

INTRODUCTION

The Early Development Instrument: Translating School Readiness Assessment Into Community Actions and Policy Planning

This invited special issue of *Early Education and Development* presents research related to the Early Development Instrument (EDI; Janus & Offord, 2007), a community tool to assess children's school readiness at a population level. In this editorial introduction, we first sketch out recent trends in school readiness research that call for a contextual and whole-child assessment of school readiness. Then we provide an overview of the EDI, including a discussion of its purpose and development, as well as its large-scale international use as a community tool to monitor children's developmental outcomes at population levels. Finally, we introduce the special issue's articles, all of which present research findings from ongoing community research projects that employ the EDI to assess children's school readiness. These articles are grouped into the following thematic themes: (a) individual-level validity of the EDI, (b) school and neighborhood effects and population-level validity of the EDI, and (c) program implementation and evaluation using the EDI.

In recent years, research into school readiness has increasingly argued for anchoring its assessment within context and within community. This conception grows out of the realization that contextual factors pertaining to family, school, and community fundamentally contribute to children's outcomes and thus cannot be left out of the equation (Meisels, 1999). In addition, school readiness is increasingly defined as a holistic construct, encompassing not solely cognitive facets, but also physical, social, emotional, and communicative ones.

Given this paradigm shift, researchers are exploring and developing new ways of adequately assessing school readiness, as illustrated in the recent *Early Education and Development* special issue on measurement of school readiness (Vernon-Feagans & Blair, 2006).

The present special issue of *Early Education and Development* is devoted to research on children's school readiness measured with a new instrument, the Early Development Instrument (EDI; Janus & Offord, 2007). The EDI was developed at the Offord Centre of Child Studies, McMaster University (Hamilton, Ontario, Canada), with the specific purpose of meeting the needs implied by the paradigm shift in school readiness research.¹

First, the EDI assesses the whole child in that its questions ask about noticeable markers of child development appropriate to the kindergarten-level age range in the domains of (a) physical health and well-being, (b) social competence, (c) emotional maturity, (d) language and cognition, and (e) communication skills and general knowledge. Second, the EDI is not administered for individual diagnostic purposes, but rather it is used for the assessment of entire classrooms, schools, communities, or school districts; EDI results are solely interpreted at an aggregate classroom, school, neighborhood, community, or district level. Third, the EDI is a measure completed by the teacher in the second half of the kindergarten year, thus providing a snapshot of a child's school readiness for Grade 1 by an education professional who knows the child well.

Given this approach, it is important to outline the basis for the definition of school readiness that is endorsed by the EDI and used throughout the articles in this issue. A clear demarcation has been made in the design of the EDI between the concepts of *readiness to learn* and *school readiness*. *Readiness to learn* refers to the state of the child's neurosystem being ready to develop various skills and neuropathways based on the experience it receives. Thus, a child is ready to learn right from birth and, to some extent, even *in utero*. *School readiness*, in contrast, is a narrower concept, focusing on the child's ability to meet the task demands of school. Such expectations include being curious about the world, proficient in holding a pen, and able to communicate own needs, as well as having the competencies to get along with peers, listen attentively, play and work with other children, remember things, or follow rules. Having these and other similar abilities makes it possible for children to benefit from the educational activities that are provided by the school (Janus & Offord, 2007). Accordingly, school readiness is not only a more specific construct than readiness to learn but also a more relative construct, in that a child's school readiness is interpreted with reference to contextual classroom and school factors.

In terms of its developmental scope, the EDI thus resembles numerous school readiness initiatives in the United States and elsewhere that similarly view this concept in terms of the whole child, such as Getting Ready (www.gettingready.org) and California First 5 (www.f5ac.org) in the United States and Sure Start (www.surestart.gov.uk/) in the United Kingdom. At the same time, the EDI goes beyond a child-centered approach by encompassing a method commonly used in educa-

¹The EDI Web site is www.offordcentre.com/readiness/

tional policy research, the health sciences, and social indicators research, in that it focuses on interpreting results at a group or population level rather than at an individual (child) level. In other words, the unit of analysis is not the individual child but rather an entire school, community, or even school district. Accordingly, one would speak of a community's average level of school readiness, as well as of the homogeneity or heterogeneity of children's school readiness within a chosen group of reference.

With its population-level approach, the EDI addresses a research area that has been underrepresented in school readiness research. The majority of the research literature on school readiness, especially from the United States, is based on data collected from children living in disadvantaged circumstances and/or attending Early Head Start programs. Therefore, evidence based on data coming from families with a wider range of socioeconomic and cultural backgrounds is necessary to complement the current findings and provide more insights into universal child development (Snow, 2006).

