



**Supporting Children with Developmental  
Language Disorder in Ireland**

**IASLT Position Paper and Guidance Document  
2017**

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# Foreword

As part of our advocacy role for both service users and Speech and Language Therapists IASLT is delighted to launch this document which clearly sets out the Irish Context for DLD beginning with the adoption of the consensus term ‘Developmental Language Disorder’.

This paper provides an outline of the services available for people with DLD in Ireland as well as the gaps in those services. It gives an excellent insight into the experiences of people living in Ireland today with DLD and the views of the Speech and Language Therapists working with them. It provides a useful framework around which to build services to support these children and families.

Developmental Language Disorder may be unrecognised and unidentified. Yet, when it is present it may impact significantly on the lives of those with DLD. We use our language skills to communicate basic needs, to have conversations and give opinions, to explain feelings and to create and maintain friendships. Language, without question, is key to learning (Boyer, 1991). Language is required to participate in school work, school life, social and employment opportunities.

As Speech and Language Therapists we are aware that Developmental Language Disorder is highly prevalent and that it may be a lifelong condition. In practice, children and adolescents may act out in frustration due to not understanding or not being understood by others. They may have difficulty joining in play and social activities due to misunderstanding of the rules of games and conversation. These experiences may result in reduced self-esteem. The challenges may be further compounded by those around the child or young person with DLD not recognising the underlying language difficulties. We have a growing knowledge of the benefits of interventions and wider support that can be provided. The use of consistent terminology can only help make the conversation about DLD more accessible.

IASLT wishes to acknowledge the hard work and dedication of the authors of this position paper and guidance document and the support provided by Edel Dunphy, IASLT Professional Development manager in bringing it to completion. It will undoubtedly contribute to the development of services for people with DLD in this country.

**Niamh Davis**

*Co-Chairperson IASLT*

 **IRISH ASSOCIATION OF SPEECH & LANGUAGE THERAPISTS**

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# Executive Summary

‘Developmental Language Disorder’ (DLD) describes “children likely to have language problems enduring into middle childhood and beyond, with a significant impact on everyday social interactions or educational progress”<sup>1</sup> (Bishop et al., 2017). The language disorder is not associated with a known differentiating condition. Heretofore known as SSLI (Specific Speech & Language Impairment) in Ireland the new terminology is being adopted by IASLT in line with international consensus.

Developmental language disorder is a highly prevalent presentation and is in fact more common than other well-recognised neuro-developmental disorders such as attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (Bishop, 2010). It may be life-long for many individuals, with effects on their academic, social and emotional development. Children with DLD can have co-occurring challenges with motor, sensory and cognitive skills. Based on a review of international prevalence studies it can be reasonably estimated that there are currently in the region of 70,000 children in Ireland up to the age of eighteen years with DLD. At least one child in every reception classroom of 30 children has DLD (Afasic, 2012).

IASLT undertook to develop this document in light of the requirement to update its 2007 position paper “Specific Speech and Language Impairment in Children: Definition, Service Provision and Recommendations for Change”. The review was stimulated by a need to respond to the significant changes in the understanding of specific speech and language impairment (SSLI) since services to these children were first developed and also by the lack of progress regarding some key issues highlighted in the 2007 document.

The position paper review was developed through surveys and consultations with some key stakeholders, in addition to reviewing relevant national and international research literature, policy documents and strategies. Data were gathered from focus groups of children in Ireland attending SSLD classes (Specific Speech & Language Disorder Classes) and from a

focus group of parents of children with DLD. Data-gathering with speech and language therapists was undertaken through a national survey and through discussions with the Irish Special Interest Group (SIG) of Speech and Language Therapists in DLD.

In the survey and focus/consultation groups, parents and SLTs referenced their involvement with other professional groups with roles in supporting persons presenting with communication disorders, including educational staff across school settings, psychologists, occupational therapists and Child and Adolescent Mental Health Services (CAMHS) teams. There are continuing concerns about access to educational and SLT supports for these children. We know that significant DLD, being a life-long condition, is not resolved with a limited number of SLT intervention sessions or by two years' placement in an SSLD class. Our review indicates that SLT services to children with DLD in Ireland at this time remain inadequate or patchy. Service provision may be good for some children for periods of time, very poor for others, with the data indicating particularly poor service beyond middle school-age, on leaving SSLD class placements, and at educational transitions. Provision of variable and short-term intervention is contrary to what would be effective service delivery given the known trajectory for children with DLD. In addition, as in our 2007 statement, criteria for access to SSLD classes are restrictive and out of date.

The parents and therapists who provided data in support of this position statement made important points about the need for partnership working and the impact of patchy services, excessive SLT caseloads and poor awareness of the needs of children with DLD. Parents highlighted the need for clear information in relation to DLD. The children who participated in the focus groups spoke about their lives, activities, ambitions and wishes for the future. Section 5 of this document presents our recommended **Action Plan**. This outlines actions required to meet the needs of those with DLD across pre-school, school-age and adolescence. These cover: recognition and referral; assessment and identification; and care planning and service provision for all children with DLD. The nature of and case for collaborative multi-disciplinary/cross-sectoral work to support children with DLD are presented as action points on partnership and collaboration. The section includes actions addressing the provision of



adequate resources to meet needs and finally outlines actions related to research and continuing professional development needs.

IASLT urges that key stakeholders involved work together to implement each element of the action plan so that children and adolescents with DLD are assured of the best outcomes for health and well-being and full participation in education, employment and society.

# I Introduction

## I.1 Purpose and Focus of the Position Paper: Children with Developmental Language Disorder

The development of this document was undertaken by the Irish Association of Speech and Language Therapists (IASLT) in light of the requirement to update its 2007 position paper “Specific Speech and Language Impairment in Children: Definition, Service Provision and Recommendations for Change”. The review was also stimulated by a need to respond to the significant changes to our understanding of Specific Speech and Language Impairment (SSLI) since services for these children were first developed and also, by the lack of progress regarding some key issues that were highlighted in the 2007 position paper. The children whom this position paper is intended to support will be referred to as children with developmental language disorder (DLD).

Who are Children with DLD?

While SSLI has been a functioning term in Ireland and was adopted in the previous version of this position paper, IASLT will be adopting DLD as the term in use from this point forward. In 2007 IASLT adopted the term SSLI in order to be consistent with the term SSLD (Specific Speech and Language Disorder), which is used by the Department of Education and Skills. This term highlights the fact that children’s difficulties could encompass both language and speech.

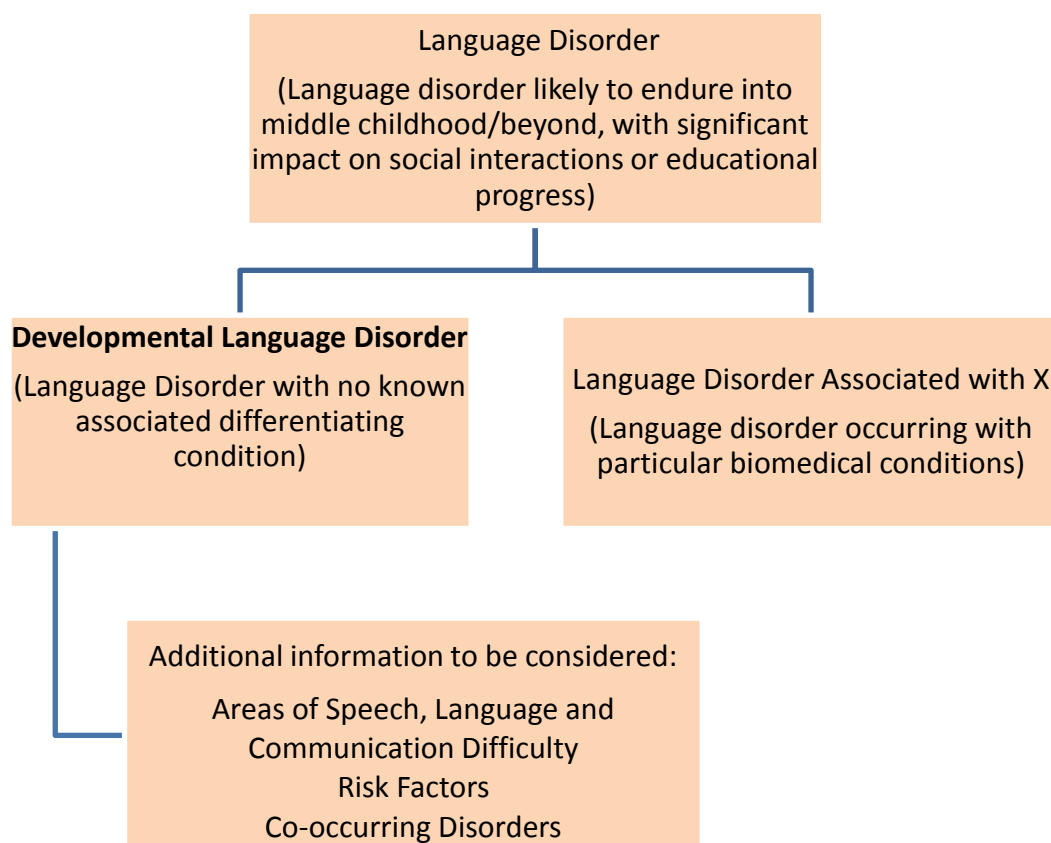
However, there are a number of problems with the terminology. It is recognised that the use of “specific” in the descriptive label is inappropriate since cases of relatively pure language disorder are rare (Reilly et al., 2014b). In the Irish context, as the research supporting this position paper has shown, the label “SSLI/SSLD” has been applied in some instances to children meeting a narrow set of criteria used by the DES to determine eligibility for educational supports and access to SSLD classes. In light of current knowledge, and as was stated in the 2007 position statement, these criteria are not valid for identification and

diagnosis and do not encompass many of the children seen in clinical practice. Neither the term SSLI, nor SSLD, nor SLI, the widely-used term in literature, are included in international classification systems. Despite it being a more commonly occurring developmental difficulty than many other well-known conditions, DLD (and alternative terminology) is not well recognised. This may be partly attributed to confusion around terminology.

Further to an on-going debate, an international exercise was undertaken in order to determine valid identification criteria and appropriate terminology. Clinicians, researchers, educators and charities supporting children with language impairment contributed to this exercise, which was called CATALISE: Criteria and Terminology Applied to Language Impairments: Synthesising the Evidence (Bishop et al., 2016, Bishop et al., 2017). Language disorder is the proposed term for “children likely to have language problems enduring into middle childhood and beyond with a significant impact on everyday social interactions or educational progress”<sup>1</sup>(Bishop et al., 2017). DLD has been agreed as the term to describe children with language disorder with no known associated differentiating condition <sup>1</sup>. Where language disorder occurs with particular biomedical and differentiating conditions (e.g. autism spectrum disorder (ASD), acquired aphasia, Down syndrome and others), the CATALISE group recommends referring to this as “Language Disorder associated with X”<sup>1</sup>.

A descriptive label for sub-types or sub-groups of difficulty within DLD would be useful to clinicians and others in particular contexts (for example when talking to a parent, teacher or multi-disciplinary team (MDT) member) and to pinpoint the area(s) of difficulty <sup>1</sup>. DLD is heterogeneous in presentation with children presenting with varied profiles of language difficulty (e.g. including areas such as speech, grammar, vocabulary, conversational skills, and affecting understanding and expression). There is poor consensus on terminology to be used for sub-groups. This may be attributed to sub-groups not being validated as categories which are stable over time <sup>1</sup>. Rather than focus on identifying sub-groups, clinicians and others can describe and assess the areas of speech and language difficulty in addition to any

other relevant aspects of the child’s presentation. <sup>1</sup> This position paper outlines characteristic language and non-language features of children with DLD, including areas to be considered in assessment. The characteristics of children with DLD including speech, language, communication and wider difficulties are discussed in section 3.4 of this document. Appendix 8.3 includes information on international classification systems in use. Figure 1 below outlines the agreed classifications and descriptive labels for language disorder. Further descriptive labels are outlined in Bishop et al., (2017).



**Figure 1. Classification and descriptive labels for Language Disorder, adapted from Bishop, Snowling et al 2017**

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<sup>1</sup> Reported with permission from Dorothy Bishop from paper by Bishop et al., 2017 on terminology for language impairment “Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology.”

In addition to discussion of terminology to be used for children with identified persistent developmental language disorder, there is a consensus that the use of the descriptor “delay” is not helpful. While widely used, the term “delay”, is ambiguous, since taken literally it implies that the only concern relates to timing and that the child will eventually catch up (Crystal and Varley, 1998, Paul and Norbury, 2012, Bishop, 2014). This term may give a false impression to parents of their child’s needs and likely trajectory. It is used when talking about children who are late bloomers and subsequently catch up (Norbury et al., 2008) although even among late talkers who “seem” to catch-up, some continue to show subtle weaknesses (Rescorla, 2009). In practice, ‘delay’ is a term that may only be applied retrospectively and it is difficult to conceive of a school-aged child identified with significant language needs being appropriately described as having a delay, a label that implies transience. While the term can be applied to a cohort of children referred early in life to services but whose difficulties resolve, it is otherwise not a useful descriptor. Comments regarding other uses of the descriptor “delay”, arose during the DELPHI survey underpinning the work on identification by the CATALISE consortium. In discussion on these points, Bishop et al., (2016) point out that there is no evidence that an uneven pattern of language development represents disorder and that a flat profile across aspects of language represents a delay nor is there evidence to support the assumption that language delay arises from inadequate experience of language.

While there has been a lack of consensus on terminology, reflected in the use of terms such as ‘Specific Speech and Language Impairment’ (SSLI), ‘Specific Speech and Language Disorder’ (SSLD) ‘Specific Language Impairment’ (SLI) and ‘Primary Language Impairment’ (PLI) in Ireland and in wider literature, this lack of consensus on terminology relates to the descriptive label or preferred term for this group of children, and *not* to a lack of consensus around their characteristics or needs. DLD describes a persisting problem with language that emerges in the course of development, and which is not associated with another biomedical condition <sup>1</sup>.

IASLT proposes (consistent with its 2007 statement about SSLI) that the term ‘Developmental Language Disorder’ captures the exceptional problems that some children have in learning and generalizing certain language skills. It includes a group of children whose continuing difficulties with language and the functional impact of those difficulties compromise their ability to participate in many aspects of life and who will require specialist help.

Many children with developmental language disorder will be described as having *complex needs* in the context of decision-making to allocate educational supports under the DES’s new model for allocating Special Education Teachers to mainstream primary and post primary schools which will be introduced from September 2017; and in collaborative planning between relevant health and education professionals (as defined in the Framework for Collaborative Working, issued by the Education and Health Sub-Group of the Progressing Disability Services for Children and Young People Programme (Health Services Executive, 2013).

The International Classification of Functioning (ICF) 2015 edition developed by the World Health Organisation (WHO) recognises and underpins descriptions of different conditions affecting people. Using this system, DLD would be described as an impairment of language, characterised by difficulties with aspects of language with the potential to affect an individual’s capacity to participate in different activities (for example oral communication and school-based learning) and as having a functional impact (for example affecting participation and socialisation) (Washington, 2007). (See appendix 8.3 for details on classification systems).

This updated position paper provides guidance and direction to members of the profession in relation to knowledge, evidence-based practice and service delivery. It includes information from national and international sources to inform services for persons with DLD in Ireland. Changes in service provision, advances in our understanding of children with DLD, and

evidence-based provision of support need to be communicated to stakeholders, especially those tasked with meeting the needs of children with DLD. The position paper is timely in the context of the NCSE's new model for allocating additional teaching supports for students with special educational needs; restructuring within the Health Services and on-going implementation of the national programme Progressing Disability Services for Children and Young People. By providing a clear picture regarding these children, their needs, and in particular, the role of speech and language therapists in Ireland in meeting these needs, the position paper can inform all those involved in the implementation of these changes and so support evidence-based planning and data-gathering.

It is intended that implementing the recommendations in the position paper will contribute to best practice in the identification and diagnosis of DLD and will ensure more appropriate service provision for those with DLD in a collaborative and inclusive manner.

## 1.2 Scope of the review supporting this Position Paper:

The position paper review was developed through surveys and consultations with key stakeholders, in addition to reviewing relevant research literature, policy documents and strategies. Data were gathered from four separate focus groups of children in Ireland (n=28) attending SSLD classes, and from a focus group of parents (n=7) who are part of an Irish Facebook-based support group for parents of children with DLD (DLD Parents Support Group). Data gathering with speech and language therapists was undertaken through a national survey. The survey was circulated via IASLT membership lists, a national group of managers of Speech and Language Therapy (SLT) services and the Irish Special Interest Group (SIG) of Speech and Language Therapists in SSLI. There were 185 respondents to the survey of whom ten identified themselves as responding on behalf of a team of therapists. Participants were advised to indicate whether they were responding individually or as a team. Thus, the response rate presents a conservative estimate of the total number of therapists who contributed to the survey response. In addition to the survey, members of the SIG in SSLI

were also consulted during a biannual meeting, whereby a series of questions and topic prompts were posed to the group.

Through the survey and focus/consultation groups, parents and SLTs also referenced their involvement with other professional groups with roles in supporting persons presenting with communication disorders, including educational staff across school settings, psychologists, occupational therapists and Child and Adolescent Mental Health Services (CAMHS) teams.

### 1.3 Structure of the Position Paper:

In addition to the **Introduction**, which has outlined the focus of the document and described DLD, the document incorporates:

Section 2, **Statement of Position** includes a description of children with DLD, key aspects to be considered in identification and diagnosis, and a map that overviews what is required in meeting the needs of children with DLD.

The statement of position is then followed by four main sections:

Section 3, **Speech, Language and Communication Needs (SLCN)** outlines the typical development of communication and its components, a description of the characteristic features of children with Developmental Language Disorder (a sub-category of SLCN) and a discussion on prevalence, identification and descriptive labels. This section concludes with a discussion on important considerations in diagnosis.

Section 4, **Current Service Provision**, outlines current issues relating to service delivery including assessment and diagnosis given the complex profile of DLD and in the context of children with varying backgrounds. This section presents intervention



and speech and language therapy needs and outlines current services for children with DLD in Ireland.

Section 5 presents the recommended **Action Plan**. This outlines action points on the areas required to meet needs of those with DLD across pre-school, school-age and adolescence. These cover: recognition and referral; assessment and identification; care planning and service provision for all children with DLD and the provision of adequate resources to meet needs.

The nature of and case for collaborative multi-disciplinary/cross-sectoral work to support children with DLD is presented as action points on partnership and collaboration. Finally, actions around research and continuing professional development needs are presented.

Sections 6 and 7 incorporate a **Concluding statement** and acknowledge those involved in supporting the development of this document.

Section 8 encompasses a series of **Appendices**, which support the position statement, the contents of this position paper and the action plan. These appendices include in more detail, the findings from the focus groups of parents and children and the survey of SLTs, each of which include quotations and suggestions from the participants. Research literature relating to children with DLD describing their profiles and outlining relevant aspects of the evidence base is also included. The survey, the focus group findings and the research literature support points made in the main body of the position paper. The literature, including studies in the Irish context, is also intended to provide information supporting practices relating to identification, assessment, diagnosis and intervention.

Section 9 is a **Glossary** of terms used in the document. **References** are listed in Section 10.

## 1.4 List of Abbreviations

ADHD	Attention Deficit Hyperactivity Disorder
ASD	Autism Spectrum Disorder
BCRP	Better Communication Research Project
CAMHS	Child and Adolescent Mental Health Service
CATALISE	Criteria and Terminology Applied to Language Impairments: Synthesising the Evidence
DCD	Developmental Coordination Disorder`
DLD	Developmental Language Disorder
DES	Department of Education and Skills
DSM V	Diagnostic and Statistical Manual of Mental Disorders V
EBD	Emotional and Behavioural Difficulties
EBP	Evidence Based Practice
HSE	Health Service Executive
IASLT	Irish Association of Speech and Language Therapists
ICD 10	International Classification of Diseases 10
ICD 11	International Classification of Diseases Upcoming Revision 11
ICF-CY	International Classification of Functioning, Disability and Health- Children and Youth Version.
IQ	Intelligence Quotient
MDT	Multi-disciplinary Team
NCSE	National Council for Special Education
NPSDD	National Physical and Sensory Disability Database
PCC	Primary and Community Care
PLI	Primary Language Impairment (Note: PLI is occasionally used as an acronym for Pragmatic Language Impairment)
RCT	Randomised Control Trial
SDs	Standard Deviations
S(P)CD	Social (pragmatic) Communication Disorder

SEBD	Social Emotional and Behavioural Difficulties
SERC	Special Education Review Committee
SIG	Special Interest Group
SLCN	Speech, Language and Communication Needs
SLI	Specific Language Impairment
SLT	Speech and Language Therapist/Therapy
SSLD Class	Specific Speech and Language Disorder Class
SSLI	Specific Speech and Language Impairment

## 2. Statement of Position

2.1 DLD in children is potentially unrecognised; children's difficulties may not be specific to language.

DLD is a high prevalence presentation (see section 3.4.1 for details) and is in fact more common than other well-recognised neuro-developmental disorders such as Attention Deficit Hyperactivity Disorder (ADHD) and (ASD) (Bishop, 2010).

In describing and diagnosing people's speech and language needs, IASLT recognises the following:

- Labels such as DLD or SSLD are attempts to describe rather than identify a single unified disorder
- No two people who present with DLD are the same
- No single theory accounts for all of the characteristics of those who are described as having DLD

DLD can occur alongside poor motor-skills (Hill, 2001) and with other diagnostic categories such as ADHD (Mueller and Tomblin, 2012). This co-occurrence of conditions and the underpinning language learning, cognitive and processing weaknesses with the range of speech and language characteristics associated with developmental language disorder, place children with DLD at considerable risk of both delayed identification of their neuro-developmental needs and of poorer outcomes. These features can impair children's ability to access the curriculum and to develop social relationships at home, at school and in other social environments. Identifying DLD as early as possible is crucial and educators and others need to be aware of the possibility of DLD as a contributory factor in academic failure and poor emotional and social well-being.

As the profiles of children with DLD may include motor, sensory and cognitive challenges and a higher risk of mental health difficulties (see sections 3.4.2.2 and 3.4.2.3); a multi-

disciplinary approach involving speech and language therapy, occupational therapy, psychology, educators and other disciplines is required. For some children, this may include access to Child and Adolescent Mental Health Service (CAMHS) teams. In light of often unsuspected language difficulties, children with psychiatric, behavioural, reading comprehension and/or listening difficulties should be referred for speech and language assessment (Bishop et al., 2016).

## 2.2 Up-to-date criteria for diagnosis and access to supports need to be applied.

The process of identifying and diagnosing a significant language disorder for which a child will require specialist help is challenging for a number of reasons (see section 7 for detailed discussion on this topic). These include the recognised fluidity in diagnosis, particularly at younger ages (Bishop and Edmundson, 1987, Reilly et al., 2010), and the limitations of standardised assessments with this age group within the Irish context. It is critical that assessment processes and diagnostic criteria are applied with flexibility in the identification of need and in making recommendations for provision of supports. Watchful monitoring of progress is required to determine an accurate diagnosis of persistent impairment.

