Lessons Learned: Achieving Consensus About Learning Disability Assessment and Diagnosis

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Abstract

The current paper describes the process used for developing the Guidelines for Diagnosis and Assessment of Children, Adolescents, and Adults with Learning Disabilities-Consensus Statement and Supporting Documents, and the rationale for some of the decisions. The guidelines were developed by a cross-sectoral working group of psychologists who achieved a consensus on the criteria for diagnosis and the assessment process. We outline key features of the guidelines, describe topics where the group achieved consensus quickly and topics for which there was considerable debate (e.g., intelligence testing, ability/achievement discrepancy, and processing deficits). The group members shared information with each other about topics such as the advantages of early assessment, the importance of formally assessing effort and motivation, and assessment of culturally and linguistically diverse individuals. We conclude with the lessons learned and professional challenges regarding contextual influences on LD assessment and diagnosis and dissemination of research to practitioners.

Keywords

learning disability, exceptionalities/disabilities, standardized assessment, education assessment, school psychologists/counselors, education professionals, diagnostic classification models, measurement

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Since the term was first used by Samuel Kirk (1962), definitions of learning disabilities (LD) and methods for diagnosing it have been controversial and a source of much debate among psychologists (Fletcher & Miciak, 2019). There have been widespread calls for professional consensus on assessment and criteria for diagnosing LD (Fletcher & Miciak, 2019; Lyon et al., 2001; Taymans & Kosaraju, 2012). Although the Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition (DSM-5; American Psychiatric Association, 2013) has provided a definition that is used widely in healthcare settings in North America, it is not as widely used in educational settings in Canada and the United States. Educational systems in the United States frequently use a response to intervention approach to identify children with learning disabilities (e.g., Fletcher et al., 2019; Vaughn et al., 2014). In Canada, definitions of LD proposed by the Learning Disabilities Association of Canada (LDAC, 2015) and the Learning Disabilities Association of Ontario (2001) have informed the criteria used by provincial ministries and departments of education. Although these definitions acknowledge that LD involves difficulties in oral language, reading, writing, and mathematics, they state that these difficulties “result from impairments” in psychological processing (LDAC, 2015). Furthermore, at the beginning of our work, some organizations (e.g., Association of Chief Psychologists with Ontario School Boards, Colvin et al., 2017) required a discrepancy between IQ and academic achievement for a diagnosis of LD despite the considerable research questioning the validity of this approach (e.g., Miciak et al., 2016; Stuebing et al., 2002). Given the different approaches to LD diagnosis and assessment in different sectors in Ontario, a cross-sectoral working group of psychologists worked for a period of 2 years to develop the Guidelines for Diagnosis and Assessment of Children, Adolescents, and Adults with Learning Disabilities—Consensus Statement and Supporting Documents. These guidelines were adopted by the Ontario Psychological Association (OPA, 2020) and the Learning Disability Association of Ontario.

The purpose of this paper is to transparently describe the consensus process used to develop the guidelines, to provide psychologists with information about the rationale for these recommended practices, and to guide future initiatives and updates regarding diagnostic practice and understanding of LD. We begin with a description of the process that the group used to achieve a consensus and an outline of the guidelines. We then describe topics where consensus was achieved quickly, topics involving considerable debate, and topics necessitating information sharing across members. Consensus was defined as the majority of members were in favour of the recommendation for the guidelines (i.e., inclusion of academic history and assessment). In most cases there was shared or uniform agreement. On topics with debate, consensus involved active discussion and agreement was established by considering recommendations in which the majority were in favour. With one exception, consensus was reached with collaborative discussion not requiring formal voting. Although we refer to research that formed the basis of our decisions, a comprehensive review of this research is beyond the scope of this paper. We conclude with discussions about clinical challenges, lessons learned regarding contextual influences on LD assessment and diagnosis, the limitations of the guidelines, and with implications for the practice of school psychology.
The Consensus Process and Content of the Guidelines

During 2017 and 2018, 15 psychologists in Ontario who had various areas of competence (e.g., school psychology, clinical psychology, and neuropsychology), and worked in diverse settings (public elementary and secondary schools, hospitals, mental health clinics, postsecondary institutions, and private practice) with clients spanning the early years through adulthood formed the Ontario Cross-Sectoral Psychology Working Group. The members of the group were chosen because of their expertise in LD and their affiliation with key organizations. The Working Group followed common approaches in consensus groups that involve members with a high level of expertise on a subject working together to find agreement on a topic that is disseminated with the purpose of guiding others in the profession. This approach is commonly used among medical specialties and interdisciplinary groups that share interests that they deem important, especially when controversial topics need resolution (American Psychiatric Association, 2013; Turner et al., 2008).

