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Developmental Language Disorder (DLD): A persistent language disorder of unknown aetiology

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Developmental Language Disorder (DLD):
A persistent language disorder of unknown aetiology

Lisa Archibald, PhD

Learning Objectives

1. To consider the importance and use of diagnostic labels to describe children with unexplained language impairments
2. To review recent advances about criteria and terminology for children's language problems
3. To examine next steps and ongoing challenges in adopting new consensus terminology in practice

What would you call this profile?

Case 1: Claire

- 5;9 female
- Monolingual English speaker
- 1st percentile on standardized test of expressive & receptive language
- 38th percentile on nonverbal intelligence
- 35th percentile on word reading
- Hearing screening passed
- Speech production screening passed
- Parent responses on questionnaire indicate no difficulties with attention

Diagnostic Terms

- Specific Language Impairment
- Language Learning Impairment
- Language Delay
- Language Disorder
- Developmental Language Disorder

Diagnosis

- Identifies the illness or disorder through physical examination, medical tests, or other procedures
- Identifies the nature or cause of something, especially a problem
- Attaches an informative name to describe the problem

Why use a diagnostic label?

PRO

- Ease of communication
  - Verbal shorthand for representing features of the disorder
- Knowledge (of label) can be empowering
- Reattributing symptoms to the diagnosis can buffer self-image
- Provides hope for enhancing treatment access, availability, effectiveness
- Academic accountability may be altered

Why use a diagnostic label?

CON

- Expectations / stigmatization
  - Selective attention to behaviours associated with the diagnosis
  - Expectations are couched in terms of the diagnosis
- Diagnostic inconsistency can be confusing
- May have no impact on service, or exclude ‘nonqualifiers’ from service

The Debate

• No special intervention/service exists so no need to label	• Advocacy & research more challenging when not identified
• Students without the diagnosis may be neglected	• Improving services for those with disorder helps those without the label
• Label may not be applied consistently	• Address the problem specifically rather than stop labeling
• Expectations/stigmatization	• Educate others; encourage inclusion

Do SLPs provide diagnostic labels?

- From a sample of 216 children with DLD,

‘The parents of 29% … reported they had not previously been informed that their child had a speech or language problem.’

Tomblin et al., 1997

SLP Assessment Priorities

- 60 SLPs asked to rank (on a 5-point scale) the level of importance they assign to the following objectives:
  - Establishing goals for intervention **3.42**
  - Determining if eligibility criteria for services are met **3.0**
  - Providing parents with a diagnostic label **1.45**
  - Assessing the level of functional impact **3.63**
  - Identifying strengths and weaknesses **3.50**

Assessment Values & Expectations

SLPs

- "Diagnostically agnostic"
  - Terminologically flexible
  - Place low value on labels
- Assessment determines
  - Eligibility
  - Treatment goals

Parents/Caregivers

- Arrive with
  - Unresolved issues surrounding nature of child's difficulties
  - Ongoing source of parental distress & confusion
- Seeking answers
  - A diagnosis they understand
  - Value labels

For many, this never happens

What would increase label use?

- Clearly recognized label
  - Better understanding of the profile (Research)
  - More public awareness (e.g., DYSLEXIA)
  - More services available (e.g., AUTISM)

ADVOCACY

ADVOCACY

- Especially important
  - Invisible disorders
  - Limited resources
  - Service planning & prioritizing

Recent Advances

- Delphi Consensus
  - 2 studies
    - Bishop et al. (2016): Criteria used to identify LI
    - Bishop et al. (2017): Terminological issues

Table 1. Professional group and nationality of panel members.

Profession	N and Nationality
Speech-Language Therapist/Pathologist	32 (15 UK, 6 USA, 3 NZ, 3 Ire, 1 Can, 4 Aus)
Joint SLT/SLP and Psychologist	7 (3 Can, 2 Aus, 2 NZ)
Psychologist/Educational Psychologist	8 (3 UK, 1 US, 3 Can, 1 Aus)
Paediatrician	3 (3 UK)
Psychiatrist	2 (1 UK, 1 Can)
Audiologist	1 (1 NZ)
Specialist teacher	2 (2 UK)
Charity representative	4 (4 UK)
Total	59

