1. **A challenge is that psychologists are only qualified to administer IQ tests, while speech pathologists are only qualified to administer language tests.** Speech Pathologists can purchase and use some cognitive screeners, such as the Ravens Progressive Matrices which may be of assistance in differential diagnosis on intellectual disability and language disorder. Psychologists use a variety of types of assessments, including those that measure reading skills and different aspects of language development. Ideally professionals should work together in a multi-disciplinary approach.

2. **Is there any difference in IQ for hearing impaired?** The Vineland II scores for children with hearing impairment showed a mean score for this group of 99, within the average range. The Wechsler NonVerbal (WNV) clinical studies with children who have hearing impairment (but no other neurological or educational issues) showed mean scores that matched the control group in all areas. The hearing impaired children showed slightly higher scores on visual memory tasks over the control group, although the effect size was minimal. These studies can be found in the WNV Technical Manual as well as in books like the Essentials of WNV. The Wechsler Non Verbal uses pictorial instructions and of course can also be administered using sign language.

3. **Assuming a child who has a severe language disorder: Would you consider that a WISC-IV may be an invalid tool if the child is presented with language instructions that are too complex for their ability and cause anxiety and associated test behavioural issues? At what point would you consider using a nonverbal cognitive assessment (e.g. WNV, Leiter-3, etc) in determining a diagnosis.** That is to say, some children with severe language disorders may not present with a differential profile, or complete an assessment at all, whereas you may be able to obtain an IQ score using nonverbal means. Any insight would be greatly appreciated. The WISC IV can be a valid tool for assessing a child with a language disorder, however, the FSIQ might not be the most clinically useful score from the WISC IV to interpret if there are great variances between the VCI and the PRI. Analysis of cognitive strengths and weaknesses would be more useful than interpreting an FSIQ in this case. If following a WISC IV administration there are difficulties determining if low scores are due to the child's difficulty in understanding instructions or due to low cognitive ability, a follow up assessment using a non-verbal test may be warranted, such as the WNV. If going into an assessment it is already known that a child has a severe language disorder, then a non-verbal tool can be chosen as a first assessment. It is best practice that all areas of a child's development be assessed, as opposed to assessing one area in isolation.

4. **At what age would you recommend a child first undergo assessment differentiating language from IQ disorder?** An initial assessment of development in motor, language, cognitive skills, adaptive behaviour, and social-emotional skills could be considered as young as 2 - 3 years of age if there were concerns about the child's development. Results could assist in determining if there was a global delay in development and a possible Intellectual disability, or if language development was the primary concern.
5. **Can children with dyslexia still have oral language difficulties?** Children with dyslexia may have difficulty with word finding, rhyming, rapid automated naming, and fluency when story telling. However, their development of grammar and syntax would typically be in the normal range of development for their age.

6. **Can you differentiate severity level within a 'language disorder'? Do mild and moderate language disorders exist? If so, what scores on the CELF 4 would define this?** Yes, please refer to the table below:

   Adapted from Tables 4.3 Distances from the mean of selected standard scores and 4.4 Guidelines for describing the severity of a language disorder (CELF-4 Examiner’s Manual, 2006, p. 118)

<table>
<thead>
<tr>
<th>Core Language Score and Index Scores</th>
<th>Classification</th>
<th>Relationship to Mean</th>
<th>Percentile Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 and above</td>
<td>Significantly above average</td>
<td>+ 2 SD and above</td>
<td>98 to 99.9</td>
</tr>
<tr>
<td>115 to 129</td>
<td>Above average</td>
<td>+ 1 SD and above</td>
<td>84 to 97</td>
</tr>
<tr>
<td>86 to 114</td>
<td>Average</td>
<td>Within + or - 1 SD</td>
<td>17 to 83</td>
</tr>
<tr>
<td>78 to 85</td>
<td>Marginal/Borderline/Mild</td>
<td>Within -1 to -1.5 SD</td>
<td>7 to 16</td>
</tr>
<tr>
<td>71 to 77</td>
<td>Low range/Moderate</td>
<td>Within -1.5 to -2 SD</td>
<td>3 to 6</td>
</tr>
<tr>
<td>70 and below</td>
<td>Very low range/Severe</td>
<td>-2 SD and below</td>
<td>&lt;0.1 to 2</td>
</tr>
</tbody>
</table>

7. **Can you please list the references for the information contained in the “WISC IV Clinical Group Studies with children who have language disorders” slides. I’d love to read further about these studies and the results comparing language disorders to cognitive profiles.** The clinical studies presented in the webinar were from data collected in the USA. There is similar Australian data for some clinical groups. Australian clinical data can be found in the WPPSI IV ANZ and WISC IV Australian Administration Manuals. The US data is also available in the various test kits, in the Technical Manuals (WPPSI IV, WISC IV, WNV). The US data is also available in books such as Essentials of WPPSI IV and WISC IV Clinical Use and Interpretation.

