



# RCSLT briefing paper on Language Disorder with a specific focus on Developmental Language Disorder

---

## Summary

The RCSLT has produced this briefing paper to support speech and language therapists and services to navigate the new developments related to changes in terminology and criteria (Specific Language Impairment to Developmental Language Disorder) and the implications for the speech and language therapy service provision and funding (commissioning).

Language Disorder encompasses both Developmental Language Disorder and Language Disorder associated with a differentiating condition. This paper will focus on Developmental Language Disorder and will address:

- 1.0 Context
- 2.0 Diagnostic criteria and use of terminology
- 3.0 Assessment of need and differential diagnosis
- 4.0 Prevalence of Language Disorder
- 5.0 Intervention and building the evidence base
- 6.0 Impact and outcomes of Developmental Language Disorder
- 7.0 Potential impact on practice, service delivery and commissioning
- 8.0 Next steps

## 1.0 Context

### 1.1 What has changed and why?

Speech and language therapists (SLTs) work with children with a wide range of different needs affecting speech, language and communication. In some cases, these problems have a clear aetiology, in others there may be risk factors of uncertain significance and sometimes there is no known cause. Speech, language and communication needs (SLCN) can affect children of all ages; for some individuals the needs are mild or transitory, in others they are more serious and persistent. In part, because of the complexity and variety of SLCN and the range of professionals working with these children, the terminology used to identify children's problems has been variable and confusing.

The term Specific Language Impairment (SLI) was originally introduced by researchers in the USA to refer to children with selective language problems of unknown cause. Subsequently, SLI has been adopted in the UK in many clinical settings. However, there have been growing concerns that the term SLI has been used in a way that does not align with clinical reality. The definition of SLI focused on discrepancy criteria, and this, together with limited access to services for those who did not meet these criteria, has led to risks of inappropriate and inequitable provision of services.

### 1.2 The CATALISE process

In 2016, a consortium of experts in children's language disorders from a range of professional disciplines came together with the aim of reaching consensus on criteria and terminology for children's language disorders, with a focus specifically on children who would benefit from access to speech and language therapy services. The majority of panel members were SLTs from the UK, but representatives from education, medicine, psychology, audiology and charities were also included, as well as professionals from other English-speaking

countries. This CATALISE consortium conducted two studies using the Delphi method, which involved panel members anonymously rating and discussing statements about the criteria and terminology for children's language difficulties. Reports from these two studies are available online, free to download:

- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., Greenhalgh, T., & The CATALISE Consortium. (2016). [CATALISE: a multinational and multidisciplinary Delphi consensus study](#). Identifying language impairments in children. PLOS One, 11(7), e0158753. doi:10.1371/journal.pone.0158753
- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., Greenhalgh, T., & The CATALISE Consortium. (2017). [Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology](#). Journal of Child Psychology & Psychiatry. doi:10.1371/journal.pone.0158753

The main recommendation regarding terminology was that the term Developmental Language Disorder (DLD) is used for children where:

1. The child has language difficulties that create barriers to communication or learning in everyday life,
2. The child's language difficulties are unlikely to resolve by five years of age, and
3. The language difficulties are not associated with a known biomedical condition such as brain injury, neurodegenerative conditions, genetic conditions or chromosome disorders such as Down Syndrome, sensorineural hearing loss, or Autism Spectrum Disorder or Intellectual Disability. (Please see section 2.1.2 for terminology used in these cases.)

The term Specific Language Impairment (SLI) was also discussed, but many panel members felt it was problematic as it implied that the focus of SLTs should be solely on children whose language problems were highly specific. Other terms, such as Primary Language Impairment, Language Learning Impairment and Developmental Dysphasia, were also rejected.

### 1.3 Overview of Language Disorder in relation to SLCN

SLCN is a broad category that covers the wide range of conditions affecting speech, language and communication. Language Disorder and the subtypes of Language Disorder (Developmental Language Disorder and Language Disorder associated with a differentiating condition) are nested within the overall category of SLCN, as shown in Figures 1 and 2 below. The details of the changes to terminology and criteria are outlined in section 2.0.

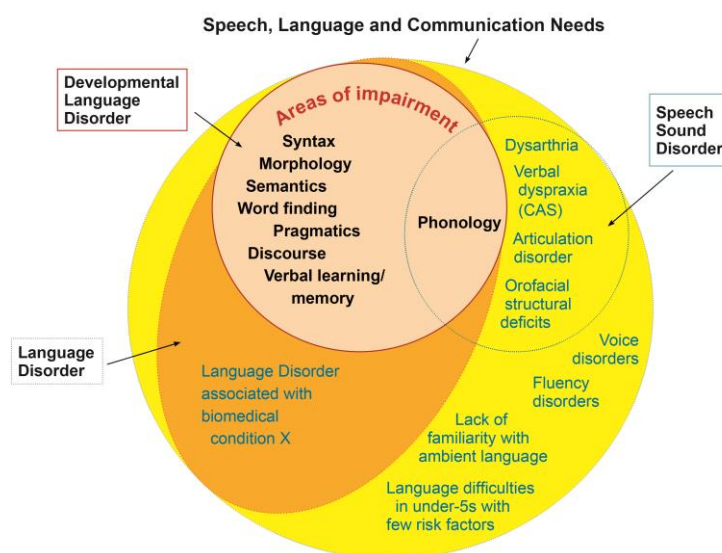


Figure 1. Adapted from Bishop et al (2016)