Identifying significant language disorder may be usefully viewed under the ICF-CY framework (World Health Organisation, 2007), where a child's impairment and its impact on activity and participation are all considered. A more inclusive set of criteria that is in keeping with current knowledge on children with language difficulties of unknown origin would be that the child presents with the following:

- Language difficulties that have academic and/or social impact
- Language scores which are significantly below expectations on assessment.

The following factors may be evident and can support decision-making on diagnosis:

- Non-attainment of expected gains, despite access to good general language targeted stimulation (for example, access to a language rich educational environment and language enrichment programmes)
- A family history of speech, language and/or wider communication difficulties

- Difficulties with executive functioning and with the cognitive processes supporting language learning
- The presence of one or more clinical markers of language impairment and/or risk factors and associated difficulties

Further details on risk factors, clinical markers and characteristic features of language disorder are outlined in section 3.4.2.2.

The child's speech and language may be their primary or only area of need, or they may present with other difficulties which co-exist with their language disorder.

Consistent with the international consensus statement arising from CATALISE (Criteria and Terminology Applied to Language Impairments: Synthesising the Evidence) (Bishop et al., 2016) developmental language disorder should be identified regardless of whether there is a mismatch with nonverbal ability (see section 3.5.1 for detailed discussion).

Currently, eligibility to access a specific speech & language disorder Class (SSLD Class) placement in Ireland is determined by meeting strict criteria on language and IQ assessments. We deem the criteria for placement to be narrow and restrictive. (see DES circulars 02/05 (Special Education Section DES, 2005) and 0038/07 (DES, 2007a) for details and appendix 8.3

In fact, neither a cut-off point of -2.0 standard deviations from the mean on a language assessment, nor a non-verbal IQ of 90 points are synonymous with, nor required for clinical identification and description of DLD.

Thus, these criteria are not consistent with the criteria currently applied in diagnosing developmental language disorder (DLD) and our understanding of the profile of need. As stated by Bishop (2004:310) and reiterated here: “an insistence on stringent discrepancy and exclusionary criteria has no rational justification in clinical and educational contexts” (see section 3.5 of this document for details on the current challenges regarding diagnostic and access criteria and proposals for change). Arguments for retaining these criteria, outlined in

the DES' Evaluation of Special Classes for Pupils with SSLD (Department of Education and Science, 2005), were based on concerns about staffing resource implications (p.71).

Regardless of such concerns, the adoption of evidence-based criteria is urgently required. The current position where the only intensive model of support available is restricted to children with non-verbal IQ at or higher than 90 points and significantly discrepant language scores, denies appropriate support to many children with severe, pervasive and long-enduring needs.

2.3 A comprehensive approach is required to meet the needs of children and adolescents with Developmental Language Disorder

The following model (see table on the next page), outlines our vision of a framework to meet the needs of children and adolescents with DLD. The elements of the model capture their wide-ranging and often complex needs, the service and partnerships required to meet those needs and the characteristics of an effective and high quality approach.

Adopting this model would ensure optimal outcomes for those with DLD. It requires committed partnership and support at family, individual practitioner, service provider and policy levels. As is outlined in section 4 and appendices 8.2 and 8.4 there are critical ongoing gaps in the level and nature of services currently provided to children and adolescents with DLD in Ireland. Each of the elements of this framework is discussed in the subsequent sections of the document.

## A MODEL TO MEET THE NEEDS OF CHILDREN AND ADOLESCENTS WITH DEVELOPMENTAL LANGUAGE DISORDER

	<p><b>Effective Description, Referral and Identification:</b></p> <ul style="list-style-type: none"> <li>Increase public and professional awareness of profile and needs</li> <li>Use consistent terminology</li> <li>Use evidence-based up to date diagnostic criteria</li> <li>Provide training for relevant personnel</li> <li>Ensure timely onward referral</li> </ul>	<p><b>Provide Comprehensive Assessment:</b></p> <ul style="list-style-type: none"> <li>Based on bio-psychosocial model: impairment, activity, functioning</li> <li>Considering: parent, teacher and child concerns; differentiating conditions, co-occurring needs and risk factors; clinical markers</li> <li>Incorporating: formal standardised &amp; informal assessment tools; dynamic assessment; onward referral if required</li> <li>Which is: culturally appropriate; multi-disciplinary and</li> <li>Timely &amp; repeated as required: consider response to intervention; monitor at transitions.</li> </ul>		
	<p><b>Provide a Continuum of Effective Quality Intervention:</b></p> <ul style="list-style-type: none"> <li>Based on bio-psychosocial model: impairment, activity and functioning</li> <li>Individualised evidence-based care plan</li> <li>Access to appropriate care pathways</li> <li>Ensure delivery at sufficient intensity and frequency</li> <li>Provide intervention across the age-range as required</li> <li>Comprehensive negotiated goals and monitored outcomes based on achieving functional and meaningful impact</li> <li>Support key educational and life transitions.</li> </ul>	<p><b>Incorporate Multi-Disciplinary Supports &amp; Collaborate:</b></p> <ul style="list-style-type: none"> <li>Speech and language therapy to work in partnership with and listen to children, adolescents and parents</li> <li>Evidence-based and supported collaborative work between speech and language therapists and teachers</li> <li>Multi-disciplinary supports and interventions</li> <li>Specialist services and clinicians to profile and support children with complex needs.</li> </ul>		
<p><b>Address the Range of Needs and Strengths of Children and Adolescents with DLD:</b></p>				
<p><b>Communication</b> <b>Autonomy &amp; Independence</b></p>	<p><b>Social</b></p>	<p><b>Emotional</b> <b>Academic &amp; Vocational</b></p>	<p><b>Cognitive</b></p>	<p><b>Mental Wellness</b> <b>Physical, Motor &amp; Sensory</b></p>



# 3. Speech, Language and Communication Needs (SLCN)

## 3.1 Communication components:

The development of effective communication skills is critical to cognitive, social and emotional development and is central to positive self-esteem, learning and the development of relationships. Understanding the nature of communication in children described as having speech and language impairments is underpinned by knowledge of the typical trajectory of speech and language development, the prerequisite skills and the biological and environmental influences on this trajectory. To be an effective communicator an individual needs to develop skills in two key modalities:

The ability to derive meaning from and understand what is said or written (receptive language or language comprehension)

The ability to use speech sounds, words and sentences or other symbols (signs, gestures) in speaking or writing (expressive language)

Understanding and using speech and language are dependent on a number of shared components. These are (1) developing knowledge of the sounds of a language, that is, phonology; (2) knowing how meaning is attached to specific sound patterns which we know as words, that is, semantics; and (3) knowing grammar, which encompasses the rules for how words and word-endings are combined to make units of meaning. These language skills must then be used in a socially aware, flexible way which has regard for the needs of the conversation partner in any exchange, that is, the pragmatics component (4) (Ripley et al., 2001).

The acquisition and development of all of these four areas are interdependent and difficulties in one area may have repercussions throughout the entire language system.

### 3.2 Typical language development:

There is a marked spread in the ages at which first words and simple sentences are mastered (with children in the top range for language development producing sentences at 18 months and children in the bottom ten per cent producing a few words at two years) (Fenson et al., 1994). Most children are able to produce simple and complex sentences by the age of five, can correctly produce the speech sounds of their native language and can hold a conversation (see Owens (2016) for overview). Current theories on language development, which are variously described as constructivist, emergentist, socio-pragmatic, functionalist and usage-based (Ambridge and Lieven, 2011, Ibbotson, 2012) recognise that human capacity to learn language, various cognitive and social abilities combined with characteristics of the input to the child and social interactions, play a critical role in development. Developing effective speech, language and communication skills is underpinned by critical perceptual, motor, neurological and biological requisites for development plus adequate exposure, experience and environmental inputs including nutrition, nurturing and communicative interactions. Additionally, as well as genes and environment, development itself plays a role in shaping how the brain develops over time and becomes specialised for different areas (Karmiloff-Smith, 2009), While much language has yet to be acquired at the end of the pre-school stage (Owens 2016) and language learning is life-long (Nippold, 2007), the majority of children who have significant difficulties and who are not developing language to expected levels, should be evident before commencing school.

### 3.3 Children with Speech, Language and Communication Needs:

Speech, language and communication difficulties are one of the most common childhood developmental difficulties. Signs of these may be the first indicator of a

wider neurodevelopmental difficulty or may transpire to be a child's main or only area of difficulty.

Early difficulties in the acquisition of speech and language may resolve or persist. While 20% of two year old children may be identified with levels of expressive language that are below expectations (Zubrick et al., 2007, Reilly et al., 2009), in as many as 60% of cases, this will resolve by age four to five years (Dale et al., 2003).

### 3.4 Developmental Language Disorder:

Among all children described as having speech, language and communication needs, are children with significant and in many cases, persistent language disorders. This group of children with SLCN may include those with difficulties of unknown origin (DLD); or children whose difficulties with language are associated with another condition such as ASD or Down syndrome (Language Disorder associated with X condition).

This position paper is focussed on children whose main or only area of difficulty is with language.

Language impairment is described as complex and multi-factorial and “usually caused by the combined influence of many genetic and environmental risk factors of small effect” (Bishop, 2014:384) citing review by Bishop (2009).

These children whom we are now describing as having developmental language disorder (DLD) have been described as children with SSLD (specific speech and language disorder) and SSLI (specific speech and language impairment) in Ireland, and as children with SLI (specific language impairment) in much of the previous research literature. These children have traditionally been identified on the basis of significant speech and language needs, which may be their main or only area of weakness, and which are not attributed to a primary learning, physical, sensory,

emotional or behavioural condition.

Leonard (2014:2) argues: “Instead of treating SLI as a condition that represents a break from normal functioning, we might try to explain SLI as an extreme variation in the same factors that influence language learning in all children. Such an approach integrates SLI with broader theories of language acquisition, yet is quite compatible with findings of heritable classes of symptoms such as weaknesses in grammatical computation and phonological short-term memory”. The latter characteristics underpin assessments of clinical markers for language disorder. Section 3.4.2.2 further outlines the literature on characteristic features of speech, language and communication in children with DLD from infancy onward, the learning and wider processing difficulties that may be experienced by these children, the potential impact on socialisation, self-awareness and the long-term outcomes. Appendix 8.1.1 also incorporates the findings from the parent and child focus groups in relation to the children’s presentations.

### 3.4.1 Prevalence of DLD:

We extrapolated Irish figures based on a conservative prevalence rate of 6% derived from a number of studies (Tomblin et al., 1997, McLeod and McKinnon, 2007, Norbury et al., 2016) and a systematic review of prevalence of primary speech and language delays from population wide studies (Law et al., 2000) to an Irish population of one point two million aged up to 19 (CSO, 2011). From this we estimate there may currently be 70,000 children in Ireland with DLD. The actual prevalence may be higher or lower and interpretation of prevalence data must take into account:

- (i) differences in rates across age bands
- (ii) the recognised persistence of, but changing nature of language disorder over time such that, for example, early oral language disorders may be later reflected as written language disorders
- (iii) reducing prevalence over time in some studies
- (iv) undetected language disorders in population-wide studies in contrast to clinically-referred groups
- (v) the

(ii) development of more sensitive and comprehensive approaches to assessment and (vi) variations in cut-off points where DLD is detected using standardised assessment tools.

A large US study based in Iowa (Tomblin et al., 1997) reported a prevalence of 7.4 % in kindergarten children (aged between 5 and 6 years at time of study) of DLD and found that less than one third of the children with DLD had previously been diagnosed. This figure is consistent with a recent robust population-based study by Norbury et al., (2016), who found a prevalence rate of 7.58% of language disorder of unknown origin (that is, excluding children with language disorders associated with other conditions) in 4 to 5 year olds. McLeod & McKinnon (2007) report a prevalence of 12.4% of communication disorders across a primary and secondary school population sample in Australia.

There are no reliable sources of prevalence figures for the Irish context. The Irish National Physical and Sensory Disability database (NPSDD) collects information on people who have an on-going disabling condition that is physical or sensory and includes some communication diagnoses. The most recently available NPSDD figures (Hourigan et al., 2016), compiled in 2016 for 2015, include a total of 1,682 new registrations and reviews in the communication category of whom 879 were in the category of specific speech and language disorder. Participation on the database is voluntary and reports from the speech and language therapists who contributed to this review, indicate that even children with DLD that are classed as having moderate-severe difficulties may not be included on the database. Some parents choose not to have their children included. Thus, these NPSDD figures are highly unlikely to accurately reflect the number of children with DLD in Ireland

Children currently in receipt of resource teaching hours under the low-incidence disability category of SSLD (as per Sp 02/05, Special Education Section DES 2005) and those attending SSLD classes, have language scores at -2SD below the mean and

a non-verbal IQ of 90 or above. In a personal communication to one of the authors (June 2015) Byrne (NCSE) advised that in the academic year 2014-2015, a total of 7719 children (6515 primary and 1204 post-primary) with SSLD were in receipt of resource teaching further to meeting then DES criteria for same. SSLD classes in Ireland currently (NCSE 2016) will account for at least 462 children with DLD (based on 66 classes x 7 children per class). Prevalence cannot be determined from these combined sources since these data do not account for those children with language disorder who are above -2.0 SDs from the mean on standardised assessment or with a non-verbal IQ that is not at 90 or above. Available data do not account for the fact that some children will not have been assessed. Additionally, those assessed, may not have access to an SSLD class, or may choose not to take up that option.

#### 3.4.1.1 Under-reporting of DLD:

The reporting mechanism within the HSE, where the majority of children with DLD in Ireland receive their services (i.e. SLTs employed chiefly within the Primary & Community Care sector) cannot be used to determine prevalence. Currently the statistical data provided from local to national HSE offices does not separate children receiving SLT services into subgroups of need. Even when identified with communication difficulties and with reported concerns, some parents of children with language disorder in a population-based longitudinal study (Reilly et al., 2009) at points from 12 months of age, had not accessed speech and language therapy at follow-up to four years (Skeat et al., 2010). This highlights the likelihood of undetected language disorders. One of the findings of Skeat et al (2010) was that parents of children with overt speech difficulties were more likely to have sought help than parents of children with language difficulties. There are a number of reasons contributing to an underreporting of the prevalence of DLD in Ireland. Accurate figures for prevalence may not be ascertained from clinically-referred samples in light of parents choosing not to access services, lack of identification of need or children being discharged due to non-attendance.

### 3.4.1.2 DLD across Age Groups:

Based on a longitudinal follow-up of children with SLI (Law et al., 2008b) it has been found that prevalence rates decrease with age. Despite this, while some children of 7 and 8 years were found to no longer meet criteria for SLI at 11 years (Conti-Ramsden et al., 2001), stability of diagnosis increases as children become older: more than 50% of a cohort of 242 children who presented with specific language impairment at 7 years continued to meet these same criteria at 11 years (Conti-Ramsden et al., 2001). Follow-up to the IOWA epidemiological study found on-going language needs among 16 year old adolescents who were first identified in kindergarten (Tomblin, 2008, Nippold et al., 2009). The persistence of language disorder for some people into adolescence and adulthood is now documented (see for example Poll et al., (2010) and Clegg et al., (2012), with reports of adults requesting support for their on-going difficulties (Clark B (@BeckyClark22), 2015). Long-term profiles of features associated with DLD may include emotional and behavioural difficulties. The data reported in the BRCP in the UK (Lindsay and Dockrell, 2012) indicate that pupils with SLCN were more likely to have significant problems with peer relationships and emotional difficulties, and with less well developed pro-social behaviour than peers of the same age. Lindsay & Dockrell also found that the levels of behavioural and emotional difficulties were higher among older than younger children with language disorder, indicating a need to monitor and provide for changing needs.

### 3.4.2 Describing children with DLD and the nature of language disorder:

#### 3.4.2.1 Characteristics and features of speech, language and communication in children with DLD:

Children with developmental language disorder are generally described as a heterogeneous group. Different profiles of language difficulty may be described, for example children:

- whose understanding and production of language is equally impaired.
- who have a considerable gap between understanding and production.
- with particular difficulties with one or more specific aspects of language form, for example grammar, semantics, phonology, or language use (pragmatics).

The weaknesses in these different areas may be described as follows:

- **Morpho-syntax (grammar):** the child has difficulty constructing sentences and adding grammatical endings that convey meaning or may not understand the meaning carried by the order of words or word endings.
- **Vocabulary:** may encompass difficulty learning and understanding new words, having a limited and restricted set of known words and/or having difficulty with word retrieval.
- **Phonology:** where the child has a difficulty with speech production that is not explained by a motor or physical difficulty and the child does not make a distinction between sounds that are needed to convey different meanings (for example substituting ‘tar’ for ‘car’). Children with significant difficulties in this area may be described as having a phonological disorder, which is a subcategory of speech sound disorders. Phonological problems which are not accompanied by language difficulties may have a good prognosis and thus not meet criteria for DLD. Speech sound disorders also include difficulties which have a motor or physical origin. Some children could be described as having both DLD and a speech sound disorder.
- **Pragmatics:** where difficulties are seen in how the child uses and understands language in context. Examples of difficulties might include not understanding social cues in a conversation, following the rules of a conversation and/or being able to understand jokes and hidden meanings.



The speech and language profiles of individuals with DLD are varied and diverse due to the changing nature of the communication profile from infancy, through pre-school, school age and adolescence and due to its heterogeneous nature. Appendix section 8.1.1 outlines the characteristics of children with DLD as described by the parents and children in the Irish focus groups that participated in this review. Certain features have been found to be more predictive of poorer prognosis including the presence of receptive language difficulties and lower non-verbal ability and difficulties with gesture, imitation, joint attention and early social communication (Roy and Chiat, 2014, Bishop et al., 2017).

Whether formally identified or not, pre-school children with DLD may present as slow to develop speech and language and slow to interact with others. They may need the support of gestures in order to understand, be slow to acquire first words, have no or limited expressive language, have speech which is difficult to understand, demonstrate use of echolalia (immediate or delayed imitation of another speaker) and have difficulty initiating and sustaining conversation.

At initial referral and contact with services, a number of factors which may increase a child's risk for speech and language disorder can be noted, such as: family history, repeated periods of significant otitis media interacting with other factors, such as very low birth weight. In relation to communication specific behaviours, reports or observations of the child's babble being impaired or lacking, limited use of babble for social communication, poor comprehension, poor joint attention skills, little communicative use of gesture, poor imitation skills, poor play skills, socio-emotional functioning concerns and evidence of poor motor control, drooling and/or problems chewing may constitute risk for significant speech and/or language disorder (Rutter, 2008). A framework for identification of children at risk for persistent language difficulties and who should be referred for assessment, is provided in Bishop et al., (2016). This also outlines features for concern across different age bands.

Longitudinal research with children has recently linked communication outcomes at four years to data gathered at 12 months (McKean et al., 2016). As knowledge and the evidence-base develop, earlier identification of children at risk alongside provision of a continuum of preventative approaches matched to level of risk may become feasible.

Where children have started to use words expressively, further risk factors evident may include the following: a limited inventory of sounds used; late emergence of two word combinations; limited/no understanding of simple commands; and in relation to speech, close relatives being unable to understand the child's speech.

A number of clinical markers for language disorder have been reported (Rice and Wexler, 1996, Conti-Ramsden and Hesketh, 2003, Coady and Evans, 2008). These include poor non-word repetition, poor sentence repetition and poor grammatical morphology. Testing for the presence of these markers in combination with robust assessment and case history may help with earlier and more accurate identification of the presence of DLD. However, these lack sufficient sensitivity and specificity to be used in isolation. Some screening tools examining clinical markers are now available (Gardner et al., 2006, Seeff-Gabriel et al., 2010), albeit with limitations regarding domains of language covered and application across languages.

School age children with DLD may have difficulty understanding spoken and written language including concepts and humour/jokes. Difficulties with making sentences (Murphy, 2013), expressing and sequencing ideas, producing a coherent narrative, poor word retrieval and limited vocabulary may also be apparent (Botting, 2002, Dockrell and Messer, 2007). Deficits in phonological awareness and in all aspects of literacy including, reading, spelling and writing may be present (Bishop and Snowling, 2004). These features were also described by parents who participated in the Irish focus group (see Appendix 8.1.1 for details of parents' descriptions of their children's profiles).



Some school-aged children with DLD may have limited friendships and poor peer interaction, (Conti-Ramsden and Botting, 2004) with signs of developing awareness of their own difficulties as they become older. Many of the features of DLD presenting at school age persist into adolescence (Wadman et al., 2008, Nippold et al., 2009).

At this stage, when complex explanations are offered to those with a higher-level difficulty in understanding language (e.g. ability to make inferences and understand hidden meanings), their confusion is compounded and there is potential failure in subjects involving language interpretation and analysis (Wellington and Wellington, 2002, Larson and McKinley, 2003b). At school, the adolescent with DLD may experience increased levels of difficulty in understanding and following lessons in language rich subjects.

Language pervades the curriculum and language skills are required for learning in maths and science among other subjects on the curriculum. As demonstrated in studies comparing children with DLD to those without (Koponen et al., 2006, Donlan et al., 2007, Matson and Cline, 2012) the verbal learning, memory and processing difficulties in DLD can affect subject-areas beyond language. Children with DLD may find their “best effort” is never enough and require extra energy to adapt to a changing curriculum and timetable. The effect of their earlier language difficulties may result in their having insufficient knowledge, a restricted range of learning strategies, and difficulties negotiating classroom discourse and various reading and writing genres (Larson and McKinley, 2003b, Starling et al., 2012).

Adolescents with DLD may present as verbose, use circumlocution and have persistent difficulties with interpreting language ambiguities such as deceit and humour (Rinaldi, 2000, Larson and McKinley, 2003a, Brinton et al., 2005). Use of mobile phones, social media and any forms of computer-based learning, education

and communication may present challenges for the adolescent with DLD (Durkin et al., 2009, Conti-Ramsden et al., 2010, Durkin et al., 2011), arising from social or language difficulties.

The above descriptions of the profiles of difficulties that may be experienced by children and adolescents with a diagnosis of DLD are by no means exhaustive and include common characteristics of DLD. It should be noted that some of these are not exclusive to children with DLD.

Children with DLD also present a continuum of difficulty in particular areas, with relative strengths and weaknesses. Thus, the pre-school child, school-age child and adolescent with DLD may have difficulties in one domain of speech, language and communication only. Each child presents a unique combination of these features requiring a range of diagnostic assessment and intervention strategies to be carried out by the SLT and supported by multi-disciplinary team members, education teams and parents/guardians.

