

# Chapter 11

## Understanding the Developmental Needs of Children With Developmental Language Disorder According to Professionals

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### ABSTRACT

*The aim of the study was to explore professional understanding of the developmental needs of children with developmental language disorder (DLD), the diagnostic criteria that they apply, as well as the challenges they face when working with children with DLD. One hundred and fifty-four professionals (35 educational psychologists (EPs), 75 speech and language therapists (SLTs), and 44 special educational needs teachers (SEN teachers)) completed a questionnaire. Results showed that although most professionals were familiar with the term “DLD,” they defined it differently. Most professionals reported that children with DLD have difficulties both in receptive and expressive language as well as socio-emotional problems. Regarding the diagnostic criteria, SLTs used mostly the discrepancy and the language deficits criteria. Last, participants identified different challenges according to their professional orientation. The results are discussed in terms of how they could better inform both training and practice to be able to respond more appropriately to children’s developmental needs.*

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## **INTRODUCTION**

DLD is a common developmental disorder that affects both across and within language domains such as phonology, semantics, morphology, grammar, syntax, pragmatics in both expressive and receptive level (Bishop, 2006; Leonard, 1998). DLD affects about 7% of the children at school entry (Tomblin et al, 1997; Norbury et al., 2016), while it is also persistent, since it can affect language abilities into adolescence or even into adulthood (Brizzolara et al., 2011). Children with DLD are also at risk for less successful academic outcomes as well as behavioral, emotional and social difficulties (Conti-Ramsden et al., 2009; St Clair et al., 2011).

Although DLD affects a substantial number of children and young people it has traditionally received much less research attention when compared to other developmental disorders (e.g. Autistic Spectrum Disorder, Attention Deficit and Hyperactivity Disorder, Bishop, 2010), whereas public awareness of the disorder and knowledge of its manifestations are still limited (Thordardottir et al, 2021). Additionally, to date, professionals' views about DLD have been studied mainly in English speaking countries by a small group of studies (Bishop et al., 2017) and there is a paucity of information concerning professionals' perspectives about DLD in other countries, such as Greece.

Previous studies have shown that professionals (SLTs, and Eps) have different views concerning the terminology and the criteria used for the diagnosis of DLD, the characteristics and difficulties experienced by children with DLD, (Dockrell et al., 2014; Glover et al., 2015; Palikara et al. 2007). Many reasons may account for this variation. For example, in the last four decades, there was a confusion resulting from differences in terminology (e.g., *Language Disorder*, *Specific Language Impairment*, *Speech and Language Deficits or Disorders*, *Primary Language Impairment*) (Reilly et al., 2014) or in the diagnostic criteria used by researchers and professionals worldwide to identify children with DLD (Bishop, 2014; Reilly et al., 2014). These reasons have raised barriers to the communication and collaboration among professionals that may also have an impact on raising public awareness about the specific disorder, on the process of activating the appropriate services providing support or choosing the most effective methods and programs for intervention (Hartas, 2004). At the same time, it is important to be aware of the professionals' understanding of the above issues as it is evidenced that their professionalism may have an impact on the implementation of programs and strategies enhancing children's learning, social and emotional wellbeing (St Clair et al., 2011).

Thus, the aim of the current study was to investigate Greek professionals' understanding of (a) DLD (terminology, provision of a definition), (b) the language and socio-emotional needs of children with DLD (c) the diagnostic criteria they apply as well as the challenges they face when working with children with DLD, given the fact that to our knowledge, no previous studies have been carried out in Greece, while very few studies have been conducted in this domain internationally (Dockrell et al., 2014; Glover et al., 2015; Palikara et al. 2007).

## **Professionals' Understanding of DLD: Previous Studies**

Until recently, there was no agreed terminology for describing childhood language problems (Reilly et al., 2014). One reason for this was the fact that DLD is a complex and heterogeneous condition with no clear-cut boundaries from either typical development or other developmental disorders (Reilly et al., 2014). However, after the publication of DSM-5 (American Psychiatric Association, 2013), there has been considerable progress in the theoretical understanding of DLD which acknowledges that multiple

mechanisms may work together to produce the range of profiles observed in children with DLD (Morton, 2004).