8. **Do you have suggestions for differentiating a language disorder for children who are learning English?** A language disorder and learning English as a second language are completely different. An English-language learner may indeed have a language disorder in his/her native language. This is tricky to determine if one is unable to assess the student in his/her home language. It is highly recommended that children demonstrate proficiency in English before undertaking any formal standardised language assessments. A general guide is that children should have been exposed to English in a formal setting (generally an English-speaking preschool, primary or high school) for at least 2 years and their school attendance rate should also be considered. Some Departments’ of Education have guidelines that a child should be living in, and immersed in, the culture and language of Australia for at least four years prior to standardised testing with a WISC IV.
9. Do you think that routinely eliminating any verbal assessment (in terms of cognitive abilities) may lead you to inaccurate conclusions (especially for those students with known language difficulties). Our experience is that a student with a WNV score of 80, for example, might actually meet criteria for Intellectual disability if you actually looked at WISC IV and adaptive behaviours. A comprehensive psycho-educational assessment should look at all areas of development, including cognitive skills (verbal and non-verbal) as well as adaptive behaviour, language, motor etc. A final conclusion about diagnosis and funding for special education should be based on a careful analysis of all test results, not one score from one test.

10. The example of a student who might have a CLS 50 on the CELF 4 but a WNV FSIQ of 78 or 80 (there is a significant difference between language and this measure of cognitive functioning) - it is tempting to call this a language disorder but he/she might have a FSIQ of 70 or below on the WISC 4 (without significant discrepancies between indices). If the WISC IV FSIQ is considered a unitary construct (because there are no significant discrepancies between indexes) and therefore interpretable, and the FSIQ is 70 or below, an intellectual disability should be considered. An Adaptive Behaviour assessment would be warranted to assist in this diagnostic decision making, as both cognitive and adaptive behaviour assessments are required in the criteria for Intellectual Disability.

11. Does diagnosis of a language disorder preclude the ability to diagnose a reading disorder? Most children with language disorders will also have difficulty learning to read, spell, and produce written language as a result of their language disorder.

12. Where there is a history of childhood trauma and current trauma and scores VCI 91, PRI 94, WM 97 PSI 78 for an 11 year old female twin, can trauma also impact PSI - specifically hypervigellance? Although I am not aware of any studies specifically looking at trauma and performance on PSI, poor performance on the Coding and SS subtests within PSI can sometimes be due to poor sustained attention and/or fine motor issues. There are studies that show PSI and especially the Coding subtest can be relative weaknesses in children who have sustained brain injury (See WISC IV Technical Manual or WISC IV Clinical Use and Interpretation book). These might be issues to explore further. Research suggests that children with a history of trauma often have a similar learning profile to those with a brain injury.

13. Is the PRI significantly/unusually higher than VCI for children with SLI? What is the size of that difference? Although every child is different, this type of data using group clinical studies is covered in the webinar power point slide notes handout.

14. Can you explain what might be happening with a child that has a low VCI and PRI and Average WMI and PSI? This is a more unusual profile, but one hypothesis to explore is that the child has the underlying memory and processing skills for learning, but has not acquired skills - perhaps due to lack of exposure to learning experiences in early years. This poverty of experience could lead to lower vocabulary acquisition, lower fluid reasoning experiences, and less crystallised knowledge.
15. Just wondering how we might differentiate a language/ID/SLD profile and in particular developmental vs. environmental factors. I am thinking in particular of children with abuse or neglect histories where opportunities for language experiences may be limited. Students with a history of childhood trauma are more susceptible to learning and language delays. However, it's important to ensure that once they are in a safe and stable environment, receiving the necessary support and counselling, that their learning is also supported in all areas. Baseline testing of cognitive, achievement and language functioning is warranted as research suggests that children with a history of trauma often have a similar learning profile to those with a brain injury. All factors need to be considered in their diagnosis and subsequent intervention.