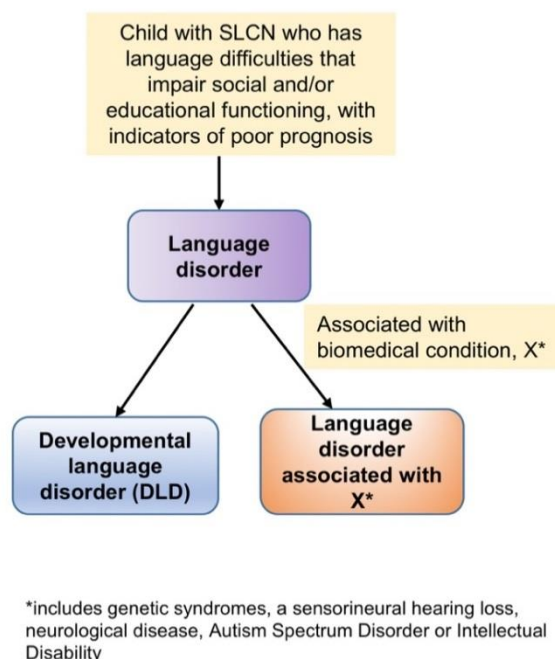


Figure 2. Bishop et al (2016)

Information on prevalence of different types of SLCN is available on the RCSLT website:  
[https://www.rcslt.org/clinical\\_resources/Topic\\_areas](https://www.rcslt.org/clinical_resources/Topic_areas)

## 2.0 Diagnostic criteria and use of terminology

### 2.1 Language Disorder

- Language Disorder is the term used for children with SLCN whose language difficulties impact on social and/or educational functioning and who present with indicators of poor prognosis.
- As highlighted in figures 1 and 2 above, Language Disorder encompasses both Developmental Language Disorder and Language Disorder associated with a differentiating condition.

#### 2.1.1. Developmental Language Disorder

- The term **Developmental Language Disorder (DLD)** is adopted for children whose language disorder does not occur with another biomedical condition, such as a genetic syndrome, a sensorineural hearing loss, neurological disease, Autism Spectrum Disorder or Intellectual Disability – these were termed 'differentiating conditions' by the CATALISE panel.
- Impairments in cognitive, motor or behavioural domains can co-occur with Developmental Language Disorder, and should be noted, but are not used to exclude a diagnosis of Developmental Language Disorder. These co-occurring conditions include:
  - Attention Deficit Hyperactivity Disorder (ADHD)
  - Motor problems (including Developmental Co-ordination Disorder, or 'developmental dyspraxia')
  - Developmental Dyslexia
  - Speech difficulties
  - Limitations of adaptive behaviour and/or behavioural and emotional disorders
- Attempts to identify reliable subtypes of Developmental Language Disorder have not, on the whole, been successful, because there is such a wide variety of ways in which language problems can present and can evolve over time. It is recommended instead that diagnosis should be accompanied with specification of the nature of the language impairment in terms of impact on domains of:
  - Phonology

- Grammar (syntax and morphology)
- Semantics
- Word finding
- Pragmatics/language use
- Verbal learning and memory

### 2.1.2 *Language Disorder associated with ...*

- The term '*Language Disorder associated with ...*' is used when there are differentiating conditions. These are biomedical conditions in which Language Disorder occurs as part of a more complex pattern of impairments. They will usually indicate specific intervention pathways. Differentiating conditions include:
  - Brain injury
  - Acquired epileptic aphasia in childhood
  - Certain neurodegenerative conditions
  - Genetic conditions, e.g. Down Syndrome
  - Cerebral Palsy
  - Oral language difficulties associated with sensorineural hearing loss
  - Autism Spectrum Disorder (ASD)
  - Intellectual Disability
- Note that, although non-verbal ability is not used in the diagnostic criteria for Developmental Language Disorder, Intellectual Disability is a differentiating condition. The current DSM-5 definition of Intellectual Disability requires that the child shows both 'intellectual deficits and adaptive deficits that fail to meet the standards for personal independence' (Harris, 2013). This diagnosis would typically entail an IQ level below 70 as well as major limitation of adaptive behaviour. Where this is the case, the diagnosis would be 'Language Disorder associated with Intellectual Disability'.
- SLTs have an important role to play with children whose language disorder occurs with a biomedical condition. Language disorders occurring with these conditions need to be assessed and children offered appropriate intervention, but a terminological distinction is made so that these cases would be diagnosed as Language Disorder associated with ..., with the co-occurring condition being specified: e.g. 'Language Disorder associated with Autism Spectrum Disorder'.