The Working Group met approximately once every 2 months over a 20-month period. Meetings were held at local universities or school board offices with some members attending in person and others joining via phone or videoconference. During meetings the members reviewed, discussed, and debated research and practice issues with regard to diagnosis and assessment of LD, psychometrics, and psychological practice. Throughout the meetings the group members aspired to adhere to the consensus approach emphasizing collaborative, cooperative, egalitarian, inclusive, and participatory agreement seeking (American Psychiatric Association, 2013; Tugwell & Knottnerus, 2018). Because discussion was lively, systems were put in place to ensure video and teleconference participants were equally included. The passion and conviction of members was obvious, and consensus was at time difficult to reach as reflected in the discussion of debated issues below.

The final document that was produced included the Consensus Statement, several supporting documents, and responses to frequently asked questions. The Consensus Statement describes the purpose of the guidelines, provides the criteria for diagnosis (Table 1) that were agreed to by the Cross-Sectoral Working Group, and lists 10 steps for assessing individuals referred for possible LD (Table 2). Supporting documents outline the historical context that led to the establishment of the Cross-Sectoral Working Group, elaborate on the 10 assessment steps, provide references to supporting research, and address questions frequently asked by practicing psychologists during presentations. The drafting of the supporting document on the 10 assessment steps and the Frequently Asked Questions (FAQs) was divided among group members in accordance with their areas of interest and expertise. There were numerous revisions of the consensus statement and supporting documents based on the feedback of the group. In the final stage of the process, each participant invited a colleague to review the document in its entirety and provide feedback that was then discussed among the Working Group.

Once the Consensus Statement and supporting documents were written, members of the Working Group gave several presentations and symposia. The questions that
Table 1. Consensus Criteria for Diagnosis of Learning Disability.

A Learning Disability is diagnosed when specific criteria are met, to the exclusion of other factors that may impair functioning. See supporting documents for additional information about these criteria.

All of the following criteria must be met to make a diagnosis of Learning Disability:

A. History of academic functioning below the level typically expected for individuals of the same chronological age, or the need for excessive time or support to develop or maintain typical levels of academic functioning.

B. Below average academic achievement (i.e., at least one standard deviation below the mean) in at least one of:
   - Reading—indicated by any of word identification or pseudo-word reading; fluency in reading individual words or text; timed or untimed literal or inferential reading comprehension.
   - Writing—indicated by any of production fluency for handwriting or typing; spelling from dictation and in text; sentence structure; conventions of print; vocabulary; ideation; organization of written text.
   - Mathematics—indicated by any of calculation, including but not limited to: numeracy, algebra, geometry and calculation fluency; applications such as the understanding of time, money, measurement, data analysis; and word problem-solving including geometry and data interpretation.

C. Evidence that the difficulties in reading or writing or mathematics are logically related to deficits in psychological processes. These processes include:
   - Phonological processing;
   - Orthographic processing;
   - Rapid automatized naming;
   - Memory;
   - Processing speed;
   - Receptive language;
   - Expressive language;
   - Visual-spatial abilities;
   - Visual-motor integration;
   - Executive functioning.

D. At least average abilities essential for thinking and reasoning.

E. Evidence that the difficulties in reading, writing, or mathematics cannot be accounted for primarily by factors such as
   - Other conditions or disorders (e.g., intellectual disabilities, uncorrected visual or auditory acuity, physical or chronic health disabilities, other neurodevelopmental disorders, or internalizing or externalizing disorders);
   - Environmental factors (e.g., psychosocial adversity, inadequate or inappropriate educational instruction);
   - Insufficient motivation or effort;
   - Cultural or linguistic diversity.

Note. Learning disabilities may co-exist with various other conditions or disorders.

were received from the audience led the group to include a FAQs section in the guidelines. The FAQs provide psychologists with summaries of research about issues that they were struggling with in their practice and discuss the implications of that
To date, FAQs have been written on the following topics: The rationale for not including a discrepancy between cognitive ability and academic achievement as a criterion for diagnosing LD; the optimal age for screening and diagnosis; adaptations for culturally and linguistically diverse individuals; the position of the College of Psychologists of Ontario; diagnosis of LD in students with IQ scores in the very superior range; adaptations for students in French immersion programs; dyslexia; nonverbal LD; and recommending memory aids accommodations for students in postsecondary programs.