16. How does a dyslexia profile differ from an executive functioning difficulty profile on cognitive and language assessments? Children with a general executive functioning difficulty tend to have low scores across all academic areas including attention, academic achievement, language and reading. Also refer to Q&A in #18 below for further info.

Children with moderate to severe executive functioning difficulties are sometimes diagnosed with ADHD as they have difficulty with inhibition and impulsivity, shifting from one task to another, planning, and organising. Some children with dyslexia may also have these difficulties, but not all. Children with dyslexia often have weaknesses in auditory working memory, which can be related to the executive functioning skills needed for skills such as remembering multi-step processes and procedures, learning strategies involving memorisation and retrieval. In the WISC IV Technical Manual there are clinical studies for groups of children who have ADHD as the primary and only diagnosis, as well as for children who have a specific learning disability in reading (dyslexia) and ADHD.

17. How does the WISC IV WMI compare to the CELF 4 WMI? Are the tasks similar? The tasks are very similar, and auditory in nature, on both tests.

18. How is a differential diagnosis made between Specific Learning Disability and Language Disorders? This is covered in on page 27 (2nd slide) and others in the webinar handout. If both the VCI and WMI from the WISC IV are below the average range (<90), and PRI is significantly larger than VCI, consider a language disorder and refer to a speech pathologist for further language assessment. Compare the PRI to scores from a language measure, such as the CELF 4. If the WMI is the only relative weakness in the WISC IV profile, and VCI is similar to PRI, a language disorder is unlikely. However, other disorders, such as those in reading, may still be a hypothesis. Although a full language assessment is not warranted, a comprehensive reading assessment is. Please see the section in the webinar handout on reading disorders for more information.
19. I am concerned about a 12 years old with a significant expressive language disorder, whose anxiety about communicating is very high, is going to be diagnosed with Asperger's Syndrome, based on his communication profile (language and social interaction skills) which according to a speech pathology assessment is consistent with difficulties commonly seen in children with autism spectrum disorder. The possibility that this presentation could result in an incorrect diagnosis of AS, in this child and other children, is of concern. The WISC IV results, and results of language assessments for children with Asperger's Syndrome (ASD Level 1 in the DSM 5) and more 'classic' ASD (ASD Levels 2 & 3 in DMS 5) are very different. Children with Asperger's on the WISC IV has relative strengths and scores in the average or higher range in the VCI and crystallised knowledge, and often relative weaknesses in PSI. Children with ASD Level 2 & 3 have more global cognitive delays, and VCI scores are more in line with other scores, with some relative strengths in non-verbal subtests like BD. If Asperger's is suspected, an assessment specially designed to assist with diagnosis, such as the GADS, could be of assistance. The final diagnosis of ASD is typically done by a multi-disciplinary team specialising in this work, or by a paediatrician.

20. I work in the Education Department, often a child will be flagged up and teachers are not sure if it's language or cognition. Would you recommend a language assessment be conducted first or a cognitive assessment? Does it matter? As a psychologist I would conduct a cognitive assessment first, and then determine what follow up assessments were required based on my findings. This would be after hearing and vision were assessed, of course (VOK). As a Speechie, I'd also recommend a cognitive and educational assessment before conducting a formal language assessment (AKR).

21. If language is symbolic, why are block patterns, which can be compared to paintings/pictures and symbols, considered to be nonverbal, rather than a language skill? If you are referring to Block Design in the WISC IV, the designs created by using the blocks are not symbolic. They are not representative of something bigger than themselves, they are simply the duplication of a pattern the student sees in the stimulus book. If you were asking a child to learn a series of symbols that were attached to a broader meaning, then would represent language/communication. It is more about how the non-verbal information is being used, whether it is symbolic or not, that determines if it is considered communicative.