In this context, during the last two decades a group of studies have investigated the professionals' views about children with language difficulties (e.g. Dockrell & Howell, 2015; Dockrell et al. 2017). For example, Dockrell and Howell (2015) explored the views of experienced practitioners regarding children with speech, language and communication needs (SLCN). They reported that those practitioners used a range of terminology to refer to this group of children and they mentioned that literacy difficulties (reading decoding, reading comprehension, spelling, writing texts) were associated with language difficulties. They also mentioned a tendency for respondents to report that children with SLCN also experienced socio-emotional difficulties.

Dockrell et al. (2017) in another study compared the views of experienced education professionals and SLTs on children with SLCN. Education professionals were less familiar with terminology related to speech difficulties (e.g. articulation disorder, phonological disorder, oro-motor dyspraxia), but showed awareness of their academic (reading and writing) and behavior problems associated with language difficulties. SLTs reported to be confident in their understanding of the relevant DLD terminology but there was less clarity among them in the features that discriminated speech from language difficulties.

Thomas et al. (2019) explored SLTs views regarding assessment, diagnosis and characteristics of children with DLD. Regarding the diagnostic criteria, most of SLTs agreed on the inclusion of both language (e.g. syntax and grammar) and cognitive domains (e.g. phonological short-term memory and working memory); moreover, one third of the SLTs participating in their study reported that children with DLD may have difficulties with accessing the academic curriculum and their social relationships.

In Greece, SLTs are the professionals who mainly assess children with DLD. EPs participate in the assessment and diagnosis of children with language difficulties, particularly in relation to evaluation of their cognitive abilities and the presence or not of emotional difficulties. Teachers and mostly SEN teachers are the key persons for early identification and support of children with DLD in the Greek mainstream classroom. Child Psychiatrists, Child Neurologists and Developmental Pediatricians and SLTs working in public or private health and education services are those responsible for the ascription of DLD diagnosis. They are traditionally based on the DSM-5 and ICD-10 diagnostic criteria.

As it can be seen, only a limited number of studies have examined the perspectives of professionals' understanding of DLD, with most of the studies being conducted mainly in countries such as Great Britain or USA. To our knowledge only one study was recently conducted in Greece exploring preschool (KTs) and primary school teachers (PSTs) views of children with DLD in Greek mainstream schools (Ralli et. al. 2022). They found that half of the participants, did not know the term DLD, while among those who provided a definition for DLD most of them used a language-deficit focused definition. Both groups of professionals reported that children with DLD have vocabulary and syntactic difficulties in the receptive language. In the expressive language KT's identified more articulation and phonological difficulties, while PSTs referred vocabulary and grammatical difficulties. The majority of professionals mentioned additional difficulties such as emotional and behavioral problems. Both groups identified a variety of challenges while working with children with DLD. KT's focused mostly on children's emotional difficulties, while PSTs reported mostly their learning difficulties. Mapping the professionals views of DLD could contribute to a better understanding of the difficulties and challenges they face, in order to efficiently meet the children's needs.

## **The Present Study**

The aim of the present study was to investigate Greek professionals' (EPs, SLTs and SEN teachers) understanding of (a) DLD (terminology and definition), (b) the language and socio-emotional needs of children with DLD. Also another aim was to explore the diagnostic criteria for DLD that the professionals use as well as the challenges they face when working with children with DLD. Therefore the following research questions were stated:

- (1) To what extent understanding (terminology, definition) of DLD differ among the professionals? It was expected that EPs and SEN teachers to be less familiar than SLTs with current terminology and to provide less sufficient definitions for DLD (Dockrell & Howell, 2015; Dockrell et al., 2017).
- (2) To what extent the views about the language and socio-emotional needs of children with DLD differ among the professionals? It was expected SLTs to have a more refined understanding of the wider linguistic needs of children with DLD (Dockrell and Howell, 2015; Dockrell et al., 2017), while for EPs and SEN teachers it was anticipated to have a better awareness of the socioemotional needs that are often experienced by the children with DLD (Dockrell and Lindsay, 2001).
- (3) To what extent the perspectives about the diagnostic criteria for DLD as well as the challenges they face differ among the professionals? It was expected that EPs and SEN teachers to be less familiar than SLTs with the diagnostic criteria and to face different challenges than SLTs (Thomas et al., 2019).

