

## EDI Reports FAQ and Glossary

### DESCRIPTIVE REPORTS:

- 1) Q: What are site means and how are they calculated?  
A: *'Site Mean' refers to the mean (average value of a set of numbers) of all senior or junior kindergarten tested in your site for that given year. Children with known special needs, missing more than 1 domain, with Student Status in class less than a month or "other", and missing Pre-K/K classification are excluded from the computation of the site mean.*
- 2) Q: What is Standard Deviation?  
A: *Standard Deviation ( $\pm$  SD) indicates the range in which approximately two-thirds of the scores fall. For example, two-thirds of the scores on "physical health and well-being" fall between  $8.79 - 1.05$  (7.74) and  $8.79 + 1.05$  (9.84). Children with known special needs, missing more than 1 domain, with Student Status in class less than a month or "other", and missing Pre-K/K classification are excluded from the computation of the site standard deviation.*
- 3) Q: What is meant by 'Valid by Questionnaires by Domain'?  
A: *Since scores for children with up to one missing domain are considered valid, the number of students with valid data may be equal to or less than the total valid number in the specific domains. A child is considered missing on a domain when more than 25% of the questions are left blank or with "I don't know" answered.*

### DESCRIPTIVE DATA REPORTS:

- 1) Q: What comprises "missing"? Does it include a) Don't Know, b) left blank, c) not read by scanner, or d) child moved to another school.  
A: *Missing includes data that could not be computed, 'don't know responses', and responses left blank.*
- 2) Q: Are all students included? Including special needs?  
A: *The analyses are based on all non-missing cases for each category. **Children classified as special need, missing more than one domain, with Student Status in class less than a month or "other", and those missing Pre-K/K classification are excluded from the site Descriptive Data report. However, Special Needs children are included in the Special Needs Descriptive Data report.***
- 3) Q: Why are some of the Group Comparisons missing or labeled as NA?  
A: *Some of Group Comparisons are labeled as Not Applicable (NA) or are missing from the analyses because the groups were too small (under ten students) to apply statistical tests and to retain confidentiality.*



**SCHOOL REPORTS:**

1) Q: Why do some schools/sites not receive school reports?

*A: Schools/Sites with less than 10 students do not receive school reports as having such a small number of children per school increases the risk of identifying individual children. However, the results of schools with less than 10 children are still included in the overall results for the site.*



## Glossary

### **Below the 10<sup>th</sup> percentile cut-off:**

Refers to children who fall at or below the 10<sup>th</sup> percentile cut-off for a domain.

### **Early Intervention Program:**

Includes: speech/language therapy, parent attended a parenting program, a Head Start program, a School's Cool program, etc., or if child has had similar in-home services

### **Effect Size:**

The effect size quantifies the size of the difference between two groups and is a standardized mean difference between the two groups. That is

$$\text{Effect size} = \frac{\text{mean}(\text{group1}) - \text{mean}(\text{group2})}{SD(\text{group1})} \quad \text{SD represents the Standard Deviation.}$$

As an example, an effect size of 0.8 means that the score of the average person in group 1 is 0.8 standard deviations above the average person in group 2, and hence exceeds the scores of 79% of group 2. Unlike statistical significance, the effect size statistic is independent of the group size and therefore considered more informative. It shows the degree of a “meaningful” difference between the two groups.

Interpretation: it is accepted to consider effect sizes of 0.8 or more as large, between 0.8 and 0.2 as moderate, and of 0.2 and smaller as small.

### **Macro level:**

The *macro* level is a global one: province, community, school board as a whole. Average results for one community can be compared with average results for the rest of the city, province, or country, to determine whether, on average, children in this community are more or less ready to learn at school than children in those other places. It is the first step in looking at the EDI results. The major advantage of this level of analysis is that it puts the results of the EDI into perspective. Information provided at the macro level usually needs to be acted upon at that level.