## 2.2 What types of SLCN do not meet criteria for a Language Disorder?

- Because emphasis is on children whose problems are unlikely to resolve without specialist help, care is needed in making a diagnosis of Language Disorder in preschool children. Research has shown that many toddlers make good progress after a late start. The CATALISE recommendation is that, for 2-3 year olds, watchful waiting is adopted unless specific risk factors are present, i.e. poor language comprehension, poor use of gesture, socio-economic disadvantage and/or a family history of language impairment. Even these risk factors are not robust predictors of prognosis. Children whose language levels are below their peers but who do not have these risk factors would fall under the broader category of SLCN, but would not merit a diagnosis of 'disorder' unless the problems persist to 5 years of age (see section 3.0 and Annex 3).
- The CATALISE consortium rejected use of the term 'delay' to describe language skills that fall below the expected level for children aged 5 years and above. This was due to inconsistent use and lack of research to support the historical distinction between delay and disorder (Bishop et al., 2016). The nature of the term also suggests to parents and others that a child will 'catch up' with their peers, which may give an inaccurate picture of prognosis and need (Paul & Norbury, 2012). The RCSLT recognises these objections and the ongoing debate around the use of the term delay. For pre-school children where the diagnosis and prognosis may be unclear, we would recommend the term SLCN is used (see Annex 3).
- Poor phonological awareness is not sufficient for a diagnosis of Developmental Language Disorder: impairments in other language skills are required. Phonological difficulties in pre-schoolers that are not accompanied by other language problems are a relatively common reason for referral to speech and language therapy. These often respond well to specialist intervention (Law, Garrett & Nye, 2003). Thus, they do not meet criteria for Developmental Language Disorder because the problems are unlikely to persist throughout childhood. The term 'speech sound disorder' (SSD) is recommended for such cases.

- Children growing up learning more than one language are not regarded as having Developmental Language Disorder unless there is evidence that they have poor expressive and/or receptive language in their home language, with indicators of poor prognosis. This can be challenging to assess. Parental report provides useful information about early milestones and functional competence (Paradis et al., 2010). Where possible, direct assessment of skills in the home language is recommended to inform diagnosis. Where this is not possible, intervention may be indicated where parents report delayed language milestones in the first language coupled with limited progress in acquiring English over a period of time (c.f. Whiteside & Norbury, 2017).

### 2.3 Consistency with terminology used elsewhere

- DSM-5 already uses 'Language Disorder' and the term 'Developmental Language Disorder' is broadly consistent with international diagnostic systems. The World Health Organization is currently revising its International Classification of Diseases (ICD-11) and is likely to use Developmental Language Disorder. Neither of these systems has ever used the term 'Specific Language Impairment' as an official diagnostic category.
- Standardised clinical terminologies are important for ensuring consistent and accurate use of clinical terms by health and care professionals. The use of SNOMED CT, a clinical health terminology used internationally, will soon be mandated in the NHS in England. 'Developmental Language Disorder' already exists as a term in SNOMED CT. More information is available here: [https://www.rcslt.org/cq\\_live/resources\\_a\\_z/snomed\\_ct](https://www.rcslt.org/cq_live/resources_a_z/snomed_ct)
- Bishop (2017) noted that some members of the CATALISE panel, particularly those from education, were concerned that the term 'disorder' might stigmatise children, but others argued that it was important to use a term that indicated the seriousness of persistent language problems and was aligned with the terminology for other neurodevelopmental conditions such as Attention Deficit Hyperactivity Disorder, Autism Spectrum Disorder and Developmental Co-ordination Disorder (Bishop, 2017).
- The RCSLT is part of a mutual recognition agreement with five other countries (Australia, Canada, USA, New Zealand and Republic of Ireland). Australia, New Zealand and Republic of Ireland have endorsed and adopted the terminology and criteria for DLD (e.g. IASLT, 2017). Canada has not yet endorsed or adopted the terminology and criteria for DLD but has made members aware and is developing a position statement (SAC, 2017). USA continues to refer to SLI (ASHA, 2017).

### 3.0 Assessment of need and differential diagnosis

- It is essential that a broad range of areas are assessed to determine priority areas of need, and it is important that functional language skills are considered during assessment. While formal assessment can be useful to gain information about a child's language skills, a diagnosis of Developmental Language Disorder is not given solely based on an assessment 'cut-off' score.
- Children with difficulties across many modalities of language (flatter profile, especially comprehension difficulties) are more likely to need support in order to make progress.
- Assessment of non-verbal IQ by an Educational Psychologist is not required in order to make a diagnosis of Developmental Language Disorder. Research shows that, in the absence of intellectual disability, a lower level of non-verbal ability does yield a qualitatively different clinical profile (Norbury et al., 2016). There is also research to suggest that children across the cognitive ability range make progress in language acquisition (Norbury et al., 2017) and benefit from language intervention (e.g. Burgoyne et al., 2012).
- It is desirable for SLTs to assess the individual in more than one environment and for assessment to be dynamic, as strengths and needs may differ dependent on the demands of different settings (Camilleri & Botting, 2013). If a child is bi/multi-lingual, all languages should be assessed where possible and information gathered about their exposure to each language.
- An individual's needs will change over time depending on the demands placed on the individual. Therefore it is desirable to consider ongoing assessment and monitoring in response to input as part of dynamic assessment as well as the changing priorities for the individual.