doi:10.1371/journal.pone.0158753.t001

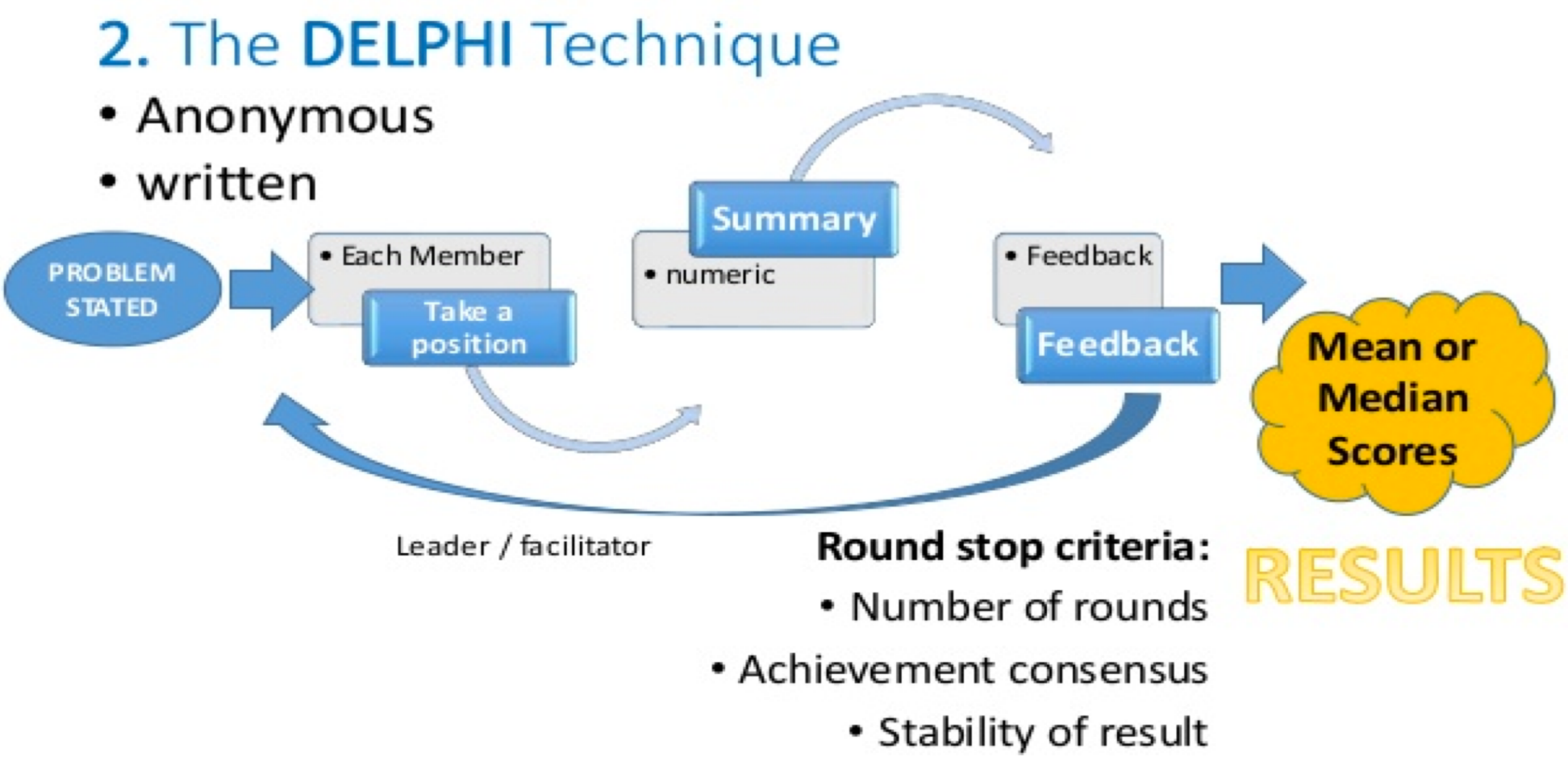
Youtube: www.youtube.com/watch?v=OZ1dHS1X8jg

Slide share: www.slideshare.net/RADLD/developmental-language-disorder-dld-the-consensus-explained

Open access paper:
https://onlinelibrary.wiley.com/doi/abs/10.1111/jcpp.12721

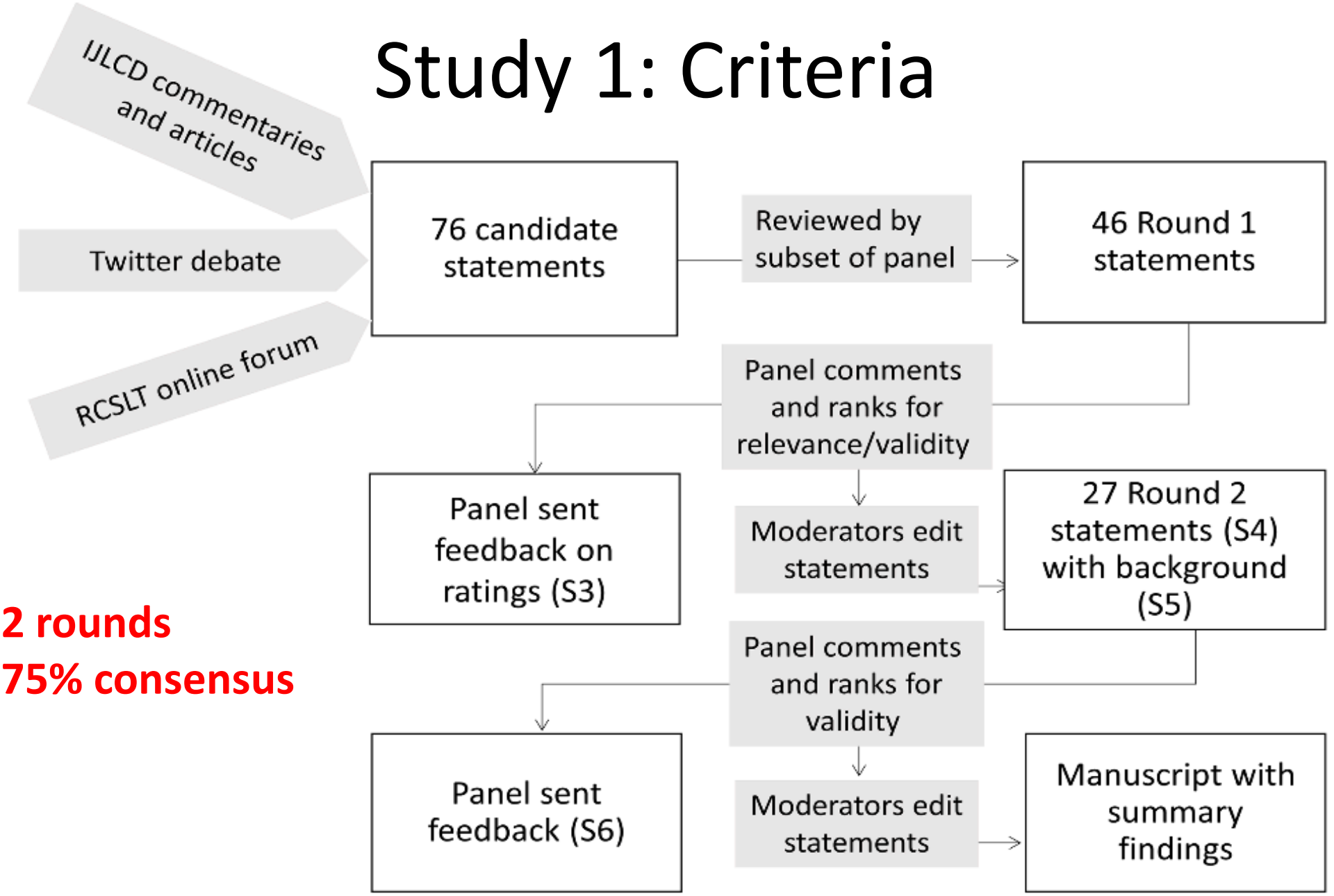
Summary:
https://www.rcslt.org/clinical_resources/docs/revised_catalise2017

