

## READINESS FOR SCHOOL – EDUCATORS’ PERCEPTIONS AND THE AUSTRALIAN EARLY DEVELOPMENT INDEX

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### ABSTRACT

The Canadian-based Early Development Index (EDI) defines school readiness within five developmental domains: physical health and wellbeing; social competence; emotional maturity; language and cognitive skills and communication skills and general knowledge. Based on other early development indices and trials within Canada, the EDI uses over one hundred indicators to determine whether a child is "performing well", average or "developmentally vulnerable." From its introduction to Australia in 2003 and subsequent modifications for an Australian audience, the Australian Early Development Index (AEDI) has been used in over 50 communities throughout Australia to collect data on school readiness for school, community and government use. However, the definition of school readiness is still a debate in schools, early childhood centres and homes nationwide. It is a question I asked of early childhood educators in a region where the AEDI results were recently announced. Their responses went beyond the child skills articulated in the AEDI to include the child's social context and relationships as components of school readiness.

**Keywords:** School Readiness, Australian Early Development Index

### INTRODUCTION

School readiness is a long-debated issue in educational circles. To date "there is no agreed upon definition" (Salvia, Scott-Little and Clifford, 2000 in Weigel and Martin, 2006, p.2). But many researchers have attempted to define school readiness in a variety of ways, for the most part based on children's physical characteristics and behaviours. Indeed, data collection about school readiness in the recently-implemented Australian Early Development Index covers physical, social, emotional, language and communication skills of children, as reported by their teachers, as indicators of school readiness. But is there more to school readiness than producing children with motor, cognitive and interpersonal skills? This research examines early childhood teachers' perceptions of the factors that determine school readiness.

In 1999, Meisels put forth a model of school readiness that included four distinct constructs, beginning with the child-focused Maturationist View and concluding with relationship-focused Interactionist View. The first construct, the Maturationist View, sees readiness as determined by a child's biological and genetic makeup, so that children become "ready to learn when they are ready" (Meisels, 1999, p. 47).

This child-focused approach is closely followed by Meisels' (1999) second construct, his Environmental View, where readiness is determined by evidence in a child's behaviour and learning, such as colour and number recognition, writing one's name, following directions. A colleague related this anecdote:

*My big sister told me once that in some province of Russia, one measure of readiness was ability to follow the instruction to pull on the left ear with the right hand. Whether Left and Right was explicit I am not sure, but what a measure that was! I first thought it very funny, being a test of a pretty odd and little used physical action, but thinking about it, it is more about listening, understanding and following an instruction.*

While various child-focused indicators of readiness have been developed, there is general agreement on the domains of development that are assessed. These are: health and physical development; emotional wellbeing and social competence; approaches to learning; communication skill; and cognitive and general knowledge (Weigel and Martin, 2006, p.2). The Australian Early Development Index (AEDI) (Royal Children's Hospital Melbourne, 2007), the developmental indicator now being used in Australia, uses similar domains: physical health and wellbeing; social competence; emotional maturity; language and cognitive skills; and communication skills and general knowledge. These domains differ to the domains above in that social and emotional wellbeing are divided into "social competence" and "emotional maturity", communication skill is partnered with general knowledge rather than partnering general knowledge with cognitive skills, and language is articulated within cognitive skills. Language, within the agreed-upon domains, must be inferred in either communication skill or cognitive and general knowledge. Notably, the AEDI does not have a domain that examines approaches to learning. But in both the agreed-upon domains and the AEDI, while the importance of family and community in school readiness is alluded to, measurement is centred on the child and what children can do to demonstrate their ability to deal with school life.

Meisels' (1999) third construct of school readiness in the Social Constructivist View. This lens recognises that readiness goes beyond children's innate qualities and behaviours to their social and cultural context. The family, the school, the community and the government all contribute to readiness in this ecological view. As Dockett and Perry (2002) note: "The beliefs, expectations, understandings and experiences of those in the school, and the community in which the school exists, largely determine definitions of readiness for that context" (p. 71). For example, the Australian Labor government, citing the need for children to have a strong educational foundation upon entering formal schooling, have committed \$77 million to improving qualifications of staff and quality of child care services Australia wide (Rudd and Macklin, 2007). Here the emphasis is placed on the teachers and the community to ensure that children are ready for school. The National School Readiness Indicators Initiative in the United States (Rhodes Island Kids Count, 2005) states that school readiness is made up of "children's readiness for school, school's readiness for children, and the capacity of families and communities to provide developmental opportunities for their young children" (p.6).