- Functional language assessments suitable for diagnosis and prognosis are still a matter of debate and development. It is not possible to recommend a specific assessment battery in our current state of knowledge.
- The CATALISE consortium identified some key indicators for more specialist assessment and intervention (Annex 1).

#### 4.0 Prevalence of Language Disorders

A recent British epidemiological study, the SCALES study, assessed language in children entering reception class at state-maintained primary schools in Surrey (Norbury et al., 2016). This study provided important information on the validity of criteria developed by the CATALISE consortium, where level of non-verbal IQ is not used as a criterion for diagnosing a Language Disorder.

In this study, prevalence in children aged from 4 years 9 months to 5 years 10 months was as follows:

- Developmental Language Disorder (cause unknown): 7.58%<sup>1</sup>
  - Non-verbal IQ 85 or above = 4.80%
  - Non-verbal IQ 70-84 = 2.78%
- Language Disorder associated with another condition (e.g. ASD, cerebral palsy, intellectual disability): 2.34%
- **Total prevalence of children with Language Disorder (any kind): 9.92%**

The authors noted that those with low-average non-verbal ability scores did not differ from those of average non-verbal ability in severity of language deficit or in rates of social, emotional and behavioural problems. They also obtained similar levels of educational attainment. In contrast, where Language Disorder was associated with known medical diagnosis and/or intellectual disability, children displayed more severe problems on all measures.

Whilst accurate prevalence rates are currently not available for adults with language disorders, research suggests the stability of a diagnosis increases as children become older (Conti-Ramsden et al., 2001).

#### 5.0 Intervention and building the evidence base

- SLTs are the experts in speech, language and communication and should lead and support the development of the wider workforce and a whole systems approach to meet the needs of ALL children and young people with SLCN and eating and drinking difficulties.
- In terms of intervention for children with Developmental Language Disorder there is little research comparing language intervention approaches across conditions.
- As with all areas of practice it is essential that SLTs evaluate the impact of interventions provided. The RCSLT is supporting members through our work on outcome measures including measures for population level interventions. More information is available on the RCSLT website: [https://www.rcslt.org/members/outcomes/RCSLT\\_outcomes\\_project](https://www.rcslt.org/members/outcomes/RCSLT_outcomes_project)

Research often focuses on 'pure' cases, making it difficult to apply clinical research to practice. The RCSLT is currently working on a research priorities project, with 'Language Disorder' identified as a key area for prioritisation. More information is available on the RCSLT website:

[https://www.rcslt.org/members/research\\_centre/research\\_priorities/RCSLT](https://www.rcslt.org/members/research_centre/research_priorities/RCSLT)

---

<sup>1</sup> The prevalence of SLI was previously reported to be 7.4% in children aged between 5 and 6 years in the USA (Tomblin et al, 1997).

## 6.0 Impact and outcomes of Developmental Language Disorder

- Predicting prognosis in early years is difficult, but ability to predict improves as children get older. Research indicates language is reasonably stable by the age of 4 (Klem et al., 2016). Many features of Developmental Language Disorder persist into adolescence and beyond (Nippold et al., 2009).
- It is important to note that Language Disorder is a risk factor for poor outcomes, and appropriate support can ameliorate problems and help individuals cope with difficulties. Many individuals with Language Disorder are sociable and go on to have satisfying lives, with friendships, families and contributing to their community (Toseeb et al., 2017; Lindsay & Dockrell, 2008; Snowling et al., 2006), with research suggesting prosocial skills are an area of relevant strength, acting as a protective factor in social functioning for individuals with Developmental Language Disorder (Toseeb et al., 2017).
- More detail on impact and outcomes are provided in Annex 2.