The table which follows (table 1) captures some features of speech, language and communication that may be noted in children with DLD across the age range. (Note, this is not a definitive list that can be used for identification purposes; difficulties included in one age-band may occur at other ages)

0-2 years	2-6 years	6-12 years	Adolescence
<p>Slow to react to speech.</p> <p>Need the support of gestures in order to understand.</p> <p>Slow to acquire first words.</p> <p>No or limited expressive language</p> <p>Use of echolalia.</p> <p>Little communicative use of gesture and babble.</p> <p>Evidence of drooling and/or problems chewing.</p> <p>Limited inventory of sounds used.</p>	<p>Late emergence of two-word combinations.</p> <p>Difficulties with making sentences and expressing and sequencing ideas.</p> <p>Poor word retrieval and limited vocabulary.</p> <p>Poor phonological awareness.</p> <p>Speech difficult to understand.</p> <p>Difficulty initiating and sustaining conversation.</p> <p>Difficulty understanding instructions.</p>	<p>Higher-level comprehension difficulty.</p> <p>Potential failure in academic subjects involving language interpretation and analysis.</p> <p>Behind their peers in prior language knowledge with a restricted range of learning strategies.</p> <p>Difficulty understanding concepts, humour and jokes.</p> <p>Difficulties in all aspects of literacy including reading and spelling.</p>	<p>Use of circumlocution</p> <p>Persistent difficulties interpreting language ambiguities such as deceit and humour.</p> <p>Verbosity.</p> <p>Experience increased levels of difficulty in language-rich subjects at school.</p> <p>Difficulties with complex grammar, narrative and expository (school-based) texts and with using technology to learn and communicate.</p>

**Table 1: Possible features of DLD across the age range.**

### 3.4.2.2 Motor, processing and social-emotional needs:

Some of the language issues are underpinned by other cognitive and processing difficulties with several examples of memory, processing and learning challenges reported in the literature (Finneran et al., 2009, Lum et al., 2010, Henry et al., 2012, Hsu and Bishop, 2014). This is also apparent in clinical practice as indicated by the response to the survey of SLTs in Ireland and in the profiles of children from reports of the parents in the focus group (see appendix 8.1.1).

A body of literature points to the comorbidity of social, emotional and mental health difficulties among children with a range of neurodevelopmental difficulties including DLD (Law and Stringer, 2013). Wider sensory processing and motor functioning difficulties may also occur (Hill, 2001, Rechetnikov and Maitra, 2009).

Studies of adolescents have noted that some inappropriate social behaviour, social isolation and poor eye contact may be apparent (Rinaldi, 2000, Brinton and Fujiki, 2005, Brinton et al., 2007). Reports of anxiety and social phobias as children become older are documented (Voci et al., 2006, Conti-Ramsden and Botting, 2008). The pattern of social, emotional and behavioural difficulties (SEBD) in children presenting SEBD and language disorder is fluid, with children shifting presentation over time (Conway et al., 2014).

### 3.4.2.3 Long-term needs and outcomes:

Long-term follow up of children with DLD has indicated that there are children among this group who, despite having severe language difficulties, have the basis for social adjustment and good outcomes (Lindsay and Dockrell, 2008). Among children with DLD, are some who will not experience later emotional and behavioural difficulties (Snowling et al., 2006). This is in contrast to others presenting with poor self-esteem, problems with socialising and mental health difficulties (St Clair et al., 2011) and for whom DLD carries life-long risks for poor social functioning, reduced

independence and restricted employment opportunities (Clegg and Henderson, 1999, Law et al., 2009). Compared to their peers without language disorder, young adults with a history of language disorder were found to be more vulnerable to the impact of health, employment and relationship status on their wellbeing (Conti-Ramsden et al., 2016).

Knowing pathways to resilience and factors which might protect children with DLD against future difficulties has implications for intervention. For example, self-efficacy was found to have a protective role for emotional health in both young adults with a history of language disorder and their peers (Botting et al., 2016). Thus, encouraging and supporting autonomy and self-efficacy (“the conviction that one can achieve personal goals independently” Botting, Durkin et al: 3-4) in school-age and adolescence may act as a protective factor for later difficulties.

Monitoring and support are required for those at risk of or experiencing mental health and other needs. Further details of long-term outcomes from the literature and from available Irish data are presented in the Appendix.

Consistent with definitions in the Disability Act ( 2005), some individuals with DLD may experience “a substantial restriction” in their “capacity to carry on a profession, business or occupation or to participate in social or cultural life by reason of impairment”.

### 3.5 Challenges with diagnosis:

Reilly, Bishop and Tomblin (Reilly et al., 2014b) proposed four criteria to be taken into account when establishing diagnostic criteria for these children, including:

(1) the features of language, (2) the impact on functioning and participation, (3) the presence/absence of other impairments, and (4) the language trajectory or pathway and age of onset.

Historically, a set of exclusionary and discrepancy criteria were used to support the formulation of a diagnosis of DLD. These are:

- Performance on a language test is below the child's chronological age
- A discrepancy exists between the child's language skills and his/her non-verbal abilities
- The language disorder cannot be attributed to any other cause

Such criteria are now challenged. The definition proposed in the previous position paper by IASLT (2007:3) stated that "Specific Speech Language Impairment is a term currently used to describe children whose skill in understanding and/or expressing themselves through speech and language is significantly impaired. These difficulties occur in the context of normal cognitive abilities and are not primarily attributable to social, emotional, behavioural, educational, physical or sensory difficulties".

While use of the word "primarily" in the definition allows for the presence of wider needs in a child's profile, the reference to normal cognitive abilities requires specification, as discussed in the next section.

### 3.5.1 Non-verbal IQ:

Defined exclusionary and discrepancy criteria in relation to language and IQ scores were adopted by the Department of Education and Skills in Ireland, initially in the Special Education Review Committee Report (1993), and in subsequent documents and circulars including the 2007 (00/38) circular regarding enrolment criteria in SSLD classes (DES, 2007b). These included specific cut-off points for IQ (non-verbal IQ of 90) and standardised language assessment results (-2.0 SD below the mean).

Current knowledge of the problems with these criteria reinforces the position adopted by IASLT in the earlier (2007) version of this position paper, which highlighted a number of reasons why rigid adherence to specific criteria based on IQ cut-off points and language assessments was inappropriate. Longitudinal research with children



with typical and impaired language, including detailed language profiles, studies of the markers of impairment, and outcomes of research on wider cognitive profiles, with exploration of the relationship between IQ and intervention, no longer support many “traditional” diagnostic criteria. “Developmental perspectives are crucial in understanding language development and in this developmental process language and cognition are closely interdependent systems” (Botting 2006:40). Consequently, recognition of the inter-relationship between language and cognitive abilities and a dynamic and flexible approach to assessment of these areas is required.

There are particular difficulties associated with IQ testing of younger children (Bishop, 2004, Ford and Dahinten, 2005) and with the implementation of non-verbal intelligence tests to children with language problems as many of these require a verbal response (Casby, 1997). Certain non-verbal cognitive skills have been found to be weaker in children with SLI than their peers (Bavin et al., 2005). Poor language skills at school entry increase a child’s risk for problems across the school years. This risk is not altered by the child’s performance (non-verbal) IQ and findings of some studies indicate that non-verbal IQ is not a predictor of language intervention outcome (Reilly et al., 2014a). Norbury, et al., (2016) found no difference between children with low-average and average non-verbal IQ in the severity of their language difficulties. Consistent with their recommendation, IASLT maintains its position that non-verbal IQ should not dictate identification of DLD nor limit the provision of services to children with DLD.

A low level of nonverbal cognitive ability does not preclude a diagnosis of DLD (Bishop et al., 2017). Children with lower IQ levels than the low-normal range, in practice are more likely to be in the category of language disorder associated with another identifiable condition. In such cases different intervention pathways may be required to take into account particular features of the profile and needs.

### 3.5.2 Standardised language assessment scores:

There are limitations with decision-making based only on cut-off points derived from standardised assessments (Dockrell and Marshall, 2014, Snowling et al., 2011).

Scores of -2.0 standard deviations from the mean on language assessment are used as a criterion for access to SSLD class placement for children with DLD (SSLD) in Ireland. However, higher scores, for example -1.25 SDs below the mean on standardised assessment have been shown to correlate with functional and clinically significant difficulties (Tomblin et al., 1997). When followed up at 16 years, children who obtained scores of -1.25 SDs below the mean in kindergarten were at greater risk for poor long term outcomes at 16 years (Tomblin and Nippold, 2014) and regardless of non-verbal IQ, children with language impairment may be less socially skilled (Reilly et al., 2014a) than their peers without language impairment.

Thus, consistent with the above international research, cut-off points of -1.25 and -1.5 standard deviations below the mean may represent persistent language difficulties with a significant functional impact. However, no assessment criteria can be applied stringently in the identification of need and when making recommendations for provision of supports. This is due to the observed fluidity (changing nature) of diagnosis, particularly at younger ages, and the limitations of standardised assessments. Standardised assessment tools cannot capture the full extent of a child's language difficulties and their impact on overall functioning, and should only be considered to be one aspect of a comprehensive assessment process (Bishop et al., 2016).

Children whose standardised assessment scores are not as low as -1.25 SDs, may nonetheless warrant monitoring, further assessment and intervention. This might arise where risk factors or clinical markers for impairment are noted in the case history and difficulties are observed that are not captured by standardised assessment.

Alternatively, a younger child presenting with lower standardised assessment scores

might require monitoring only. The case for non-intervention and monitoring only, despite a low standardised assessment score could occur, for example, with a late talker who demonstrates no other risk factors or clinical markers, and no characteristics that are prognostic for long-term impairment.

Given changing profiles and the limitations of assessment processes, we concur with Reilly et al (2014a) who recommend caution in providing a diagnosis of significant language impairment based on an assessment at one point in time, particularly for pre-school age children. (Appropriate early identification and assessment practices are discussed in the section 8.1). Additionally, care is required in using the term ‘delay’ when describing a child’s language needs and profile (as discussed in the section 1, Introduction section).

### 3.5.3 Consider differentiating factors and co-occurring difficulties, not exclusionary criteria:

Exclusionary criteria where strictly applied and which are implicit in the use of “specific” in the descriptive terms applied to children with DLD, are not appropriate. We concur with Bishop et al’s (2016) recommendation to consider “differentiating” factors, where the aim is to differentiate a child for whom DLD is the primary diagnosis from for example, a child with autism spectrum disorder (ASD). Additionally, a child may present with needs described as “co-occurring” with language disorder (Bishop et al., 2017). There is considerable evidence for co-occurrence of language difficulties and other neuro-developmental difficulties such as ADHD (Sciberras et al., 2014) and developmental coordination disorder (dyspraxia) (Dyck and Piek, 2010) in some children identified with significant language disorders. Children with DLD may present with problems with attention, memory, motor skills, executive functioning, reading, speech and behaviour. This may arise because the genetic and environmental factors that increase the risk for language disorder also

increase the risk for other neuro-developmental difficulties (Bishop, 2014).

Excluding “primary” neurological issues in arriving at a diagnosis of DLD does not allow for the neural basis for language (Reilly et al., 2014a). With new brain-imaging techniques, subtle differences in brain structure and function between children with language impairment and those without are found, although not consistently across studies (Schwartz, 2009).

In the case of physical disability, careful consideration of history and trajectory of development with speech and language characteristics would be required before automatically precluding, for example, every child with a physical disability, from a diagnosis of language disorder. Birth anoxia resulting in a physical disability in a child could give rise to motor speech difficulties and limited expressive output. This same child could have a family history of language disorder, possess the inherited markers for grammatical impairment and poor phonological short-term memory and thus be at risk for language disorder. In this case the child could be described as having language disorder associated with family history and also have a physical disability.

Some children with cochlear implants for example, have been found to present with language impairments that were more severe than could be explained by their hearing loss, while others who could not master sign language have been described as having specific language impairment for sign (cited in Bishop 2014).

Given these scenarios, identification of children with language disorder should not be automatically precluded in situations where other neuro-developmental needs are observed.

These examples challenge the on-going inclusion of the term “specific” in descriptive labels (as discussed in the introduction section) and highlight the presence of many associated features that can co-occur with language disorder.

## 4. Current Service Provision

### 4.1 Identification & assessment

Differentiating a resolving speech and language delay from a persistent impairment is based on a number of considerations. Recent research on trajectories of development in children with both persistent and resolving difficulties (Reilly et al., 2009, Reilly et al., 2010), and studies comparing the language profiles of children with impairments across languages, have shifted thinking regarding the nature of impairment.

Generally the types of errors and areas of relative weakness in speech and language among children with DLD are similar to those of typically developing children but may occur at far higher rates with a persistent lag behind peers (Rice, 2004, Law et al., 2008b). In light of the challenges of early identification arising from the changing nature and fluidity of language development profiles, individual responses to assessment, and the poorer reliability of standardised assessment tools at younger ages, accurate identification requires a comprehensive approach. For children described as late-talkers (limited words at 18-24 months) we concur with the recommendations of Bishop et al., (2016), where other than the case of a child with severe problems, re-assessment should take place after a six-month interval.

With pre-schoolers in particular and in light of this fluidity it is important to ensure resources are not inappropriately allocated to early intervention for children whose difficulties will resolve without help. This does not preclude the possibility of high quality, evidence-based and targeted preventative interventions for at-risk groups.

Consistent with the descriptions of features in section 3.4.2.2, assessment will involve the use of speech and language assessment tools, observation in both clinical and social environments and assessment for risk factors and clinical markers as appropriate. Large-scale population studies point to some risk factors for language

disorder which are identifiable from case histories and observation (see section 3.4.2.1). Identifying those who have DLD should be based on a combination of case history, formal and informal language assessments, comprehensive observation, response to interventions and consideration of risk.

Early identification and onward referral are critical to ensuring that appropriate models of support and intervention are put in place and to increase the possibility of mediating against the potential negative long-term effects of language impairment on social, emotional, academic and vocational abilities and opportunities (Law et al., 2009).

Dynamic assessment, through a process of techniques such as graduating prompting, test-teach-retest, with monitoring of responsiveness to intervention, allows for a child's profile of need and diagnosis to be determined over time and better directs planning and provision of interventions (Hasson and Joffe, 2007, Law and Camilleri, 2007, Paul and Norbury, 2012).

The survey of therapists and the parent focus group (see appendix section 8.1.3), found varying experiences of and approaches to early identification and assessment of children with DLD in the Irish context. Currently the majority of children with language difficulties attend HSE primary care clinics as their first point of contact. Of concern is that some parents were not referred for assessment in a timely manner or that they reported poor availability and accuracy of information given. Despite the known evidence of fluidity and change, even at a provisional diagnosis stage, there is excessive reliance on discrepancy-based criteria in cognitive level when determining a diagnosis of language disorder.

A smaller proportion of therapists responded to questions relating to use of dynamic assessment than other questions in the survey. They noted the challenges of undertaking dynamic assessment in the context of timeframes for decision-making to access educational supports and the need for development in this area. However,

consistent with evidence-based practice, it was encouraging to see that SLTs in Ireland are examining clinical markers (for example non-word repetition) as part of their assessment processes.

The survey indicated that some clinicians may have been viewing eligibility criteria for resource teaching hours (as per previous circular Sp02/05) as synonymous with criteria for a clinical diagnosis of DLD. This is unacceptable given current evidence and the wealth of knowledge regarding profiles of and diagnosis of children with language disorders. The findings of the survey and focus groups regarding assessment and identification experiences and practices are outlined in detail in Appendix 8.1.3

#### 4.1.1 Identification and assessment of DLD in children from multilingual backgrounds:

Identifying persistent language disorder in children from multi-lingual backgrounds involves the use of a range of assessment tools and practices. Best practice requires assessment over a period of time, capturing information about history of language exposure and input, the use of tools to tap into underlying markers of impairment, the use of dynamic assessment approaches, and considering ‘responsiveness to intervention’ in decision-making (Gillam et al., 2013, Kohnert, 2010). Multiple issues and challenges have been identified in relation to the assessment and identification of language disorder in children from multilingual backgrounds. Armon-Lotem and de Jong (2015) for example, cite research which found that while bilingual children constitute 14% of the mainstream school population in the Netherlands, they constitute 24% of the population in special schools for SLI, pointing to significant over-diagnosis since the proportions should be the same in each linguistic context. Where a child has language needs in education because their first language is not the language of the classroom, in the context of insufficient exposure to the classroom language, they are not described as having a language disorder unless there is also evidence of difficulties in their first or home language (Bishop et al., 2016).

Ensuring appropriate decisions are made requires that assessment be conducted in the



child's home language, that tests that are standardised in another language are not used, and that dynamic assessment, responsiveness to intervention and, where necessary, work with appropriately trained and skilled interpreters are employed. The IASLT Guidelines for Speech and Language Therapists Working with Linguistically Diverse Service Users (IASLT, 2016a) should be referenced for further detail on this.

#### 4.1.2 Identification and assessment of DLD in children from disadvantaged backgrounds:

Children from backgrounds of social disadvantage may be over or under-identified as having DLD. "There is no distinctive language profile associated with social disadvantage" (Bishop et al., 2016: 12). Standardised assessments can favour language "experience" and world knowledge; subtests of some widely used tools can favour "meta-cognitive" skills that develop as a consequence of pre-school and school-attendance, and vocabulary knowledge is highly dependent on experience (Roy et al., 2014). Assessments that assess only single-word vocabulary knowledge or which do not control for vocabulary, may over-identify children with impairment. Equally, children can do well on assessments of vocabulary but turn out to have difficulties with wider aspects of language understanding and expression (Dockrell and Marshall, 2014).

Individuals with very high and very low language scores are seen across the social spectrum (Reilly et al., 2014a). Finding evidence of poor language that may be environmentally-mediated or linked to significant disadvantage does not preclude identification of a significant DLD.

#### 4.2 Meeting intervention needs across pre-school, school-age and adolescence:

Meeting the speech and language needs of children with DLD requires a continuum of intervention with speech and language therapists working with parents, caregivers and professionals to coordinate services that are family centred, culturally appropriate and



comprehensive. The goals for each child should seek to have a meaningful impact on their social, educational, emotional, behavioural and vocational functioning across a variety of settings and be negotiated between the SLT, child, family, educators and other professionals where required. Based on studies of need and associated provision of support, Dockrell et al., (2012a) conclude ‘our results highlight the importance of profiling individual children’s strengths and needs and of using these to personalise learning and education plans rather than diagnostic category of needs’ (2012: 42).’

Monitoring response to intervention and forward planning also requires approaches to outcome measurement that capture changes across the areas affected. To this end, standardised assessment tools may not be adequate for capturing change at the end of an episode of care (for examples see Paul & Norbury 2012).

Those involved in intervention play a role in promoting communication abilities that ultimately further the independence and self-advocacy of children and adults with DLD. Given the nature of the presenting difficulties, collaborative practice between SLTs and educators, with the children and their parents participating in decision-making and having their views responded to are vital (Lee, 2008) and require continued support and development.

There is now a substantial body of evidence supporting the effectiveness of speech and language therapy interventions in meeting the needs of children with DLD.

A number of reviews (Law et al., 2008a, Cirrin et al., 2010, Ebbels, 2014) identify effective practices and indicate components of intervention practice, areas of communication intervention for which there is strongest support and areas where further research is needed.

The relative efficacy of different (i) levels of intervention intensity, (ii) agents of therapy (for example direct SLT provision compared with parent, assistant or teacher delivered support), (iii) therapeutic approaches, and (iv) models of service delivery, have been explored (see appendix 8.4 ). The views, experiences and desired outcomes



for children with SLCN and their parents have been determined through the BCRP (BCRP) (Lindsay et al., 2012) and other research (Markham and Dean, 2006, McCormack et al., 2010) in the UK and Australia. In the Irish context, in addition to the focus groups supporting this position statement, data on the views of school-age children (Lyons, 2014, Lyons and Roulstone, 2016), adolescents with DLD (Lavin et al., 2009), and young adults who had attended SSLD classes in childhood (Garvey, 2010), provide insight into perspectives and experiences of those with DLD across the life span.

In addition to an overview of the current evidence base for intervention (appendix section 8.4) information around service provision to those with DLD across the life span is outlined in appendix section 8.5.

#### 4.2.1 Current practice in intervention for children with DLD in Ireland:

In Ireland, children with DLD access health related services including SLT chiefly via the Primary & Community Care (PCC) directorate of the HSE. From the survey of SLTs, the level of service to individuals with DLD varies across the PCC areas, ranging from examples of some services providing regular on-going therapy to others providing short blocks of intervention occurring once a year. This was also apparent in the varying experiences of parents in the focus group. The data on service delivery combined with these parents' reports from the survey of SLTs are consistent with media and other reports of gaps and discontinuities in services.

Half of the parents in this focus group reported their children received very little intervention prior to and after leaving the SSLD class setting. Currently the only model of intensive intervention available is through attendance at an SSLD class. For school aged children an arrangement exists between the Department of Education and Skills (DES) and the Health Service Executive (HSE) to provide school-based SLT to children via attendance at an SSLD class. These classes termed SSLD (specific speech & language disorder) classes by the DES are in mainstream schools.



They have a pupil-teacher ratio of 7:1. SLT is provided by arrangement with the HSE and the therapy delivery is integrated with the educational provision. Currently there are 66 SSLD classes in the country (National Council for Special Education, 2016). Responses from the survey of speech and language therapists indicated that classes are mainly for children aged 5-8 years; there are no SSLD classes at secondary school level and very limited provision in primary school SSLD classes for 8 to 10 year olds. The findings from the SLT's survey and parent and child focus groups regarding SSLD class provision are presented in Appendix 8.5.1

A specific issue relating to the SSLD class setting in Ireland is the practice whereby children with DLD who are placed in the classes do not study Irish. There is no empirical research evidence to support a view that children with DLD should be precluded from learning a second language (Garvey and Wright, 2009). Additionally, there is evidence that some children who receive exemptions from the study of Irish on the grounds of their diagnosis of DLD, go on to take up additional languages in secondary school (Garvey, 2010). While there may be valid individual reasons why a child might be exempt from the study of Irish or any other second language, the policy of seeking an exemption on the basis of a diagnosis of DLD should be reviewed by the relevant stakeholders.

#### 4.2.2 Speech and language therapists and their work with other professionals:

Since the publication of the 2007 IASLT position paper on DLD there has been little change in the nature of collaborative work with teachers. The most common model evident in the survey, as in 2007, continues to involve the practice of sending the SLT assessment and diagnostic report with recommendations to the school. There is increased access to multi-disciplinary teams as a consequence of the Assessment of Need (AON) process and increased presence of multi-disciplinary teams (MDT) within the Social Care division of HSE. Health related multi-disciplinary team

members who may have a role with children with DLD include: occupational therapists, physiotherapists, social workers and psychologists, among others such as paediatricians and neurologists. Access to intervention supports however continues to lag behind assessment service and requires urgent addressing. Targeted MDT services to children with DLD attending SSLD classes are also restricted with limited or no on-site MDT members such as occupational therapy, social work or psychology available for this cohort of children.