Some measurement tools map school readiness in more of a Social Constructivist, or ecological way, examining the environment and people in the environment as well as child skills as indicators of school readiness. Winter, Zurcher, Hernandez and Yin (2007) used the Developmental Indicators for the Assessment of Learning – third edition (Mardell-Czudnowski and Goldenberg, 1998) to measure children's gross and fine motor development; basic concepts; language; and give an overall composite score to the child. However, they also used the Early Childhood Environment Rating Scale – Revised Edition (ECERS-R; Harms et al, 1998) to measure quality of early childhood centres, based upon space and furnishings; personal care routines; language-reasoning activities; interaction, program structure; and parents and staff. Likewise the Pathways to Outcomes School Readiness Indicators (Pathways

Mapping Initiative, 2007) include: good health; supportive social and cognitive environments; safe, strong neighbourhoods, family-friendly physical environments; and responsive, effective schools.

Meisels' (1999) fourth construct of school readiness is the Interactionist View. It includes elements of the three preceding constructs, but focuses on interactions between the child's characteristics and characteristics of the environment. Maxwell and Clifford (2004) note that "Children are not innately ready or not ready for school. Their skills and development are strongly influenced by their families and through their interactions with other people and environments before coming to school" (p. 1).

The Australian Early Development Index (AEDI), which could be categorised under Meisels' second construct, the "Environmental View", has been used in over 50 communities throughout Australia to collect data on school readiness for school, community and government use. In 2009 it is to be used nationwide to produce information about school readiness. But as an indication of children's behaviour, is it enough to determine school readiness? This study used the five domains of readiness: physical health and wellbeing; social competence; emotional maturity; language and cognitive skills; and communication skills and general knowledge as a base line from which to elicit early childhood educators' definitions of school readiness. Is the "Environmental View" the view taken by many educators, or do they look beyond children's behaviours to determine school readiness?

#### THE AEDI

"The development of the brain in the early years affects health, behaviour and learning throughout the life cycle" (Mustard, 2006). What happens during the first years of life greatly impacts upon health, learning and overall well-being. In Australia, increasing numbers of children and youth are being diagnosed with conditions such as asthma, diabetes and obesity; behavioural problems have escalated and violent juvenile crime has increased (Moore, 2006). Social, behavioural and learning problems in schools are widely reported. Many costly health and well-being problems that present themselves in adulthood originated during the early years of life (Moore, 2006). Research has shown that early detection and intervention can have a significant impact on health, development and government costs for public intervention later in life.

The Early Development Index (EDI) was created in Ontario, Canada in 2000 as a result of Mustard and McCain's Early Years Report (1999). It is a population-based measure of development at school entry (Mustard, 2006). Based on a number of other indexes, longitudinal studies of children and youth, and feedback from early years teachers (Janus, 2007), it assesses readiness to learn in five developmental areas: physical health and wellbeing; social competence; emotional maturity; language and cognitive development; and communication skills and general knowledge (School Readiness to Learn (SRL), 2007; Mustard, 2006). It is administered just prior to entering the first year of formal schooling (SRL, 2007). Results in areas such as Vancouver suggest a strong link between socioeconomic status and school readiness (Hertzmann et al, 2002, in Mustard, 2006). In Canada, findings from the EDI "are being used as the catalyst for strengthening of local coalitions for strong programs to enhance early child development in the communities" (Mustard, 2006, p. 18).