## 7.0 Potential impact on practice, service delivery and commissioning

- The RCSLT recognises the potential impact to services and commissioning that result from these changes to terminology and criteria (Annex 3). However, terminology clarification can potentially help with planning services, data collection and outcome measurements.
- It is important that local speech and language therapy services profile and understand the demography of the local population, including the prevalence and incidence of all SLCN and eating and drinking difficulties to help inform commissioning (funding decisions) and support service delivery (further information is available on the RCSLT website: [https://www.rcslt.org/clinical\\_resources/Topic\\_areas](https://www.rcslt.org/clinical_resources/Topic_areas)). This includes the role of SLTs in supporting skills development, environmental changes and packages of targeted intervention for the wider workforce to deliver a whole population approach. More information about public health can be found in Annex 3 and on this webpage: [https://www.rcslt.org/clinical\\_resources/public\\_health/overview](https://www.rcslt.org/clinical_resources/public_health/overview).
- The RCSLT's work on a children's speech and language therapy services strategy will also help to provide resources for supporting services to improve outcomes for all children and young people with SLCN and/or eating and drinking difficulties (further information is available on the RCSLT website: [https://www.rcslt.org/members/children/childrens\\_services](https://www.rcslt.org/members/children/childrens_services)).
- SLTs should continue to work in partnership with other professionals, ensuring that the children and families' perspectives are central to decision-making and goal-setting.
- Services may need to adapt current resources/training materials to reflect terminology changes.
- All children with an existing SLI diagnosis will meet the criteria of Developmental Language Disorder (and therefore services should not be reduced).
- It is important that service users and stakeholders/partnership organisations are on board with and aware of new terminology in order to promote collaborative working.
- Specialist SLTs can provide support to those SLTs with less experience in this clinical area.
- The RCSLT recognises changes in terminology and criteria may result in more adults being identified and requiring speech and language therapy input, impacting on capacity. It is important that providers and commissioners continue to identify and support a wide range of SLCN, while recognising that children and adults with Developmental Language Disorder are part of this population.

## 8.0 Next steps

The debate and changes around terminology and criteria for Developmental Language Disorder are ongoing. The RCSLT will be supporting therapists through these changes. Please see the RCSLT webpages for more information and updates:

[https://www.rcslt.org/clinical\\_resources/language\\_disorder/criteria\\_and\\_terminology](https://www.rcslt.org/clinical_resources/language_disorder/criteria_and_terminology)

## 9.0 References

Bishop, D. V. M. (2017). Why is it so hard to reach agreement on terminology? The case of Developmental Language Disorder (DLD) International Journal of Language & Communication Disorders, 52.

- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., Greenhalgh, T., & The CATALISE Consortium. (2017). Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology & Psychiatry*, in press.
- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., Greenhalgh, T., & The CATALISE Consortium. (2016). CATALISE: a multinational and multidisciplinary Delphi consensus study. Identifying language impairments in children. *PLOS One*, *11*(7).
- Botting, N., Toseeb, U., Pickles, A., Durkin, K. & Conti- Ramsden, G. (2016). Depression and anxiety change from adolescence to adulthood in individuals with and without language impairment. *PloS one*, *11* (7).
- Bryan, K., Freer, J. & Furlong, C. (2007). Language and communication difficulties in juvenile offenders. *International of Language and Communication Disorders*, *42* (5), 505- 520.
- Burgoyne, K., Duff, F. J., Clarke, P. J., Buckley, S., Snowling, M. J. & Hulme, C. (2012). Efficacy of a reading and language intervention for children with Down Syndrome: a randomised controlled trial. *Journal of Child Psychology and Psychiatry*, *53*, 1044-1053.
- Camilleri, B. & Botting, N. (2013). Beyond static assessment of children’s receptive vocabulary: the dynamic assessment of word learning (DAWL). *International Journal of Language and Communication Disorders*, *48* (5), pp. 565- 581.
- 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.
- Conti-Ramsden, G., Durkin, K., Mok, P. L., 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.
- 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.
- Durkin, K., Toseeb, U., Pickles, A., Botting, N. & Conti- Ramsden, G. (2016). Learning to drive in young adults with language impairment. *Transport research part F: Traffic psychology and behaviour*, *42* (1), 195- 204.
- Ebbels, S. & Norbury, C. (2017). Changing terminology and diagnostic criteria: evidence based decisions and practice. Presentation on 05.07.17 at RCSLT DLD workshop. Available at: [https://www.rcslt.org/clinical\\_resources/language\\_disorder/overview](https://www.rcslt.org/clinical_resources/language_disorder/overview)
- Gascoigne, M. & Gross, J. (2017). Talking about a generation. London: The Communication Trust.
- Ijalba, E. (2014). Effectiveness of a parent-implemented language and literacy intervention in the home language. *Child Language and Teaching Therapy*, *31* (2), 207- 220.
- Irish Association of Speech and Language Therapists. (2017). Supporting children with developmental language disorder in Ireland: IASLT Position paper and guidance document 2017. Available at: <http://iaslt.ie/attachments/DLD%20Position%20Paper%20FINAL%2023MAY2017.pdf>
- Klem, M., Hagtvet, B., Hulme, C. & Gustafsson, J. E. (2016). Screening for language delay: growth trajectories of language ability in low and high performing children. *Journal of Speech, Language and Hearing Research*, *59* (5), 1035- 1035.
- Law, J., Todd, L., Clark, J., Mroz, M. & Carr, J. (2013) *Early Language Delays in the UK*. London: Save the Children.
- Law J., McBean K. & Rush, R. (2011). Communication skills in a population of primary school-aged children raised in an area of pronounced social disadvantage, *International Journal of Language and Communication Disorders*, *46*(6), pp. 657-64.
- Law, J., Rush, R., Schoon, I. & Parsons, S. (2009). Language difficulties from school entry into adulthood: literacy, mental health, and employment outcomes. *Journal of speech, language, and hearing research*, *52*, 1401- 1416.
- Leonard, L. B. (2014). *Children with specific language impairment* (2<sup>nd</sup> ed.). Cambridge, MA: MIT Press.
- 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.