## 5. Action Plan

Creating optimal conditions to ensure best outcomes for children with DLD:  
Recommendations regarding Identification, Assessment, Intervention, Service  
Delivery and Provision of Support to Children with DLD

(A) Recognition and Referral

### 1. Improve practice in early identification and referral.

Consistent with practice promoted in Best Health for Children (HSE 2005) and the national Literacy and Numeracy Strategy (DES 2011) early identification of signs of speech, language and communication difficulties and onward referral for assessment is required. There is a clear requirement for all service providers and people who have contact with children and their families, whether in a health or education context, to be aware of the signs of early communication or developmental difficulties and the need for timely onward referral. The current situation, identified in the surveys and focus groups undertaken to inform this position paper (see section 8.1.2), indicates misinformation in some instances, or failure to refer to appropriate services in a timely manner. Where necessary, additional training and support may be required to ensure health, education and social care personnel are primed to recognise early signs and risk factors for DLD and to refer children to the speech and language therapy service. Useful guidelines on expectations around language development across the age and educational levels are available (e.g. Owens 2016)

### 2. Increase public awareness of DLD.

Parents' and therapists' comments in our survey point to gaps in information and lack of awareness of language disorder across different contexts. An awareness-raising campaign within a health promotion context would support timely identification and

onward referral and ensure that good information is available when people seek help or are advocating for their child or children. Raising awareness among the general public, policy makers and others, of language disorder and the needs of children with DLD across contexts and settings will be an important step in ensuring that long term needs are met and that children with DLD can fully participate and achieve meaningful outcomes across domains.

### 3. Promote and support the development of communication friendly environments.

To date, the health promotion role of those working with children with language disorders is underdeveloped. The development of communication friendly and responsive environments is warranted. In the UK, charities working with children and adolescents with language impairment have promoted communication friendly classrooms (Dockrell et al., 2012b, Gross, 2013). The Irish National Behaviour Support Service (NBSS) SLTs have worked with some schools to set up communication teams using the Communication Supporting Classrooms framework to audit the communication environment and establish goals to support children with SLCN in school (James et al., 2016). Parents in the focus group (see appendix 8.1.1.1) suggested that a child-held card or passport indicating their child had a communication difficulty could provide support when difficulties were experienced in particular social contexts.

### (B) Assessment and Identification

#### 4. Ensure children with suspected language learning difficulties access an appropriate care pathway.

DLD is heterogeneous in nature with a complex profile. The changing nature of early language profiles for example, is demonstrated in longitudinal studies which found children identified with language impairment in early years who are not impaired at 4 and 7 years and vice versa (Ukoumunne et al., 2012, Conway et al., 2014) and

children meeting criteria for language impairment at four years who at two years had been assessed as being in the average range (Reilly et al., 2010). Additionally, based on longitudinal studies of school-age children (e.g. (Conti-Ramsden and Botting, 1999) older children's profiles of speech, language and learning needs are likely to change. To address this, a multifaceted and timely approach to assessment, inclusive of dynamic assessment for intervention planning, and monitoring outcomes of and responses to intervention, is required. Therapists need to be supported to undertake these aspects of clinical practice, given caseload demands, and since dynamic assessment is relatively new in its application in the field of speech and language therapy. The complex profile and heterogeneous nature of DLD combined with changing early language profiles require that we ensure assessment findings and other data are carefully considered. Children who most need services must access them without undue delay. However, inefficient use of resources must also be avoided given the evidence for spontaneous resolution of language delays in some children (Wake et al., 2012). Children with suspected language learning difficulties should be monitored over time and receive follow up assessment when required. Care pathways in community based SLT services should ensure children can be seen as soon and as often as needed.

5. Ensure best practice in assessment of children in multilingual populations or from different cultural and social contexts who may be presenting with DLD.

More flexible models of assessment are crucial to adequately assess the needs of children from multilingual backgrounds, where there are few if any appropriately standardised assessment tools and in some instances limited availability of information on the typical milestones of language development in languages besides English. Children from a multilingual background need an assessment process that is able to identify whether they have a language disorder or a second language learning need (Armon-Lotem et al., 2015). The assessment process and context may be unfamiliar to some children and hence offer a less reliable or valid picture of their

language abilities (Roy et al., 2014). Diagnosis and determination of need without consideration of the latter can result in unreliable findings and use of resources.

6. Ensure consistent use of criteria and terminology in the identification of needs and the description of children to others.

A wide range of terms is used to describe children with significant language impairments. An international debate and survey (CATALISE see section 8.3) to agree terminology to be consistently applied to children who are referred to here as having DLD, has concluded with recommendations in preparation. IASLT proposes to use DLD as a diagnostic descriptor. Regardless of any future changes, there is evidence of some inconsistent or inappropriate use of some terms, for example the term “delay” and of providing diagnoses prematurely (see sections 2.2, 3.4.2.1, 3.5 and appendix section 8.3). A revised set of criteria to be adopted for identifying DLD are outlined in section 2.2.

7. Ensure clinical diagnosis of DLD is not based on restrictive and inappropriate criteria.

The DES original eligibility criteria for allocation of resource teaching hours and eligibility for SSLD class placement have become conflated with a clinical diagnosis of DLD. The DES eligibility criteria of a score of -2 standard deviations on a standardised test of language with a performance IQ of 90 are not required for a clinical diagnosis of DLD. However, the survey evidence found that these eligibility criteria are in fact used for diagnosis in many instances. Clinicians, teachers and others need to understand the broad profile and continuum of needs of children with DLD.



(C) Planning and Provision of services to meet needs

8. Ensure all children with DLD receive an appropriate and effective individualised care plan that references their communication and other needs as required. With regard to the need for individualised care pathways the IASLT position of 2007 stands:

Each person with DLD requires an individualised multidisciplinary care plan, which takes into account the long-term changing nature of the impairment. An individual pathway of care should outline the multi-disciplinary services and resources required for individuals presenting with DLD at pre-school, primary and second level to ensure delivery of optimum intervention and effective support in line with best practice.

9. Promote judicious referral of children for SSLD class placements.

Recommendations to place a child in the only currently available intensive model of provision, namely, the SSLD class, must be consistent with the child's profile of need and a requirement for placement arising from severity of need, activity limitations and functional impact. Children may present with a problem confined to speech only and some children while presenting with a language disorder, may not have a severe or pervasive need. These children may not need the differentiated language curriculum, small class size and supported teaching model provided in the SSLD class setting, and so may not be appropriately placed in an SSLD class. Decisions may be based on need and prognosis for improvement without the need for SSLD class placement.

Other factors that bear on a recommendation for placement in an SSLD class include the distance a child may have to travel to attend the class, the child's school readiness, the effect of moving from the local community and the possible social and emotional challenges that such a move could entail. Assessing a child's response to intervention is a key part of the decision-making process for referral to an SSLD Class. The fact that therapists in PCC settings have to make these referrals, while balancing

unmanageable caseloads may be a critical barrier to effective management (see Appendix 8.1.2).

10. Develop a clear care pathway for children requiring multi-disciplinary assessment and intervention.

The picture of current service delivery for children with DLD in Ireland as identified in DES documents, reports from advocacy groups and the research supporting this Position Paper is one of fragmented service delivery with children with DLD still at risk of having to move between services to have their needs assessed and met. Children with more complex profiles may move between PCC, Early Intervention Services, School Age Disability teams and CAMHS teams and additionally experience gaps in service at key educational transitions. Providing a seamless and effective service requires the identification of a common care pathway with a clear description of the potential needs and the multi-disciplinary roles that may be required to meet them. When children require the additional specialist services such as CAMHS, an integrated care pathway across service providers and educational settings is recommended.

11. Ensure services and care pathways provide for long- term needs in DLD.

Researchers indicate (see section 3.4.2.4 and appendix 8.1) that some children with DLD experience long-term difficulties but children with severe long-term needs may not have these needs adequately addressed. This is evident from the data on the number of SSLD class types by age group in Ireland, with the adherence to a maximum of 2 years attendance in most classes. With fewer SSLD classes for older children and lack of flexibility in length of stay, some children with long-term needs may not access the appropriate model. There are no settings such as SSLD classes that can provide intensive help after primary school. The lack of provision for children with long-term needs is also underscored by the survey and focus group reports on

post SSLD class provision and the Irish based studies of children who have left SSLD classes (see appendix 8.2). Early intervention, maintaining a continuum of care based on need and providing key supports at critical transition periods in each child's life are required.

12. Emphasise social inclusion and ensure that supports and intervention have functional impact when planning to meet needs.

Parental reports and concerns regarding their children's experiences of inclusion, exclusion, socialisation and friendships highlight the need to ensure that the services provided have a wide impact. The functional outcomes of health and education supports need to be considered in service planning and provision.

We recommend individualised care planning that is negotiated with children and their parents and which is comprehensive with respect to both the supports required and desired outcomes. The ICF-CY model which aligns with the bio-psychosocial model in provides a useful framework in guiding these discussions.

13. Ensure planned and effective support on school transitions

It is critical to recognise children's need for support on transitions between school settings (for example into the SSLD class, from SSLD class back to mainstream classroom, from primary to secondary school and from secondary level onward). This includes on-going and timely input to support language learning.

Both the research literature (see 3.4.2 and 3.4.2.4) and the findings from the survey of Irish SLTs and parents of children with DLD (see Appendix 8.1) point to the need for long term provision of support including SLT and to the evidence for effectiveness of this intervention for children of all ages (appendix 8.4)

## (D) Partnership and Collaboration

14. Develop and ensure best models of collaborative practice with parents and educators.

To achieve meaningful outcomes that increase the capacity of a child with DLD to participate socially, to access the curriculum and to mediate against the effects of secondary or co-occurring anxiety, emotional or behavioural needs, delivery of support across home, clinic and classroom is required. As well as provision of direct SLT intervention it is critical that key personnel work in partnership. During assessment and therapy, SLTs may need to work as part of a team. While SLTs can diagnose DLD, there are key professionals involved alongside SLTs in the process of both diagnosis and provision for the needs of children with DLD. SLTs and other professionals can engage in co-practice, while ensuring that the views and perspectives of children with DLD and their families are central to decision-making.

Jointly delivered therapist and parent or teacher interventions and home and school based programmes are required components of effective intervention. These need to incorporate effective evidence-based intervention approaches, be delivered at sufficient levels of intensity to have impact, and be underpinned by those involved having the necessary supports, skills and knowledge required. Intervention delivered via school-based ‘consultancy’ approaches will require careful monitoring by schools and SLT services. Available evidence suggests that well-structured and supported programmes are effective (Starling et al., 2012), with evidence of poorer levels of effectiveness when teachers are not adequately trained and supported to provide language development programmes for children with language disorder (McCartney et al., 2011). Universally provided parent/school training may be effective for some but not all aspects of communication or desired outcomes (see appendix 8.4). Input from parents in the focus group (see appendix 8.5) and the research literature (see

appendix 8.4), point to the importance of parent training and working in partnership with parents on the skills to support their child's on-going language learning development.

Time spent on adequate support and training is likely to have more added value than provision of worksheets and resources to parents and others without accompanying support. The SLT practice model (Kersner and Wright, 2012, IASLT, 2016b) takes these requirements into account. However, it is not evident from the research underpinning this position statement, including the survey and focus groups review that the balance of inputs and optimal approaches to partnership working required across children's development is being provided to all children.

15. Develop closer links between SLT and educators to enhance identification of and provision of service to children with DLD in schools.

This requires collaboration in the roll-out of the NCSE proposed new model (NCSE, 2014) on allocation of additional teaching supports and considering the requirements of the new Primary School Curriculum and associated supporting documents . A comprehensive framework to include any training necessary for those involved, with considerations for co-practice and developed in collaboration with personnel with relevant expertise is required. This needs to be accompanied by guidelines explicitly outlining the respective roles and required competencies of teachers, SLTs and others involved in supporting children with DLD. This programme and framework could provide clear guidelines on the steps involved in the identification, assessment, development and implementation of supports for these children. This would be timely in the context of the proposal in the new programme for government in relation to establishment of a model of in-school SLT (Department of the Taoiseach, 2016).

16. Provide appropriate training and support for the assessment and identification of children with language disorder in the school setting.

The NCSE's proposed new model for allocating additional teaching supports in

schools is to be welcomed. Under the model there will no longer be a reliance on standardised test scores and professional diagnoses of a disability to provide additional supports to children.

Despite this, in light of current knowledge, there are likely to be on-going challenges in relation to the identification of children and meeting their needs in health and educational settings. The evidence supporting universal screening for speech and language difficulties is equivocal about its effectiveness. Although universal screening is used in some countries, parental/teacher expression of concern should prompt speech and language assessment (Bishop et al., 2016). There is no gold standard screening tool for speech and language needs (i.e. that meets requirements for sensitivity and specificity) (Reilly et al., 2015). International research findings are indicative of over-identification of young children with some profiling tools (Bishop et al., 2016). In a research study in the Irish context one widely used standardised tool was found to under-identify language difficulties in children in an area of high social disadvantage (Keogh, 2015).

Additionally, the purpose of screening and assessment must be given careful consideration. It is not the case, that all children identified as having language needs require the specialist intervention of an SLT. However, if children present with difficulties understanding or using language expressively after school-entry, they are likely to have persistent difficulties and should be referred for SLT assessment. In the absence of a specific screening tool, a combination of teacher and parental report based on a checklist that considers all components of speech, language and communication and which considers expectations across different age levels could be used to support onward referral.

While there is guidance available on assessment approaches to be used in schools, there is no one school-based assessment tool that can be used by pre-school leaders and teachers, which adequately captures all components of speech, language and

communication. Researchers whose work has supported the new primary language curriculum (National Council For Curriculum and Assessment (NCCA), 2016), outline a range of assessment tools and approaches available. They point out that teachers who use various language assessment tools and systems will need considerable support to assist their interpretation of different performance levels and that such support will be particularly important for teachers working with various groups with particular needs including children with possible speech and language disorders (Shiel et al., 2012: 265)

The literature and our survey point to failures to identify the needs of children with subtle difficulties and to misidentify communication difficulties as emotional/behavioural difficulties. We strongly recommend the provision of appropriate support and training to ensure a smooth transition to the new model.

(E) Provide adequate resources to meet needs

#### 17. Develop specialist service for pre-school children.

There are no specialist units in Ireland for dynamic assessment of pre-schoolers who potentially have DLD and complex communication profiles. Having a regional or a national centre for intensive assessment and profiling and/or designated clinical specialist therapists working with other personnel as required would support care and management of children with suspected language learning difficulties. This would include early diagnosis and the establishment of evidenced-based appropriately individualised care pathways.

18. Advocate that SLTs are assigned safe and manageable caseloads in line with their skills and competencies and as required for the effective management of children with significant language disorder.

Providing effective and intensive intervention in line with best practice is very

difficult for therapists working with unmanageable caseloads. This critical issue in relation to accurate and effective identification of DLD is challenging for parents, children and all others supporting those with DLD and it requires a targeted response. The working party's review of the literature combined with the results of the therapists' survey and parent focus groups indicates an on-going and substantial gap between what is required to meet the needs of children with DLD and the services with which they are provided. Intensity, frequency and timing of intervention need to be factored in service delivery models in line with evidence-based practice (see appendix section 8.4 for reference to literature on intervention)

19. Establish optimal intervention intensity in line with developing research and practice based evidence for children and young persons with DLD.

The significant disparity across the country in relation to intensity and frequency of therapy intervention available is highlighted in the results of our survey and consultations with focus group and special interest group. The definition of intervention intensity is complex and difficult, encompassing a significant number of factors, not just number of sessions and how often. Baker (2012:483) identifies key components relating to intensity as 'duration and frequency of sessions, the dose or concentration of teaching episodes within a session and the total period of time or number of sessions needed to realise a desired outcome or goal'. In addition, factors such as the individual's capacity to contribute to intensity levels at any given time require consideration in relation to intensity of intervention. An agreed definition of optimal intensity is recommended with monitoring and reporting on outcomes relating to intensity across various settings.



(F) Research and Training

20. Develop and implement research to support service planning and evidence-based practice and policy in Ireland for children with DLD.

Consistent with the international picture reported on by Bishop (2010), there is little funded research into the needs and outcomes of children with DLD in Ireland. At a minimum, service evaluations and research are required to ascertain a more accurate picture of the prevalence and needs of those identified, to support collaborative practices for children with DLD and to properly identify services into the future. The speech, language and wider needs of children with DLD and their associated difficulties and impacts require responses that implicate Departments of Health, Education and Skills, Children and Youth Affairs, Justice and Equality and Finance. Those involved in meeting children's current and future needs must aim to influence relevant policies and practices across these government departments.

21. Ensure that clinicians access up to date evidence and on-going CPD as required to provide effective services to children with DLD.

SLTs are required to keep abreast of new developments in speech and language therapy and related subject areas. To do this, it is critical that they identify and be supported to engage in appropriate high quality continuing professional development experiences. This will ensure those working with children with DLD have an up to date knowledge base and well-developed, current skills and competencies.

## 6. Conclusions

IASLT produced its first position statement on the needs of children with DLD in 2007. In the ten years since then, we have further direct evidence from parents, therapists and children in Ireland, combined with educational and speech and language therapy studies, to underpin the case for changes to service delivery and support for children and young people with DLD. Service evaluations and the outcomes and experiences of people with DLD indicate gaps and areas of relative strength. Wide-ranging international research provides more specific direction regarding best practice in assessment and identification, intervention approaches, models of service delivery; and the roles of all stakeholders at the various stages of intervention. In addition to the implementation of the proposed action plan, we recommend the adoption of the term DLD in place of previous terminology, in line with on-going research developments and consensus regarding the nature, extent and management of this disorder.

## 7. Acknowledgements

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## 8. Appendices

### 8.1 Findings from parent and child focus groups and survey of SLTs

#### 8.1.1 Characteristics of children with DLD as described by parents and children in the Irish focus groups.

##### *8.1.1.1 Speech, language and communication development from infancy*

Two parents in the focus group reported noticing early signs, for one child at 6 to 9 months, and in early primary school in another child. Lack of speech at age 2, frustration and incomplete words were also reported. One parent described their child at age 2 as producing animal sounds and noises and that screaming was his only way of communicating. Two parents described noticing their child as quiet in comparison to siblings and peers and showing distress on starting school. Non-responsiveness to other interventions, for example the introduction of grommets and signing, were other indicators of impairment.

Children with DLD in the Irish context present similar profiles to those described in the literature with a mixture of receptive and expressive difficulties affecting speech and language. Examples of poor understanding described by one parent whose child is 10 years were:

“Definitely comprehension, if you met her for the first time, she talks and she talks constantly and she talks really well and she hears really well but, her comprehension, if you were to ask her a question you’d have to ask it maybe in three different ways before she’d get it”.

Understanding and language knowledge affect many key concepts. The group of parents in the Irish focus group reported difficulties for example, with time-related language and processing words with opposite meanings:

“Doesn’t understand time at all. There’s no concept of, you know, if you say ‘Yeah we’re going but it’ll be in an hour’, ‘When are we going? Are we going now? When are we going?’ everything has to be like straightaway and...”

Language disorder impacts children’s ability to meet basic needs as described by the Irish parents, where one parent noted that her child wouldn’t be able to provide his address if he got lost, another child couldn’t recall his mother’s mobile number, and another child would not talk on the phone. One suggestion emanating from parents in a communication to the working group after the focus group, was to explore the option of a child held card/passport. This card would indicate that the child had a communication disability, and could be used in situations like these.

The children who participated in the focus groups were asked to describe their feelings about their speech and others understanding of them, they used words like “bold”, “sad”, “tricky”, “hard” and made reference to being “good” to describe language skills improving. They also referred to difficulties pronouncing long words, using the past tense, just thinking and referred to not saying anything at all. In contrast, some described having conversations, when they talked to friends and family and telling stories, as things that were easy.

#### *8.1.1.2 Learning and wider processing difficulties*

Alongside these language-related features may be poor attention and listening skills and displays of frustration and withdrawal. In addition to indicators from the literature reviewed, Irish parents made several references to memory difficulties across the group, poor retention, the need for constant repetition to support learning and some children’s preference for visual means to support understanding (one child advised “I learn by seeing”).

Parents in the focus group reported the challenges with school work arising from the language difficulties, where literacy and maths were examples of areas of weakness.

A child for whom maths was an area of strength up to age 7, had started to struggle once problem-solving, which is language based, was introduced:

“So now there’s more language in it...learning about like parallelograms and stuff...and then the different words that mean the same thing in maths” .

Different impacts on literacy were reported, with some children able to decode but having poor comprehension of what they read and/or poor retention of spelling. One parent commented

“It doesn’t make sense and even if he’s writing stuff he still doesn’t put his sentences in the correct order”.

Children referenced the learning challenge: “another thing that is hard is forgetting when it’s a long job”.

Some children have developed some skills that helped them, including taking turns and “listening when teacher tells me something”. The children related various challenges associated with school work, noting understanding at school to be hard a lot of the time; one child displayed awareness of the wider impact, making reference to maths and also the challenge of understanding long words e.g. words like “disgraceful”. Children from a multilingual background made reference to challenges with other languages and how English was “getting good”.

#### *8.1.1.3 Impact on socialisation*

Difficulties with socialisation may arise from limited ability with more complex conversational skills such as negotiation and persuasion (Nippold et al., 2007) and with understanding non-literal language (Rinaldi, 2000). Some of the parents of the Irish children reported their children not having friends and opting out of gatherings, for example:

“She gets left behind completely in her relationships with her friends because they can’t understand anything she says back to them...”

Parents also related children not understanding the rules of the game.

The children in SSLD classes related positive friendship experiences both within and outside the class and related various activities they did with their friends. There was a sense in which the children supported each other; some friendships were made in the transition to the SSLD class. These children related a sense of mutual support and having a concept of same.

#### *8.1.1.4 Developing self-awareness*

As children grow older, their own awareness of their challenges may be apparent.

Parents in the focus group quoted their children describing themselves as having a “stupid brain”, asking why he was “weird” and stating “I can’t learn”. A child in one of the focus groups stated “if I say the wrong answer someone might laugh at me” and “I’m nervous because I’m shy saying stuff” and “If they keep talking and talking I don’t understand”.

Children in the focus groups expressed concerns that they would find work harder or might not understand when they are fifteen years old. Some children expressed that their speech and language would be better and that they would improve. Children thought being aged 20 would be better than age 15 and expected that it would be “easy” when they were older.

#### *8.1.1.5 Social and emotional impact & associated difficulties*

Among some parents in the Irish focus group are reports of anxiety to the extent that some children are expressing thoughts of self-harm. Traits such as lack of confidence, and among the children, statements such as “I’m nervous because I’m shy saying stuff” were reported.



Reports of anxiety are consistent with the findings of research on outcomes of children with special educational needs (SEN based on the Growing Up in Ireland data (Cosgrove et al., 2014). Children with speech and language difficulties were among the groups of children with low scores on a freedom from anxiety scale, which were statistically significantly different from children without SEN (ibid) (Cosgrove et al., 2014).