Led by the Centre for Community Child Health, the EDI was adapted and trialled in Australia in 2003/4, resulting in the development of the Australia Early Development Index (AEDI). In each of the five domains of the measure: physical health and wellbeing; social competence; emotional maturity; language and cognitive skills; and communication skills and general knowledge – there are specific behaviours listed as indicators of school readiness. For example, in the domain of physical health and wellbeing, children are considered “school ready” if they are “independent in toileting habits most of the time” and show “proficiency at holding a pen, crayon or a brush”. In social and emotional development, they are considered “school ready” if they “Play and work cooperatively with other children at the level appropriate for his/her age” and “will try to help someone who has been hurt” (Royal Children’s Hospital Melbourne, 2007).

In 2004 – 2005 surveys on 18608 Australian children were completed (Goldfield et al, 2006). The community from which research participants were drawn participated in the AEDI in the second and third round, 2006 – 2007 with alarming results. Vulnerability in one or more domain ranged from 23.5% to 77.2% (average 34.5%) in the eight communities. Vulnerability in two or more domains ranged from 11.9% to 54.4% (Royal Children’s Hospital, Melbourne, 2007). As a result of the findings, schools and communities are assessing their programs and how to better address school readiness to meet community needs. This study aimed to determine perceptions of school readiness of a range of early years teachers, from childcare, kindergarten, Preparatory (year before Year One) and Year 1, and how their perceptions matched or contrasted with the AEDI.

## METHODOLOGY

Initial results of the AEDI in the regional community of “Schoolland” (pseudonym) were distributed with heightened media attention in 2007. Not only was the concept of the AEDI new to the area, but the low results were of great concern, particularly with Queensland’s 2007 introduction of the Preparatory (Prep) Year, a year of full-day early childhood education prior to the start of Year 1. The Prep Year means that preschool is no longer offered within the school system, and children are 6 months older entering Prep, with the requirement that they must turn 5 by 30 June rather than 31 December.

With low AEDI scores, children entering school later and disparate local programs and services for children and families, discussion abounded and school readiness became the topic for the local Early Childhood Network, forum, which is made up of 200 people who work in some capacity with young children and their families. A panel was chosen to represent the variety of early childhood services in the area: two kindergarten teachers, one from a Creche and Kindergarten Association centre (Glenda) and the other from a community-based kindergarten (Carol); two Prep teachers one from a State School (Jon) and the other from an independent school (Leoni); a Year 1 teacher from a Catholic School (Katrina) and a fourth year Preservice Teacher from the local university (Alyssa). All names are pseudonyms. Participants were chosen with a variety of teaching experience: three of the teachers had been teaching for more than 15 years; two between three and five years, and the preservice teacher had taught only during practicums from university. No panel member had had previous involvement with the AEDI, as it was only given to one part of the regional community, so the domain terms were relatively new to them.

Panel members were asked to prepare answers about how they determine school readiness, based on the five domains of the AEDI. Their ideas were presented to a

group of seventy people who attended the forum, and were a catalyst for further discussion. Panellists' written responses were collected and, with their permission, analysed for this paper in terms of how they reflected or challenged the AEDI parameters. Data were analysed qualitatively using emergent coding and relating responses to items in each of the five AEDI domains. Responses were then examined for their fit or contrast with Meisels' four constructs of school readiness.

## FINDINGS

Findings from this research will be discussed first in terms of the five AEDI domains and Meisels' Environmental View. This will be followed by issues beyond the AEDI/ Environmental View, issues that seem to reflect Meisels' Social Constructivist and Interactionist Views.

### **Physical health and wellbeing**

The AEDI describes physical health and wellbeing in terms of attendance at school, being dressed appropriately, and being healthy: well-rested, well-fed and energised. It includes independent toileting, established hand preference, good fine and gross motor coordination (Royal Children's Hospital Melbourne, 2007).

Attendance at school was only mentioned by one educator and appropriate dress was not mentioned by any of the panel members. However half the participants noted the importance of good health to school readiness. Glenda listed a range of health issues, from general energy level, to nutrition and effects of diet, hearing, sight, allergies and sensitivity to environmental conditions as critical health issues. Half the participants cited the ability to use the toilet independently as a critical issue for school readiness, but only one educator noted that handedness should be established upon school entry.

