

Research Snapshot

Taking a strengths based approach to child development in the AEDC: the Multiple Strength Indicator



Background

This snapshot provides an opportunity to consider how to shift focus of conversations about childhood development onto strengths rather than vulnerability. In the Australian version of the Early Development Instrument (EDI), used within the Australian Early Development Census (AEDC) programme, children receive a score between 0 and 10 on each of five domains. Like many other child development instruments, the Instrument then classifies children into those who are doing well (“on track”) and those who are facing some challenges in their development (“at risk” or “vulnerable”). While acknowledging the importance of detecting challenges in children’s development, advocates for strengths-based approaches suggest that it is important to also measure what is going well in development. Measuring what is going well can provide a more positive way to engage with individuals, families and communities by building them up and empowering them, rather than focusing on their limitations and problems, and may be a useful addition to the AEDC reporting programme.

Strength-based indicators also have some potential advantages over deficit based indicators for monitoring trends in child development over time, and evaluating the impacts of interventions and early childhood policies. Child development measures are designed to identify those children who are not doing as well as their peers. A large number of children receive the highest possible score on child development measures, including the five domain scores in the Instrument. These scans are generally not well placed to detect those children who are doing exceptionally well or who have developmental strengths. At a population level, this makes it difficult to detect positive changes in child development because a large proportion of children are already receiving the top score.

Aim

To better measure those children who have developmental strengths, this research sought to create a strength-based indicator from the Instrument that could be used within the AEDC programme. Given that all items in the Instrument are already completed

by teachers once every three years, a new indicator that is constructed from a sub-set of these items will pose no additional burden on teachers but might help to shift the focus and conversation with communities in a more positive direction.

Development of the Multiple Strength Indicator

To identify which items from the Instrument to include in the Multiple Strength Indicator (MSI), a group of seven early childhood experts were asked to discuss each of the items and determine which would be considered to be a developmental strength at school entry – a skill that is something that would not be expected for a child of school age. These experts identified 39 items and these were used to create a strengths-based indicator – the MSI. To assist in understanding the types of items that have been included in the MSI, an example of an item from the physical health and wellbeing domain, is provided below.

Table 1. Number of items from each domain and sub-domain in the Multiple Strength Indicator

Physical health and wellbeing	(2 of 12)
Physical readiness for school day	0
Physical independence	0
Gross and fine motor skills	2
Social competence	(15 of 24)
Overall social competence	4
Responsibility and respect	6
Approaches to learning	4
Readiness to explore new things	1
Emotional maturity	(7 of 26)
Pro-social and helping behaviour	7
Anxious and fearful behaviour	0
Aggressive behaviour	0
Hyperactivity and inattention	0
Language and cognitive skills	(9 of 26)
Basic literacy	0
Basic numeracy	0
Interest in literacy, numeracy and memory	3
Advanced literacy	6
Communication skills and general knowledge	(6 of 8)
Communication skills and general knowledge	6

The Multiple Strength Indicator measures the presence of developmental strengths at school entry. The indicator focuses primarily on strengths in social and emotional development such as self-control, pro-social skills, respectful behaviour towards peers, teachers and property, and curiosity about the world. The indicator also identifies children who have advanced literacy skills, a particular interest in reading, numeracy and memory, and very good communication skills.

Validity of the Multiple Strength Indicator

The MSI is better able to detect those children who are doing better than expected for their age than scores from the five domains. As the indicator is capable of detecting both positive and negative changes, it is useful as both a population level indicator and as a sensitive outcome measure for evaluating interventions aimed at improving development. Moreover, the indicator has good predictive validity for academic achievement up to nine years later. In other words, children with strengths in more areas at school entry are less likely to score at or below the National Minimum Standard in the Year 3 National Assessment Program - Literacy and Numeracy (NAPLAN), and this continues through to Year 9.

Reporting the Multiple Strength Indicator

The MSI was constructed from the 39 identified Australian version of the Early Development Instrument items to give a score of between 0 and 100. Higher scores indicate strengths in more areas of child development than lower scores. Using the 2009 AEDC data, cut-off points (or benchmarks) were established for the MSI to classify children into three groups based on the number of strengths they exhibited:

- Children with scores falling below the 25th percentile were considered to have 'emerging strengths'.
- Children with scores falling between the 25th and 50th percentile were considered to have 'well developed strengths'.
- Children with scores above the 50th percentile were considered to have 'highly developed strengths'.

Key Findings

The MSI is an overall summary indicator:

- with a strengths-based focus
- that could be used to complement the current suite of deficit based indicators currently reported, mapped and tracked over time.
- has good distributional properties (low skewness)
- has good predictive validity for academic achievement (NAPLAN) up to nine years later.
- predominantly focuses on strengths in social and emotional wellbeing
- may be useful in facilitating community mobilisation and action using a strength-based approach.

Implications

For Policy and Practice

Within the school sector in Australia there is a strong emphasis on literacy and numeracy and the MSI might be a useful tool to help shift the conversation to a more holistic view of the child. Discussing child development from a positive, strength based approach can assist to shift the focus of conversation to building strengths and resilience in children and communities. This may also shift the mindset of policy makers to a preventative approach of “how do we stop this problem happening in the first place” as opposed to a curative model “how do we fix this problem”. Therefore, the MSI could encourage policy makers to focus more on putting programs and policies in place that provide children with the best opportunity to thrive, reducing the need to intervene later to address vulnerabilities and problems.

For Research

Future research should explore the predictive validity of the MSI for a broad range of non-academic outcomes. Establishing the concurrent and construct validity of the indicator should also be a priority for future research. Given the broad range of skills, competencies and character strengths measured in this indicator, such as self-control, peer relationships, love of learning, and curiosity, the indicator would be expected to predict a wide range of (non-academic) life success measures.

Study Details

The data for the NAPLAN predictive analyses came from the use of the EDI across 121 primary schools in the North Metropolitan Health Service in Western Australia in 2003 resulting in a sample of 4,420 children. These children underwent NAPLAN assessments in Years 3, 5, 7 and 9 with the predictive analysis run on year 3 and 9 assessments. Of the 4,420 children NAPLAN data was able to be linked and analysed for a total of 1,781 children (49% of the EDI sample).

For further details

Gregory, T., & Brinkman, S. (2016). Exploring two new indices for the Australian Early Development Census (AEDC) programme: The Multiple Challenge and Multiple Strength Indicators. Telethon Kids Institute, Adelaide, Australia.

Gregory, T., & Brinkman, S. (under review). Exploring a new strength based indicator from the Early Development Instrument

If you would like further details about work, please contact Dr Tess Gregory
Tess.Gregory@telethonkids.org.au

About research snapshots

AEDC Research Snapshots provide a brief and accessible overview of research being undertaken in relation to the AEDC. The AEDC programme is funded by the Australian Government. For further up-to-date information consult the AEDC website and its many resources: **www.aedc.gov.au**.

About the organisation

The Telethon Kids Institute is one of the largest, and most successful medical research institutes in Australia, comprising a dedicated and diverse team of more than 500 staff and students. Established in 1990, the Institute was among the first to adopt a multidisciplinary approach to major health issues: clinical research, laboratory sciences and epidemiologists all under the one roof, to tackle complex diseases and issues in a number of ways. At the Telethon Kids Institute, we are committed to ensuring that the benefits of our research are translated into real therapies and policies to improve the health and wellbeing of children.