Parents described their children as being potentially vulnerable to bullying and abuse, with direct experiences of bullying reported by some. Naivety, lacking a “sense of danger” and not being “street-wise” were descriptors used by some parents. Self-esteem and self-confidence were barriers to participation also. In common with reports of parent and family experiences in the Inclusion Ireland report on Speech and Language Therapy (Conroy, 2014), the parents interviewed in the focus group here reported early stress and frustration arising from the impact of their child with developmental language disorder in the home environment, the challenges arising from doing homework given their child’s difficulties and the time required to do it. They also commented on the anxiety around not having a diagnosis, the lack of attention to other children in the family due to the time focussed on the child with DLD and their concerns around transitions across educational settings.

#### *8.1.1.6 Sensory and motor needs*

Sensory processing and hypersensitivity issues were described by some, and requirements for intervention to support these areas were outlined. Some children had either received or were considered for other diagnoses, including ASD, dyspraxia with associated fine and gross motor difficulties, and also dyslexia. The presence of co-occurring needs and diagnoses in some children with developmental language disorder in Ireland (for example ADHD and DCD) was also confirmed in the findings of the survey of Irish SLTs.



### *8.1.1.7 Strengths and future concerns*

Parents of children in the Irish study reported strengths in non-language-related areas such as visual learning, arts, physical activities such as skateboarding and being adept at games such as mine craft. Children in the focus groups reported pursuing a wide range of activities including soccer, basketball, Wii, playstation, rugby, swimming, X-box, writing and wrestling.

Parents also observed positive character traits such as determination, persistence, compassion and care for others, with one mother relating how her son with DLD would step in to stop people bullying a neighbour with ASD: he would be great at coming over and saying “hold on, back off and...”.

One of the children reported that “sometimes when someone is being rude to my friends I help them”

### *8.1.1.8 Long-term outcomes and plans*

The children and parents interviewed in the focus groups in Ireland reported a range of hopes and aspirations, in some cases building on currently noted strengths in art or other activities. Children’s discussions related their desire to have families of their own, go to college, move abroad to work and work in varied types of employment. Some parents expressed concerns about academic learning being a barrier and with their children being able to show what they knew in an exam situation.

Parents interviewed as part of the parent focus group emphasised the long term nature of DLD, the failure of some stakeholders to recognise that “it doesn’t go away”, and the incorrect assumption that when the children leave intensive placements such as the SSLD class, they are no longer in need of intervention.

### 8.1.2 Parent and SLT survey findings on current practices regarding assessment and diagnosis of children with DLD in Ireland.

Parents in the focus group reported various experiences of the early information, assessment and diagnostic process for their children. Two parents were incorrectly advised to wait (for example, “being told stop panicking he’ll be fine, no it’s ok, boys are slower; Wait until he’s three”); whereas one parent who had no concern, was correctly advised at a developmental check that a referral was necessary. Some parents whose children had complex early profiles reported moving from one service to another in attempts to determine their child’s diagnosis and needs. In some instances this resulted in long gaps between one necessary assessment and another. Service boundaries and access criteria were unclear and confusing for parents and some were unaware of the AON route. Parents reported accessing private therapy and also being discharged from services on the grounds of being with another service. Parents reported difficulties accessing services and supports and having to persist in order to get a response.

SLTs, who responded to the Irish survey, consider a wide range of factors when making a provisional diagnosis of DLD. When asked whether level of severity on language assessment was a factor in making a provisional diagnosis, 66% of those who responded indicated that it was. When asked what level was required; of those who indicated a level being necessary, 95% indicated that a level of severity of -2.0 SDs below the mean was required.

Consultation with the SSLI SIG (Special Interest Group in DLD) indicated a particular concern among some, regarding over-identification of children with specific speech sound disorders as having significant DLD, combined with inappropriate referral of some of these children for SSLD class placements. The data-gathering supporting this statement did not ascertain the reasons for this practice but it

may be done as some therapists and parents try to ensure access to more intensive models of intervention than might be afforded in the PCC setting. Whatever the reason, careful identification of needs, ensuring that diagnostic labels are only given following assessment and a period of monitoring the child's response to intervention are required, prior to a decision to refer a child for SSLD class placement.

There were 70 non-responses to the section of the survey relating to use of dynamic assessment and responsiveness to intervention. Some therapists (48% of the 116 responders) are incorporating dynamic assessment in their practice but therapists have also responded that this was an area of need. One therapist commented:

“Waiting lists in our area were up to 2 years long with over 3,000 children on caseload ...dynamic assessment proves difficult”.

While a high percentage (81% of 116 responders) indicated that they utilised responsiveness to intervention in their service, a number of therapists indicated that they would like further training on this and would like to know more about this. However utilising responsiveness to intervention presents another challenge. On the one hand monitoring of progress and response could further inform and revise initial diagnosis; on the other hand there is a concern about this delaying application for school based supports, as illustrated by this respondent to the survey:

“This is a difficult one - of course the diagnosis can be re-evaluated. But how long do you wait before applying for resource hours under SSLI?”

8.2 Research studies conducted in Ireland regarding children with DLD, experiences of supports, SSLD classes and outcomes

Research by Carolan (2009) confirms the presence of long- term difficulties. She followed-up language and reading ability of children with DLD, who attended an

SSLD class in the early school years, and who at follow-up were in 5th and 6th class. At follow-up, half of the 20 participants evidenced no language difficulties based on assessment of understanding and use of grammatical endings, sentences, concepts and vocabulary. However, a quarter of the children had a diagnosis of dyslexia, half of the participants had expressive language difficulties and 7 children had problems on tests that involved vocabulary comprehension and following directions. Carolan (2009) also reported that sixty per cent of the group, that is 12 children, had received no speech and language therapy in the previous 12 months, despite half of the group presenting with persisting language difficulties.

Corkery's (2009) study of the narrative skills of 11 children attending mainstream school who had previously spent 1-2 years in SSLD classes, found that ten of the 11 children presented with some narrative difficulties and the majority of parents and teachers identified communication difficulties in their completion of a communication checklist.

In an earlier study, Lenihan (2004) reported that over 40% of a cohort of pupils who had attended SSLD classes from 1995 to 2002 experienced socialisation difficulties and the majority had academic problems following their transition back to mainstream school.

A small scale research study (Gorman et al., 2011) with the parents of 8 children with DLD who had attended three different SSLD classes (and who had left between 6 and 36 months previously) noted that parents found the SSLD class to be an extremely positive experience for both themselves and their children. Parents believed positive outcomes were carried over into the subsequent educational placement. However, positive reports of the SSLD class experience and its impact on the children contrasted with experiences of SLT support following placement. Parents viewed SLT services as considering their children post language-class placement to be "low priority" and that the service provided was "piecemeal", if provided at all. Gorman

et al.'s findings on parental views of the SSLD class, are in contrast with the views of children with language disorder (aged 9-12) explored by Lyons (2014) and reported in section 8.5.1

Garvey (2010) explored the longer term outcomes and perspectives of Irish adults with DLD on their earlier and current experiences. Her study involved a group of 22 young adults, aged 18 to 25 years, who had previously attended SSLD classes in Ireland. She found that 63.6% of participants were continuing in education and a minority (22.7%) had pursued third level education. Participants reported overwhelmingly positive SSLD class experiences. Ninety-one per cent continued to receive additional supports, and 31.8% expressed dissatisfaction regarding supports accessed, especially as they progressed into secondary school. Despite these issues, the majority were happy with what they were now doing and optimistic about the future.

A retrospective study of children with DLD in Ireland, compared school-age children (8-13 years) who had received language class intervention (n=8) with children in receipt of clinic-based intervention and resource teaching (n=8) (Gibbons et al., 2016). All of the children met DES criteria for access to educational supports for SSLD, that is, SSLD classes and resource teaching; and all presented with mixed receptive-expressive language difficulties. The groups were similar on pre-assessment scores. The children's progress at the end of a two year period was assessed using a standardised language tool and a therapy outcome measure scored by the children's parents with their therapists. During the two year period, the children in the SSLD class had received considerably more direct SLT than the children in the clinic setting. The children in the resource teaching and clinic model received more indirect intervention.

Both groups made significant progress based on scores on the language assessment standardised tool, with some differences in the components of language on which



differences were observed. Significant changes were found on all four outcome measure components (impairment, disability, functioning and well-being) in the group who had accessed the language class model of delivery. The group who had accessed the clinic-based model had a significant change on the disability scale and were approaching significance on the total score on the scale.

The findings of these and indeed other studies in the field need to be interpreted in the light of small sample sizes and other contextual factors which may influence and be implicated in the findings.

### 8.3 Classification systems and descriptive terms for children with speech, language and communication needs

Children with difficulties that are confined to speech, include groups described as having speech sound disorder and its subgroups, ‘Phonological Disorder’ and ‘Developmental Verbal Dyspraxia’ or ‘Childhood Apraxia of Speech. Note that the classification of speech sound disorders is also debated (See Waring & Knight 2013 for discussion).

Among internationally used classification systems, the DSM V categories for communication disorders include “Language Disorder,” “Speech Sound Disorder,” “Social (Pragmatic) Communication Disorder” and “Unspecified Communication Disorder.” Their diagnostic criteria for language disorder include “persistent difficulties in the acquisition and use of language across modalities (i.e., spoken, written, sign language, or other) due to deficits in comprehension or production,” and language abilities that are “substantially and quantifiably” below age expectations. (APA, 2013).

The ICD 10 recognises a category of specific developmental disorders of speech and language including Expressive Language Disorder and Receptive Language Disorder and Speech Disorder (World Health Organisation, 1994). ‘Developmental Language

Disorder' is reportedly to be adopted in ICD-11 as the preferred term for children's unexplained language difficulties (Baird, personal communication cited in Reilly et al 2014 & Bishop et al., 2016).

Further to a debate which commenced in 2014 on the validity of SLI as a label, an international survey, CATALISE (Criteria and Terminology Applied to Language Impairments: Synthesising the Evidence) has worked to achieve consensus about identification of and terminology for language impairment in children (Bishop et al., 2016, Bishop et al., 2017). It is worth noting the wide range of terms used to describe speech, language and communication needs. Bishop (2014) examined labels used for unexplained language difficulties in research literature from 1994 to 2013 and found that of 168 possible combinations of terms (including specific/primary/developmental; delay/disorder/impairment/deviance; needs/difficulties), 130 were used more than once, with 33 distinct terms used 600 times or more during that period.

The DES circular 0038/07 (DES, 2007a) outlines criteria that must be met in order for a child to be enrolled in an SSLD class in Ireland. An earlier circular Sp 02/05 (Special Education Section DES, 2005) listed these same criteria as the requirement for access to resource teaching for children with SSLD. The limitations of these criteria are discussed in the introduction and section 3.5.1. The criteria are as follows:

- a) The pupil has been assessed by a psychologist on a standardised test of intellectual ability that places non-verbal ability within the average range or above (i.e. non-verbal IQ of 90, or above).
- b) The pupil has been assessed by a speech and language therapist on a standardised test of language development that places performance in one or more of the main areas of speech and language development at two standard deviations or more below the mean, or at a generally equivalent level (i.e. 2 standard deviations or below, at or below a standard score of 70).

- c) The pupil's difficulties are not attributable to hearing impairment; where the pupil is affected to some degree by hearing impairment, the hearing threshold for the speech-related frequencies should be 40Db.
- d) Emotional and behavioural disorders or a physical disability are not considered to be primary causes.

#### 8.4 Evidence base for intervention and service delivery

This volume of intervention studies in speech and language therapy for DLD has grown considerably in recent years; this section provides some examples of reviews and studies that incorporate different age groups, types of difficulty and models of service delivery.

A database of speech and language therapy evidence across client groups, Speechbite ([www.speechbite.com](http://www.speechbite.com)) can be searched for evidence across the field with each study critiqued for rigour. In recent years, outcomes of a nationally funded review of services for children with SLCN in the UK, the BCRP, resulted in a number of documents supporting policy and practice (Law et al., 2012, Roulstone et al., 2012b, Roulstone et al., 2012a, Dockrell et al., 2012b) and included the creation of a database on interventions for children's communication difficulties. The "What Works" tool (CommunicationTrust, 2014) outlines approaches for different aspects of communication difficulties and the strength of evidence supporting them. The database is updated on an on-going basis. A number of systematic reviews including reviews addressing broad (Law et al., 2008a, Cirrin and Gillam, 2008, Cirrin et al., 2010) and specific (Ebbels, 2014, Gerber et al., 2012) aspects of intervention for children with DLD have been published.

Knowledge regarding optimal levels of intensity and frequency of interventions is growing but there remain gaps with regard to intervention levels taking all profiles and variables into account (Baker, 2012, Schmitt et al., 2016). An economic



evaluation of speech and language therapy interventions carried out in the UK (Marsh et al., 2010), found a significant net cost benefit from enhanced speech and language therapy intervention. Their analysis was based on data from a study (Boyle et al., 2007) involving children with SLI in an enhanced (3 sessions a week over 15 weeks) compared to a routine model of intervention (8 sessions over 15 weeks), taking only educational attainments into account. Various adjustments for sensitivity analyses carried out on the data entered in the model, included assuming reduced effects for children with more severe impairments and altering the unit costs.

Findings of a randomised control trial (RCT) of intervention delivered in community based services for children with developmental speech and language disorders (n=730) indicate significant effects across a range of needs with amounts of intervention ranging from 6 to 20 hours depending on need and individualised for different profiles (Broomfield and Dodd, 2011). The amount of therapy provided was decided by the speech and language therapist based on the profile of need. The children ranged in age from 2 to 16 years, with the majority under six and only 2% over 11 years. The efficacy of direct provision for children with severe DLD persisting into adolescence has also been demonstrated in a number of studies including (Ebbels et al., 2012, Ebbels et al., 2014, Ebbels et al., 2007).

Systematic reviews of parent-based interventions for early language development in children up to five years involving groups (Roberts and Kaiser, 2011) and single-case based interventions (Rakap and Rakap, 2014) highlight some positive effects for different aspects of communication and incorporate studies where parents were involved in from 6 to 36 hours of parent-based intervention. Gaps in the evidence are also highlighted, such that fewer studies include children with difficulties affecting both understanding and expression. The relative efficacy of different intervention approaches was examined and findings indicate that more enhanced models of intervention beyond milieu-based teaching are required to effect change in children



with more severe difficulties (Rakap & Rakap *ibid*). Another RCT involved one hour per week over 18 sessions of home-based language intervention; this was successfully delivered by non-specialist staff to four year old children and was found to be acceptable and feasible. The intervention had weak effect on some expressive measures, significant effect on phonological awareness but did not effect change in receptive language or in secondary outcomes (Wake et al., 2013).

The findings of different effects on outcome are also noted in different settings and depending on the agent of intervention. In another RCT, well-trained speech and language therapy assistants were as effective as SLTs in achieving primary outcomes for expressive language difficulties but the SLT intervention had more effect on secondary outcomes (Boyle et al., 2010). Children in a subsequent cohort study were selected using the same criteria as in the randomized controlled trial, and the same manualised therapy was used, but delivered by mainstream school staff using a consultancy model. The gains in expressive language measured in the randomized controlled trial were not replicated in the cohort study (McCartney et al., 2011). A model of secondary-school based practice which involved training teachers in modifying classroom language used with adolescents with DLD was found to effect significant change in some measures of language in the intervention group compared to a waiting control group (Starling et al., 2012) .

Findings from small-scale research studies in Ireland in the past five years indicate some of the requirements needed to support effective school-based intervention for children with developmental language disorder. Bates, Daly et al's (2008) survey of secondary school teachers and Gallagher, Heraghty et al's (2013) research with early childhood educators, each pointed to gaps in knowledge and skills to support the needs of children with SLCN in the Irish context. The latter's survey of 118 preschool staff, primary school teachers, resource teachers and teachers in special educational settings found the majority did not feel equipped for working with SLCN and would



welcome further training. Responses to short vignettes in the survey support the self-reported data, where for example, some teachers indicated that difficulties with grammar (no=27%, maybe =22%) and vocabulary ( no=16%, maybe =20%) were not signs of SLCN, in contrast to the majority (73%) identifying unintelligible speech as a sign. Research with therapists and teachers on their experience of joint working, has indicated the need to develop a clear framework for evidence-based collaborative practice between educators and speech and language therapists (Daniels et al., 2012) and to address the knowledge and skill-base of educators for joint working through inter-professional training and of speech and language therapists in relation to curricular knowledge.

#### 8.5 Current intervention models in Ireland including data from therapist survey and parent focus group

The comments of therapists at various points in the survey about waiting lists, and reports from parents in the focus group regarding access to the services are consistent with reports based on data from national HealthStats (Health Services Executive, 2015). The large numbers of children on waiting lists for speech and language therapy and the lengthy wait time to access services have been the subject of several media reports (Duncan, 2014, O'Brien, 2014) (Irish Times Monday 31st March: “More than 32,000 children await speech services”; February 7<sup>th</sup>: Thousands of children with disabilities waiting years for supports ). The situation worsened substantially from 2010, when 23,000 children were reported to be on the HSE waiting lists for initial speech and language assessment and therapy (Hough, 2010) (May 3<sup>rd</sup> Irish Examiner) and 2011, when waiting times for therapy following assessment were longer than 12 months, in 18 out of 32 counties (Deegan, 2011) (Irish Times February 8<sup>th</sup> : “Concern over speech therapy”).

While recent data (HSE, 2016), indicate that the number of children on waiting lists has reduced, the long-term impact of the unmet needs, gaps in service and



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discontinuities in provision arising from uncovered maternity and other leaves, is unknown. The more recent waiting list initiative currently being rolled out by HSE across the country is welcomed by the profession in helping to address the long standing under-resourcing of the SLT service but a long-term sustainable approach is required.

An Inclusion Ireland report released on November 2014 (Conroy, 2014), which examined children with complex needs including Down syndrome, ASD and DLD, highlighted several issues relating to access to services and continuity of service provision.

The survey of SLTs found that a range of models of intervention are offered to pre-schoolers that have a developmental language disorder diagnosis or provisional diagnosis. The predominant provider at the pre-school level is HSE-led primary care services; others involved include early intervention services and teams. Some parents in the focus group accessed community HSE based intervention, one parent accessed a service provided by an early intervention team and some reported accessing private speech and language therapy while waiting for HSE provision. One parent reported being discharged from services on the grounds of being with another service, where their child had moved from one service to another to access specialist assessment. Parents reported difficulties accessing services and supports and having to persist in order to get a response.

For intervention at school-age level, children are accessing primary care HSE-based services and early intervention/network school age teams. There are a variety of models of intervention being offered to pre-school, school-age and adolescents with a provisional and confirmed diagnosis of DLD.

The survey indicated a higher percentage of individual therapy being offered at preschool and school-aged children than to adolescents. Adolescents are being offered more once-off assessments and group parent-training/guidelines are offered much less

frequently at this stage. Eighty-four per cent of therapists indicated that they did not offer a service to adolescents transitioning from secondary school to employment. Fifteen of the seventeen therapists, who indicated that they did, outlined the form of service offered. This included: interview skills training, study skills and social communication with a focus on functional communication skills.

Consistent with the findings from the SLT survey, parents in the focus group for the position statement reported a wide variety of models of service delivery with some accessing regular weekly/fortnightly therapy for periods of time but others accessing very little prior to accessing a SSLD class and very little or no therapy following SSLD class placement.

Therapists reported that the availability of therapists influences service delivery but there is also a degree of flexibility within services in terms of what is offered that takes into account child needs, parent preferences and other factors. In the survey, therapists reported on models of therapy by frequency. Therapy delivered once weekly, twice weekly and fortnightly is being offered for the most part, in blocks of 6-8 sessions. When asked how many of these blocks would be offered a year, responses indicate that therapists do offer more than one block a year. Thirty-one per cent of therapists offer two 6-8 week individual blocks, and 27% are offering 3 such blocks a year. Twice weekly therapy sessions are offered much less often than other options. When asked to indicate the most commonly offered model of intervention therapists selected once weekly therapy of 6-8 weeks. Twenty-two per cent of therapists responding to the survey offer intensive programmes where children attend for a number of sessions per week for two weeks. The only model of intensive ongoing speech and language therapy provision available to children with DLD is through attendance at an SSLD class. Levels of provision to language classes vary as outlined in the next section.

Parents reported different experiences of their role in the intervention process. Some expressed their belief in parents having a central role and needing to embed this in

daily routines. Others commented on their experience of being sent folders and envelopes of resources between therapy blocks and being unsure of what to do with the materials:

“Even though the speech and language therapist made up a programme for me, I don’t know where to start still, which one do I work on this month, which do I work on, you know....”.

Parents commented positively on having had their interaction with their child videoed and having feedback from the therapist or of active participation in sessions where the therapist modelled and then observed the parent.

### 8.5.1 SSLD class provision

Twenty seven therapists in our survey indicated that they work in SSLD classes. SSLD classes currently receive a wide range of levels of SLT service. The largest proportion of therapists in our survey (n=22 39%) indicated the most common level of SLT service to a class was 3 half days per week. The next most common levels were 2 half days (14%) and 4 half days (11%). Children attend SSLD classes on a full time basis. Most therapists report that children stay in classes for two years; 7 out of 32 respondents reported that children could stay in the class in their area for up to 3 years. Options such as part-time attendance in a SSLD class, school-based speech and language therapy provision outside the SSLD class context and phased reintegration to mainstream for children in SSLD classes are not typical. Despite the fact that DLD is known to be a long-term condition, a continuum of provision is not available in Ireland.

Consistent with the SLT survey, parents in the focus groups reported different levels of SLT input in the SSLD class, with some classes having two days a week and some having an SLT present five mornings a week. Parents reported various experiences of their involvement in the class, where one parent was in the class once a month, and

received input and training from the SLT. Another mother commented that

“with the two years, even though they did a fantastic job with (child), I was disassociated with them [sic] and I didn’t have any feedback so that was a disadvantage”

Some parents expressed the belief that their child would not have coped in mainstream and that the small pupil-teacher ratio was a key advantage:

“If either of my kids had gone to mainstream they would have been lost”; “He went straight from pre-school into the language unit where he’s now doing his second year. It is only after probably this summer that he’s been able to speak to family members and actually have a conversation with family members, other than us, where they could actually understand what he was saying without us having to interpret, which has just been absolutely amazing. But up until then none of my family even appeared to understand a word that he said to them.”

The parents’ feedback emphasised the importance of the SLT’s training role, where the SLT worked with the resource and classroom teacher on supporting the child’s language needs. Other concerns raised by parents in relation to their school-aged child’s experiences were around homework; the length of time required travelling to and from their SSLD class and the difficulties faced on transitioning from their SSLD class back to mainstream. A number expressed concerns that on making gains in the class, such that the child no longer met the DES criteria for resource teaching, they lost the support they needed to learn.