All participants acknowledged gross motor skills in some way, from "skills developing" (Jon, Alyssa) to "spatial awareness in relation to others and confidence, control and strength in movement" (Carol). Yet fine motor skills were only named by half the participants. Leoni described the ability "to unwrap lunch items, eat and drink without assistance" as determining factors in school readiness upon entry into Prep, followed by "strength and control in fine motor activities such as drawing, writing and cutting" as factors upon entry into Year 1. Other specific fine motor skills named included the ability to tie shoes and put on clothing.

### **Social competence and emotional maturity**

The AEDI determines social and emotional readiness in terms of getting along with and respecting others, taking responsibility for actions, fitting in with school routines and procedures, empathy towards others, and personal behaviours. All participants described getting along with and respecting others as determining factors in school readiness. Alyssa stressed the importance of understanding "the culture of others in the class" and interacting with other class members. Leoni noted that children need to be "willing to participate in activities where adult support is shared with others".

Glenda added that "manners and social graces", including silence and listening to others were important readiness skills. She also cited empathy and caring for others as social and emotional readiness skills. Others alluded to empathy with suggestions such as appropriately resolving minor conflicts as desirable for school readiness. Taking responsibility for actions was a readiness factor named by three of the six participants.

In the AEDI, fitting in with school routines and procedures is described as following rules and instructions, listening attentively, completing work independently and neatly on time, answering questions and solving simple problems, and showing curiosity and eagerness to learn new things (Royal Children's Hospital Melbourne, 2007). Participants made little mention of this. Katrina said that school ready children should "listen to others" and Leoni added that they should "solve some problems on their own." Only one panel member noted personal behaviours, which were lying, stealing and aggression.

A number of other qualities of social competence and emotional maturity were named by participants, but would only be included in the AEDI under "overall social/emotional development." These included: asserts self appropriately (Katrina), increasing independence, confidence and openness to learning (Katrina, Leoni, Glenda), resilience, persistence (Jon), feeling competent and capable (Leoni), identifying and communication own and others' needs and feelings (Carol, Leoni) and a general sense of wellbeing (Jon). While emotional literacy- the ability to recognise feelings in oneself and in others and to express and manage them in appropriate ways – is considered critical to learning and development (Goleman, 1995; Sorin, 2004), the only mention of this in the AEDI is as "overall social/emotional development."

#### **Language, cognitive development, communication skills and general knowledge**

While teachers are asked to rate children's effective use of English on the AEDI, there are also a number of specific items that relate to effective language use. They include story telling, taking part in imaginative play, articulating clearly, communicating needs and understanding what is being said and listening. Pre-reading skills include interest in books, identifying letters, sounds and rhymes, reading simple words and participating in group reading activities. Pre-writing skills include trying writing materials, left to right progression, and writing name, simple words and simple sentences. Early numeracy skills are also assessed (Royal Children's Hospital Melbourne, 2007).

All participants cited English skills as components of school readiness. Jon named "language and communication skills that suit the environment of a Year 1 classroom" as important, but also noted that these skills are only part of the picture: "I know children in Year 1 who can read, write and undertake mathematical problem solving; who soil their pants, cry when spoken to by teachers for no apparent reason and have behaviour problems with their peers." Leoni listed skills of generating ideas, explaining, expressing needs, wants and feelings in different situations, following instructions and listening as specific ways a school ready child would effectively use the English language.

Pre-reading skills were mentioned only by Leoni and Alyssa. Alyssa felt school readiness includes knowing what a book is and how to hold a book. Leoni added skills such as awareness of letter/sound relationships, use of decoding strategies and willingness to join in class reading activities. She was also the only panel member to include pre-writing; in the mention of beginning "writing and drawing to plan." Carol, Leoni and Alyssa also named numeracy skills amongst those necessary for school readiness. Other language and communication skills described by participants include interest in the world around and investigating it, concentration, understanding and following others' requests and using or recognising use of available resources.