- Locke, A., Ginsborg, J. & Peers, I. (2002). Development and disadvantage: implications for early years. *International Journal of Language and Communication*, 27 (1).
- 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.
- Norbury, C. F., Gooch, D., Vamvakus, G., Baird, G., Charman, T., Simonoff, E. & Pickles, A. (in press). Language growth in children with heterogeneous language disorders: a population study. *Journal of Child Psychology and Psychiatry*.
- 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(11), 1247–1257
- Paradis, J., Emmerzael, K., & Duncan, T. S. (2010). Assessment of English language learners: Using parent report on first language development. *Journal of Communication Disorders*, 43(6), 474-497.
- Paul, R. & Norbury, C. (2012). *Language disorders from infancy through adolescence: listening, speaking, reading, writing, and communicating*, Elsevier Health Sciences.
- Riedel, E. (2002). The impact of high school community service programs on students' feelings of civic obligation. *American Politics Research*, 3095, 499-527.
- Royal College of Speech and Language Therapists (2017). Speech, language and communication capacity. A national asset. Available at: [https://www.rcslt.org/governments/docs/speech\\_and\\_language\\_communication\\_capacity\\_factsheet\\_2016](https://www.rcslt.org/governments/docs/speech_and_language_communication_capacity_factsheet_2016)
- Royal College of Speech and Language Therapists (2017). Standardised clinical terminology- SNOMED CT. Available at: [https://www.rcslt.org/cq\\_live/resources\\_a\\_z/snomed\\_ct](https://www.rcslt.org/cq_live/resources_a_z/snomed_ct)
- Royal College of Speech and Language Therapists (2017). Research priorities at the RCSLT. Available at: [https://www.rcslt.org/members/research\\_centre/research\\_priorities/RCSLT](https://www.rcslt.org/members/research_centre/research_priorities/RCSLT)
- Royal College of Speech and Language Therapists (2017). Public Health: overview. Available at: [https://www.rcslt.org/clinical\\_resources/public\\_health/overview](https://www.rcslt.org/clinical_resources/public_health/overview)
- Royal College of Speech and Language Therapists (2017). Clinical Resources. Available at: [https://www.rcslt.org/clinical\\_resources/Topic\\_areas](https://www.rcslt.org/clinical_resources/Topic_areas)
- 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.
- Solomon, D., Battistich, V., Watson, M., Schaps, E., & Lewis, C. (2000). A six-district study of educational change: Direct and mediated effects of the Child Development Project. *Social Psychology of Education*, 49(1), 3-51.
- Speech-Language and Audiology Canada (2017). Terms of Reference. Identification and classification of childhood language disorders position statement ad hoc committee. Available at: [https://www.sac-oac.ca/sites/default/files/resources/childhood\\_language\\_disorder\\_adhoc\\_tor.pdf](https://www.sac-oac.ca/sites/default/files/resources/childhood_language_disorder_adhoc_tor.pdf)
- 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 and Hearing Research*, 40(6), 1245-1260.
- Toseeb, U., Pickles, A., Durkin, K., Botting, N. & Conti-Ramsden, G. (2017). Prosociality from early adolescence to young adulthood: a longitudinal study of individuals with a history of language impairment. *Research in Developmental Disabilities*, 62, 148- 159.
- Wadman, R., Durkin, K. & Conti-Ramsden, G. (2011). Close relationships in adolescents with and without a history of specific language impairment. *Language, speech, and hearing services in schools*, 42 (1), 41- 51.
- Whiteside, K. & Norbury, C., F. (2017). The persistence and functional impact of English language difficulties experienced by children learning English as an additional language and monolingual peers. *Journal of Speech, Language and Hearing Research*, 60, 2014- 2030.

## ANNEX 1: Key indicators for more specialist assessment and intervention from the CATALISE consortium

### *Across age groups*

- Parental/professional concern
- Lack of progress in language or education despite targeted classroom support
- Late talkers with poor language comprehension
- Poor use of gesture
- Family history of language impairment

### *1-2 years*

Many late talkers (defined as limited expressive vocabulary at 18-24 months) catch up with their peers. Whilst it can be difficult at this age to predict which children will have persistent difficulties, indicators for greater risk of long-term problems include:

- No babbling
- Not responding to speech and/or sounds
- Minimal/no attempts to communicate

Due to the unreliability of prediction at this age, children should be reassessed regularly. It is important to consider that not all children with language difficulties at 5 years will have been late talkers.