The children’s feelings about being in the SSLD class were positive for the most part, some referred to not liking work and feeling positive when they got things right. In relation to things they didn’t like about school: at least half of the older children specifically mentioned homework, some referred to writing. This is in contrast to the

findings of Lyons (2014). She reported that the majority of children in her study (9-12 year olds) did not like the SSLD class because it made them different from peers and some disliked resource teaching for the same reason – it singled them out as being different. The contrast with other findings may reflect an age-related issue, where younger children may be less concerned about difference from peers.

Older children related positive experiences in relation to activities that took them out of school. Children's descriptions of their previous school-related experiences were around uniforms, using trays, being able to run, having siblings in the other school. One child commented on only having one teacher in a large class and one older child related the difficulty of doing the work with others talking; another outlined the increased challenge of school as she progressed through classes. A specific emphasis on the creation of communication-friendly classrooms and provision of guidance on strategies to support children with DLD in line with recommendations arising out of the relevant BRCP report (Dockrell et al., 2012b) and as described by Gross (2013) could inform policy and practice in Irish schools.

Children expressed positive feelings about returning to a new school (where they had entered the SSLD class straight from pre-school or were returning to a different school than they had attended prior to SSLD class placement), referencing being happy and nervous and meeting new friends.

Parents indicated the usefulness of transition management with contact between SSLD class therapists and teachers and their child's future placements. Responses to this section of the therapists' survey indicate that provision of reports/letters to the child's new school is the predominant means of handover. These may be accompanied by programmes. Only 34% of therapists who responded to this question indicated that they do a follow-up visit when the child moves from the SSLD class to another class/school.



In order of frequency, this was followed closely by a model of materials or resource pack being sent with recommendations. It was encouraging to see that there was little evidence of SLTs sending resources/materials without recommendations.

There was less evidence of SLTs and teachers working together with a child either in the clinic or the school. Sixty-four per cent of respondents offer teacher training with the majority of respondents offering training to resource/learning support teachers.

The nature of that training was not ascertained.



## 9 Glossary

### Articulation

This is the process of producing speech sounds using the vocal apparatus (tongue, lips, jaw, palate etc). Articulation disorders are a subset of speech sound disorders, where a child has impaired ability to pronounce specific phonemes (sounds) (Dodd 2013).

### Biomedical Condition

Biomedicine is a term that relates to both biology and medicine. The biomedical model focusses on biological factors as a basis for illness, disease or other conditions. Biomedical conditions will include some neurodevelopmental disorders which have a known biomedical cause, for example ASD. Bishop et al., (2017) explain how the classification system is used in relation to language disorders and Wade and Halligan (2004) discuss the biomedical model.

### Biopsychosocial Model

This model integrates biological, psychological, and sociological factors as a system of the body and health (Havelka et al., 2009). The ICF is based on this model. The ICF considers the individual's characteristic features, strengths and weaknesses and how these affect activities and participation in addition to any environmental supports and constraints that affect the person's functioning (for examples of application in DLD see Dempsey & Skarakis-Doyle (2010) and McCormack, McAllister et al (2012).

### Care plan

This is a treatment plan agreed between the client, family members, SLT and other professionals involved with the client. The care plan usually follows on from an assessment and should take into account all aspects of the client's life, for example,

social, educational, and emotional. It gives detailed information regarding what will be done to address the client's difficulties and it identifies specific goals and targets. A care plan will outline priority needs and should use jargon-free language that can be easily understood (Health Services Executive, 2016b).

### Circumlocution

This is the use of a number of words to describe something without actually using the name of the item, person, place etc that is being described. It is defined as a speaking in a roundabout or indirect way (Oxford University Press, 2016).

### Clinical care pathway

This describes operational principles relating to management and intervention for a particular client group (See Schrijvers, Hoorn et al (2012) for background).

### Delphi Survey

This is a consensus building research method used with a panel of participants considered to have expertise in a particular topic. The panel can comprise people from a range of backgrounds. The process involves a series of cycles with the panel members rating a set of statements in each round. Feedback is provided to the panel members between rounds, which is an anonymous summary of the responses from the previous round as well as the reasons they provided for the answers given. The panel members can see how their ratings compare with the whole distribution and have the opportunity to modify their ratings before the next cycle. The researchers can drop or modify items in the survey based on the feedback before the next round. The process is continued until consensus is obtained or a clear consensus isn't possible. Average scores in the final round determine the results (Bishop et al., 2016, Hasson et al., 2000)



## Developmental Trajectory

A developmental trajectory describes the course of a behaviour over age or time (Nagin, 1999). For a child with Developmental Language Disorder, different areas of language might have different trajectories over time. (for application in neurodevelopmental disorders see Thomas et al., (2009)

## Developmental Verbal Dyspraxia (DVD) Childhood Apraxia of Speech (CAS)

This is a type of neurological childhood speech sound disorder in which the precision and consistency of movements underlying speech are impaired but with no neuromuscular deficits (e.g. abnormal reflexes or abnormal tone). The core impairments are in planning and/or programming movement sequences, which results in errors in speech sound production and prosody (intonation). Children with DVD can struggle to make speech sounds but have no identifiable muscular or nerve damage (adapted from ASHA (2007) and RCSLT (2011). Note that the term CAS is used in countries, DVD in others and Developmental Apraxia of Speech (DAS), in others.

## Dynamic Assessment

This is a method of conducting a language assessment which seeks to identify the skills that an individual child possesses as well as their learning potential. It may include a “pretest-intervene-posttest” format (Lidz and Peña, 2009), and/or a mediated learning experience (Paul and Norbury, 2012). The SLT actively engages the child in a learning situation that allows observation of the child’s learning processes and then attempts to promote change. The outcome of dynamic assessment is not a score; instead it gives information about the child’s language learning (Paul & Norbury 2012).

## Echolalia

This is the immediate or delayed repetition of the speech of another (Roberts, 2014). This can include words, phrases or sentences and the repeated material may not be understood by the child.

## Executive Functioning

This is described as the process by which the brain exerts control over processing. It consists of a number of different skills. These have been listed as strategic planning, flexibility of thought and action (switching), inhibition of inappropriate responses, generation of new responses (fluency) and concurrent remembering and processing (working memory)”(Henry et al., 2012). Having good executive processing means being able to plan, move between planning and doing tasks, coordinate our responses and to be able to both remember information and use it to solve a problem at the same time.

## Fluidity (of language development)

This is describing something as having the quality of being likely to change. This change may be repeated and unexpected. It has been used in the context of longitudinal studies in child language development to describe change in profiles, whereby on follow-up assessment, children’s difficulties are seen to have resolved, persisted or emerged for the first time (difficulties identified at the second assessment in a child who did not meet criteria for impairment on first assessment). (See Reilly et al., (2010) and Snowling et al., (2015) for examples.

## Grammatical computation

This is the process of building grammatical structures, for example combining words into sentences, combining parts of words into new words and combining sounds into words. Children with DLD may have a core strength or weakness in one or more of

these areas, and/or in the lexicon (vocabulary) and pragmatics (use of language).

Adapted from van der Lely (2005).

### Heterogeneous

Describing something as heterogenous means that it is diverse and made of parts that are different (Oxford University Press, 2016) . In the context of this position paper DLD is ‘heterogenous’ in that children with DLD are different from each other and DLD varies in its presentation.

### Joint attention

This is defined both in terms of a set of behaviours or communicative acts and the functions served by those behaviours (for example to request something). It involves using communicative acts such as eye contact, shifting gaze from person to object to person, facial expressions and gestures to draw and direct a social partner’s attention to an object or event. Joint attention is seen as a social interaction and interpersonal event (see Tasker and Schmidt (2008).

### Neuro-developmental difficulty

Neurodevelopmental disorders start in the developmental period. They typically appear early in development, often before the child enters school, and are characterized by developmental deficits that produce impairments of personal, social, academic, or occupational functioning. The range of developmental difficulties varies from very specific limitations of learning or control of executive functions, to global impairments of social skills or intelligence. The neurodevelopmental disorders frequently co-occur (APA 2013).

### Otitis Media

This is an inflammation or infection of the middle ear. Causes include infection which travels through the Eustachian tube (the tube connecting the back of the nose to the

middle ear) from the nose or throat. Children are particularly susceptible to otitis media and some children can have recurrent attacks. Children who experience otitis media, particularly otitis media with effusion, where there is a build-up of fluid in the middle ear, can have hearing loss (Based on Paul & Norbury (2012) and HSE (2016a)).

### Phoneme

The smallest units in language that signal meaning difference are phonemes (e.g. pea and sea each begin with a different phoneme) (Owens 2016).

### Phonological Short Term Memory

This is a specialised memory system. It is part of working memory and has a key role in setting up long-term learning of the sound structure of words. This is important for learning new vocabulary (Gathercole and Baddeley, 1990, Paul and Norbury, 2012)

### Phonology

This is aspect of language concerned with the rules applying to the structure, organisation and distribution of speech sounds (phonemes) and the shape of syllables. The system of sounds is used by a particular language to convey meaning. Phonology is rule governed and developmental (Owens, 2016).

### Phonological Awareness

This is the ability to think about and to manipulate the sound structure of language, including skills such as detecting rhyme, breaking words into smaller units such as phonemes and syllables and being able to combine separate phonemes into words. Together with knowledge of letter-sound correspondences, several phonological awareness skills have been shown to be closely related to success in reading and spelling (Paul and Norbury, 2012).

## Phonological Disorder

Phonological Disorders are a subset of Speech sound disorders, whose cause is unclear. Phonological disorders are considered to have a linguistic rather than a physical or motor basis (Dodd, 2013). They affect children's ability to develop easily understood speech. In some children, phonological disorder is a risk for the child's ability to learn to read and spell (Paul and Norbury, 2012).

## Pragmatics

In broad terms this is language in context. It focuses on language used as a communication tool to achieve social ends. It incorporates use of language in social interaction; aspects of meaning that can't be literally understood from the words/phrase (including implied and intended meaning) and connected discourse (narratives and storytelling). (see Owens (2016)

## Responsiveness to Intervention

The responsiveness to intervention (RTI) approach is a multi-tiered approach to providing intervention to children with learning needs at increasing levels of intensity. It involves universally provided class-based or group programmes, moving to more targeted interventions and supports for children who require more than a universal approach, and then to provision of specialist direct intervention for children identified as needing this level of support. Children may be accessing more than one level, for example participating in a classroom-based language programme and received direct specialist intervention. Children not previously identified with significant learning needs may be identified as needing targeted or specialist input, based on poor response to a universal approach. Decision-making in the RTI framework should be guided by child outcome data (Ehren and Nelson, 2005)





## Semantics

Semantics deals with the referents for words and the meanings of sentences and is a system of rules about word meanings and word combinations. Semantics involves the vocabulary of language, or the lexicon (Owens 2016)

## Socio-emotional functioning

This refers to a child's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others (California Department of Education, 2016)

## Speech Language and Communication Needs

The Communication Trust defines the term (SLCN) as one used to describe some children who have some difficulty with some aspect of communicating. This may be minor or temporary or more complex and long term. The term 'needs' refers both to the child's or young person's needs and to what society can do to support them, by looking at the child and the environment in which they play, learn communicate and live (The Communication Trust, 2011, The Communication Trust, 2013). This is a broad category that covers the whole range of speech, language and communication difficulties regardless of terminology or diagnosis. It incorporates children who have language needs that may need accommodation in the classroom but do not necessarily have a language disorder (Bishop et al., 2017)

## Speech Sound Disorders

This encompasses phonological delay and disorders, which are considered to have a linguistic basis; and articulation disorders, which arise from motor or physical problems. The latter includes for example, dysarthria, a motor speech difficulty that may be associated with conditions such as cerebral palsy; articulation difficulties associated with cleft palate and isolated mis-articulations of particular sounds. (See Waring and Knight (2013) for discussion of classification in speech sound disorders)



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### Verbose

This is expressing something by using more words than are necessary (Oxford University Press, 2016)

### Word retrieval

The ability to call up words with speed, clarity and accuracy. Some children with language disorders have difficulty finding the words they want to say even when they have good understanding of those same words see <http://www.wordfinding.com/> and (German, 2009).

### Working memory

The ability to hold information in temporary memory storage while integrating new incoming material. Working memory involves both processing and storing information (Gathercole and Alloway, 2007). It supports everyday activities such as remembering instructions, writing down a telephone number or doing mental arithmetic (Gathercole and Alloway, 2008 ).

## 10 References

- Disability Act 2005, No 14/2005. Ireland. Stationery Office, Available: <http://www.irishstatutebook.ie/eli/2005/act/14/enacted/en/html> [Accessed: 12/05/2015]
- AFASIC. 2012. *RALLI video campaign to raise awareness of SLI* [Online]. Available: <http://www.afasic.org.uk/2012/05/ralli-video-campaign-to-raise-awareness-of-sli/>
- AMBRIDGE, B. & LIEVEN, E. 2011. *Child Language Acquisition: Contrasting Theoretical Approaches*, Cambridge, UK, Cambridge University Press.
- APA. 2013. *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* [Online]. Available: <http://dsm.psychiatryonline.org/doi/abs/10.1176/appi.books.9780890425596.dsm01> [Accessed 12/05/2015]
- ARMON-LOTEM, S., DE JONG, J. & MEIR, N. (eds.) 2015. *Assessing Multilingual Children Disentangling Bilingualism from Language Impairment*, Bristol, UK: Multilingual Matters.
- ASHA. 2007. *Childhood Apraxia of Speech, technical report* [Online]. Available: <http://www.asha.org/policy/TR2007-00278/> [Accessed 23/09/2016]
- BAKER, E. 2012. Optimal intervention intensity in speech-language pathology: Discoveries, challenges, and uncharted territories. *International Journal of Speech-Language Pathology*, 14, 478-485. Available: doi:10.3109/17549507.2012.717967
- BATES, C., DALY, D. & MURPHY, C. A. 2008. *Secondary School Teachers' Awareness of the Needs of Adolescents with Language Impairment* MSc (Professional Qualification) Speech and Language Therapy, University of Limerick.
- BAVIN, E. L., WILSON, P. H., MARUFF, P. & SLEEMAN, F. 2005. Spatio-visual memory of children with specific language impairment: evidence for generalised processing problems. *International Journal of Language and Communication Disorders*, 40, 319-332. Available: 10.1080/13682820400027750
- BISHOP, D. 2004. Diagnostic dilemmas. In: VERHOEVEN, L. & VAN BALKOM, H. (eds.) *Classification of Developmental Language Disorders. Theoretical Issues and Clinical Implications*. London: Lawrence Erlbaum Associates, 309-326.
- BISHOP, D. 2009. Genes, cognition, and communication. *Annals of the New York Academy of Sciences*, 1156, 1-18. Available: 10.1111/j.1749-6632.2009.04419.x

- BISHOP, D. V. 2010. Which neurodevelopmental disorders get researched and why? *PLoS One*, 5, e15112. Available: <http://dx.doi.org/10.1371/journal.pone.0015112>
- BISHOP, D. V. M. 2014. Ten questions about terminology for children with unexplained language problems. *International Journal of Language and Communication Disorders*, 49, 381-415. Available: 10.1111/1460-6984.12101
- BISHOP, D. V. M. & EDMUNDSON, A. 1987. Language-Impaired 4-Year-Olds. Distinguishing Transient from Persistent Impairment. *Journal of speech and hearing disorders*, 52, 156-173. Available: 10.1044/jshd.5202.156
- BISHOP, D. V. M. & SNOWLING, M. J. 2004. Developmental dyslexia and specific language impairment: Same or different? *Psychological Bulletin*, 130, 858-886. Available: <http://dx.doi.org/10.1037/0033-2909.130.6.858>
- BISHOP, D. V. M., SNOWLING, M. J., THOMPSON, P. A., GREENHALGH, T. & CATALISE-2CONSORTIUM 2017. Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology & Psychiatry*. Available: 10.1111/jcpp.12721
- BISHOP, D. V. M., SNOWLING, M. J., THOMPSON, P. A., GREENHALGH, T. & CATALISECONSORTIUM 2016. CATALISE: A Multinational and Multidisciplinary Delphi Consensus Study. Identifying Language Impairments in Children. *PLoS One*, 11, e0158753. Available: 10.1371/journal.pone.0158753
- BOLAND, M. 2013. Advocating for aphasia. *Irish Times*.
- BOTTING, N. 2002. Narrative as a tool for the assessment of linguistic and pragmatic impairments. *Child Language Teaching and Therapy*, 18, 1-21. Available: 10.1191/0265659002ct224oa
- BOTTING, N. 2006. The Interplay between Language and Cognition in Typical and Atypical Cognition. In: CLEGG, J. & GINSBORG (eds.) *Language and Social Disadvantage. Theory into practice*. London: Whurr, 28-43.
- BOTTING, N., DURKIN, K., TOSEEB, U., PICKLES, A. & CONTI-RAMSDEN, G. 2016. Emotional health, support, and self-efficacy in young adults with a history of language impairment (Early Online Version). *British Journal of Developmental Psychology*. Available: 10.1111/bjdp.12148
- BOYER, E.L (1991) *Ready to Learn*, The Carnegie Foundation for the Advancement of Teaching (cited in *Talk to your Baby, Developing Language for Life*, National Literacy Trust, UK).
- BOYLE, J., MCCARTNEY, E., FORBES, J. & O'HARE, A. 2007. A randomised controlled trial and economic evaluation of direct versus indirect and individual versus group modes of speech and language therapy for children with primary language impairment *Health Technology Assessment*, 11, 1-158. Available: 10.3310/hta11250
- BOYLE, J., MCCARTNEY, E., O' HARE, A. & LAW, J. 2010. Intervention for mixed receptive-expressive language impairment: a review. *Developmental*

- Medicine & Child Neurology*, 52, 994-999. Available: 10.1111/j.1469-8749.2010.03750.x
- BRINTON, B. & FUJIKI, M. 2005. Social Competence in Children with Language Impairment: Making Connections. *Seminars in Speech and Language*, 26, 151-159. Available: 10.1055/s-2005-917120
- BRINTON, B., FUJIKI, M. & ROBINSON, L. A. 2005. Life on a tricycle: A case study of language impairment from 4 to 19. *Topics in Language Disorders*, 25, 338-362.
- BRINTON, B., SPACKMAN, M. P., FUJIKI, M. & RICKS, J. 2007. What Should Chris Say? The Ability of Children With Specific Language Impairment to Recognize the Need to Disassemble Emotions in Social Situations. *Journal of Speech, Language and Hearing Research*, 50, 798-811. Available: 10.1044/1092-4388(2007/055)
- BROOMFIELD, J. & DODD, B. 2011. Is speech and language therapy effective for children with primary speech and language impairment? Report of a randomized control trial. *International Journal of Language & Communication Disorders*, 46, 628-640. Available: 10.1111/j.1460-6984.2011.00039.x
- CALIFORNIA DEPARTMENT OF EDUCATION. 2016. *Social-Emotional Development Domain* [Online]. Available: <http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp> [Accessed 24/09/2016]
- CAROLAN, S. 2009. *A follow up study of language and reading skills in children who have left language classes*. MSc, University of Dublin, Trinity College.
- CASBY, M. W. 1997. Symbolic play of children with language impairment: a critical review. *Journal of Speech, Language and Hearing Research*, 40, 468-479. Available: 10.1044/jslhr.4003.468
- CIRRIN, F. M. & GILLAM, R. B. 2008. Language intervention practices for School-Age children With Spoken Language Disorders: A Systematic Review. *Language, Speech and Hearing Services in Schools*, 39, 110-137. Available: 10.1044/0161-1461(2008/012)
- CIRRIN, F. M., SCHOOLING, T. L., NELSON, N. W., DIEHL, S. F., FLYNN, P. F., STASKOWSKI, M., TORREY, T. Z. & ADAMCZYK, D. F. 2010. Evidence-Based Systematic Review: Effects of Different Service Delivery Models on Communication Outcomes for Elementary School-Age Children. *Language, Speech & Hearing Services in Schools*, 41, 233-264. Available: 10.1044/0161-1461(2009/08-0128)
- CLARK B (@BECKYCLARK22). 2015. *RALLI getting enquiries about support for adults with DLI/SLI from adults [twitter] 10th March 21.54*, [Online]. Available: <https://twitter.com/beckyclark22/status/575414543855304705?refsrc=email&s=11> [Accessed 11/06/2015]
- CLEGG, J., ANSORGE, L., STACKHOUSE, J. & DONLAN, C. 2012. Developmental Communication Impairments in Adults: Outcomes and Life Experiences of Adults and Their Parents. *Language, Speech, and Hearing*



- Services in Schools*, 43, 521-535. Available: 10.1044/0161-1461(2012/11-0068)
- CLEGG, J. & HENDERSON, J. 1999. Developmental language disorders: changing economic costs from childhood into adult life. *Mental Health Research Review*, 6, 27-30.
- COADY, J. A. & EVANS, J. L. 2008. Uses and interpretations of non-word repetition tasks in children with and without specific language impairments (SLI) *International Journal of Language & Communication Disorders*, 43, 1-40. Available: 10.1080/13682820601116485
- COMMUNICATIONTRUST. 2014. *What Works?* [Online]. Available: <http://www.thecommunicationtrust.org.uk/whatworks> [Accessed 10th March 2015]
- CONROY, P. 2014. The Case of Speech and Language Therapy. A working paper prepared for and by Inclusion Ireland. Available: <http://www.inclusionireland.ie/sites/default/files/attach/article/1158/thecaseofspeechandlanguagetherapy1.pdf> [Accessed 10th March 2015]
- CONTI-RAMSDEN, G. & BOTTING, N. 1999. Classification of children with specific language impairment: longitudinal considerations. *Journal of Speech, Language and Hearing Research*, 42, 1195-1204. Available: 10.1044/jslhr.4205.1195
- CONTI-RAMSDEN, G. & BOTTING, N. 2004. Social difficulties and victimization in children with SLI at 11 years of age. *Journal of Speech, Language, and Hearing Research*, 47, 145-161. Available: 10.1044/1092-4388(2004/013)
- CONTI-RAMSDEN, G. & BOTTING, N. 2008. Emotional health in adolescents with and without a history of specific language impairment (SLI). *Journal of Child Psychology and Psychiatry*, 49, 516-525. Available: doi:10.1111/j.1469-7610.2007.01858.x
- CONTI-RAMSDEN, G., BOTTING, N., SIMKIN, Z. & KNOX, E. 2001. Follow-up of children attending infant language units: outcomes at 11 years of age. *International Journal of Language and Communication Disorders*, 36, 207-219. Available: 10.1080/13682820121213
- CONTI-RAMSDEN, G., DURKIN, K., MOK, P. L. H., TOSEEB, U. & BOTTING, N. 2016. Health, employment and relationships: Correlates of personal wellbeing in young adults with and without a history of childhood language impairment. *Social Science & Medicine*, 160, 20-28. Available: <http://dx.doi.org/10.1016/j.socscimed.2016.05.014>
- CONTI-RAMSDEN, G., DURKIN, K. & SIMKIN, Z. 2010. Language and social factors in the use of cell phone technology by adolescents with and without specific language impairment (SLI). *Journal of Speech, Language, and Hearing Research*, 53, 196-208. Available: 10.1044/1092-4388(2009/08-0241)
- CONTI-RAMSDEN, G. & HESKETH, A. 2003. Risk markers for SLI: a study of young language-learning children. *International Journal of Language &*