Delphi Consensus Process



Kato et al., 2015. https://www.slideshare.net/sjabana/group-technic-for-consensus (slide 4)

Study 1: Criteria



2 rounds
75% consensus

Studv 1: Criteria

Refer for Evaluation

(1) Concern about speech, language or communication
OR
(2) Behavioural or psychiatric difficulties
OR
(4-7) Extreme departures from typical development in under 5-yr-olds
OR
(8-9) Persistent problems with comprehension or using language to communicate in child aged 5 yrs and above

(3) 'Late talker' under 2 yr old → Reassess later

Assessment of speech, language & communication

1) Combine information from multiple sources: caregiver report, observation, standardized tests, language learning context
3) Language ability is continuous, with no sharp cutoff between normality and impairment
Use staged approach: initial assessment that taxes both expressive and receptive skills, then more specific
6) Different aspects of language vary in sensitivity to social and language background, but it is unrealistic to use language profile to distinguish social vs biological origins.
8) Measures of language learning can complement static tests of knowledge/skill
Pragmatics/social communication should be assessed alongside other aspects of language
Assessment by a speech-language therapist will determine if a problem with speech production is linguistic, structural or motor in origin.

Identification of additional factors

(21-22) Language impairment often co-occurs with problems in motor skills, attention, reading, social interaction and behaviour. 'Pure' language impairments are the exception, not the rule.
(23) Language impairment should be recognised regardless of level of nonverbal ability.
(24-27) Language impairments associated with known conditions – genetic syndromes, ASD, acquired brain injury, hearing loss – need specialist assessment to identify therapy targets.

Study 1: Criteria

Refer for evaluation

Universal screening not recommended

(1) Concern about speech, language or communication (caregiver, teacher, healthcare professional)