### *2-3 years*

The indicators below are indicative of atypical speech, language and communication development. However, they may also indicate underlying concerns (e.g. ASD). Children presenting with these indicators should be referred to an SLT for assessment.

- Minimal interaction
- No communication intent
- No words
- Minimal reaction to spoken language
- Regression/stalling of language development

### *3-4 years*

The indicators below are indicative of atypical speech, language and communication development at 3-4 years. However, some children's language difficulties may go undetected and children should still be referred to an SLT if presenting with behavioural or learning difficulties.

- Using two-word utterances at most
- Not understanding simple instructions
- Largely unintelligible to close relatives
- Child is frustrated by limited communication ability

Between 2 and 4 years of age some children may be following patterns of typical development for speech, language and communication skills but be below the expected milestones for a child of their age in terms of vocabulary development and receptive and expressive grammatical development. These children should be monitored and referred to an SLT if they fail to make progress through targeted intervention or there is concern from parents, teachers or healthcare professionals, as this may be an indicator of persistent difficulties.

### *4-5 years*

Children's language skills can change rapidly at this age as they begin school; however, severe difficulties are likely to be persistent. These features indicate atypical language development:

- Inconsistent or abnormal interaction
- Using three-word utterances at most

- Difficulties understanding spoken language
- Largely unintelligible to strangers
- Close relatives cannot understand more than 50% of what the child says
- Child is stammering frequently

### *5 years onwards*

At 5 years, we can more accurately predict which children will go on to have persistent difficulties with speech, language and communication. Persistent difficulties into middle childhood and beyond are key criteria for Developmental Language Disorder. Therefore, for children who continue to present with speech, language and communication difficulties, referral to an SLT should be considered. Features indicating poor prognosis are:

- Narrative difficulties
- Comprehension difficulties including difficulties following spoken instructions or paragraphs
- Difficulties engaging in reciprocal conversation but may talk a lot
- Over-literal interpretation
- Unintelligible speech

## ANNEX 2: Impact and outcomes of Developmental Language Disorder

### *Language processing and comprehension*

- Many individuals with Developmental Language Disorder can find it difficult to concentrate because of the effort required to process language. Children who are unable to follow long and complex instructions or understand narratives may be mislabelled as naughty or stupid.
- It can be difficult to listen and work things out at the same time.
- Affected individuals may find it hard to keep up with the pace at which information is delivered. The teacher may have moved on by the time a child has processed information and is ready to answer.
- Children may find it hard to learn new words and concepts that are then used in topic work or core subjects such as maths, or are unable to remember the words they want to use.

### *Educational attainment*

- Children with Developmental Language Disorder are at substantially higher risk of failing to meet academic expectations, including profound difficulties learning to read (e.g. Conti-Ramsden et al., 2016; Catts et al., 2002).

### *Expressive language*

- Children may have difficulties with recalling information, telling stories or reporting things. This could mean a bullying incident goes unreported.
- Difficulties with recalling information and narrative may result in problems in legal and other official contexts in adulthood.

### *Social communication*

- Some children have difficulty communicating with peers, resulting in limited friendships and social opportunities (Conti-Ramsden & Botting, 2004).
- Research suggests these difficulties with social communication can persist into adolescence and adulthood, with people having difficulties establishing and maintaining close friendships (e.g. Durkin & Conti-Ramsden, 2007) and relationships (Wadman et al., 2011).

### *Mental health*

- Children may become frustrated if they cannot understand or are not understood by others.
- Research shows there can be long-term behavioural and psychiatric problems (e.g. Conti-Ramsden et al., 2016; Law et al., 2009).
- Individuals may develop an awareness of their own difficulties, which impacts on confidence and self-esteem (Durkin *et al.*, 2017; Conti-Ramsden & Botting, 2004)
- Social, emotional and mental health (SEMH) difficulties can be present and fluctuate over time (Conway et al., 2014). Research suggests people with Developmental Language Disorder are more likely to present with anxiety, low self-esteem and depression in adolescence and adulthood than their peers (Durkin *et al.*, 2017; Botting et al., 2016).

### *Functional and employment skills*

- Individuals with Developmental Language Disorder may have difficulties with functional tasks such as learning to drive (Durkin et al., 2016).
- A large birth cohort study indicated weak receptive vocabulary, which can be an indicator of Language Disorder, was a significant risk factor for achieving good employment outcomes (Law et al., 2009).

Research suggests individuals with Developmental Language Disorder are at risk of economic disadvantage (e.g. Conti-Ramsden et al., 2016; Durkin et al., 2012; Conti-Ramsden et al., 2013; Parsons et al., 2011).