- Communication Disorders*, 38, 251-263. Available:  
doi:10.1080/1368282031000092339
- CONWAY, L., PEZIC, A. & REILLY, S. 2014. The social, emotional and behavioural well-being of children with language problems: the first 7 years of life. 13th International Association for the Study of Child Language (IASCL), Amsterdam. July
- CORKERY, N. 2009. Communication Skills of Irish Children with SLI. Presentation at Meeting of the SSLI SIG (Special Interest Group in Specific Speech & Language Impairment), June, Port Laoise.
- COSGROVE, J., MCKEOWN, C., TRAVERS, J., LYSAGHT, Z., NI BHROIN, O. & ARCHER, P. 2014. Educational Experiences and Outcomes for Children with Special Educational Needs. A Secondary Analysis of Data from the Growing Up in Ireland Study. Dublin. Available: <http://ncse.ie/wp-content/uploads/2014/10/Report-17-Educational-Outcomes-Children-with-SEN-final.pdf> [Accessed 18/07/2016]
- CRYSTAL, D. & VARLEY, R. 1998. *Introduction to language pathology.*, London, Whurr.
- CSO. 2011. Census 2011 Population by Age Group, Ireland: Central Statistics Office. Available:  
<http://www.cso.ie/px/pxeirestat/statire/SelectVarVal/Define.asp?Maintable=CNA15&PLanguage=0> [Accessed: 12/05/2015]
- DALE, P. S., PRICE, T. S., BISHOP, D. V. & PLOMIN, R. 2003. Outcomes of early language Delay I. Predicting persistent and transient language difficulties at 3 and 4 Years. *Journal of Speech, Language, and Hearing Research*, 46, 544-560. Available: 10.1044/1092-4388(2003/044)
- DANIELS, P., SLEVIN, M. & MURPHY, C. A. 2012. *Collaborative curriculum-based goal setting between Irish Speech and Language Therapists and Primary School Teachers: An exploration of current practices and future directions*. MSc (Professional Qualification) Speech and Language Therapy, University of Limerick.
- DEEGAN, G. 2011. Concern over speech therapy. *Irish Times*, February 8th, 2011.
- DEMPSEY, L. & SKARAKIS-DOYLE, E. 2010. Developmental Language Impairment through the Lens of the ICF: An Integrated Account of Children's Functioning. *Journal of Communication Disorders*, 43, 424-437. Available: <http://doi.org/10.1016/j.jcomdis.2010.05.004>
- DEPARTMENT OF EDUCATION AND SCIENCE. 1993. *Special Education Review Committee Report, Department of Education and Science*. Dublin Stationery Office. Available:  
<https://www.education.ie/en/Publications/Education-Reports/Report-of-the-Special-Education-Review-Committee-1993.pdf> [Accessed 12/05/2015]
- DEPARTMENT OF EDUCATION AND SCIENCE. 2005. *An Evaluation of Special Classes for Pupils with Specific Speech and Language Disorder. A National Report of the Inspectorate of the Department of Education and Science*. Dublin: Stationery Office. Available:



- [http://www.education.ie/en/Publications/Inspection-Reports-Publications/Evaluation-Reports-Guidelines/insp\\_ssld\\_report\\_pdf.pdf](http://www.education.ie/en/Publications/Inspection-Reports-Publications/Evaluation-Reports-Guidelines/insp_ssld_report_pdf.pdf)  
[Accessed 15/06/16]
- DEPARTMENT OF THE TAOISEACH. 2016. *A Programme for a Partnership Government*. Dublin Available:  
[http://www.taoiseach.gov.ie/eng/Work\\_Of\\_The\\_Department/Programme\\_for\\_Government/Programme\\_for\\_Government.html](http://www.taoiseach.gov.ie/eng/Work_Of_The_Department/Programme_for_Government/Programme_for_Government.html) [Accessed 23/09/2016]
- DES 2007a. Criteria for Enrolment in Special Classes for Pupils with Specific Speech and Language Disorder Athlone: Department of Education and Science. Available: [www.education.ie](http://www.education.ie) [Accessed: 10/07/2016]
- DES. 2007b. *Criteria for Enrolment in Special Classes for Pupils with Specific Speech and Language Disorder*. Athlone: Department of Education and Science, Special Education Section. Available: [Accessed 10/07/2016]
- DOCKRELL, J., RICKETTS, J. & LINDSAY, G. 2012a. *Understanding speech, language and communication needs: Profiles of need and provision (2012)*. London: Department for Education. Available:  
<http://dera.ioe.ac.uk/16322/1/DFE-RR247-BCRP4.pdf> [Accessed 18/07/2015]
- DOCKRELL, J. E., BAKOPOULOU, I., LAW, J., SPENCER, S. & LINDSAY, G. 2012b. *Developing a communication supporting classrooms observation tool*. UK: Department for Education. Available:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/219634/DFE-RR247-BCRP8.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/219634/DFE-RR247-BCRP8.pdf) [Accessed 10/07/2016]
- DOCKRELL, J. E. & MARSHALL, C. R. 2014. Measurement Issues: Assessing language skills in young children. *Child and Adolescent Mental Health*, 20, 116-125. Available: 10.1111/camh.12072
- DOCKRELL, J. E. & MESSER, D. 2007. Language profiles and naming in children with word finding difficulties. *Folia Phoniatrica et Logopaedica*, 59, 318-323. Available: <https://doi.org/10.1159/000108338>
- DODD, B. 2013. *Differential diagnosis and treatment of children with speech disorder*, John Wiley & Sons.
- DONLAN, C., COWAN, R., NEWTON, E. J. & LLOYD, D. 2007. The role of language in mathematical development: Evidence from children with specific language impairments. *Cognition*, 103, 23-33. Available:  
<http://doi.org/10.1016/j.cognition.2006.02.007>
- DUNCAN, P. 2014. More than 32,000 children await speech services. *Irish Times*, 31st March 2014.
- DURKIN, K., CONTI-RAMSDEN, G. & WALKER, A. J. 2011. Txt lang: Texting, textism use and literacy abilities in adolescents with and without specific language impairment. *Journal of Computer Assisted Learning*, 27, 49-57. Available: 10.1111/j.1365-2729.2010.00397.x
- DURKIN, K., CONTI-RAMSDEN, G., WALKER, A. & SIMKIN, Z. 2009. Educational and interpersonal uses of home computers by adolescents with and without specific language impairment. *British Journal of Developmental Psychology*, 27, 197-217. Available: 10.1348/026151008X383553





- DYCK, M. & PIEK, J. 2010. How to distinguish normal from disordered children with poor language or motor skills. *International Journal of Language & Communication Disorders*, 45, 336-344. Available: 10.3109/13682820903009503
- EBBELS, S. 2014. Effectiveness of intervention for grammar in school-aged children with primary language impairments: A review of the evidence. *Child Language Teaching and Therapy*, 30, 7-40. Available: 10.1177/0265659013512321
- EBBELS, S. E., VAN DER LELY, H. K. J. & DOCKRELL, J. E. 2007. Intervention for verb argument structure in children with persistent SLI: A randomized control trial. *Journal of Speech, Language, and Hearing Research*, 50, 1330-1349. Available: 10.1044/1092-4388(2007/093)
- EBBELS, S. H., MARIĆ, N., MURPHY, A. & TURNER, G. 2014. Improving comprehension in adolescents with severe receptive language impairments: a randomized control trial of intervention for coordinating conjunctions. *International Journal of Language & Communication Disorders*, 49, 30-48. Available: 10.1111/1460-6984.12047
- EBBELS, S. H., NICOLL, H., CLARK, B., EACHUS, B., GALLAGHER, A. L., HORNIMAN, K., JENNINGS, M., MCEVOY, K., NIMMO, L. & TURNER, G. 2012. Effectiveness of semantic therapy for word-finding difficulties in pupils with persistent language impairments: a randomized control trial. *International Journal of Language & Communication Disorders*, 47, 35-51. Available: 10.1111/j.1460-6984.2011.00073.x
- EHREN, B. & NELSON, N. W. 2005. The responsiveness to intervention approach and language impairment. *Topics in Language Disorders*, 25.
- FENSON, L., DALE, P. S., REZNICK, J. S., BATES, E., THAL, D. J., PETHICK, S. J., TOMASELLO, M., MERVIS, C. B. & STILES, J. 1994. Variability in early communicative development. *Monographs of the Society for Research in Child Development*, i-185. Available: 10.2307/1166093
- FINNERAN, D. A., FRANCIS, A. L. & LEONARD, L. B. 2009. Sustained Attention in Children With Specific Language Impairment (SLI). *Journal of Speech, Language & Hearing Research*, 52, 915-929. Available: 10.1044/1092-4388(2009/07-0053)
- FORD, L. & DAHINTEN, V. S. 2005. Use of intelligence tests in the assessment of preschoolers. In: FLANAGAN, D. P. & HARRISON, P. L. (eds.) *Contemporary Intellectual Assessment. Theories, Tests and Issues*. 2nd ed. New York: Guilford Press.
- GALLAGHER, J., HERAGHTY, C. & MURPHY, C. A. 2013. Exploring the training that primary school teachers and preschool staff in Ireland have received in relation to children with speech, language and communication needs (SLCN) and their knowledge around working with this client group. Poster presentation. IASLT Conference, Talking Heads, Dublin. April
- GARDNER, H., FROUD, K., MCCLELLAND, A. & VAN DER LELY, H. K. 2006. Development of the Grammar and Phonology Screening (GAPS) test to assess



- key markers of specific language and literacy difficulties in young children. *International Journal of Language & Communication Disorders*, 41, 513-540. Available: 10.1080/13682820500442644
- GARVEY, A. 2010. *Outcomes and Perspectives of Adults in Ireland who attended Specific Speech and Language Disorder Classes while at Primary School*. MSc in Clinical Therapies (Speech and Language Therapy), University of Limerick.
- GARVEY, A. & WRIGHT, A. 2009. Teaching additional languages to children with Specific Speech & Language Disorder: Policy, practice and rationale. Poster presented at the at the Irish Association of Speech and Language Therapists Biannual Conference. Irish Association of Speech and Language Therapists, Galway. October
- GATHERCOLE, S. E. & ALLOWAY, T. P. 2007. *Understanding Working Memory. A Classroom Guide*. London: Harcourt Assessment
- GATHERCOLE, S. E. & ALLOWAY, T. P. 2008 *Working Memory and Learning. A Practical Guide for Teachers*, London, Sage.
- GATHERCOLE, S. E. & BADDELEY, A. D. 1990. Phonological memory deficits in language disordered children: Is there a causal connection. *Journal of Memory & Language*, 29, 336-360.
- GERBER, S., BRICE, A., CAPONE, N., FUJIKI, M. & TIMLER, G. 2012. Language Use in Social Interactions of School-Age Children With Language Impairments: An Evidence-Based Systematic Review of Treatment. *Language Speech and Hearing Services in Schools*, 43, 235-249. Available: 10.1044/0161-1461(2011/10-0047)
- GERMAN, D. J. *Word Finding Definition and Characteristics* [Online]. Available: <http://www.wordfinding.com/defsandchars.html> [Accessed 14/09/2016]
- GERMAN, D. J. 2009. Child Word Finding: Student voices enlighten us *The ASHA Leader*. ASHA.
- GIBBONS, M., CORRY, T., FINNERTY, N., FEERY, A., LYONS, R. & ANTONIJEVIC-ELLIOTT, S. 2016. Investigating Outcomes of Two Models of Service Delivery for 8 - 13 Year Old Children with Specific Language Disorders. *Creating the Future Now*, 30th World Congress of the IALP, Dublin
- GILLAM, R. B., PEÑA, E. D., BEDORE, L. M., BOHMAN, T. M. & MENDEZ-PEREZ, A. 2013. Identification of Specific Language Impairment in Bilingual Children: I. Assessment in English. *Journal of Speech, Language & Hearing Research*, 56, 1813-1823. Available: 10.1044/1092-4388(2013/12-0056)
- GORMAN, S., SHEEDY, L. & WRIGHT, A. What Did You Expect? Parents' Experiences and Perceptions of Language Classes. Poster Presentation. IASLT Biennial Conference Fresh Talk; Food for Thought 2011 Dublin.
- GROSS, J. 2013. *Time to Talk. Implementing outstanding practice in speech, language and communication*, Routledge.

- HASSON, F., KEENEY, S. & MCKENNA, H. 2000. Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing*, 32, 1008-1015. Available: 10.1046/j.1365-2648.2000.t01-1-01567.x
- HASSON, N. & JOFFE, V. 2007. The case for dynamic assessment in speech and language therapy. *Child Language Teaching and Therapy*, 23, 9-25. Available: 10.1177/0265659007072142
- HAVELKA, M., LUCANIN, J. D. & LUCANIN, D. 2009. Biopsychosocial model--the integrated approach to health and disease. *Coll Antropol*, 33, 303-10. Available: <http://hrcak.srce.hr/39603>
- HEALTH RESEARCH BOARD 2015. Annual Report of the National Physical and Sensory Disability Database Committee 2014. Dublin: BOARD, H. R. Available: [http://www.hrb.ie/uploads/tx\\_hrbpublications/NPSDD\\_Annual\\_Report\\_2014\\_web.pdf](http://www.hrb.ie/uploads/tx_hrbpublications/NPSDD_Annual_Report_2014_web.pdf) [Accessed 24/09/2016]
- HEALTH SERVICES EXECUTIVE 2013. Framework for Collaborative Working between Education and Health Professionals, issued by the Education and Health Sub-Group of the Progressing Disability Services for Children and Young People Programme (0-18s Programme) Available: <http://www.hse.ie/eng/services/list/4/disability/progressingservices/reportsguidancedocs/collaborativeworkingeducationhealthprof.pdf> [Accessed 10/07/2016]
- HEALTH SERVICES EXECUTIVE. 2015. *HealthStat - Improving Performance* [Online]. Available: <http://www.hse.ie/eng/staff/Healthstat/about/> [Accessed 12th May]
- HEALTH SERVICES EXECUTIVE. 2016a. *Symptoms of Otitis Media* [Online]. Available: <https://www.hse.ie/eng/health/az/E/Ear-infection,-inner/Symptoms-of-otitis-media.html> [Accessed 23/09/2016]
- HEALTH SERVICES EXECUTIVE. 2016b. *What is a care plan?* [Online]. Available: [http://www.hse.ie/eng/services/list/4/Mental\\_Health\\_Services/dsc/dubwestsouth/help/careplan.html](http://www.hse.ie/eng/services/list/4/Mental_Health_Services/dsc/dubwestsouth/help/careplan.html)
- HENRY, L. A., MESSER, D. J. & NASH, G. 2012. Executive functioning in children with specific language impairment. *Journal of Child Psychology and Psychiatry*, 53, 37-45. Available: 10.1111/j.1469-7610.2011.02430.x
- HILL, E. L. 2001. Non-specific nature of specific language impairment: a review of the literature with regard to concomitant motor impairments. *International Journal of Language and Communication Disorders*, 36, 149-171. Available: doi: 10.1080/13682820010019874
- HOUGH, J. 2010. 23,000 on waiting list for speech therapy. *Irish Examiner* May 3rd, 2010.
- HOURIGAN, S., DOYLE, A. & CAREW, A. 2016. *HRB Statistics Series 31. Annual Report of the National Physical and Sensory Disability Database Committee 2015*. Dublin: Health Research Board. Available:



- [http://www.hrb.ie/uploads/tx\\_hrbpublications/Annual\\_Report\\_of\\_the\\_National\\_Physical\\_and\\_Sensory\\_Disability\\_Database\\_Committee\\_2015.pdf](http://www.hrb.ie/uploads/tx_hrbpublications/Annual_Report_of_the_National_Physical_and_Sensory_Disability_Database_Committee_2015.pdf)  
[Accessed 18/02/2017]
- HSE. 2016. *2016 Performance Reports*. Department of Health. Available:  
<http://www.hse.ie/eng/services/publications/performance-reports/2016-performance-reports.html> [Accessed 23/09/2016]
- HSU, H. J. & BISHOP, D. V. 2014. Sequence-specific procedural learning deficits in children with specific language impairment. *Developmental science*, 17, 352-365. Available: 10.1111/desc.12125
- IASLT 2007. Specific speech and language impairment in children: definition, service provision and recommendations for change Available:  
[http://www.iaslt.ie/docs/position\\_papers/IASLT%20SSLI%20Position%20Paper%20Oct%202007.pdf](http://www.iaslt.ie/docs/position_papers/IASLT%20SSLI%20Position%20Paper%20Oct%202007.pdf) [Accessed 06/07/2015]
- IASLT 2016a. Guidelines for Speech and Language Therapists Working with Linguistically Diverse Service Users. IASLT. Available:  
<http://www.iaslt.ie/newFront/membership/Documents/fileget.php> [Accessed 10/07/2016]
- IASLT 2016b. IASLT Scope of Practice, 2016. Irish Association of Speech and Language Therapists. Available:  
<http://www.iaslt.ie/newFront/membership/Documents/fileget.php> [Accessed: 24/09/2016]
- IBBOTSON, P. 2012. A new kind of language. *The Psychologist*.
- JAMES, E., MURPHY, A., FRANKLIN, S. & HENEFER, J. 2016. Establishing the Effectiveness of a Collaborative Tiered Model of Service Delivery in Irish Post-Primary Schools in Areas of Socio-Economic Disadvantage. Creating the Future Now, 30th World Congress of the IALP, Dublin. August 25th
- KARMILOFF-SMITH, A. 2009. Nativism versus neuroconstructivism: Rethinking the study of developmental disorders. *Developmental Psychology*, 45, 56-63. Available: 10.1037/a0014506
- KERSNER, M. & WRIGHT, J. A. 2012. *Speech and language therapy: the decision-making process when working with children.*, London, Routledge.
- KOHNERT, K. 2010. Bilingual children with primary language impairment: Issues, evidence and implications for clinical actions. *Journal of Communication Disorders*, 43, 456-473. Available: 10.1016/j.jcomdis.2010.02.002
- KOPONEN, T., MONONEN, R., RÄISÄNEN, P. & AHONEN, T. 2006. Basic Numeracy in Children With Specific Language Impairment: Heterogeneity and Connections to Language. *Journal of Speech, Language & Hearing Research*, 49, 58-73. Available: 10.1044/1092-4388(2006/005)
- LARSON, V. L. & MCKINLEY, N. L. 2003a. *Communication solutions for older students: Assessment and intervention strategies.*, Wisconsin, Thinking Publications.
- LARSON, V. L. & MCKINLEY, N. L. 2003b. Service Delivery Options for Secondary Students with Language Disorders. *Semin Speech Lang*, 24, 181-198. Available: 10.1055/s-2003-42824



- LAVIN, E., NORMAN, H. & MURPHY, C. A. 2009. An Exploratory Study into the Experiences of Adolescents with Specific Language Impairment (SLI): Insights from Parents and Adolescents. *Journal of Clinical Speech and Language Studies*, 17, 92-116.
- LAW, J., BOYLE, J., HARRIS, F., HARKNESS, A. & NYE, C. 2000. Prevalence and natural history of primary speech and language delay: findings from a systematic review of the literature. *International Journal of Language & Communication Disorders*, 35, 165-188.
- LAW, J. & CAMILLERI, B. 2007. Dynamic assessment and its application to children with speech and language learning difficulties. *International Journal of Speech-Language Pathology*, 9, 271-272. Available: <http://dx.doi.org/10.1080/14417040701516522>
- LAW, J., GARRETT, Z. & NYE, C. 2008a. Speech and language therapy interventions for children with primary speech and language delay or disorder: John Wiley & Sons Ltd. Available: <http://www.thecochranelibrary.com> [Accessed: ]
- LAW, J., LEE, W., ROULSTONE, S., WREN, Y., ZENG, B. & LINDSAY, G. 2012. 'What Works': Interventions for children and young people with speech, language and communication needs. UK. Available: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/219623/DFE-RR247-BCRP10.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/219623/DFE-RR247-BCRP10.pdf) [Accessed 10/07/2016]
- LAW, J., RUSH, R., SCHOON, I. & PARSONS, S. 2009. Modeling Developmental Language Difficulties From School Entry Into Adulthood: Literacy, Mental Health, and Employment Outcomes. *Journal of Speech, Language & Hearing Research*, 52, 1401-1416. Available: 10.1044/1092-4388(2009/08-0142)
- LAW, J. & STRINGER, H. 2013. The overlap between behaviour and communication and its implications for mental health in childhood: the elephant in the room. *Emotional and Behavioural Difficulties*, 19, 2-6. Available: 10.1080/13632752.2013.854959
- LAW, J., TOMBLIN, J. B. & XUYANG, Z. 2008b. Characterizing the Growth Trajectories of Language-Impaired Children Between 7 and 11 Years of Age. *Journal of Speech, Language & Hearing Research*, 51, 739-749. Available:
- LEE, W. 2008. Speech, Language and Communication Needs and Primary School-aged Children, *I CAN Talk Series- Issue 6*. [www.ican.org.uk](http://www.ican.org.uk). London: ICAN.
- LENIHAN, E. M. 2004. *Specific Speech and Language Disorder: A Study of Pupils Who Attended Two Specific Speech and Language Disorder Classes in Cork City from 1995-2002*. PhD, University College Cork.
- LEONARD, L. B. 2014. Specific Language Impairment Across Languages. *Child Development Perspectives*, 8, 1-5. Available: 10.1111/cdep.12053
- LEONARD, L. B., FEY, M. E., DEEVY, P. & BREDIN-OJA, S. L. 2015. Input sources of third person singular -s inconsistency in children with and without specific language impairment. *Journal of Child Language*, 42, 786-820. Available: doi:10.1017/S0305000914000397