## **Method**

### **Participants**

One hundred and fifty-four professionals (SLTs, EPs and SEN teachers) participated in the study (n=154; 87% female and 13% male). Thirty-five of them were EPs (22.7%), 75 SLTs (48.7%) and 44 SEN Teachers (28.6). Most of the professionals (SLTs, EPs and SEN teachers) aged between 31-40 years old, worked in private services for at least 6-10 years and had a postgraduate degree in Education (Table 1).

### **Materials**

Participants responded to an online survey which was based on previous relevant studies (Dockrell and Lindsay, 2001; Dockrell and Howell, 2015; Dockrell et al., 2015, Dockrell et al., 2017; Ralli et al. 2022), the Greek curriculum and educational system. The questionnaire was piloted with a small group of twenty professionals (8 EPs, 5 SLTs and 7 SEN teachers) prior to the main study in order to ensure that the context of the questions was well understood as well as in order to evaluate the construct validity of the instrument. Changes in wording were made for this purpose considering professionals' (SLTs, EPs' and SEN teachers') comments of the pilot version of the questionnaire. Regarding the validity of the questionnaire, there was a remarkably high percentage of agreement (>95%) among the professionals to the extent the questions were comprehensible for the readers as well as whether this questionnaire was in fact measuring what it was supposed to measure.

The final questionnaire consisted of three sections. In the first section, the respondents were asked to complete their demographic information, (gender, age, education, profession, working sector and

## Needs of Children With Developmental Language Disorder

Table 1. Demographics of the professionals

	Educational Psychologists n (%)	Speech & Language Therapists n (%)	Special Educational Needs Teachers n (%)
<b>Gender</b>			
Female	34 (97%)	65 (87%)	35 (80%)
Male	1 (3%)	10 (13%)	9 (21%)
<b>Age group</b>			
20-30	9 (26%)	16 (21%)	14 (32%)
31-40	18 (51%)	34 (45%)	13 (30%)
41-50	6 (17%)	21 (28%)	13 (30%)
51-60	2 (6%)	3 (4%)	4 (9%)
>60	0 (0%)	1 (1%)	0 (0%)
<b>Educational level</b>			
Undergraduate degree	9 (26%)	37 (49%)	7 (16%)
Postgraduate degree	13 (37%)	31 (41%)	29 (66%)
PhD	13 (37%)	7 (9%)	8 (18%)
<b>Where are you working now?</b>			
Public sector	21 (60%)	14 (19%)	23 (52%)
Private sector	12 (34%)	57 (76%)	21 (48%)
Unemployed	2 (6%)	4 (5%)	0 (0%)
<b>How many years have you been in this role?</b>			
1-5	12 (34%)	15 (20%)	13 (30%)
6-10	13 (37%)	22 (29%)	7 (16%)
11-15	3 (9%)	20 (27%)	13 (30%)
> 16	7 (20%)	18 (24%)	11 (25%)

experience). The second section examined professionals' understanding of DLD. Using open-ended questions, professionals were asked whether they were familiar with the term DLD as well as to provide a definition for DLD. In this section, participants had to choose: (a) 3 out of 5 domains in receptive language (vocabulary, grammar, syntax, morphology, pragmatics) that preschool and school aged children with DLD present the most difficulties; (b) 3 out of 7 domains in expressive language (vocabulary, grammar, syntax, morphology, pragmatics, articulation and phonology) that children present the most difficulties, and (c) 3 out of 4 socio-emotional domains (emotional, behavioral, social problems, other) that they face difficulties.

The third section required from the professionals to identify the criteria for diagnosis by using an open-ended question. They were further asked about the challenges they face when working with children with DLD by choosing three among a list of six challenges (language issues, learning issues, emotional difficulties, behavioral issues, cooperation with parents, and cooperation with teachers).

