factors that may contribute to the existence of low to minimal quality practices, we proceeded even further by examining possible associations between classroom quality and context as well as teacher-related features of the preschool programmes. This involved examining features such as: the model of special education provision; the group size; and the number of children with disabilities (context-related) as well as the teachers' training in special education and their teaching experience in years (teacher-related). Interestingly, none of these variables were found to have a statistically significant effect on the level of quality employed for young children with disabilities.

From a statistical perspective, the failure to identify statistically significant differences between the quality of inclusion programmes and the examined factors may be due to the relatively small number of classes that constituted the sample of this study. Thus, examination of such relations would benefit from future studies with larger samples. On the other hand, this result might be attributed to problems in item design and/or to strict requirements in the scoring system of the ICP. For instance, it was found that relatively low mean scores at the item-level on ICP occurred with high item-to-total correlations and factor loadings (see Fyssa, & Vlachou, 2015). According to Viswanathan (2005), the occurrence of such a pattern suggests 'additive systematic error' (i.e. issues in content and tone item) which may be preventing low item mean scores in one population to differentiate from lower item mean scores in another population. In this line of reasoning, the ICP measurement may not be so statistically sensitive as to capture possible variations of quality among classrooms that differed in relation to their organisational and operational characteristics. If this result is replicated in other international studies, then it might be necessary to consider appropriate modifications and/or a further refinement of the initial version of the ICP items.

However, the concentration of the mean scores for the majority of the ICP items at the lower-range of the 7-point scale used in ICP might indeed mirror the actual level of quality offered to children with disabilities in regular Greek preschool classrooms. This suggestion can be explained by reflecting on results from other national studies that have explored the quality of early childhood provision in general (e.g. Mantziou & Petrogiannis, 2009; Petrogiannis, 2002; Rentzou, 2010). These studies indicated that infants, toddlers and

preschool-aged children participate in centre-based settings which function in a rather poor manner. That being the case, the mainstream care and education system in Greece is, to a great extent, not only unable to respond sensitively and appropriately to the potential needs of ordinary children but even less able to accommodate the needs of children with disabilities. In an era of dramatic financial and socio-political crisis in the country, where the quantity and the quality of resources are inadequate, the capacity for the mainstream care and education system to reach out to all diverse learners is further challenged.

In addition to the above-mentioned challenges, one justification for low-quality practices used by the participating teachers seems to rest on their 'conflicting and restrictive' beliefs about inclusive education which became apparent through the semi-structured interviews that were conducted in an attempt to cross-validate and corroborate the observational records (Fyssa, Vlachou, & Avramidis, 2014). Specifically, the analysis revealed that although teachers understood inclusion to be a mechanism for promoting acceptance and participation for children with disabilities, at the same time, most of them assumed an 'integrationist' standpoint (for a reflection on frequencies and percentages, see Fyssa, Vlachou, & Avramidis, 2014). They claimed that the success of inclusion was largely dependent on the disabled pupil's individual characteristics and, by extension, on his or her ability to assimilate into a largely undifferentiated classroom environment.

Thus, it was not surprising to find a lack of statistically significant association between quality and different models of special support. In fact, it was found that in classrooms where the pull-out programme was in operation, the level of quality was equally as low as in classrooms where no additional support was available to children with disabilities. This result provides evidence further verifying the growing criticism in relation to the inadequacy of the pull-out programme measure designed to change the educational mainstreaming practices in favour of more inclusive approaches (for a detailed analysis of this criticism, see Vlachou, 2006; Zoniou-Sideri, Deropoulou-Derou, Karagianni, & Spandagou, 2006).

Better ratings on the ICP were found in classrooms where the in-class support model was followed, compared to previous cases (i.e. 'pull-out programme' or 'no additional provision' classrooms). However, the magnitude of this effect was not significant. An explanation for this pattern can be found when considering the way in which the in-class support model is put into practice by teachers. In a recent Greek study by Strogilos and Tragoulia (2013), regular and special teachers were shown to apply the 'in-class support model' by adopting a more individualistic rather than co-teaching response to pedagogy. This practice encompassed separate and unequal roles for regular and special educators, in which the former (the 'leaders') were responsible for planning-delivering instruction and classroom management and the latter (the 'assistants') were responsible for providing tuition and support to the individual pupils with disabilities.