22. If looking at eligibility for young children (i.e. 3-6 years) for an intensive language program, previously on the WPPSI-III we would have required PIQ to be in the average range. What do you suggest to use on the WPPSI-IV considering that FRI and NVI might be slightly depressed and not in the average range? I would be hesitant to use VSI only to determine eligibility. On the WPPSI IV the FRI, VSI, PSI, NVI, and WMI are all non-verbal tasks and can all be considered. However, the VSI and NVI are the best scores to look at in cases of severe language disorder or mixed receptive/expressive language disorder. Children who have mixed language disorders still perform similar to control groups on Block Design and Object Assembly (VSI) and looking at this can assist in differential diagnosis.
23. If SLP rules out language disorder, and determines reading specific impairment/phonological awareness issues, do you consider the intervention role school/Te/Counsellor or SLP or both? Some Speech Pathologists provide interventions for students with reading disorders, however, not all do. Many schools provide interventions within the school through a Learning and Support Teacher or similar role, using programs like MiniLit, MultiLit, Fountas and Pinnel and others. Many parents seek intervention through reading specialist tutors as well to support what happens at school, if they have the financial means to do so. Private reading intervention does not attract Medicare or NDIS funding generally.

24. Is it possible to have a Language disorder and a reading disorder (Dyslexia)? i.e. low VCI and weak phonological processing skills? Most children with language disorders will also have difficulty learning to read, spell, and produce written language as a result of their language disorder.

25. Is speech therapy recommended for children who have poor language skills even if it is similar to their overall cognitive skills? E.g. children who have Borderline IQ or lower in all areas, is speech therapy beneficial? Students with an intellectual disability may need assistance with following and understanding directions, using and understanding spoken and written language, learning new information, understanding detailed information and completing tasks. It is recommended that supporting these students with functional communication strategies, through individual and/or group speech therapy, may be beneficial for both the student as well as in providing his/her carers with additional strategies.

26. Is there a summary differentiation diagnostic sheet available? There are summaries provided throughout the webinar handout - page 27 is an example of one of these

27. Is there an indication from the CELF 4 (or other language assessment) that would indicate a possible Intellectual Disorder and therefore referral to a psychologist? If the student is not coping with the mainstream curriculum and struggling to progress and/or cope with his or her learning environment, then it is highly recommended that a cognitive assessment be considered, particularly if the student's language scores are 2 or more SD below the mean and there are apparent delay in self-help skills (adaptive behaviour).

28. Just a comment - I think is not appropriate to be reporting that a FSIQ would be calculated with such a significant difference between PRI and VCI. The FSIQ is not always the most clinically meaningful score to look at in these instances. You will notice in the webinar handouts that I do not mention the FSIQ very often unless it is in relation to intellectual disability diagnosis. Most of the focus in the discussion of language disorders, reading disorders, and ASD (when discussing WISC IV and WPPSI IV) focuses on index scores and S&W analysis.
29. With children who have autism, who have social language difficulties, we find that the VCI tends to be lower than PR, so how would that fit in? Many also have an intellectual disability as well as autism. The overall lower score on the VCI represents the difficulty children with autism have with language, understanding the verbal questions, and expressing their answers verbally. They also might find Comprehension questions particularly challenging, as Comprehension contains questions in the social context (i.e. why people do this or that, what is the thing to do when this happens). Even children with Asperger’s can sometimes find the Comprehension questions, that are socially oriented based problem solving, more difficult than the Information questions that just tap into crystallised knowledge. Children with ASD often do better on non-verbal tasks like Block Design, which would impact on their PRI being higher than VCI. There are Theory of Mind and Affect Recognition subtests in the NEPSY II, as well as various questionnaire based assessments, that can also be helpful with assessing social language issues. The new CELF 5 Metalinguistics would also be ideal for this.

30. Speech therapists work with language disorders - are they able to work with learning disorders as well? Many Speech Pathologists specialise in learning difficulties, like dyslexia, and provide interventions in this area as well.

31. The current 'consistency' model of Specific Learning disorder for students with lower IQ having specific processing disorders does not seem to be accounted for... you mention the lowered IQ from reading experiences - however some have very low phonological processing. The main reason to conduct a WISC IV in an assessment of Specific Learning Disability is to rule out that the learning difficulties are due to low IQ, and to assess the possible presence of auditory working memory issues (WMI) that can affect the development of phonological decoding skills. The WISC IV would not be the only test in the assessment battery, and ideally would also include further assessment of phonological processing, rapid automatic naming, spelling etc (TOPP 2, PAL II, WRMT 3 for example).