## Procedure

The research protocol for this study was approved by the Research Ethics Committee of National and Kapodistrian University of Athens, Greece. The questionnaire was created using Google Forms. Professionals working in public and private services in different geographical regions of Greece completed anonymously and voluntarily an online questionnaire. The link of the questionnaire was disseminated to the heads of educational and health services. The invitation explained the importance of collecting further information about DLD. In cases that the questionnaire was not completed, a reminder was sent to them two weeks later. The time needed for the completion of the questionnaire was ten to fifteen minutes.

## RESULTS

### Professionals' Understanding of Developmental Language Disorder

Professionals were asked whether they were *familiar with the term 'Developmental Language Disorder* and also *to provide a brief definition of DLD*." In total, the majority of the professionals reported that they were familiar with the term DLD.

The professionals were also asked *to provide a definition for DLD*. Answers had the form of quotes and through a content analysis conducted by the authors, codes and common themes emerged. These common themes became the options of new categorical variables that were used in the statistical analyses (see below in the results). Following a content analysis, the definitions provided were grouped into three categories: (a) *no answer*: when they didn't provide any answer (b) *insufficient definitions*: answers focusing only on language deficits, (answers like: "Difficulties in speech", "Congenital difficulties in oral speech") and (c) *sufficient definitions*: answers focusing on a discrepancy between nonverbal and language skills and / or additional difficulties, (answers like: "Difficulties in receptive and expressive language and / or the use of language despite typical development", "Difficulties in comprehension and expression which are not based on neurological or cognitive disorders"). The EPs and the SEN teachers provided statistically significant more "insufficient definitions," while the SLTs provided statistically significantly "no definitions."

Regarding the terminology that professionals used to refer to children with DLD, the EPs and SEN teachers used statistically significantly more the term "Speech and language difficulties" while the SLTs the term "DLD/SLI" in comparison to the other terms (Table 2).

### Language Difficulties of Preschool and School Age Children With DLD

Professionals were also asked to identify the language modalities (receptive, expressive, or both) that preschool and school aged children with DLD have the greatest difficulties. Regarding the preschool children (Table 3) most of the EPs mentioned expressive language difficulties, while SLTs and SEN teachers reported both expressive and receptive language difficulties.

More specifically, regarding the receptive language difficulties of preschool children, all groups of professionals reported statistically significantly more difficulties with vocabulary than the other language domains. As it concerns the expressive language difficulties the EPs mentioned statistically significantly

## Needs of Children With Developmental Language Disorder

Table 2. Professionals' understanding of DLD

	Educational Psychologists n (%)	Speech & Language Therapists n (%)	Special Educational Needs Teachers n (%)
<b>Do you know the term DLD?</b>			
Yes	32 (91%)	71 (95%)	36 (82%)
No	3 (9%)	4 (5%)	8 (18%)
	$\chi^2 (1) = 24.03$ , $p < 0.001$	$\chi^2 (1) = 59.85$ , $p < 0.001$	$\chi^2 (1) = 17.82$ , $p < 0.001$
<b>Please provide a brief definition of the term DLD.</b>			
No definition	8 (23%)	33 (44%)	15 (34%)
Insufficient definition	22 (63%)	23 (31%)	19 (43%)
Sufficient definition	5 (14%)	19 (25%)	10 (23%)
	$\chi^2 (2) = 14.11$ , $p = 0.001$	$\chi^2 (2) = 4.16$ , $p = 0.125$	$\chi^2 (2) = 2.77$ , $p = 0.250$
<b>From the provided list which terminology do you use when you refer to the children with language difficulties?</b>			
Developmental Language Disorder/ Specific Language Impairment	6 (17%)	32 (43%)	10 (23%)
Language Disorders	5 (14%)	13 (17%)	7 (16%)
Speech, Language and Communication Disorders	4 (11%)	7 (9%)	6 (14%)
Speech and Language difficulties	19 (54%)	23 (31%)	21 (48%)
	$\chi^2 (4) = 27.71$ , $p < 0.001$	$\chi^2 (3) = 19.45$ , $p < 0.001$	$\chi^2 (1) = 12.90$ , $p = 0.005$

more difficulties with articulation, while the SLTS and SEN teachers reported more difficulties with expressive vocabulary.