### **Beyond the AEDI/ Environmental View**

The findings above focus on what children bring in the way of skills to a formal learning environment. This is Meisels' Environmental View and was described to some extent by all participants. But many participants' descriptions of school readiness went beyond the "Environmental view" to more the "Social Constructivist view", where readiness comes about from the child's social and cultural context, or the "Interactionist View", where readiness is a relative term focusing not only on maturation, skills and social context but also on interactions between the child's characteristics and characteristics of the environment and the actors within that environment.

For example, the Social Constructivist view appears in Katrina's statement:

*School readiness is complex and diverse: readiness of a teacher to provide for the learning needs of a child as they arrive in Year 1. All children are learners and readiness is initiated when a space is created for a child to begin/ continue/ expand innate readiness to be a learner.*

Glenda noted that teachers need "to set limits to follow – in play curriculum, social contexts, teachers' names, seating protocols, answering questions, asking questions, friendships [and] expectations of school." Jon added the importance of teaching children "that they cannot win all the time and...that there are consequences to their actions." Within a safe and trusting environment, he said he also teaches children "right from wrong" through discouraging "lying, stealing, aggression and not trying their best."

By taking responsibility for teaching, Katrina's comments on communication skills seem to reflect the Social Constructivist View: took the responsibility from the children, saying, "I cannot expect a child (Year 1) to come with an ability to express needs and feelings, discuss ideas, listen, etc. I expect I will need to teach all that which is necessary for positive and supportive communication." Readiness, thus, involves teachers and schools as active players in the readiness process.

Participants also described readiness in terms of Meisels' Interactionist View, where a focus is on relationships. Jon describes relationships as essential to school readiness. "Relationships are vital to all humans when moving into and through environments." He noted that these elements, coupled with children's resilience, are the keys to school readiness:

*A child must be resilient and be able to form relationships while knowing and acquiring skills. Their genes and family background impacts on their self-worth, as the child's background and circumstance, in fact all the ways that a human can be.*

## DISCUSSION

Participants' alternate views about school readiness, show a gap between teachers' criteria and that used in the AEDI. Their views included the teacher, the learning environment and relationships as factors of school readiness. This more "ecological" stance challenges the notion put forward in the AEDI that school readiness is determined by a child's assessed demonstration of physical health and wellbeing; social competence; emotional maturity; language and cognitive development; and communication skills and general knowledge. It shifts responsibility to the learning environment as a whole, with actors, resources and interactions all contributing to school readiness. This is noted by Maxwell and Clifford, who take a Social Constructivist view: "School readiness, in the broadest sense, involves children, families, early environments, schools and communities" (p.1). School readiness is determined from information that comes from many sources; teachers, families and children, and includes how children are perceived as ready for school and the impact of community resources (Dockett and Perry, 2001).

Dockett and Perry (2001) suggest that "starting school is not just an experience for the individual child. Rather, it is a community experience, involving a wide range of people...the nature of relationships between and among children, families, peers and early childhood educators has a significant impact on children's sense of belonging and acceptance within a school community" (p. 3).

This broader focus raises questions about how school readiness should be determined. If measurements are to be used, should teacher input, the learning environment and interactions be assessed as components of the data collection? Other measurement instruments, such as those used by Winter, Zurcher, Hernandez and Yin (2007) and the Pathways Mapping Initiative (2007) include other actors (family, school staff, community members), the environment and relationships in their assessment of school readiness, yet the AEDI is limited to children's skills. If a more holistic approach is taken to data collection and addressing issues of need, would the resulting AEDI scores show substantial improvement?

## CONCLUSION

Teachers in this region, as well as in all areas, need to consider their role in school readiness; how they prepare the environment and how they interact with children and families. They are not, however, the only actors who impact on children's readiness for school. Parents can contribute in by providing rich learning environments for their children outside of school and interacting with their children, school personnel and community members. The community – relatives, friends, neighbours and school-related personnel can provide positive environments and relationships for the growing child. Community services, government and non-government agencies can contribute to school readiness by providing programs and services that target young children and their families. An example is the federally-funded "Communities for Children Initiative" which has established programs in several locations Australia-wide to support young children and their families through literacy and numeracy programs, local support services, parenting and play networks, and gross motor programs to name a few. It is hoped that the 2009 AEDI data collection will show improvement in scores. But the impact of other actors, the environment and relationships also needs to be considered if the target is to best prepare young children for the formal learning environment.