**Topics Where Consensus Was Achieved With Minimal Debate**

There were several topics, some of which have been debated historically, where there was relatively quick consensus. The Working Group agreed, for example, that for a diagnosis of LD, there needed to be a clear history of academic impairment as shown by low grades, or grades/performance only maintained by extensive efforts of the individual, the family, educators, or employers (Hale et al., 2010; Lovett & Lewandowski, 2006). We also readily agreed that below average academic achievement on a standardized academic achievement test in at least one of reading, writing, or mathematics was required for a diagnosis of LD (Maki et al., 2017). The criteria of a history of academic impairment and below average academic achievement are consistent with similar criteria for Specific Learning Disorder in DSM-5 (American Psychiatric Association, 2013).
The Working Group readily agreed that a comprehensive psychological assessment for individuals referred for learning difficulties involves considering the social, emotional, and behavioral strengths and difficulties that are common in individuals with LD. Assessment of social, emotional, and behavioral functioning was viewed as important in recognition of the research on self-awareness, social competence, and social relationships of individuals with LD, and the risk of co-occurring disorders such as Attention-Deficit Hyperactivity Disorder (ADHD) and anxiety (Svetez et al., 2000; Wiener & Timmermanis, 2012; Wilson et al., 2009). The group agreed that these factors did not rule out the diagnosis of LD but warranted careful consideration of whether they primarily accounted for, co-occurred with, or exacerbated the learning difficulties.

Working Group members discussed the potential overreliance or focus on doing an assessment only to obtain scores to support a diagnosis of LD, as opposed to informing recommendations for intervention. We agreed that a thorough assessment not only involves standardized testing but also other sources of information such as observations, interviews, informal tests and tasks, examination of school report cards and reports from previous assessments, and response to intervention (De Los Reyes et al., 2013). We concluded that psychologists should have a thorough understanding of academic skill development across the lifespan and how achievement difficulties are manifested in different tests and other tasks (Fletcher & Miciak, 2019; Rey-Casserly et al., 2012).

There was a strong consensus that it is important for psychologists to identify and recommend evidence-based and realistic supports and interventions for the individuals whom they assess (Baum et al., 2017; Cheung et al., 2014; Donders, 2010; Ostojic-Aitkens et al., 2021). There should be a manageable number of recommendations that are customized to the individual’s needs. Furthermore, these recommendations should be based on research evidence and should include, where relevant, remedial academic instruction (Fletcher, et al., 2019), environmental, and assessment accommodations including assistive technology in classrooms (Fletcher et al., 2019) and the workplace (Mapou, 2009), strategies to develop organizational, time management and planning skills (Meltzer, 2010), behavior management, social skills, and emotion regulation (Wiener & Timmermanis, 2012), as well as relevant classroom and parenting strategies (Fletcher et al., 2019; Jones et al., 2008).

**Debated Topics**

There were three topics that were debated. First, there was considerable discussion about the construct of intelligence and intelligence testing including whether it was necessary for individuals diagnosed with LD to have scores in the average range on IQ tests. Second, the Working Group discussed at length whether a discrepancy between IQ and achievement should be included as a criterion. Third, the group debated whether it was necessary to establish that an individual has a psychological processing deficit that is associated with their academic achievement difficulties.
Assessment of Intelligence/Abilities Essential for Thinking and Reasoning

The group generally agreed that for a diagnosis of LD, academic difficulties cannot be explained by global developmental challenges or well below average scores on tests of thinking, reasoning, and adaptive functioning; that is, that individuals who have an intellectual disability should not be diagnosed with LD. The Working Group, however, was divided among individuals who thought that individuals with LD must have average or above average scores on IQ tests, and those who believed that, in accordance with the criteria for Specific Learning Disorder in DSM-5, it would suffice to rule out intellectual disability (American Psychiatric Association, 2013). Until the DSM-5 was published in 2013, definitions of LD by official bodies in North America such as the DSM-IV (American Psychiatric Association, 2000) and the Learning Disabilities Association of Canada (2015) typically required at least average intelligence. In spite of the elimination of this criterion for a diagnosis of Specific Learning Disorder in the DSM-5, and the views of some members who endorsed the DSM-5 position, many members believed that it was important to keep average abilities for “thinking and reasoning” as a criterion for diagnosis of LD.