In respect to the school age children (Table 4) all groups of professionals mentioned difficulties both in the receptive and expressive modality. Regarding receptive and expressive language, all the professionals mentioned statistically significantly more difficulties in receptive and expressive vocabulary than the other domains. while in addition the SEN teachers reported difficulties with syntax.

## Socio-Emotional Difficulties of Preschool and School Age Children With DLD

Professionals were also asked to identify from a given list the *three most important difficulties in the socio-emotional domain that children with DLD are constrained with*. For preschool children, the EPs mentioned statistically significantly more “difficulties in their relations with others,” the SLTs reported mostly “behavior problems,” while the SEN teachers referred mostly to “emotional difficulties.” For school age children a change was evident, according to which each group of professionals referred to emotional difficulties as the most prominent difficulty of this age group (Table 5).

## Professionals' Views About Diagnostic Criteria for DLD

Using an open-ended question, professionals were asked to report the diagnostic criteria for DLD that they usually employ. Professionals' responses were coded into the five following categories: (a)

Table 3. Language difficulties experienced by preschool children with DLD

	Educational Psychologists n (%)	Speech & Language Therapists n (%)	Special Educational Needs Teachers n (%)
<b>Based on your experience, in which of the following domains preschool children with DLD have the greatest difficulties?</b>			
Receptive language	1 (3%)	3 (4%)	1 (2%)
Expressive language	19 (54%)	26 (35%)	14 (32%)
Both	14 (40%)	46 (61%)	29 (66%)
	$\chi^2 (2) = 15.23$ , $p < 0.001$	$\chi^2 (2) = 37.04$ , $p < 0.001$	$\chi^2 (1) = 26.77$ , $p < 0.001$
<b>Based on your experience, in which of the following domains of receptive language preschool children with DLD have the greatest difficulties?</b>			
Syntax	2 (5%)	13 (17%)	5 (11%)
Morphology	6 (17%)	6 (8%)	5 (11%)
Vocabulary	19 (55%)	43 (57%)	28 (64%)
Grammar	2 (6%)	3 (4%)	0 (0%)
Pragmatics	6 (17%)	8 (11%)	6 (14%)
	$\chi^2 (4) = 28.00$ , $p < 0.001$		$\chi^2 (1) = 35.09$ , $p < 0.001$
<b>Based on your experience, in which of the following domains of expressive language preschool children with DLD have the greatest difficulties?</b>			
Syntax	3 (9%)	10 (13%)	2 (5%)
Morphology	2 (6%)	4 (5%)	3 (7%)
Vocabulary	5 (16%)	26 (35%)	16 (36%)
Grammar	1 (3%)	1 (1%)	4 (9%)
Pragmatics	2 (6%)	2 (3%)	1 (2%)
Articulation	15 (43%)	11 (15%)	9 (21%)
Phonology	6 (17%)	19 (25%)	9 (21%)
	$\chi^2 (6) = 28.58$ , $p < 0.001$	$\chi^2 (6) = 49.64$ , $p < 0.001$	$\chi^2 (6) = 27.27$ , $p < 0.001$

no answer, (b) *irrelevant answer*: no reference to a specific criterion, e.g. “I just report areas of difficulties”, (c) *discrepancy criterion* between the performance in nonverbal IQ test and a standardized language test, e.g. “Low language skills and average nonverbal skills” (d) *language deficits only*: significant difficulties in several areas of receptive and expressive language, e.g. “Difficulties in receptive and expressive language and resistance to intervention”, and (e) *expressive language, literacy and additional difficulties*, e.g. “Difficulties in expressive language, reading, writing, memory and self-esteem” (Table 6). Most of the professionals in each group did not provide an answer. From the answers provided, the SLTs used statistically significantly mostly the *discrepancy* and the *language deficits* criteria (Table 6).



