What's Hot In Learning Disabilities Research in Canada? Introducing the Research of Early Career Scholars

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In the past quarter century, there have been major theoretical, methodological, and instructional advances in the field of learning disabilities (LD; Swanson, Harris, & Graham, 2003), and many of these are reflected in the research presented in this special issue. One of the most profound advances is the adoption of definitions of LDs that emphasize that LDs are biological and affect core psychological processes, and acknowledging that LDs are lifelong and affect all areas of an individual's life, not just his or her education (Learning Disabilities Association of Canada, 2002). In this regard, research has expanded to focus not only on the difficulties individuals with learning disabilities have in school, but also on difficulties that emerge before children begin school (e.g., language delay, attention deficits) and are manifest in and beyond school contexts (e.g., in peer and family relationships, in the work place).

Contributors to this issue are early career Canadian scholars doing state-of-the-art research on variables associated with social, cognitive, and neuropsychological aspects of LDs. They are addressing questions concerning the following issues: (a) early identification and intervention, (b) processing problems that are becoming more and more central to definitions of learning disabilities, (c) motivational problems that both result from and contribute to learning problems, and (d) problems associated with transitioning from adolescence to adulthood. In addition to examining different aspects of LDs and how they are made manifest across the life span, these articles showcase diverse methodologies for studying LDs and sample individuals with LDs from regions across Canada.

Early Identification and Intervention

Both longitudinal and retrospective studies point to the importance of early identification and intervention for helping individuals with LDs understand and adjust to their disability (Goldberg, Higgins, Raskind, & Herman, 2003; Lerner & Kline, 2006). Atypical language and literacy development have received a lot of attention in this regard. In this issue, John McNamara and colleagues compare two interventions for preschool children with language impairments. One intervention focuses on the development of pre-literacy skills (e.g., phonological awareness, print awareness, vocabulary development, and narrative abilities) while the other follows traditional models of speech and language therapy that focus on oral language development but not reading related skills. Explaining the findings in both statistical and clinical terms, McNamara et al. describe how children who received the pre-literacy skills instruction outperformed those in the traditional speech and language program on measures involving phonological and print awareness. Importantly, at the end of the intervention phase, these children's performance on some language and literacy tasks was commensurate with that of their same-age peers. Implications for practice and policy are discussed.

Similarly, Maureen Hoskyn and Tzoneva examine relations between working memory and emergent writing in preschool children (ages 3 to 5). Using a wide range of measures, relations among working memory, short-term memory, articulation speed, orthographic awareness, and writing legibility are examined. Of particular interest to this special issue are analyses that focus on whether age-related differences in working memory and/or individual differences in working memory capacity impact children's performance on writing tasks, over and above other factors (e.g., children's knowledge of letters) already known to promote writing. As expected, Hoskyn and Tzoneva find age-related differences associated with changes in working memory capacity. In addition, they find small but significant differences associated with individual differences in working memory capacity. These findings have implications for research and teaching in the field of learning disabilities.

Processing Problems

Processing problems are the most common characteristic of individuals with LDs (Kavale & Forness, 1998), although the nature and intensity of these problems can vary by individual. This is evident in the work of Hoskyn and Tzoneva (above), and in Derek Berg's contribution to this issue. He exam-

ines whether and how impairments in working memory, short-term memory, and processing speed are implicated in children's math disabilities. Also, his research examines whether such processing problems reflect a more or less stable set of deficits that characterize the disability, or a developmental lag in which children with a math disability have the same developmental trajectory as their non-disabled peers, but progress at a slower rate. Berg concludes that the processing problems experienced by children with a math disability are complex, but argues for a view of math disabilities consistent with the developmental lag hypothesis.

Motivation and Learning

Not surprisingly, research has offered evidence that individuals with learning disabilities are motivationally vulnerable. For example, some research has shown that students with LDs are particularly susceptible to low academic self-concept and low efficacy for completing academic tasks successfully (Xing, 2006). However, other research indicates students' self-concepts are not negatively impacted by their LD status and some students with LDs have unrealistically high self-efficacy — rating their potential for success on a given task much higher than is likely given their historical performance (Klassen, 2007; Vaughn, Haager, Hogan, & Kouzekanani, 1992). In this issue, Klassen describes a program of research — 3 studies — in which the self-efficacy beliefs of high school and undergraduate students with LDs are examined. In general, his findings indicate high school students are more optimistic in rating their likelihood of success on academic tasks than students in university, but university students' ratings more closely match their actual performance. Unfortunately, university students also reported lower efficacy for self-regulating their learning and were more likely to report patterns of procrastination. Klassen discusses both the costs and potential benefits of “academic optimism” in individuals with LDs and raises important questions about how best to promote awareness in these students about their academic challenges and maintenance of motivation for learning.

Transitioning from Adolescence to Adulthood

Finally, Versnel and colleagues describe the work experiences of two adolescents (one male, one female) with learning disabilities. Both were working in auto repair shops. These qualitative case studies address issues of motivation and self-regulation as they relate to the transition from school to work.

In particular, preparation and communication were critical issues that impacted the youths' success on the job and their relationships with employers. Both adolescents had great difficulty negotiating accommodations, expectations, and routines with employers, which is consistent with findings from previous research, especially research involving individuals whose backgrounds did not include self-awareness and self-advocacy training (Goldberg et al., 2003). This study, which is part of an on-going program of research, highlights the importance of preparing individuals with disabilities for important transitions from settings in which their needs are known and addressed to settings where they will be the person most knowledgeable about their disability.

Nancy Hutchinson, a senior scholar in learning disabilities research in Canada, concludes this issue with thought-provoking commentary about these studies and the state of research about LDs more generally. She begins with a question: Should we be doing more to articulate issues associated with the cognitive and social dimensions of LDs? Examining the state of research in the field of LDs, she concludes that, disproportionately, research focuses on the cognitive aspects of learning disabilities and that few researchers consider both social and cognitive aspects in single studies. Moreover, emphasis on social and cognitive dimensions appear to divide along developmental lines as well, with more attention paid to the social/affective dimensions of learning disabilities when individuals reach adolescence and transition to adulthood. Certainly these trends are reflected in the manuscripts included in this issue. Hutchinson concludes by challenging these authors and the field more generally to consider how much richer our understanding of LDs could be if we paid greater attention to both the cognitive characteristics of LDs and the social contexts in which individuals with LDs must live and learn.

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