The dominance of such individualistic practices and normative assumptions about disability has been identified as one of the most significant barriers to quality, sustainability and inclusion in education (Petriwskyj, 2010). This is a core characteristic of programmes where regular education teachers have not received sufficient training in issues relating to inclusion and inclusive education (Purdue, 2009). In this study, only 19% of the regular preschool teachers had attended short-term sessions (e.g. conferences, talks) focusing mainly on a categorical approach to disability.

As far as the special preschool teachers were concerned, the vast majority (94.7%) were qualified based on the teacher qualifications framework for special educators (the Special

Education of Persons with Disability and Special Educational Needs Act of 2008 [PL 3699], § 199–20). In fact, most of them had completed a master's degree in special education or a 2-year postgraduate training programme or 400-h university-based seminars. At this stage, claims of a direct causal relationship between such long-term teacher training practices for special education teachers and exclusive preschool environments might be difficult to successfully defend. However, as previous research has shown, the difficulty special teachers have in moving beyond traditional integrationist/individualistic approaches to difference may be connected to the restricted content of the courses offered in initial teacher education programmes (Purdue, Gordon-Burns, Gunn, Madden, & Surtees, 2009). Moreover, the fact that 79% of the participating special educators were 'beginners' (i.e. 20 teachers fell in the less than 1 year and 1–5 years of teaching experience categories) may place an 'extra burden' on the facilitation of collaboration between them and their regular education colleagues (Strogilos, Nikolaraizi, & Tragoulia, 2012).

## Conclusion

The aim of this article was not to reach any final conclusions, but to begin a discussion concerning the quality of classroom practices employed by regular and special education teachers and its associated factors in the process of promoting more inclusive experiences for children with disabilities. The results illustrated that the quality, as measured through the ICP, ranged from low to minimal, with the teachers more frequently implementing practices that only partially promoted access and participation for children with disabilities in curriculum-based activities. It was also found that neither context-related characteristics (i.e. model of special education provision, group-size and number of children with disabilities) nor teacher-related characteristics (i.e. level of teacher training in special education and years of teaching experience) associate with programme quality.

Although it was recognised that the existence of no context or teacher effects on quality of inclusion may be attributed to statistical problems, through the discussion we attempted to describe some extra reasons behind the occurrence of poor levels of quality for children with disabilities in the mainstream classroom. It was argued that these results may be related to: (1) the low quality of the Greek mainstream early care and education system that is available, in general, for infants, toddlers and preschool-aged children; (2) the insufficient resources of a society that struggles with a poverty rate of 23.1% compared to the other European countries (Hellenic Statistical Authority, 2014); (3) the assimilative and individualistic approaches to disability articulated/implemented by the preschool teachers; (4) the restricted content of the initial teacher education programmes, neglecting inclusive practices; and (5) the restrictive opportunities for professional development for practitioners. The above-mentioned factors reflect on a number of issues pertaining to the current political, social and educational context within which particular practices have been observed.

Finally, the present study contributes to the emergent research on the ICP and provides evidence about its use for assessing and comparing quality across inclusive programmes in a country (i.e. Greece) different from the UK (Soucacou, 2007) and the USA (Muccio et al., 2014; Soukakou et al., 2013, 2014). The results obtained here may have important implications for the evolvement of the ICP measure in order to better capture preschool inclusion quality in future national or cross-national studies (Soukakou, 2012). From this study, it is also apparent that we have much to learn about which elements – placed within and without

the micro-system of the mainstream classroom – need to be considered for establishing high-quality inclusive education for individual children with disabilities (Odom et al., 2004; Spiker, Hebbeler, & Barton, 2011).

For this reason, more empirical studies are needed in order to monitor the ability of the preschool programmes to provide quality of provision to all children with and without disabilities. As part of this endeavour, it is important to consider studies of a mixed-method design for capturing the multiplicity of factors that may serve as barriers to inclusion and those that may facilitate its implementation. As Gay, Mills, and Airasian (2012) assert that '[t]he purpose of mixed methods research is to build on the synergy and strength that exists between quantitative and qualitative research methods to understand a phenomenon more fully than is possible using either quantitative or qualitative methods alone' (p. 483). In this way, researchers will be able to form the basis of an evidence-based and culture-sensitive framework of quality assessment and measures, in terms of policies and practices, to promote the effectiveness of inclusive education in their countries.

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