## Needs of Children With Developmental Language Disorder

Table 4. Language difficulties experienced by school-aged children with DLD

	Educational Psychologist n (%)	Speech & Language Therapist n (%)	Special Educational Needs Teachers n (%)
<b>Based on your experience, in which of the following domains school-aged children with DLD have the greatest difficulties?</b>			
Receptive language	3 (9%)	9 (12%)	4 (9%)
Expressive language	13 (37%)	24 (32%)	12 (27%)
Both	18 (51%)	42 (56%)	28 (64%)
	$\chi^2 (2) = 10.29$ , $p = 0.006$	$\chi^2 (2) = 21.84$ , $p < 0.001$	$\chi^2 (2) = 20.36$ , $p < 0.001$
<b>Based on your experience, in which of the following domains of receptive language school-aged children with DLD have the greatest difficulties?</b>			
Syntax	3 (9%)	9 (12%)	8 (18%)
Morphology	2 (6%)	7 (9%)	5 (11%)
Vocabulary	20 (57%)	42 (56%)	20 (46%)
Grammar	4 (11%)	5 (7%)	3 (7%)
Pragmatics	4 (11%)	8 (11%)	7 (16%)
	$\chi^2 (4) = 34.42$ , $p < 0.001$	$\chi^2 (4) = 68.64$ , $p < 0.001$	$\chi^2 (4) = 20.61$ , $p < 0.001$

Table 5. Socio-emotional difficulties experienced by preschool and school-aged children with DLD

	Educational Psychologists n (%)	Speech & Language Therapists n (%)	Special Educational Needs Teachers n (%)
<b>Socio-emotional difficulties that preschool children with DLD face</b>			
Emotional difficulties (e.g., stress)	13 (37%)	22 (29%)	21 (48%)
Behavioral problems (e.g., aggression)	6 (17%)	34 (45%)	8 (18%)
Difficulties in their relations with others	15 (43%)	15 (20%)	11 (25%)
Other	0 (0%)	1 (1%)	2 (5%)
I do not know	1 (3%)	3 (4%)	2 (5%)
	$\chi^2 (2) = 3.94$ , $p = 0.139$	$\chi^2 (4) = 54.87$ , $p < 0.001$	$\chi^2 (4) = 28.04$ , $p < 0.001$
<b>Socio-emotional difficulties that school-aged children with DLD face</b>			
Emotional difficulties (e.g., stress)	15 (43%)	31 (41%)	23 (52%)
Behavioral problems (e.g., aggression)	11 (31%)	23 (31%)	10 (23%)
Difficulties in their relations with others	8 (23%)	15 (20%)	9 (21%)
Other	0 (0%)	1 (1%)	0 (0%)
I do not know	1 (3%)	5 (7%)	2 (5%)
	$\chi^2 (2) = 2.17$ , $p = 0.337$	$\chi^2 (4) = 49.92$ , $p < 0.001$	$\chi^2 (2) = 8.71$ , $p = 0.013$

Table 6. Professionals' views about the diagnostic criteria for DLD

	Educational Psychologists n (%)	Speech & Language Therapists n (%)	Special Educational Needs Teachers n (%)
<b>Based on your experience, which criteria do you use for the diagnosis of DLD?</b>			
No answer	30 (85.7%)	36 (48%)	37 (84.09%)
Irrelevant answer	0 (0%)	8 (10.6%)	1 (2.27%)
Discrepancy	2 (5.71)	15 (20%)	2 (4.54%)
Language deficits only	0 (0%)	15 (20%)	1 (2.27%)
Expressive language and literacy and additional difficulties	3 (8.5%)	1 (1.3%)	3 (6.82)
	$\chi^2 (2) = 43.26$ , $p < 0.001$	$\chi^2 (4) = 45.73$ , $p < 0.001$	$\chi^2 (4) = 113.23$ , $p < 0.001$

## Challenges Identified by Professionals Working With Children With DLD

Participants were also asked to report the challenges they experience while working with children with DLD by choosing three among a list of six challenges (language problems, learning difficulties, emotional difficulties, behavioral problems, cooperation with parents, and cooperation with teachers). EPs reported statistically significantly more “emotional difficulties” as the predominant challenge they experience while working with children with DLD in comparison to the other challenges. SLTs and SEN teachers referred notably to language problems, in comparison to the other types of challenges (Table 7).

## DISCUSSION

The present study investigated for the first time Greek professionals' understanding of DLD, their views about the language and socioemotional difficulties of children with DLD, the diagnostic criteria they apply as well as the challenges they face when working with that group of children.