OR

(2) Behavioural or psychiatric difficulties

OR

(4-7) Extreme departures from typical development in under 5-yr-olds

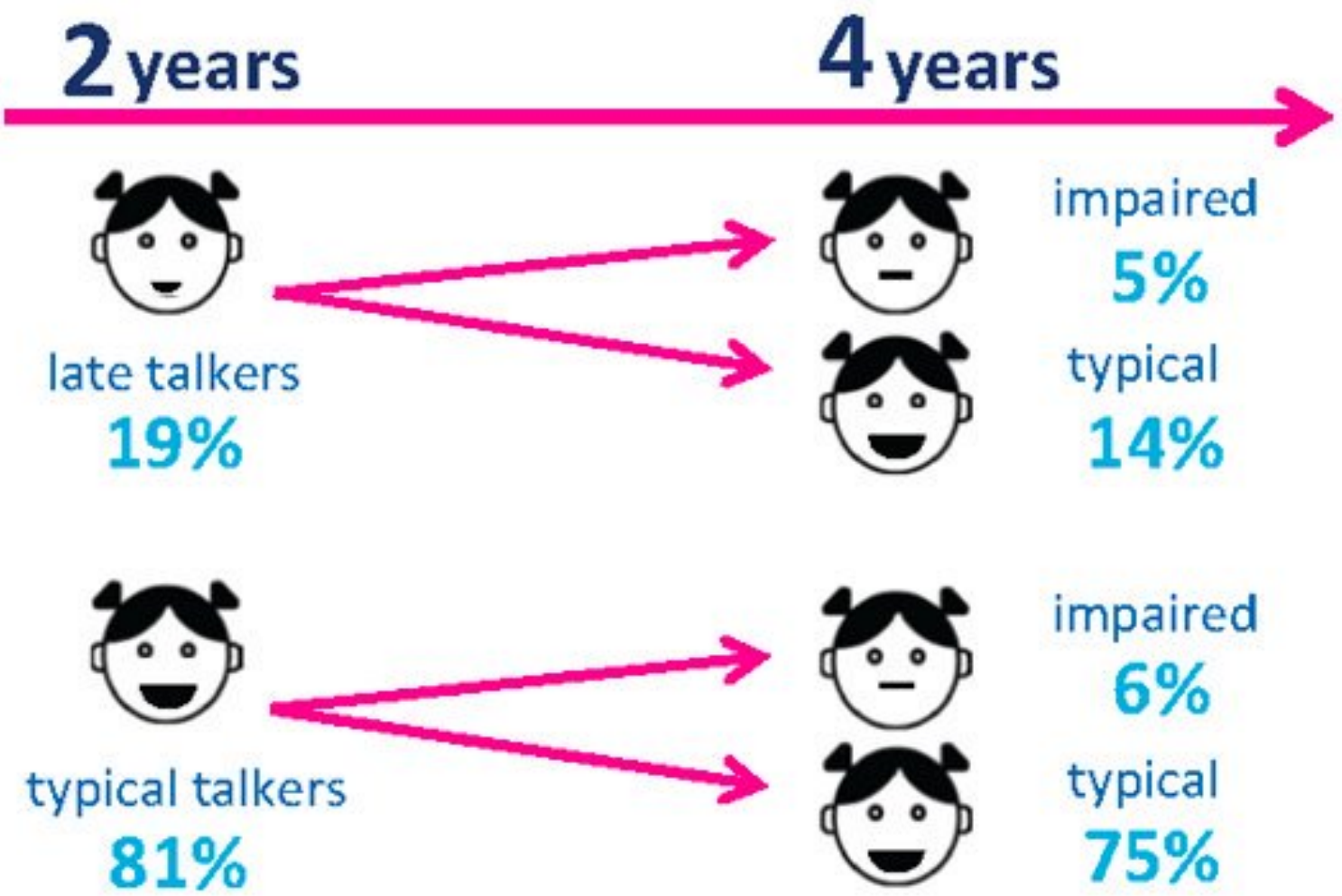
OR

(8-9) Persistent problems with comprehension or using language to communicate in child aged 5 yrs and above

Lack of progress despite targeted classroom assistance

(3) 'Late talker' under 2 years old → **Reassess later**

Early Language Study in Victoria (AUS)



Reilly et al., 2017

Prognosis in Early Years

- Under 3 years
  - Prediction is difficult; many late talkers catch up; some school age children with DLD were not late to talk
  - Higher risk: Fail to combine words at 24 mths; receptive deficits; lack of gestures; lack of imitation of body movements; positive family history
- 3-4 years
  - Prediction improves: In 4-yr-olds, greater number of areas of language functioning impaired, poor sentence repetition
  - Prognosis good: expressive phonology only
- 5 years and over
  - Language problems in 5-yr-olds are likely to persist
  - Risk factor for literacy problems: Family history

Study 1: Referral indicators

Age	Missing milestone
1-2 yrs	No babbling; not responding to speech; minimal attempts to communicate
2-3 yrs	Minimal interaction; lacks intention to communicate; no words; minimal reaction to spoken language; regression/stalling of language development
3-4 yrs	2 word utterances at most; does not understand simple commands, close relatives cannot understand child's speech
4-5 yrs	Inconsistent/abnormal interaction; 3 word utterances at most; poor understanding of spoken language; strangers cannot understand child's speech & relatives struggle with more than half
5+ yrs	Difficulty telling story or understanding what is read or listened to; difficulty following or remembering spoken instructions; lots of talk but poor engagement in turn-taking; over-literal interpretation

Assessment of speech, language & communication

Study 1: Criteria

No prescribed tools

Clinical judgment still a big part!

- Combine information from multiple sources: caregiver report, observation, standardized tests, language learning context
- Language ability is continuous, with no sharp cutoff between normality and impairment
- Use staged approach: initial assessment that taxes both expressive and receptive skills, then more specific
- Different aspects of language vary in sensitivity to social and language background, but it is unrealistic to use language profile to distinguish social vs. biological origins
- Measures of language learning can complement static tests of knowledge/skill
- Pragmatics/social communication should be assessed alongside other aspects of language
- Assessment by a SLP will determine if a problem with speech production is linguistic, structural or motor in origin

Bishop et al. (2016), p. 6 (s10-20)

Study 1: Criteria

Identification of additional factors

(21-22) Language impairment often co-occurs with problems in motor skills, attention, reading, social interaction and behaviour. 'Pure' language impairments are the exception, not the rule.

(23) Language impairment should be recognised regardless of level of nonverbal ability.

(24-27) Language impairments associated with known conditions – genetic syndromes, ASD, acquired brain injury, hearing loss – need specialist assessment to identify therapy targets.

Summary:
Study 1 determined criteria for who has the problem

Study 2: Terminology

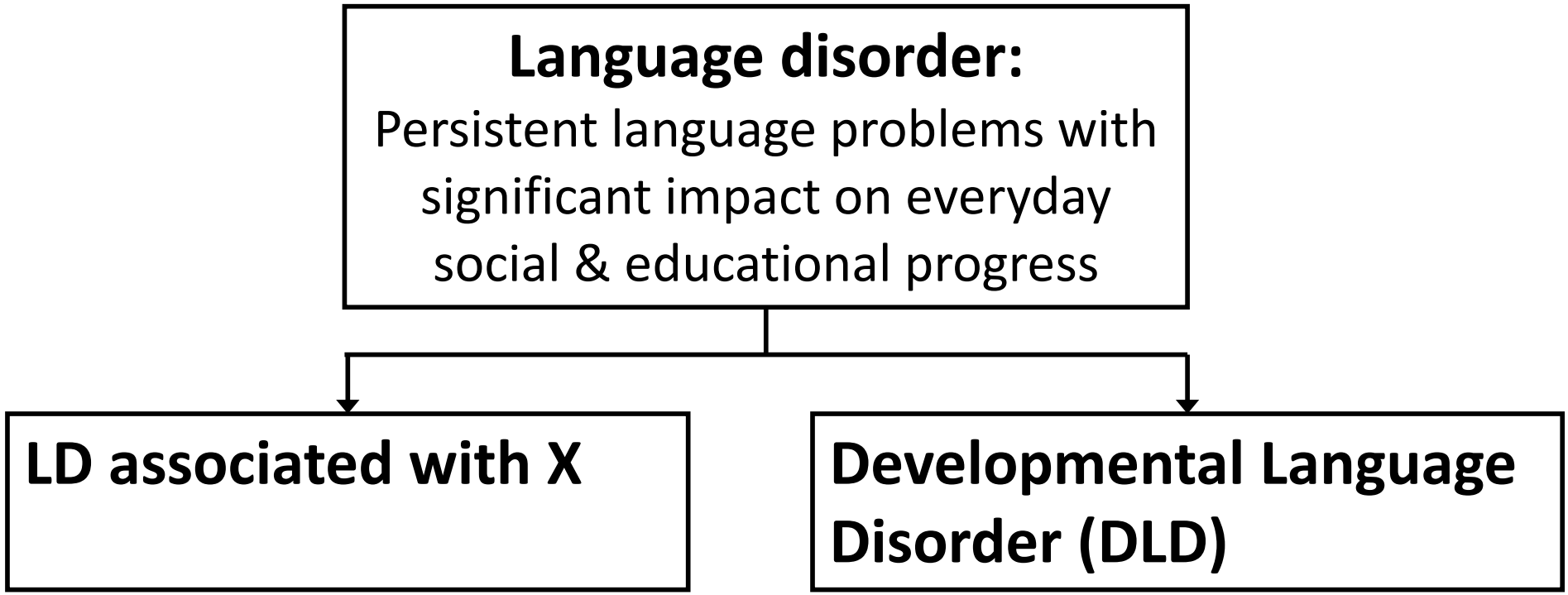
- Same panel
- 2 rounds following same format
  - 75% consensus on all statements
- Results: 13 statements