Although the Working Group readily agreed that intelligence tests should typically be administered as they provided many helpful samples of cognitive skills, there was considerable discussion about the appropriate test to use in various situations and how the results should be interpreted. Several group members expressed concern about test bias, especially in relation to culturally and linguistically diverse individuals (Geva & Wiener, 2015; Ortiz et al., 2012), and those experiencing poverty or trauma (Delaney-Black et al., 2002). The group discussed how reading disabilities are often associated with declines over time in verbal skills such as vocabulary that are measured on IQ tests (i.e., the Matthew effect; Ceci, 1990; Stanovich, 1986). Many individuals opposed the rigid use of composite scores as cut-offs for establishing average intellectual ability. The group consensus was to establish the average range as being within one standard deviation from the mean (i.e., IQ scores of $\geq 85$). However, there was much discussion regarding individuals with scores $>70$ but $<85$ and there is a statement that psychologists should be flexible and use clinical judgment in choosing the test, scale, or subtest that provided that estimate of cognitive ability. Best estimates of thinking and reasoning would require consideration of using the most appropriate test and the most appropriate scale. Parallel to the above discussion, there was considerable debate regarding terminology. Some members believed that the terms intellectual ability and thinking and reasoning were synonymous, but others disagreed. As the group could not resolve this difference through discussion, a survey was circulated among group members. The majority voted for the phrase “abilities essential for thinking and reasoning”.

IQ and Achievement Discrepancy

IQ/achievement discrepancy and “unexpected underachievement” were also highly discussed concepts both during initial meetings and while we disseminated the guidelines. Previous definitions of LD such as the DSM-IV (American Psychiatric
Association, 2000), the Learning Disabilities Association of Ontario (2001), and the Learning Disabilities Association of Canada (2015) emphasized IQ/achievement discrepancy or unexpected underachievement as a criterion for diagnosing Learning Disabilities or Learning Disorder. As a result, some confusion resulted from different interpretations of the term “unexpected underachievement” as either referring to academic achievement below age expectations, or synonymous with significant IQ/achievement discrepancy.

In order to establish a consensus, the Working Group discussed evidence that children and adults with and without IQ/achievement discrepancies do not differ in academic impairment or achievement, phonological processing, brain function as measured by functional MRI, or prognosis for improvement in reading skills (Francis et al., 2005; Stuebing et al., 2002). We also reviewed psychometric considerations, including measurement error, regression to the mean, probability of low test scores among typically developing individuals and low classification stability of IQ/achievement discrepancy (Binder et al., 2009; Francis et al., 2005). We discussed how many individuals with IQ/achievement discrepancies, especially those with IQ scores in the superior range, have average academic achievement and as such they do not meet the criterion for LD of below average academic achievement (Maddocks, 2018). We also discussed the historical, and to some extent, artificial distinction between intelligence and achievement tests, as something that has had both political motivation and negative bias (Dennis et al., 2009). Overall, the Working Group agreed that the onus should be on appropriately trained psychologists to not hastily dismiss providing an LD diagnosis to individuals with “flat test score profiles” and to use their advanced training and skill in considering the plethora of potential common influences on IQ and achievement test scores.

The Role of Psychological Processing Deficits

The Working Group had considerable discussion about the inclusion of psychological processing deficits such as phonological processing, visual motor integration and working memory as a criterion for a diagnosis of LD. The definitions of LD in the Learning Disabilities Association of Ontario (2001), and the Learning Disabilities Association of Canada (2015) documents emphasize psychological processing deficits. In the absence of below average academic achievement, the Working Group agreed that these challenges in of themselves do not constitute a learning disability. The DSM-5 does not include psychological processing deficit as a criterion for a diagnosis of a Specific Learning Disorder but describes these deficits as “associated features supporting diagnosis” (American Psychiatric Association, 2013, p. 70). The rationale for omission of these deficits was that low achieving individuals “typically (but not invariably) exhibit poor performance on tests of cognitive processing” and that it is “unclear whether these cognitive abnormalities are the cause, correlate, or consequence of learning difficulties” (p. 70). However, processing deficits, although not diagnostic in of themselves, can add to further understanding of the learning profile of the student, and remedial needs, particularly in reading.
There is strong evidence from many studies that reading disabilities are associated with difficulties with phonological processing, rapid automatized naming, and orthographic processing, and that both word level reading disabilities and language abilities are associated with reading comprehension (see Gough & Tunmer, 1986; Lovett et al., 2000). The evidence for mathematics and writing disabilities is less clear. However, some research groups have found significant correlations between difficulties with visual-motor integration and processing speed with handwriting, and that individuals with handwriting difficulties typically have challenges with spelling and written expression (e.g., Graham & Harris, 2013). Difficulties with visual-spatial abilities, visual-spatial working memory, and processing speed have also been associated with low mathematics achievement (Geary, 2011; Geary et al., 2012; Moustafa et al., 2017; Swanson et al., 2013).