## ANNEX 3: Potential impact on practice, service delivery and commissioning of speech and language therapy services for early years, school-aged children, adolescents and beyond

### Early years

Early language development is a predictor of educational success and school readiness. SLTs have a role in public health, enhancing the communicative environment and working directly with children and their parents (Law et al., 2011) in addition to supporting workforce development and providing ongoing advice and training to staff and families (Law et al., 2013).

Up to 50% of children from areas of high social deprivation have language skills below the expected level for their age according to Locke et al (2002), who assessed 240 children on primary school entry, and Law et al (2011), who found 39% of 6-11 year olds in a socially deprived area in Scotland had high levels of language difficulty. With appropriate support at home, in early education and at school (e.g. joint commissioning of community-wide strategies and focusing pupil premium awards on speaking and listening activities), there is potential to weaken the link between language difficulties and disadvantage (Gascoigne & Gross, 2017). The RCSLT has developed the 'intergenerational cycle' to demonstrate this and the impact on health inequalities (RCSLT, 2017). More information can be found here:

[https://www.rcslt.org/governments/docs/speech\\_and\\_language\\_communication\\_capacity\\_factsheet\\_2016](https://www.rcslt.org/governments/docs/speech_and_language_communication_capacity_factsheet_2016)

Failure to identify children with speech, language and communication needs (SLCN) at a young age has a significant impact on their life outcomes (Gascoigne & Gross, 2017). All children with identified SLCN would benefit from speech and language support and early intervention.

Once SLCN is identified, prognosis is not always clear initially. We know some young children will catch up with peers; however, if a child fails to make sufficient progress following systematic targeted interventions (e.g. setting based language groups), this may be indicative of meeting criteria for Developmental Language Disorder diagnosis. There is substantial research on 'late talkers', but specific studies are required on those in areas of social deprivation.

Accuracy of prognosis increases with age and it is often possible to identify children with persistent difficulties by the age of 5. Persistent difficulties are an indicator of Developmental Language Disorder.

### School-aged children

- Changes in terminology and criteria could result in more children being identified and requiring speech and language therapy intervention, which may impact on SLT capacity. In these cases there is a potential to highlight unmet need (Ebbels & Norbury, 2017).
- It is important for service providers and commissioners to position Developmental Language Disorder and Language Disorder as a subset of the wide variety of types of SLCN that can benefit from support from SLT services. In addition, the role of SLTs in public health and universal services continues to be crucial.
- In contrast to some previous definitions of SLI, Developmental Language Disorder does not require a mismatch between verbal/non-verbal ability. Provided the child does not meet criteria for intellectual disability, low-range non-verbal ability is compatible with a diagnosis. There is no evidence that such children respond differently to speech and language therapy interventions. This may have an impact on entry/exit criteria for services. For an estimate of the impact on numbers of children identified with Language Disorder, see section 4.0.
- The profile of language skills is not relevant for a diagnosis of Developmental Language Disorder. Although it has been common practice to regard an uneven, 'spiky' profile of skills as evidence of disorder, there is no supporting evidence for this approach. Indeed, children who are impaired across a number of domains are more likely to have persistent problems with adverse functional impacts and hence need support.

- Developmental Language Disorder is heterogeneous and there are no reliable ways of subtyping, but it is important for clinicians to assess language development in order to highlight priority areas for intervention.
- Diagnosis is only the first step in determining the type of support required by an individual child. The precise nature of the most appropriate intervention and educational provision should be based upon a detailed understanding of the individual's needs rather than their diagnostic label. Therefore, the changed criteria for diagnosis should not affect the amount and nature of the support required by children (Ebbels & Norbury, 2017).
- Research recommends that for bilingual/multilingual individuals with language difficulties, speech and language therapy intervention should be provided in the home language in addition to English (Ijalba, 2014).
- While there is a developing body of well designed, small scale, targeted intervention studies, there is a need for more scaled-up evaluations to help identify the best interventions for children with Developmental Language Disorder. There is little research to support a prescribed dose or frequency of treatment, and therapy should therefore be determined based on the needs of the child. It is helpful for clinicians to highlight priority areas of need to be targeted.
- Many children with SLCN who do not meet criteria for Language Disorder may benefit from extra help within the school setting.

#### Adolescence and beyond

- It is widely accepted that around 60% of young people in the justice sector have SLCN. This does not imply the converse: only a minority of children with SLCN go on to be involved in criminal behaviour. Nevertheless, SLTs have a role within the criminal justice sector (Bryan et al., 2007). More information about this can be found on the RCSLT webpages: [https://www.rcslt.org/speech\\_and\\_language\\_therapy/slt\\_work\\_settings/justice\\_slcn/justice\\_role](https://www.rcslt.org/speech_and_language_therapy/slt_work_settings/justice_slcn/justice_role)
- Adults with Developmental Language Disorder would benefit from speech and language therapy input to support good outcomes (e.g. Toseeb et al. 2017). We may draw a parallel with autism spectrum disorder: even though the condition typically continues into adulthood, it is possible to ameliorate negative impacts and ensure optimal outcomes with appropriate support.