Study 2: Terminology Highlights

Language disorder:
Persistent language problems with significant impact on everyday social & educational progress

- Not late talkers resolved by 5 years old
- Not uncomplicated phonology problems in preschoolers (Speech Sound Disorder)
- Not those with limited exposure to language of instruction (ELLs)
- Nonverbal ability is not a criterion

Study 2: Terminology Highlights



LD associated with…

- Used to identify those whose LD occurs secondary to a biomedical condition
- Differentiating conditions
  - Brain injury
  - Sensori-neural hearing loss
  - ASD
  - Intellectual disability
  - Genetic conditions with known impacts on language development (e.g., Down Syndrome)
  - Neurodegenerative diseases with known impacts on language development (e.g., Rett syndrome)
  - Acquired epileptic aphasia in childhood
  - Cerebral palsy
- Services will need to take the condition into account

DLD

- Persistent language problem with significant impact on everyday social & educational progress
- No differentiating condition
- Broad definition
  - Need additional information

DLD

Nature of language impairments

- Phonology
- Syntax
- Semantics
- Word finding
- Pragmatics/language use
- Verbal learning & memory

No evidence of reliable subtypes

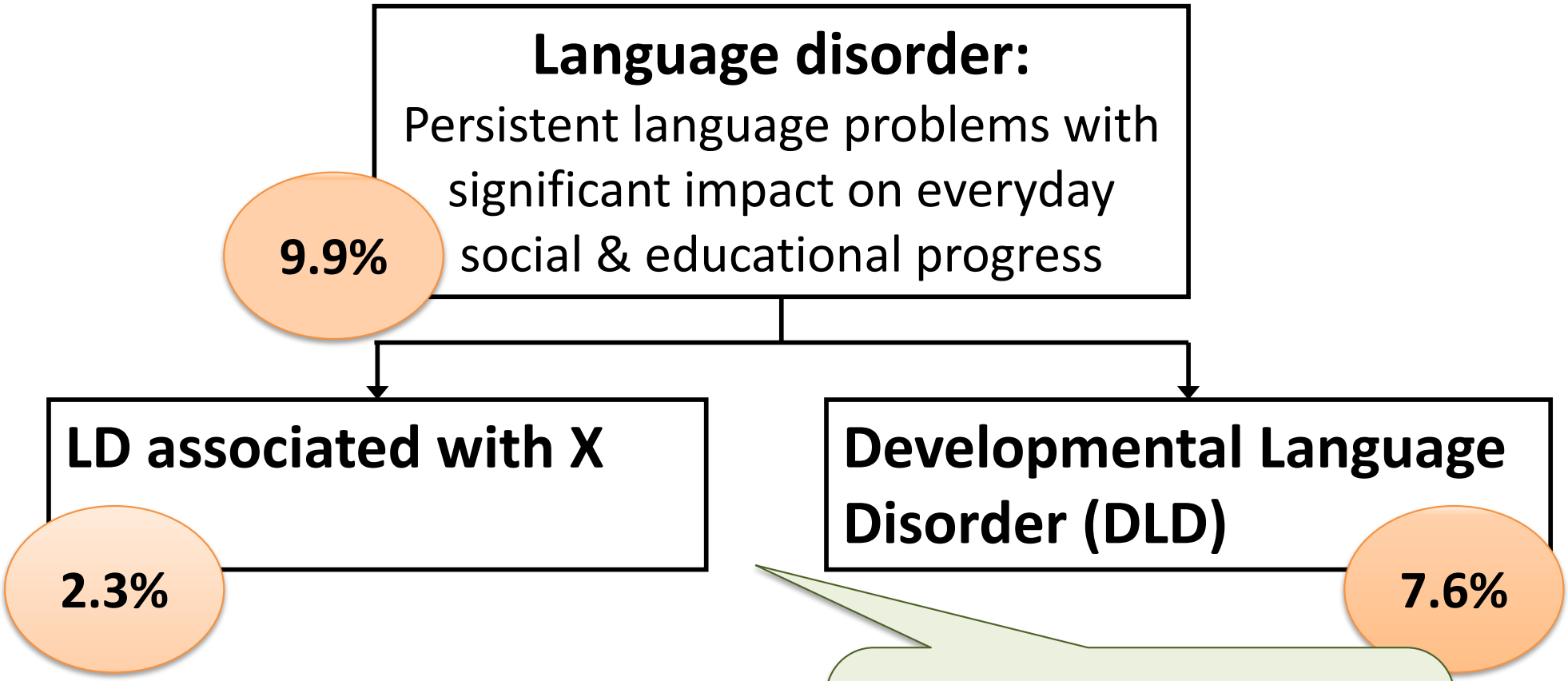
Risk factors

- Family history
- Poverty
- Low level of parent education
- Neglect or abuse
- Prenatal/perinatal problems
- Male