## REFERENCES

- Dockett, S., and Perry, B. (2002). Who's ready for what? Young children starting school. *Contemporary Issues in Early Childhood*, 3(1), 67-89.
- Dockett, S., and Perry, B. (2001). Starting school: Effective transitions. *Early Childhood Research and Practice*. 3(2). Retrieved 24 February, 2008, from <http://ecrp.uiuc.edu/v3n2/dockett.html>
- Dockett, S., and Perry, B. (1999). *Starting school – what matters for children, parents, and educators?* Watson, ACT: Australian Early Childhood Association.
- Goldfield, S., Brinkman, S., Sayers, M., Liddelow, T., Daws, A., Coutts, M., Muller, W., Silburn, S., and Oberklaid, F. (2006). A national approach to measuring child development in Australia: Process challenges and policy implications. *Measuring Early Childhood Development Conference*, April 26-28, Vaudreuil, Quebec.
- Goleman, D. (1995). *Emotional Intelligence*. USA: Bantam Books.
- Janus, M. (2007). Informal telephone interview. Toronto, Canada.
- Maxwell, K.L., and Clifford, R.M. (2004). School Readiness Assessment. *Beyond the Journal: Young Children on the Web*. 1 – 10.
- Meisels, S.J. (1999). Assessing readiness. in Pianta, R.C. and Cox, M.J. (eds). *The Transition to Kindergarten*. 39 – 66. Baltimore: Paul Brookes.
- Moore, T. (2006). *Early childhood and long term development – The importance of the early years*. Australian Research Alliance for Children and Youth. West Perth: Australian Government Department of Families, Community Services and Indigenous Affairs.
- Mustard, J. F. (2006). *Early childhood development – Outcome measures*. Measuring Early Childhood Development Conference, Vaudreuil, Quebec.
- Organisation for Economic Cooperation and Development (OECD). (2006). *Starting Strong II – Early childhood education and care*. OECD Publishing.
- Pathways Mapping Initiative. (2007). Retrieved 27 November, 2007 from <http://www.pathwaystooutcomes.org/index>
- Rhode Island Kids Count. (2005). *Getting ready: National school readiness indicators report*. Retrieved 27 November, 2007 from [http://www.gettingready.org/matriarch/MultiPiecePage.asp\\_Q\\_PageID\\_E\\_318\\_A\\_PageName\\_E\\_NationalSchoolReadinessIndicat](http://www.gettingready.org/matriarch/MultiPiecePage.asp_Q_PageID_E_318_A_PageName_E_NationalSchoolReadinessIndicat)
- Royal Children's Hospital Melbourne. (2007). *The Australian Early Development Index – Building better communities for children (AEDI)*. Retrieved 5 July, 2007, from [http://www.rch.org.au/australianedi/index.cfm?doc\\_id=6210](http://www.rch.org.au/australianedi/index.cfm?doc_id=6210)
- Rudd, K., and Macklin, J. (2007). *Labor's plan for high quality child care*. Labor Party. Retrieved from [www.kevin07.com.au](http://www.kevin07.com.au)

- School Readiness to Learn (SRL) Project. (2007). Retrieved from 5 July, 2007, from <http://www.offordcentre.com/readiness/>
- Sorin, R. (2004). Understanding children's feelings: Emotional literacy in early childhood. *Research in Practice Series*. Canberra: Early Childhood Australia Inc. (ISBN: 097519354).
- Weigel, D.J. and Martin, S. S. (2006). Identifying key early literacy and school readiness issues: exploring a strategy for assessing community neEds. *Early Childhood Research and Practice*, 8(2). Retrieved from <http://ecrp.uiuc.edu/v8n2/weigel.html>
- Winter, S. M., Zurcher, R., Hernandez, A., and Yin, Z. (2007). The Early ON School Readiness Project: a preliminary report. *Journal of Research in Childhood Education*, 22(1).

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