32. The DSM 5 no longer differentiates for Asperger’s label... i.e. continuum of autism. In the webinar when discussing Autism I refer to Asperger’s as DSM 5 Level 1, and the more classic Autism as DSM 5 Level 2 and 3. Although the DSM 5 does not differentiate Asperger's from Autism specially now, it is important to understand clinically that these two groups perform completely different from each other on cognitive tests like the WISC IV and on adaptive behaviour measures. So, although they are both ASD in the DSM 5 the clinical presentation of Level 1 and Level 2/3 on test results look very different.
33. Would you expect school psychologists to be able to administer all of the tests discussed or part of a multi-disciplinary team? School based psychologists often have access to IQ tests and adaptive behaviour assessments as a minimum. Ideally they will also have access to other specific tests of behaviour, achievement, mental health etc, and screeners for language and fine motor development. Many work with the school's Learning and Support teacher who also conducts assessments. In an ideal situation, if an OT and Speech Pathologist is also seeing the student, test results and plans can be shared in a multi-disciplinary meeting or at least through phone conversations or email (with parent permission).

34. What are your thoughts on a child who has a Language Disorder also being diagnosed with Dyslexia? Most children with language disorders will also have difficulty learning to read, spell, and produce written language as a result of their language disorder.

35. What can older children with a language disorder get from a speech pathologist? Any student (regardless of age) suspected of having oral language difficulties should be referred to a Speech Pathologist. The student could have a subtle language disorder either in their fundamental skills or higher order language skills (metalinguistics, such as struggling to infer deeper meaning in contexts where it's not explicitly stated or understanding sarcasm, for example). Targeted language intervention can positively impact these students' learning.

36. What does it mean if a child falls within the intellectually disabled range on the WISC but performs within the normal range on the Vineland? This would be extremely rare, and might indicate that the Vineland questionnaire was not completed in an accurate/realistic way by the respondent (which is usually a parent or teacher). It might also indicate a child who is of lower cognitive ability but who has a big responsibility at home of taking care of the household and siblings, and who is considered 'street smart' in spite of lower cognitive ability.

37. What if you have low scores across the WISC-IV and the CELF 4 indicating a severe expressive language delay. Can you have both? If an expressive language delay was the only issues for the child it would be unlikely that WISC IV would be low and flat. There would typically be relative strengths in the PRI and/or PSI. Low scores on both tests might indicate that there is more going on clinically for the child than just a language delay. In order to diagnose a severe expressive language delay, the delay cannot be attributed to low IQ. In order to diagnosis a intellectual disability an adaptive behaviour assessment must also be undertaken.
38. When conducting a discrepancy analysis using scores from language tests and non-verbal cognitive measures, how significant does the difference have to be before we can confidently say it is a language disorder? How can I do this in a school environment? Unlike the WIAT II, there are no formal discrepancy analysis tables that link WISC IV and CELF 4 scores or WPPSI IV with CELF 4 scores. These tests have been studied together in various clinical studies and results published in test Technical Manuals, Technical Reports, and books. There does not seem to be any formal decision made by the test authors, however, as to what discrepancy between test scores should be considered clinically significant in all cases, and therefore analysing score differences and why they exist comes down to clinical judgement. The DSM IV/5 states that the language disorder should not be better explained by Intellectual Disability, but no specific guidelines for measuring the significance of a particular discrepancy is given.

39. Where was this clinical study done? US or Australia: The clinical studies presented in the webinar were from data collected in the USA. There is similar Australian data for some clinical groups. Australian clinical data can be found in the WPPSI IV ANZ and WISC IV Australian Administration Manual. The US data is also available in the test kits, in the Technical Manuals. The US data is also available in books such as Essentials of WPPSI IV and WISC IV Clinical Use and Interpretation.

40. With premature students, should DOB be used or allowance made and age adapted accordingly when using CELF-4 or CELF-Preschool 2? Research suggests that one should correct for prematurely only up to 2 years of age.

41. Would an Aboriginal painting count as or approach the definition of language? I ask because the symbols in them convey meaning across Aboriginal languages. Language is symbolic, so I would suggest that Aboriginal paintings used to convey meaning would be considered language (AKR). Aboriginal art could be considered written language which may have many layers of meaning, and are based upon traditional stories and icons (symbols).