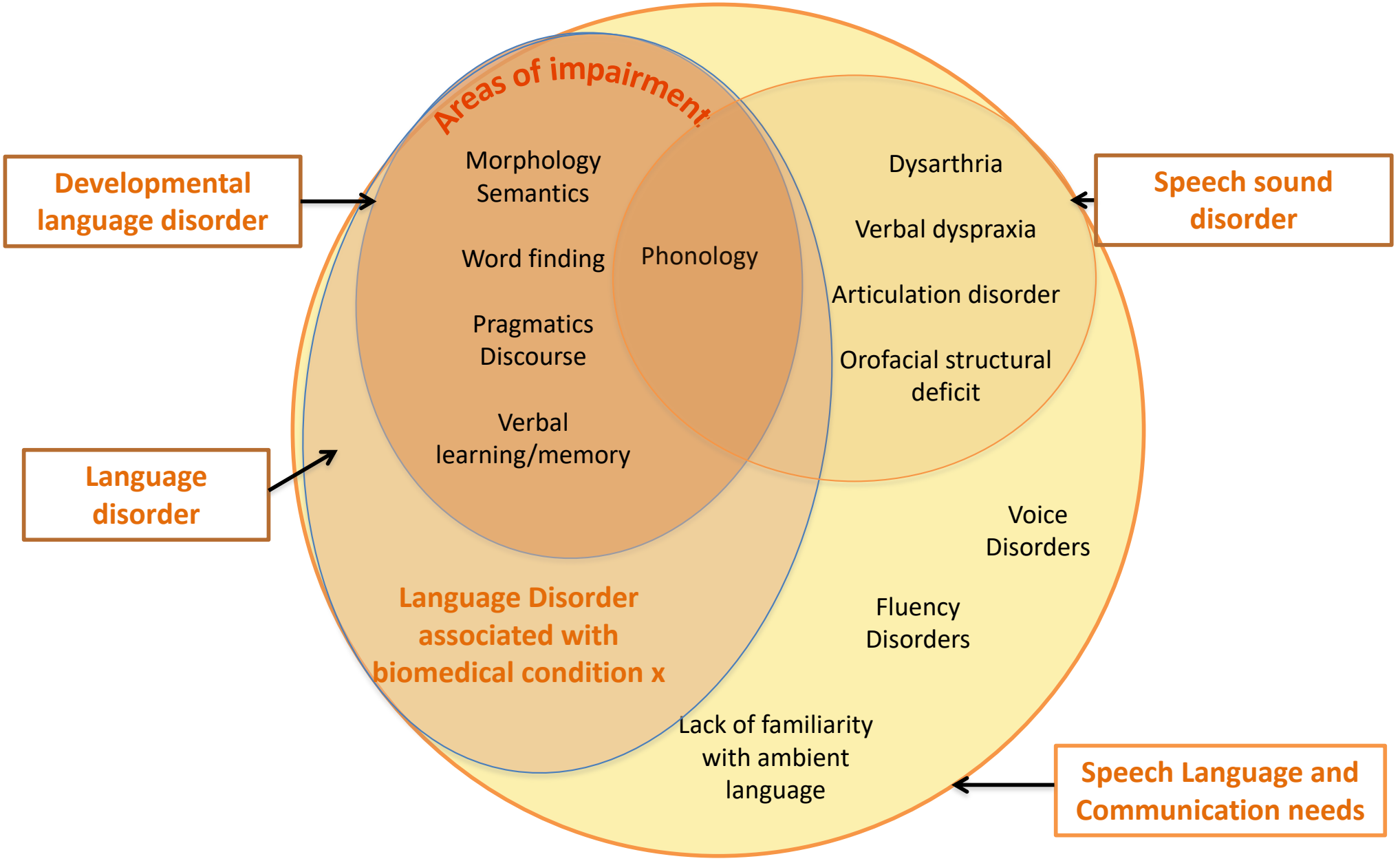
Co-occurring disorders

- Attention
- Motor skills
- Literacy
- Speech
- Executive functions
- Adaptive behaviours
- Behaviour