The use of causal statements about the effect of processing deficits on academic achievement were of particular concern given the scant research support, a topic discussed among members, but not currently reflected in the Guidelines. The above research on processing deficits and academic achievement is predominantly correlational; the only area where a causal link has been established by experimental and longitudinal studies is between phonological processing deficits and word level reading disabilities (e.g., Lyon et al., 2001). Furthermore, with the exception of intervention programs addressing phonological processing in young children, there is little evidence that interventions aimed at ameliorating processing deficits such as working memory and visual-motor integration led to improvement in academic achievement (see Fletcher & Miciak, 2019 for review). Overall, evidence supports the higher efficacy of interventions tailored to patterns of academic strengths and weaknesses compared to those tailored to psychological processes (Maki et al., 2017).

Finally, when considering a LD diagnosis, practitioners need to account for normal variability in test scores among typically developing children and adults. Many healthy individuals in standardization samples achieve one or more low scale scores on tests of psychological processing (Binder et al., 2009; Brooks, 2011; Brooks et al., 2009). As such, overly emphasizing low scores as evidence of a processing weakness without accounting for normal variability may inadvertently lead to many false positive diagnoses and further confusion regarding the construct of learning disability.

Overall, there was considerable discussion about the need to include processing deficits in the guidelines, and to consider the findings of research that do not support a causal relationship, and that show that it is important to account for normal variability. There was agreement that processing deficits can contribute to the diagnosis of LD when logically linked to below average academic achievement. The Working Group agreed, however, that processing deficits in the absence of academic difficulties are not sufficient for a diagnosis of LD.

**Information Sharing**

A major advantage of the diversity of experience and expertise in the Working Group was that we were able to share various perspectives, interpretation of research and
practice topics of varying familiarity amongst members. These included the optimal age to conduct diagnostic assessments of LD, methods for going beyond tests scores when assessing academic achievement, assessment of motivation and effort, and adaptations for the assessment of culturally and linguistically diverse individuals.

**Early Screening and Assessment**

The rationale for postponing full diagnostic assessments to age eight or older has historically been based on studies suggesting that developmental and environmental variability in the early years, unreliability and instability of IQ scores, minimal exposure to formal teaching of reading and mathematics, and few adequate tools to assess young children precluded valid diagnosis (Francis et al., 2005; Stuebing et al., 2002; Vaughn & Fuchs, 2003). There was Working Group consensus, however, regarding the importance of early identification and intervention. Our review of current research uniformly supported the importance of early identification and intervention for children at-risk for learning disabilities and other developmental disorders (Cramer et al., 2011; Fletcher & Miciak, 2019; Kolb & Muhammad, 2014; Lovett et al., 2017). In addition, given advances in test construction, knowledge of early medical and genetic risk factors associated with LD, and expertise among clinicians in evaluating young children effectively, there have been many gains in our ability to assess neurocognitive development and learning in young children (e.g., Baron & Anderson, 2012). Risk factors can confidently be identified in pre-school children and children in kindergarten and once a child has received some formal instruction in reading and mathematics (typically by the end of grade 1), persistent academic difficulties should be considered for assessment of LD diagnosis (Fletcher & Vaughn, 2009; Frijters et al., 2011; Geary et al., 2012).

There are also children at disproportionate risk for learning challenges who benefit from earlier psychological assessments, such as children with a family history of LD, early symptoms or diagnosis of ADHD, language disorders, or Autism Spectrum Disorder. Children with complex medical conditions (e.g. extreme prematurity and congenital heart disease), early brain injury (e.g. neonatal stroke, brain tumor, and traumatic brain injury), or conditions such as epilepsy, all with well-documented learning comorbidities, also benefit from early assessment with a focus on contributing to school-based support (Baron & Anderson, 2012; Bellinger & Newburger, 2010; MacAllister & Schaffer, 2007; Treyvaud et al., 2013; Williams, McDonald, et al., 2017; Williams, Roberts, et al., 2017).

**Effort and Motivation**

Members of the Working Group were all aware that effort and motivation influence test performance of individuals being assessed for possible LD and that low levels of effort are frequently associated with a history of learning failure (e.g., Meltzer et al., 2004). At the outset of our work, however, many Working Group members were less familiar with the utility and importance of formally assessing the validity of
performance using stand-alone tests and embedded measures. There was considerable
discussion of the multiple interpretations of effort, motivation, and compliance to do
one’s best. The group highlighted the importance of differentiating validity of test
scores as a separate issue from the importance of engagement optimization strategies
reflecting how even when individuals pass stand-alone validity measures, this does not
negate considering engagement throughout the assessment.