Table 7. Challenges identified by professionals working with children with DLD

	Educational Psychologists n (%)	Speech & Language Therapists n (%)	Special Educational Needs Teachers n (%)
<b>Which is the greatest challenge you face when you work with children with DLD?</b>			
Language problems	3 (9%)	32 (43%)	16 (36%)
Learning difficulties	4 (11%)	8 (11%)	7 (16%)
Emotional difficulties	9 (26%)	7 (12%)	5 (11%)
Behavioral problems	1 (3%)	9 (12%)	1 (2%)
Cooperation with parents	0 (0%)	5 (7%)	0 (0%)
Cooperation with teachers	1 (3%)	4 (5%)	0 (0%)
	$\chi^2 (4) = 12.00$ , $p = 0.017$	$\chi^2 (5) = 51.22$ , $p < 0.001$	$\chi^2 (4) = 25.33$ , $p < 0.001$

## **Professionals' Understanding of Developmental Language Disorder**

The majority of the professionals reported that they were familiar with the term DLD, which was in contrast with our initial hypothesis. This may be due to the fact that in addition to SLTs, EPs and SEN teachers engage in the assessment and education of children with DLD in Greece. At the same time, differences were revealed among groups of professionals concerning the term they use and the way they define this specific disorder, confirming the initial hypothesis. More specifically, it was found that SLTs prefer to use the term *DLD/SLI* whereas EPs and SEN teachers feel more comfortable with the term *Speech and Language Difficulties*. Similar findings were reported by earlier studies in the field (Dockrell & Lindsay, 2001; Palikara et al., 2007). Reilly and colleagues (Reilly et al., 2014) reported that one interpretation for this may be the fact that DLD is a complex and heterogeneous condition that affects not only language but other developmental domains as well. Thus, they acknowledged that it is a challenging task for all the professionals involved in DLD to agree on the use of a single term, as each one of them needs to highlight a different aspect of the disorder. It is not, therefore, surprising that most of the SLTs used the term 'Developmental Language Disorder/ Specific Language Impairment' as they acknowledge the severity of language deficits that children with DLD have. On the other hand, EPs and SEN teachers may respectively preferred the term 'Speech and Language Difficulties' because it is a more comprehensible term focusing on difficulties that can be "easily seen."

Professionals also had major difficulties in providing a definition about DLD; It is surprisingly that most SLTs did not provide a definition in comparison to the other groups. This finding may indicate that SLTs have a lack of knowledge, or that they thought the question was too easy or they felt embarrassment if they gave a wrong answer. Whatever the reason, this should be further investigated. Also, most of EPs and SEN teachers provided insufficient definitions. These findings are consistent with previous research which suggests that professionals working in mainstream schools feel that they do not have the necessary knowledge for that group of children (Antoniazzi et al, 2010; Daniel & McLeod, 2017; Dockrell and Lindsay, 2001; Glover et al, 2015; McAllister et al., 2011). Overall, this finding revealed restricted knowledge regarding DLD among all the professionals, imposing the need for changes in educational-training institutions and policy makers (Dockrell and Howell, 2015)

## **Language and Socio-Emotional Difficulties Experienced by Children With DLD**

Most of the SLTs and SEN teachers reported that preschool children with DLD have both receptive and expressive language difficulties, whereas EPs identified mostly expressive language difficulties. Regarding receptive language, all professionals (EPs, SLTs and SEN teachers) reported that preschool children with DLD experience marked difficulties in vocabulary. As far as expressive language is concerned, most SLTs and SEN teachers considered again vocabulary difficulties as the most prominent in preschool children, whereas EPs primarily mentioned articulation difficulties. This difference among professionals may suggest that EPs focus on difficulties that are more obvious during their interaction with children, like articulation problems, while SLTs and SEN teachers probably because of their training and involvement in the assessment procedure, can also identify difficulties in other domains not as much obvious as articulation (Hancock et al. 2023; Leonard, 2014). These differences among professionals also imply a lack of shared knowledge that can be related to limited opportunities for multidisciplinary

experiences (Hancock et al., 2022). All professionals, however, identified that school aged children with DLD have difficulties in both receptive and expressive language, and mentioned that vocabulary was the most affected domain in both modalities (receptive and expressive). This is not surprising as previous research has found that language difficulties that persist in school age are more severe and obvious (Leonard, 2014).