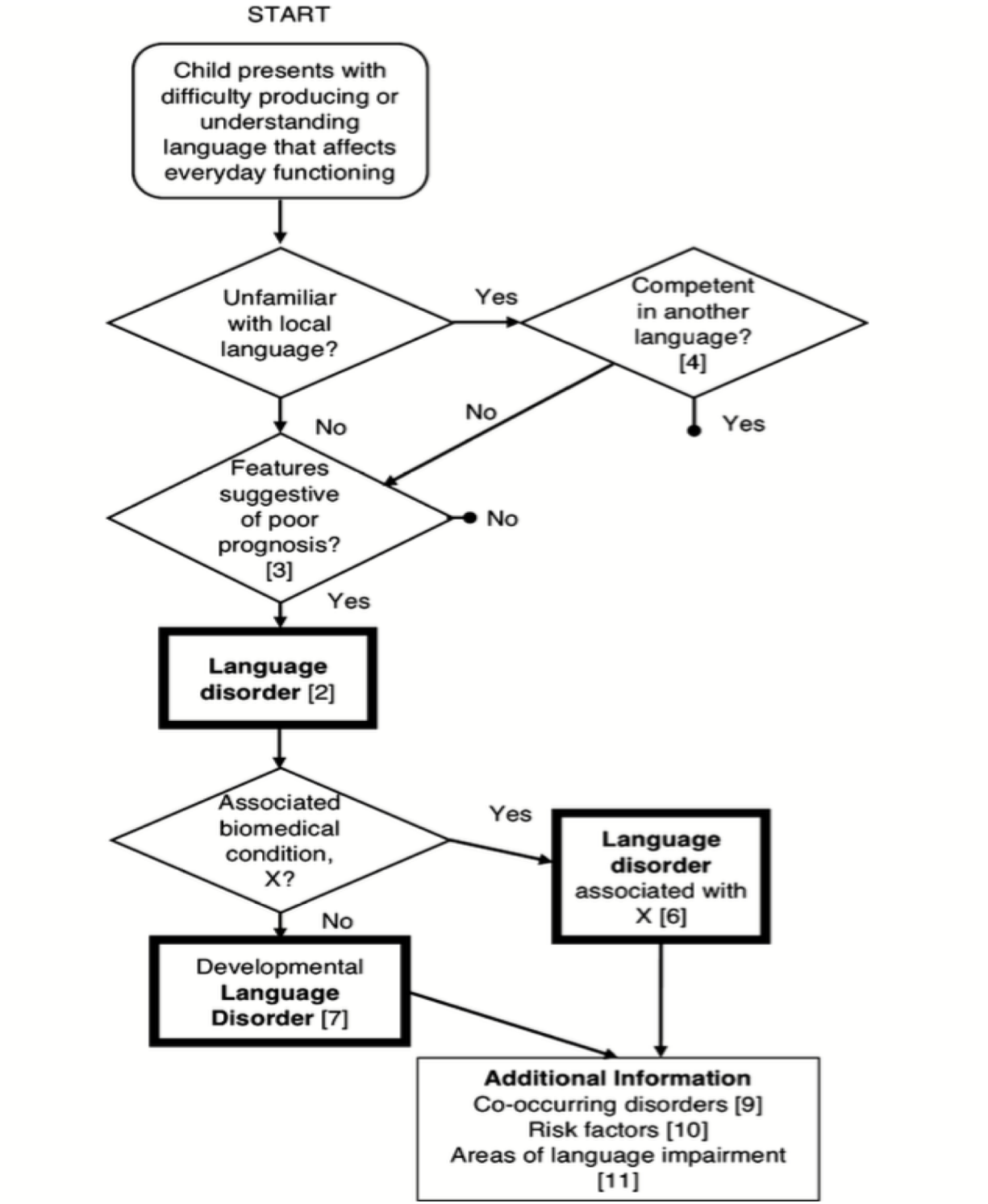
Study 2: Terminology Highlights



Study 2: Diagnostic Terms



Study 2: Decision Pathway



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Summary:
Study 2 recommended DLD for describing persistent language problems (with no associated condition)

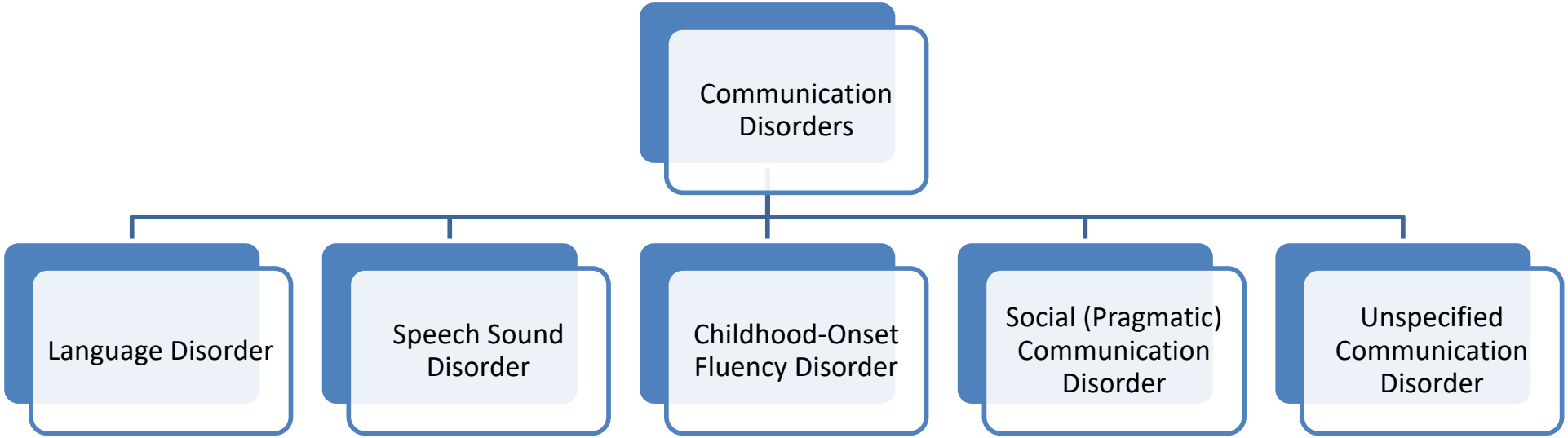
DLD – Why or why not…?