- LIDZ, C. S. & PEÑA, E. D. 2009. Response to Intervention and Dynamic Assessment: Do We Just Appear to Be Speaking the Same Language? *Semin Speech Lang*, 30, 121-133. Available: 10.1055/s-0029-1215719
- LINDSAY, G. & DOCKRELL, J. (eds.) 2008. *Outcomes for young people with a history of specific language impairment at 16-17 years: A more positive picture*, West Sussex: John Wiley & Sons.
- LINDSAY, G., DOCKRELL, J., LAW, J. & ROULSTONE, S. 2012. The Better Communication Research Programme: Improving provision for children and young people with speech, language and communication needs. London. Available: <http://dera.ioe.ac.uk/16324/1/DFE-RR247-BCRP1.pdf> [Accessed 10/07/2015]
- LINDSAY, G. & DOCKRELL, J. E. 2012. *The relationship between speech, language and communication needs (SLCN) and behavioural, emotional and social difficulties (BESD)* Department for Education. Available: <https://www.gov.uk/government/publications/the-relationship-between-speech-language-and-communication-needs-slc-and-behavioural-emotional-and-social-difficulties-besd> [Accessed 10/07/2016]
- LUM, J. A. G., GELGIC, C. & CONTI-RAMSDEN, G. 2010. Procedural and declarative memory in children with and without specific language impairment. *International Journal of Language & Communication Disorders*, 45, 96-107. Available: 10.3109/13682820902752285
- LYONS, R. 2014. *Identity and meaning-making in children with primary speech and language impairments*. PhD, University of West Bristol.
- LYONS, R. & ROULSTONE, S. 2016. Labels, identity and narratives in children with primary speech and language impairments. *International Journal of Speech-Language Pathology*, 1-16. Available: 10.1080/17549507.2016.1221455
- MARKHAM, C. & DEAN, T. 2006. Parents' and professionals' perceptions of Quality of Life in children with speech and language difficulty. *International Journal of Language & Communication Disorders*, 41, 189-212. Available: doi: 10.1080/13682820500221485
- MARSH, K., BERTRANOU, E., SUOMINEN, H. & VENKATACHALAM, M. 2010. An economic evaluation of speech and language therapy. London: EVIDENCE, M. Available: [http://www.naylor-network.com/bse-nw/pdf/Economic Evaluation of Speech and Language Therapy\[1\].pdf](http://www.naylor-network.com/bse-nw/pdf/Economic%20Evaluation%20of%20Speech%20and%20Language%20Therapy[1].pdf) [Accessed 10/07/2016]
- MATSON, G. & CLINE, T. 2012. The impact of specific language impairment on performance in science and suggested implications for pedagogy. *Child Language Teaching and Therapy*, 28, 25-37. Available: 10.1177/0265659011414276
- MCCARTNEY, E., BOYLE, J., ELLIS, S., BANNATYNE, S. & TURNBULL, M. 2011. Indirect language therapy for children with persistent language impairment in mainstream primary schools: outcomes from a cohort

- intervention. *International Journal of Language & Communication Disorders*, 46, 74-82. Available: 10.3109/13682820903560302
- MCCORMACK, J., MCALLISTER, L., MCLEOD, S. & HARRISON, L. 2012. Knowing, having, doing: The battles of childhood speech impairment. *Child Language Teaching and Therapy*, 28, 141-157. Available: 10.1177/0265659011417313
- MCCORMACK, J., MCLEOD, S., MCALLISTER, L. & HARRISON, L. J. 2010. My Speech Problem, Your Listening Problem, and My Frustration: The Experience of Living With Childhood Speech Impairment. *Lang Speech Hear Serv Sch*, 41, 379-392. Available: 10.1044/0161-1461(2009/08-0129)
- MCKEAN, C., LAW, J., MENSAH, F., CINI, E., EADIE, P., FRAZER, K. & REILLY, S. 2016. Predicting Meaningful Differences in School-Entry Language Skills from Child and Family Factors Measured at 12 months of Age *International Journal of Early Childhood*. Available: 10.1007/s13158-016-0174-0
- MCLEOD, S. & MCKINNON, D. H. 2007. Prevalence of communication disorders compared with other learning needs in 14 500 primary and secondary school students. *International Journal of Language & Communication Disorders*, 42, 37 - 59. Available: 10.1080/13682820601173262
- MUELLER, K. L. & TOMBLIN, J. B. 2012. Examining the comorbidity of language disorders and ADHD. *Topics in Language Disorders*, 32, 228-246. Available: 10.1097/TLD.0b013e318262010d
- MURPHY, C. A. 2013. *Profiles and Characteristics of Sentence Production difficulties in Children with Specific Language Impairment* PhD Thesis, Newcastle University.
- NAGIN, D. S. 1999. Analyzing developmental trajectories: a semiparametric, group-based approach. *Psychological methods*, 4, 139-157. Available:
- NATIONAL COUNCIL FOR CURRICULUM AND ASSESSMENT (NCCA). 2016. *Primary Language Curriculum*. Dublin: NCCA. Available: <http://www.curriculumonline.ie/Primary/Curriculum-Areas/Language-New-Junior-infants-2nd-class> [Accessed 24/09/2016]
- NATIONAL COUNCIL FOR SPECIAL EDUCATION. 2016. *NCSE List of Special Classes Mainstream Schools for September 2016/17*. Trim, Co. Meath: NCSE. Available: <http://ncse.ie/wp-content/uploads/2016/06/NCSE-Special-Class-List-for-September-2016.17.pdf> [Accessed 25/09/2016]
- NCSE 2014. Delivery for Students with Special Educational Needs. A better and more equitable way. An NCSE Working Group Report. Trim. Co.Meath: EDUCATION, N. C. F. S. Available: [http://ncse.ie/wp-content/uploads/2014/09/Allocating\\_resources\\_1\\_5\\_14\\_Web\\_accessible\\_version\\_FINAL.pdf](http://ncse.ie/wp-content/uploads/2014/09/Allocating_resources_1_5_14_Web_accessible_version_FINAL.pdf) [Accessed 10th March 2015]
- NIPPOLD, M. A. 2007. *Later language development : school-age children, adolescents, and young adults* Austin, Tx, Pro-Ed.
- NIPPOLD, M. A., MANSFIELD, T. C. & BILLOW, J. L. 2007. Peer Conflict Explanations in Children, Adolescents, and Adults: Examining the



- Development of Complex Syntax *American Journal of Speech-Language Pathology*, 16, 179-188. Available:
- NIPPOLD, M. A., MANSFIELD, T. C., BILLOW, J. L. & TOMBLIN, J. B. 2009. Syntactic Development in Adolescents With a History of Language Impairments: A Follow-Up Investigation. *American Journal of Speech-Language Pathology*, 18, 241-251. Available: 10.1044/1058-0360(2008/08-0022)
- NORBURY, C. F., GOOCH, D., WRAY, C., BAIRD, G., CHARMAN, T., SIMONOFF, E., VAMVAKAS, G. & PICKLES, A. 2016. The impact of nonverbal ability on prevalence and clinical presentation of language disorder: evidence from a population study. *Journal of Child Psychology and Psychiatry*, 57, 1247-1257. Available: 10.1111/jcpp.12573
- NORBURY, C. F., TOMBLIN, B. & BISHOP, D. 2008. A note on terminology. In: NORBURY, C. F., TOMBLIN, B. & BISHOP, D. (eds.) *Understanding Developmental Language Disorders. From Theory to Practice*. Hove: Psychology Press, xiii-xv.
- O'BRIEN, C. 2014. Thousands of children with disabilities waiting years for supports. *Irish Times*, February 7th, 2014.
- OWENS, R. E. 2016. *Language Development. An Introduction* Essex, UK, Pearson Education Ltd.
- OXFORD UNIVERSITY PRESS. 2016. *Oxford English Dictionary* [Online]. Available: <http://www.oed.com/>
- PAUL, R. & NORBURY, C. 2012. *Language disorders from infancy through adolescence: listening, speaking, reading, writing, and communicating*, Elsevier Health Sciences.
- POLL, G. H., BETZ, S. K. & MILLER, C. A. 2010. Identification of Clinical Markers of Specific Language Impairment in Adults. *Journal of Speech, Language, and Hearing Research*, 53, 414-429. Available: 10.1044/1092-4388(2009/08-0016)
- RAKAP, S. & RAKAP, S. 2014. Parent-implemented naturalistic language interventions for young children with disabilities: A systematic review of single-subject experimental research studies. *Educational Research Review*, 13, 35-51. Available: <http://doi.org/10.1016/j.edurev.2014.09.001>
- RCSLT. 2011. *Developmental Verbal Dyspraxia, RCSLT Policy Statement* [Online]. Available: <http://www.ndp3.org/documents/rcslt2011dvdPolicyStatement.pdf> [Accessed 24/09/2016]
- RECHETNIKOV, R. P. & MAITRA, K. 2009. Motor impairments in children associated with impairments of speech or language: A meta-analytic review of research literature. *American Journal of Occupational Therapy*, 63, 255-263. Available: 10.5014/ajot.63.3.255
- REILLY, S., BAVIN, E. L., BRETHERTON, L., CONWAY, L., EADIE, P., CINI, E., PRIOR, M., UKOUMUNNE, O. C. & WAKE, M. 2009. The Early Language in Victoria Study (ELVS): A prospective, longitudinal study of communication skills and expressive vocabulary development at 8, 12 and 24





- months. *International Journal of Speech-Language Pathology*, 11, 344 - 357. Available: <http://dx.doi.org/10.1080/17549500903147560>
- REILLY, S., BISHOP, D. V. M. & TOMBLIN, B. 2014b. Terminological debate over language impairment in children: forward movement and sticking points. *International Journal of Language and Communication Disorders*, 49, 452-462. Available: 10.1111/1460-6984.12111
- REILLY, S., MCKEAN, C., MORGAN, A. & WAKE, M. 2015. Identifying and managing common childhood language and speech impairments. *British Medical Journal* 350. Available: <http://dx.doi.org/10.1136/bmj.h2318>
- REILLY, S., TOMBLIN, B., LAW, J., MCKEAN, C., MENSAH, F. K., MORGAN, A., GOLDFELD, S., NICHOLSON, J. M. & WAKE, M. 2014a. Specific language impairment: a convenient label for whom? *International Journal of Language and Communication Disorders*, 49, 416-451. Available: 10.1111/1460-6984.12102
- REILLY, S., WAKE, M., UKOUMUNNE, O. C., BAVIN, E., PRIOR, M., CINI, E., CONWAY, L., EADIE, P. & BRETHERTON, L. 2010. Predicting language outcomes at 4 years of age: findings from Early Language in Victoria Study. *Pediatrics*, 126, e1530-e1537. Available: 10.1542/peds.2010-0254
- RESCORLA, L. 2009. Age 17 language and reading outcomes in late-talking toddlers: Support for a dimensional perspective on language delay. *Journal of Speech, Language, and Hearing Research*, 52, 16-30. Available: 10.1044/1092-4388(2008/07-0171)
- RICE, M. L. 2004. Growth models of developmental language disorders. In: RICE, M. L. & WAREN, S. F. (eds.) *Developmental Language Disorders: From phenotypes to etiologies*. 1st ed. Mahwah, NJ.: Lawrence Erlbaum Associates.
- RICE, M. L. & WEXLER, K. 1996. Toward tense as a clinical marker of specific language impairment in English speaking children. *Journal of Speech and Hearing Research*, 39, 1239-1257. Available: 10.1044/jshr.3906.1239
- RINALDI, W. 2000. Pragmatic comprehension in secondary school-aged students with specific developmental language disorder. *International Journal of Language & Communication Disorders*, 35, 1-29. Available: 10.1080/136828200247223
- RIPLEY, K., BARRETT, J. & FLEMING, P. 2001. Inclusion for children with speech and language impairments. *London: David Fulton*. Available:
- ROBERTS, J. 2014. Echolalia and Language Development in Children with Autism. In: ARCUILI, J. & BROCK, J. (eds.) *Communication in Autism*. Amsterdam: John Benjamins Publishing Company 53-74.
- ROBERTS, M. Y. & KAISER, A. P. 2011. The Effectiveness of Parent-Implemented Language Interventions: A Meta-Analysis. *American Journal of Speech-Language Pathology*, 20, 180-199. Available: 10.1044/1058-0360(2011/10-0055)
- ROULSTONE, S., COAD, J., AYRE, A., HAMBLY, H. & LINDSAY, G. 2012a. *The preferred outcomes of children with speech, language and communication needs and their parents*. UK. Available:



- [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/219625/DFE-RR247-BCRP12.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/219625/DFE-RR247-BCRP12.pdf) [Accessed 10/07/2016]
- ROULSTONE, S., WREN, Y., BAKOPOULOU, I., GOODLAD, S. & LINDSAY, G. 2012b. *Exploring interventions for children and young people with speech, language and communication needs: A study of practice*. UK. Available: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/219627/DFE-RR247-BCRP13.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/219627/DFE-RR247-BCRP13.pdf) [Accessed 10/07/2016]
- ROY, P. & CHIAT, S. 2014. Developmental pathways of language and social communication problems in 9-11 year olds: Unpicking the heterogeneity. *Research in Developmental Disabilities*, 35, 2534-2546. Available: <http://dx.doi.org/10.1016/j.ridd.2014.06.014>
- ROY, P., CHIAT, S. & DODD, B. 2014. *Language and Socioeconomic Disadvantage: From Research to Practice*. London, UK. Available: <http://openaccess.city.ac.uk/4989/> [Accessed 10/07/2016]
- RUTTER, M. 2008. Diagnostic concepts and risk processes. In: NORBURY, C. F., BISHOP, D. & TOMBLIN, J. (eds.) *Understanding Developmental Language Disorders. From Theory to Practice*. Hove: Psychology Press, 205-215.
- SCHMITT, M. B., JUSTICE, L. M. & LOGAN, J. A. R. 2016. Intensity of language treatment: contribution to children's language outcomes, early online version *International Journal of Language & Communication Disorders*, n/a-n/a. Available: 10.1111/1460-6984.12254
- SCHRIJVERS G, HOORN A VAN & N., H. 2012. The Care Pathway Concept: concepts and theories: an introduction. *International Journal of Integrated Care*, 12. Available: <http://doi.org/10.5334/ijic.812>
- SCHWARTZ, R. G. 2009. Specific Language Impairment. In: SCHWARTZ, R. G. (ed.) *Handbook of Child Language Disorders*. New York, NY: Psychology Press, 3-43.
- SCIBERRAS, E., MUELLER, K. L., EFRON, D., BISSET, M., ANDERSON, V., SCHILPZAND, E. J., JONGELING, B. & NICHOLSON, J. M. 2014. Language Problems in Children With ADHD: A Community-Based Study. *Pediatrics*, 133, 793-800. Available: 10.1542/peds.2013-3355
- SEEFF-GABRIEL, B., CHIAT, S. & DODD, B. 2010. Sentence imitation as a tool in identifying expressive morphosyntactic difficulties in children with severe speech difficulties. *International Journal of Language & Communication Disorders*, 45, 691-702. Available: 10.3109/13682820903509432
- SHIEL, G., CREGAN, A., MCGOUGH, A. & ARCHER, P. 2012. *Oral Language in Early Childhood and Primary Education (3-8 years)*. Dublin: NCCA. Available: [http://www.ncca.ie/en/Publications/Reports/Oral\\_Language\\_in\\_Early\\_Childhood\\_and\\_Primary\\_Education\\_3-8\\_years\\_.pdf](http://www.ncca.ie/en/Publications/Reports/Oral_Language_in_Early_Childhood_and_Primary_Education_3-8_years_.pdf) [Accessed 24/09/2016]
- SKEAT, J., EADIE, P., UKOUMUNNE, O. & REILLY, S. 2010. Predictors of parents seeking help or advice about children's communication development in the early years. *Child: Care, Health and Development*, 36, 878-887. Available: 10.1111/j.1365-2214.2010.01093.x



- SNOWLING, M., HULME, C., BAILEY, A. & STOTHARD, S. 2011. *Better communication research project: Language and literacy attainment of pupils during early years and through KS2: Does teacher assessment at five provide a valid measure of children ' s current and future educational attainments?* DFE-RR172a. Available: [Accessed 10/07/2016]
- SNOWLING, M. J., BISHOP, D., STOTHARD, S. E., CHIPCHASE, B. & KAPLAN, C. 2006. Psychosocial outcomes at 15 years of children with a preschool history of speech-language impairment. *Journal of Child Psychology and Psychiatry*, 47, 759-765. Available: 10.1111/j.1469-7610.2006.01631.x
- SNOWLING, M. J., DUFF, F. J., NASH, H. M. & HULME, C. 2015. Language profiles and literacy outcomes of children with resolving, emerging, or persisting language impairments. *Journal of Child Psychology and Psychiatry*, n/a-n/a. Available: 10.1111/jcpp.12497
- SPECIAL EDUCATION SECTION DES 2005 *Organisation of Teaching Resources for Pupils who need Additional Support in Mainstream Primary Schools, Sp 02/05:DES*. Available: [www.education.ie](http://www.education.ie) [Accessed: 10/07/2016]
- SPEECHBITE. 2015. *Speechbite Speech Pathology Database for Best Interventions and Treatment Efficacy* [Online]. Available: <http://speechbite.com/> [Accessed 10th March 2015]
- ST CLAIR, M. C., PICKLES, A., DURKIN, K. & CONTI-RAMSDEN, G. 2011. A longitudinal study of behavioral, emotional and social difficulties in individuals with a history of specific language impairment (SLI). *Journal of Communication Disorders*, 44, 186-199. Available: <http://dx.doi.org/10.1016/j.jcomdis.2010.09.004>
- STARLING, J., MUNRO, N., TOGHER, L. & ARCIULI, J. 2012. Training Secondary School Teachers in Instructional Language Modification Techniques to Support Adolescents With Language Impairment: A Randomized Controlled Trial. *Language, Speech, and Hearing Services in Schools*, 43, 474-495. Available: 10.1044/0161-1461(2012/11-0066)
- TASKER, S. L. & SCHMIDT, L. A. 2008. The “dual usage problem” in the explanations of “joint attention” and children ' s socioemotional development: A reconceptualization. *Developmental Review*, 28, 263-288. Available: <http://dx.doi.org/10.1016/j.dr.2007.07.001>
- THE COMMUNICATION TRUST. 2011. *Don't Get Me Wrong* [Online]. Available: <https://www.thecommunicationtrust.org.uk/media/174/dontgetmewrong.pdf> [Accessed 24/09/2016]
- THE COMMUNICATION TRUST 2013. *A Generation Adrift*. TRUST, T. C. Available: [https://www.thecommunicationtrust.org.uk/media/31961/tct\\_genadrift.pdf](https://www.thecommunicationtrust.org.uk/media/31961/tct_genadrift.pdf) [Accessed 14/09/2016]
- THOMAS, M. S., ANNAZ, D., ANSARI, D., SCERIF, G., JARROLD, C. & KARMILOFF-SMITH, A. 2009. Using developmental trajectories to understand developmental disorders. *Journal of Speech, Language, and*



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IASLT Position Paper and Guidance Document, 2017

- Hearing Research*, 52, 336-358. Available: 10.1044/1092-4388(2009/07-0144)
- TOMBLIN, B. 2008. Validating diagnostic standards for specific language impairment using adolescent outcomes. *In: NORBURY, C. F., TOMBLIN, B. & BISHOP, D. (eds.) Understanding Developmental Language Disorders: From Theory to Practice*. Hove: Psychology Press, 93-114.
- TOMBLIN, B. & NIPPOLD, M. A. 2014. Features of Language Impairment in the School Years. *In: TOMBLIN, J. B. & NIPPOLD, M. A. (eds.) Understanding individual differences in language development across the school years*. New York Psychology Press, 79-116.
- TOMBLIN, J. B., RECORDS, N. L., BUCKWALTER, P., ZHANG, X., SMITH, E. & O'BRIEN, M. 1997. Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language and Hearing Research*, 40, 1245-1260. Available: doi:10.1044/jslhr.4006.1245
- UKOUMUNNE, O. C., WAKE, M., CARLIN, J., BAVIN, E. L., LUM, J., SKEAT, J., WILLIAMS, J., CONWAY, L., CINI, E. & REILLY, S. 2012. Profiles of language development in pre-school children: a longitudinal latent class analysis of data from the Early Language in Victoria Study. *Child: Care, Health and Development*, 38, 341-349. Available: 10.1111/j.1365-2214.2011.01234.x
- VAN DER LELY, H. K. J. 2005. Domain-specific cognitive systems: insight from Grammatical-SLI. *Trends in Cognitive Science*, 9, 53-59. Available: <http://doi.org/10.1016/j.tics.2004.12.002>
- VOCI, S. C., BEITCHMAN, J. H., BROWNLIE, E. B. & WILSON, B. 2006. Social anxiety in late adolescence: The importance of early childhood language impairment. *Journal of Anxiety Disorders*, 20, 915-930. Available: <http://dx.doi.org/10.1016/j.janxdis.2006.01.007>
- WADE, D. T. & HALLIGAN, P. W. 2004. Do biomedical models of illness make for good healthcare systems? *BMJ*, 329, 1398. Available: 10.1136/bmj.329.7479.1398
- WADMAN, R., DURKIN, K. & CONTI-RAMSDEN, G. 2008. Self-Esteem, Shyness, and Sociability in Adolescents With Specific Language Impairment (SLI). *Journal of Speech, Language & Hearing Research*, 51, 938-952. Available: 10.1044/1092-4388(2008/069)
- WAKE, M., LEVICKIS, P., TOBIN, S., ZENS, N., LAW, J., GOLD, L., UKOUMUNNE, O. C., GOLDFELD, S., LE, H. N. D., SKEAT, J. & REILLY, S. 2012. Improving outcomes of preschool language delay in the community: protocol for the Language for Learning randomised controlled trial. *BMC Pediatrics*, 12. Available: 10.1186/1471-2431-12-96
- WAKE, M., TOBIN, S., LEVICKIS, P., GOLD, L., UKOUMUNNE, O. C., ZENS, N., GOLDFELD, S., LE, H., LAW, J. & REILLY, S. 2013. Randomized Trial of a Population-Based, Home-Delivered Intervention for Preschool Language Delay. *Pediatrics*, 132, E895-E904. Available: 10.1542/peds.2012-3878

- WARING, R. & KNIGHT, R. 2013. How should children with speech sound disorders be classified? A review and critical evaluation of current classification systems. *International Journal of Language & Communication Disorders*, 48, 25-40. Available: 10.1111/j.1460-6984.2012.00195.x
- WASHINGTON, K. N. 2007. Using the ICF within speech-language pathology: Application to developmental language impairment. *International Journal of Speech-Language Pathology*, 9, 242 - 255. Available: <http://dx.doi.org/10.1080/14417040701261525>
- WELLINGTON, W. & WELLINGTON, J. 2002. Children with communication difficulties in mainstream science classrooms. *School Science Review*, 83, 81-92.
- WORLD HEALTH ORGANISATION. 1994. *International Statistical Classification of Diseases and Related Health Problems 10th Revision*. Geneva: WHO. Available: <http://apps.who.int/classifications/icd10/browse/2016/en> [Accessed 23/09/2016]
- WORLD HEALTH ORGANISATION. 2007. *ICF-CY. International Classification of Functioning, Disability and Health. Children & Youth Version*. Geneva, Switzerland: WHO Press Available: [http://apps.who.int/iris/bitstream/10665/43737/1/9789241547321\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/43737/1/9789241547321_eng.pdf) [Accessed 23/09/2016]
- ZUBRICK, S. R., TAYLOR, C. L., RICE, M. L. & SLEGGERS, D. W. 2007. Late language emergence at 24 months: An epidemiological study of prevalence, predictors, and covariates. *Journal of Speech, Language, and Hearing Research*, 50, 1562-1592. Available: 10.1044/1092-4388(2007/106)