Regarding the socio-emotional domain, all professionals mentioned that children with DLD face socio-emotional difficulties in general but focused on various aspects according to the age of children and probably because of their different professional roles (Atkinson et al., 2015). Thus, for preschool children EPs reported mostly difficulties in their relations with others; SLTs mentioned behavioral problems and SEN teachers focused mostly on emotional difficulties. Regarding school aged children, all professionals referred that emotional difficulties were the most prevalent difficulties that children have additionally to their language deficits. Research findings support the above results (e.g., Yew, & O’Kearney, 2013) as it has been found that different types of emotional or behavioral problems may be more obvious in different ages groups of children with DLD (St Clair et al., 2019) and also that behavioral problems and peer relation problems decline with age (Levickis et al., 2017) and emotional deficits become more obvious (Clair et al., 2011).

### **Diagnostic Criteria for DLD and Challenges Identified by Professionals Working With Children With DLD**

The present study revealed that the majority of professionals had difficulties in reporting the criteria for the diagnosis of DLD as most of them avoided to provide a response to the specific question. From those who responded EPs and SEN teachers were less familiar than SLTs, a finding which agrees with our initial hypothesis. Also, it was found that SLTs applied mostly the criterion of *discrepancy* and the criterion of *language deficits*, whereas a limited number of EPs and SEN teachers reported the criterion of *deficits in expressive language, literacy and other skills*. The above findings concur with those of previous studies which reported that one of the main challenges that professionals working in schools have to deal with is their knowledge gap on DLD issues like diagnostic criteria (Dockrell et al, 1997; Dockrell & Howell, 2015; Dockrell & Lindsay, 2001).

Regarding the challenges the professionals face when working with children with DLD, EPs highlighted emotional difficulties whereas SLTs and SEN teachers referred notably to language difficulties. These different perspectives on the challenges they face may reflect that their different professional roles make them to focus on different developmental domains (Atkinson et al., 2015).

To our knowledge, this is the first study in Greece that has specifically examined the views of EPs, SLTs and SEN teachers concerning their knowledge about DLD. The findings of the current study shed some light on professionals understanding of DLD as well as the difficulties children face in different developmental domains, the diagnostic criteria professionals use and the challenges they face. However, the sample of professionals may be biased as those who responded to the survey may be the ones who were really interested in DLD. Nevertheless, the present study can form a basis for further research and allows for building evidence-based data concerning professionals’ understanding of DLD and children’s developmental needs.

## CONCLUSION

The findings of the present study provided novel data on Greek professionals' (EPs' SLTs,' and SEN teachers') understanding of DLD. It was demonstrated that although all the professionals were familiar with the term DLD, they used different terminology, they faced different challenges when working with children with DLD and only SLTs were aware of the diagnostic criteria in comparison to the other groups of professionals. There is a need to further explore the previous findings in future studies since, such findings may indicate the need for further training of professionals (SLTs, EPs and SEN teachers) and increased awareness of the specificity of the challenges children with DLD face in the educational environment, in order for those working with that group of children to achieve a common ground of understanding and respond to the needs both of the children and their families.

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## KEY TERMS AND DEFINITIONS

**DLD:** A difficulty in expressive and/or receptive language that some children exhibit during preschool age that are not explained by other biomedical conditions.

**Educational Psychologists:** Psychologists with license to practice and further academic training in special education.

**Language Difficulties:** Difficulties in all language domains in both receptive and expressive level; phonology, morphology, vocabulary, syntax, and pragmatics.

**Preschool Age:** Children aged from 4 to 6 years old.

**School Age:** Children aged from 6 to 12 years old.

**Socioemotional Difficulties:** Difficulties in relations with others and emotional difficulties (e.g., stress, anxiety, behavioral problems (e.g., aggression)

**Special Educational Needs Teachers:** Teachers with further academic training in special education.

**Speech and Language Therapists:** Speech and Language Therapists with license to practice.