- ✓ Developmental
  - The condition emerges in course of development
  - Not something you grow out of
- ✗ Specific / Primary - Problem rarely occurs in isolation

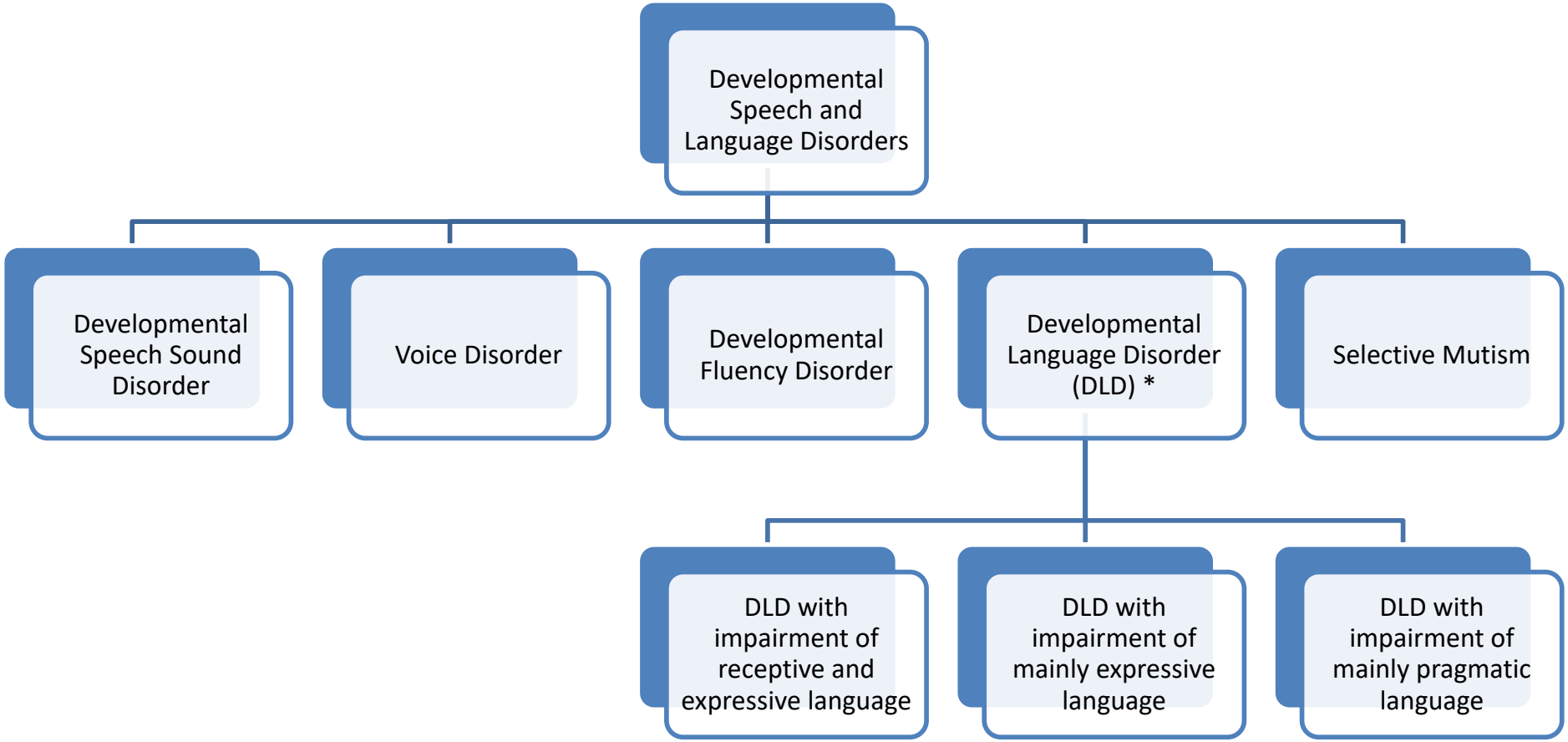
- ✓ Disorder
  - Emphasizes abnormality
  - Used in both DSM-5 & ICD-11
- ✗ Disability - Emphasizes abnormality
- ✗ Impairment -Does not necessarily implicate a reduction in functioning

- ✗ Delay - Ambiguous; not consistent with definition; no evidence
- ✗ Differences - Often used to refer to second language learners
- ✗ Needs – too weak

DLD aligns with DSM-5



ICD-11 Beta Draft



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http://apps.who.int/classifications/icd11/frozen-2015-05-31/f/en#!/http%3A%2F%2Fid.who.int%2Ficd%2Fentity%2F854708918

Why make it work?

- Perfect is not possible
- Canada can join the international momentum
- Consistency in the way we talk about LDs
- Develop resources that people can find

Alternative choices?

- Keep having inconsistent / nonspecific diagnostic practices
- Engage in our consensus process & then start an opposing campaign?

Raising Awareness of DLD

- DLD 1-2-3
  - Youtube: https://www.youtube.com/watch?v=tQ-s02HWLb0
  - Resources: http://naplic.org.uk/resources/dld

Raising Awareness of DLD

Raising Awareness of DLD

- DLD 1-2-3
  - Youtube: https://www.youtube.com/watch?v=tQ-s02HWLb0
  - Resources: http://naplic.org.uk/resources/dld
- Supporting DLD in the classroom (Alex Cross)
  - https://youtu.be/PKegRlHFqH4

Raising Awareness of DLD

- Other Resources
  - My students' projects:
    - https://www.uwo.ca/fhs/lwm/teaching/dld2.html
  - SAC blog: Why you should add DLD to your vocabulary:
    - https://blog.sac-oac.ca/developmental-language-disorder-why-you-should-add-dld-to-your-vocabulary/
  - DLD: The most common childhood condition you've never heard of:
    - https://www.theguardian.com/science/head-quarters/2017/sep/22/developmental-language-disorder-the-most-common-childhood-condition-youve-never-heard-of
  - iCAN fact sheet
    - http://licensing.ican.org.uk/sites/licensing.ican.org.uk/files/pdfs/Developmental-Language-Disorder.pdf
  - RADLD youtube channel: www.youtube.com/user/RALLIcampaign

What's next for us?

- Developmental Language Disorder
  - Canadian context: consensus to follow the consensus?
  - Advocacy

Let's talk
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