The most important advantage, however, of the availability of population-level data on the status of child development lies in the fact that this allows for linkages with other population-level databases pertaining to the physical, social, and other contextual factors (e.g., social cohesion, socioeconomic status) that are associated with children's developmental outcomes. The value of an instrument that collects data on the developmental status of young children in a way that is feasible, reliable, and valid for populations thus might not only create a more profound understanding of child development, and provide better grounds for prevention and intervention, but it might also increase public ownership of the issue, because results are based on *all* children in a given community, rendering the data more apt for translation into practice and policy (McCain, Mustard, & Shanker 2007).

The articles in this issue of *EE&D* collectively represent international collaborations of numerous large-scale research projects that seek to understand the relationship between child development and contextual community factors. These research projects address the usage and validity of the EDI as well as issues pertaining to population-level interpretation, program evaluation, and policy implications.

Five of the 10 articles in this issue were originally presented as part of a symposium at the 2006 Annual Meeting of the American Educational Research Association in San Francisco (Guhn & Forer, 2006). The symposium presented the EDI-related research that had been conducted at the Human Early Learning Partnership, (HELP)² University of British Columbia (British Columbia, Canada), in

²The Human Early Learning Partnership (HELP) is a multi-university, interdisciplinary research consortium led by Clyde Hertzman at the University of British Columbia, Canada, that is dedicated to early childhood research and practice in collaboration with communities and government. HELP (www.earlylearning.ubc.ca) has been designated the World Health Organization's Knowledge Hub for early child development.

conjunction with EDI research conducted in Ontario, Canada, by one of the EDI authors, Magdalena Janus.

In addition to projects presented at the AERA symposium, this issue includes EDI-related research by authors in three provinces in Canada (British Columbia, Ontario, and Quebec) as well as findings from the implementation of the Australian EDI (AEDI).

Thematically, the first three articles set the stage for the population-level studies by presenting data on the validity of the EDI at the individual level. The first article, by Janus and Duku, examines the child and family factors contributing to school readiness outcomes as measured by the EDI. The authors demonstrate the existence of differences in EDI scores among groups of children that could be explained by socioeconomic factors, family structure, child and parent health, parent support of literacy, as well as by child age and gender. The second article, by Forget-Dubois and colleagues, explores the short-term predictive validity of the EDI by contrasting the instrument with a battery of cognitive tests in prediction of children's academic outcomes in Grade 1. The third article, by Brinkman and colleagues, reports on the validity of the Australian version of the EDI (AEDI), as it links AEDI data from a sample of over 600 children with multiple other readiness measures, including teacher and parent reports, and direct testing.

The next section contains three articles focusing on population-level research using the EDI. Guhn, Gadermann, and Zumbo examine data from over 40,000 kindergarten children to investigate the validity of the EDI for different groups of children based on their demographic characteristics, by examining psychometric properties of the EDI that allow one to identify or rule out test bias. Lapointe, Ford, and Zumbo focus on the relationship between the demographic and socioeconomic community characteristics and EDI outcomes via a multilevel method that allows one to identify and interpret the lack or presence of so-called neighborhood effects on child development. Lesaux, Vukovic, Hertzman, and Siegel's article examines the quality of school community characteristics and their relationship with literacy rates and school readiness, thus validating the interpretation of EDI results in regard to outcome measures at the school level.

In the final section, broadly covering the areas of program and research process evaluation, there are two articles based on data from British Columbia in Canada and from 60 communities across Australia. The first article, by Sayers and colleagues, presents research findings stemming from the evaluation of the adaptation and large-scale implementation of the EDI in Australia. (A topically closely related article by Goldfeld, Sayers, Brinkman, Silburn, and Oberklaid that describes the process of adapting the EDI and implementing the resulting Australian EDI (AEDI) on a population level is currently in preparation.) The second article, by Kershaw, Forer, Irwin, Hertzman, and Lapointe, illustrates the use of the EDI on a population level in the Canadian province of British Columbia, comprehensively linking EDI school readiness data to a broad variety of socioeconomic census data

at the community level and providing an in-depth rationale for their comprehensive large-scale program of research.

The special issue concludes with an invited commentary by Daniel P. Keating, a developmental psychologist whose research focuses on integrating knowledge about biodevelopmental processes, population patterns in developmental health, and social factors affecting individual and population development. In his conclusion, Keating situates the EDI in the school readiness literature, discusses the potential benefits and risks of the EDI as a large-scale community tool to assess school readiness at a group (community, population) level, and provides suggestions for future directions in regard to validation and evaluation research for the EDI.

It is our hope that this special issue will be of theoretical interest and practical use to a wide variety of readers, researchers, practitioners, educators, parents, and stakeholders in the area of early childhood development, education, and policy, and that it will thus contribute to the purpose toward which our collective EDI-related research is aimed, namely to create, promote and apply new knowledge through leading interdisciplinary research to help children thrive.

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Guest Editors

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