Historically, performance validity testing was reserved for adult neuropsychologi-
cal or medical legal examinations, given the higher likelihood of secondary gain that
could be achieved by low scores (Donders, 2005; Kirkwood et al., 2010). However, it
is now a standard of lifespan practice emphasized in neuropsychology position papers
(AACN, 2007; Bush et al., 2005). The Working Group discussed the false assumptions
that formal assessment of effort may be less relevant in children and that astute practi-
tioners can detect purposeful suboptimal performance despite the longstanding
research that clinical observations do not reliably identify suboptimal performance
(Faust et al., 1988; Levine, 2014). The formal consideration of these issues is now a
requirement in post-secondary assessments (Harrison & Holmes, 2012). Given its
importance, and to be consistent with updated practice standards it was included in
step six of the LD assessment guidelines. The Guidelines encourage systematic use
and understanding of both embedded (e.g., Reliable Digits from the Digit Span subtest
on Wechsler tests) and stand-alone measures (e.g., Medical Symptom Validity Test,
MSVT; Memory Validity Profile, MVP; Test of Memory Malingering, TOMM) as a
regular part of testing for individuals with possible LD disabilities at all ages.

An outstanding question that arose while disseminating the guidelines (OPA, 2020)
to psychologists is what should be done when an individual is found to be unsuccessful
on measures of effort. Although full discussion of this topic is beyond the scope of this
paper, should an individual’s test scores have questionable validity, psychologists
should engage in brief discussions about the importance of trying one’s best and com-
plying with the task instructions followed by use of additional rapport-building strate-
gies and later tests of effort to verify improvement in compliance to give one’s best
performance (Suchy et al., 2012). Should test scores remain questionable, indicating
that these scores should be interpreted with caution is advised. Failing performance
validity testing, however, need not end the assessment; an examiner may discontinue
formal testing, but obtain assessment data using other means (e.g., classroom observa-
tions, diagnostic interviews, and examinations of report cards). Furthermore, these
data can provide valuable information to guide recommendations for intervention.

**Cultural and Linguistic Diversity**

An important issue the Working Group addressed was the myth that standardized tests
are not valid for children and adolescents who study in their second language until
they have been in the immigrant-receiving country for at least 5 years and that, as a
result, psychological assessments should be delayed until that point (e.g., Cummins,
1984). We relied heavily on the research done by Esther Geva and her colleagues sum-
marized by Geva and Wiener (2015) because this research is especially pertinent to
Canadian psychologists. The samples reflect the diversity of Canadian cities and the areas surrounding them. As described in the 2016 census, over 60% of newcomers to Canada between 2011 and 2016 came from Asia or the middle east, 13.4% from Africa, 12.6% from the Americas including the United States, Caribbean countries and Latin America, and 11.6% from Europe (Statistics Canada, 2016). Most research conducted in the United States, on the other hand, is confined to individuals from Latin America, whose first language is Spanish (Rhodes et al., 2005). Nevertheless, the findings regarding oral language proficiency and reading in a second language appear to be consistent in studies conducted in Canada, the United States, and Europe (see Geva & Wiener, 2015; Melby-Lervåg & Lervåg, 2014 for review).

Children who are English Language Learners typically acquire word-level reading (including phonological processing) skills quickly if they begin school in the immigrant receiving country in grade one or earlier, and their skill acquisition is commensurate with their peers who have English as a first language (Geva & Wiener, 2015; Melby-Lervåg & Lervåg, 2014). English Language Learners, however, continue to experience delays in vocabulary acquisition and reading comprehension for 6 years or more (Lin et al., 2012). These findings have implications for LD diagnosis among culturally and linguistically diverse (CLD) students as they inform the decision about whether low scores on achievement tests are primarily due to learning a new language or to a Learning Disability. The demands of basic skills necessary for communication and the more cognitively taxing and complex levels of oral language proficiency and reading comprehension were also discussed in relevance to their impact on test results (Geva & Wiener, 2015, Olson & Jacobson, 2015). Additional elaboration on adaptations for culturally and linguistically diverse individuals is provided in the supplementary FAQ section and has been a focus in the presentations, workshops, and webinars regarding the Guidelines (OPA, 2020).

Lessons Learned and Professional Practice Challenges

A notable strength of the consensus process was that it brought together individuals from different sectors of professional psychology who work with individuals with LD in Ontario. It allowed for rich and comprehensive discussions with diverse perspectives. A pivotal lesson learned was that context matters. The context in which a psychologist works is associated with differing practices, pressures, and access to research findings which cumulatively influence the assessment process and whether a diagnosis of LD is given. The goals of assessments also vary, including answering binary questions about diagnosis, informing directions for intervention and accommodations in academic and workplace settings, and monitoring progress over time.

Psychologists’ Role

Although not explicitly discussed in the Working Group, it was apparent from the comments about practices in the field that the settings psychologists work in, the populations they work with, and their position within settings may predispose them to
assume the roles of gatekeepers or advocates. Although psychologists who conduct
assessments are typically objective, pressures to be a gatekeeper or advocate may
influence the assessment process and interpretation of findings. For example, some
psychologists working in public settings such as schools and post-secondary institu-
tions special needs offices may be pressured to assume a gatekeeper role; the purpose
of their assessments is mainly to determine whether the student meets criteria for iden-
tification and accommodations, rather than to enhance understanding of strengths and
weaknesses and provide intervention recommendations. In contrast, some private
practitioners who work under a direct fee for service model may feel pressured by the
individuals they assess or their caregivers to provide a diagnosis even when the indi-
viduals do not meet criteria, and to advocate for unnecessary accommodations
(Wolforth, 2012). There are inherent problems with both roles. In the gatekeeping role,
there may be risk of under-identification; individuals with LD may not receive a diag-
nosis due to an assessment that is not comprehensive or applies rigid criteria interpre-
tation. The advocacy role can also lead to inappropriate tendencies to over-diagnose
LD (e.g., Lerner, 2004; Tapper et al., 2006; Vickers, 2010). There are other situations
where psychologists may feel that they should give a diagnosis of LD even when the
individuals they assess do not strictly meet the criteria in order to facilitate access to
needed services. Children with early brain injury or serious medical conditions that
alter neurological development who are assessed in health or medical settings do not
always fit neatly into diagnostic or Ministry of Education categories (Williams,
McDonald, et al., 2017). Some caregivers, physicians, and educators may believe that
providing a diagnosis of LD will help these children obtain educational supports.
Although advocacy is a recognized and appropriate role that psychologists play in
some situations to promote awareness of needed LD remediation, these issues high-
light the importance of self-reflection, clinical supervision, and external peer profes-
sional review (Harrison, 2017).

**Access to Original Research and Professional Development Opportunities**

Access to professional and scholarly journals and other types of continuing profes-
sional development opportunities such as conferences and workshops is often costly
for practitioners. Practitioners may get their information from presentations by people
who have an approach or test they want to sell that sometimes is not supported by well-
designed unbiased research. The result is that many practitioners learn about a psycho-
logical construct solely by learning about a test. One avenue to address this problem
would be pressuring professional organizations such as the Canadian Psychological
Association or provincial psychology associations to, in addition to the few journals
they publish, provide members with electronic access as part of their membership fee
to PsycInfo and to psychology journals that are published by the major publishers of
peer reviewed journals in psychology. Administrators in the various sectors also need
to provide the time and support for continuing professional development opportunities
for staff that goes beyond what is offered by their institution.
Improving Psychology Professional Connections Across Practice Settings

Beyond learning about assessment and diagnosis of LD, members of the Working Group learned about the perspectives of psychologists who work in different sectors with individuals at different stages of development. This communication created bridges across professional contexts and was extremely valuable for the members of the group. The Working Group is now actively engaged in dissemination of the Guidelines (OPA, 2020) across Ontario and in other jurisdictions in Canada. Members of the group presented at the 2019 Ontario Psychological Association and Canadian Psychological Association conferences. OISE/University of Toronto has hosted two symposia, with over 400 psychologists participating in person or online. In early 2020, in conjunction with the Educational and School Psychology section of the Canadian Psychological Association, some members of the Working Group developed a continuing education course that explains the diagnostic criteria and the rationale for these criteria, describes the assessment steps, and discusses how these steps should be adapted for culturally and linguistically diverse (indigenous, immigrants, and refugees) populations, and children in French immersion programs. This course is available at https://cpa.ca/professionaldevelopment/webcourses/catalogue/#Course18.

In the current age of increased ease of remote communication, psychologists should work towards strengthening our professional cohesion as it relates to LD diagnoses and continue to create bridges across different contexts. As a profession we need to continue to explore innovative and inclusive ways to provide professional development and continuing education. Although using existing platforms such as OPA and CPA listservs remains important, the Working Group discussed utilizing multi-modal social networking and professional e-networking channels for providing psychologists with updated knowledge regarding practice. Current practices in social networking may also be leveraged for time and cost-conscious ways to disseminate knowledge efficiently and may specifically target early career psychologists and those working in remote communities. The increased expectations by registration and licensing bodies regarding continuing education credits may also motivate members to seek this information, reinvigorate scientific curiosity and create greater professional cohesion.

Limitations of the Consensus Process and the Guidelines

The authors of this paper were active members of the Working Group that developed the guidelines (OPA, 2020). Consequently, it is difficult for us to be objective about the content and the process. Nevertheless, we have identified some limitations. We acknowledge that some of the Working Group decisions may appear arbitrary. Although the decisions that were made by the group were based on research, the evidence supporting each decision varied. As discussed above, the evidence for the decision to not include IQ/achievement discrepancy as a criterion for diagnosis of LD is strong. On the other hand, the evidence regarding psychological processes being associated with difficulties with writing and mathematics is based on only a
few studies. Although the requirement of below average academic achievement for a diagnosis of LD is consistent with other definitions of LD such as DSM-5 (American Psychiatric Association, 2013), the decision to have the cut-off of one standard deviation below the mean in academic achievement is arbitrary. Similarly, the decision that the standard score cut-off of $\geq 85$ on tests of abilities necessary for thinking and reasoning is arbitrary. The Working Group attempted to remedy this problem by seeking the opinion of other psychologists in Ontario. This process, however, is imperfect because Working Group members consulted other people in their professional social group.

The guidelines recommended that psychologists use clinical judgment to consider multiple sources of assessment information (i.e., interviews, report cards, test data etc.) when doing a diagnostic formulation. Clinical judgment is required to formulate hypotheses about the nature of an individual’s difficulties, to decide on the types of assessment strategies to use, and to integrate the information from multiple sources to formulate a diagnosis (Marsh et al., 2018). As discussed by Youngstrom and Prinstein (2020), there is no recipe for this process. Furthermore, clinical judgment is prone to both random and systematic errors (Garb, 1998; Kahneman, 2011; Millis, 2009). Although experienced psychologists are sophisticated in their ability to perceive patterns, they may look for evidence that confirms their hypotheses and neglect other evidence (Marsh et al., 2018)—they may have a confirmation bias. Specifically, psychologists may form false associations, such as between a particular response pattern on a psychological test and a specific classification, leading to diagnostic decision-making errors (Garb, 1998, 2013; Gnys et al., 1995; Kahneman, 2011). As noted above, this may be due to contextual role and job pressures. Nevertheless, clinical judgment is essential because of the limitations in current research and considerable variability in the presentation of individuals with LD (American Psychiatric Association, 2013; Fletcher et al., 2019). Consequently, psychologists require a strong background in developmental psychology, psychometrics, statistics, differential diagnosis, and ethical decision-making. Psychologists may also find it valuable to discuss complex cases with their colleagues or supervisors.

**Relevance to the Practice of School Psychology**

The *Guidelines for Diagnosis and Assessment of Children, Adolescents, and Adults with Learning Disabilities Consensus Statement and Supporting Documents* (OPA, 2020) provide criteria for diagnosis of LD and guidelines for the assessment process that are supported by current research and that can be used by school psychologists and psychological practitioners working in various sectors. Although developed in Ontario, they are applicable in many other jurisdictions. Furthermore, the process of achieving a professional consensus is relevant in many contexts. Consistency and cohesion in clinical practices regarding LD diagnoses across school psychology, post-secondary and health contexts is not only important for optimal psychology service delivery, but also to secure the future credibility and value of our profession.
Postscript

At the time of this manuscript’s publication, the Ontario Human Rights Commission (OHRC) released its Right to Read inquiry report on human rights issues affecting students with reading disabilities/dyslexia. Recommendation 116 was:

“The Ontario Psychological Association’s Guidelines for Diagnosis and Assessment of Learning Disabilities … should also be updated to make the assessment guidelines for dyslexia/learning disabilities in word reading consistent with current DSM-5 requirements, including by removing the requirement for at least average intelligence (or at least average abilities for thinking and reasoning) or a discrepancy/inconsistency between intellectual abilities and achievement. They should recommend limiting or eliminating the routine use of routine intelligence and cognitive processing tests for assessing students for word-reading disabilities/dyslexia.”

The original consensus group has since met to discuss and plan follow up procedures to formally consider these recommendations as they pertain to the Guidelines. This may include formal review and presentation of current scientific literature and invitation to extend and diversify membership. This serves as a powerful example of the strength and flexibility of a consensus based approach that equitably shares expertise across practice settings (i.e., education, medical, neurosciences and community). This approach champions the importance of considering new evidence and practice concerns as they arise to ultimately inform evidence based, equitable and inclusive practices in the assessment and diagnosis of Learning Disability.

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