Frequently, however, the results of the EDI on the macro level of analysis may not be striking enough to indicate broad action. Community-level average values do not tell us whether there are some children in the community who are not doing all right. It is the differences between neighbourhoods, (which often offset each other in global comparisons) that turn the EDI results into a community mobilization tool. It is the *micro* level that makes the difference.

### **Mean:**

The average value of a set of numbers. All scores are added together, and then divided by the number of children contributing data.

### **Micro level:**

Considering the results of the EDI on the *micro* level is like taking a magnifying glass to the “macro” set of results. On the micro level, the EDI results are analyzed school by school, and neighbourhood by neighbourhood.

The micro level shows how children in a particular neighbourhood are doing: where, despite neighbourhoods being disadvantaged, children seem to be ready to learn, and where, despite a high average socio-economic status, the neighbourhood schools seem to be lagging behind. In particular schools, it indicates areas of strengths that have to be cultivated, and points to areas of difficulties that students may have that need to be addressed.

Once the district-level EDI results are put in perspective, the individual school-level results can be explored. As stated before, the Early Development Instrument is designed to measure the outcomes of children’s early years, and not the school’s performance. Thus, relating the EDI results to the characteristics of neighbourhoods is more appropriate.

The school-level reports with the accompanying descriptive profiles for each domain, were designed to assist with the interpretation of the EDI results at the school level.

### **Missing Data:**

Missing includes data that could not be computed, that means ‘I don’t know’ responses, and responses left blank.

### **Multiple Challenge Index:**

As outlined in the Behavioural Profiles report, there are 16 sub-domains within the five major domains of the EDI. Each of the sub-domains represents a relatively homogeneous aspect of a child’s development.

A “challenge” ability range was identified within each sub-domain, based on the range of scores. For each sub-domain, zero (0), equivalent to a child having no ability in all items within the sub-domain, was the lower boundary. The “challenge” cut-off boundary (i.e., the one below which a child would be classified as having the challenge) was based on a mix of poor and average scores.

Analysis of the distribution of the number of challenges in one or more sub-domain indicated that having scores below the challenge ability in 9 or more pointed to serious problems in multiple domains. Three of the 5 domains have 4 sub-domains, one has 3, and the last one has 1. Therefore experiencing challenge in 9 sub-domains means that they are from at least 3 of the major five developmental domains.

The Multiple Challenge Index is therefore an indicator of a child experiencing challenges in at least three EDI domains. The MCI is scored based on challenges in 9 or more sub-domains, and is expressed as “existence of multiple challenges” (1), or “no multiple challenges” (0).

Detailed descriptions and cut-off boundaries for each of the sub-domains are listed on our website at <http://www.offordcentre.com/readiness/results.html>.

**Percentiles:**

Scores on each scale for all children in a site can be arranged from the lowest to the highest, and this could be called a “distribution of scores” (\*an example for a 200 children). Then, they can be divided into groups, based on THE NUMBER OF CHILDREN in the site. It is most common to divide distribution into four groups, each consisting of scores of a quarter or one-fourth or 25% of the children in the site. These groups are called percentiles.

For example, if we arranged the Social Competence scores for a site with 200 children from the lowest to the highest, the first 50 scores from the lowest will be the lowest (or “bottom”) 25<sup>th</sup> percentile. The next 50 scores, starting right after the last in the previous group, will be the next 25<sup>th</sup> percentile, which is from the 51<sup>st</sup> to the 100<sup>th</sup> score. The next 50 scores will be the next 25<sup>th</sup> percentile, from 101<sup>st</sup> to 150<sup>th</sup> score, and finally, we are left with the last 50 scores (from 151<sup>st</sup> to 200<sup>th</sup>, the highest), which are the best or the “top” 25<sup>th</sup> percentile.

The actual score of the 50<sup>th</sup> child in the distribution (in this example, or the score of the 30<sup>th</sup> child in a cohort of 120, or 100<sup>th</sup> in a cohort of 400, etc. – the one on which the first one-fourth of children ends) is the lowest 25<sup>th</sup> percentile boundary.

**Special Needs Children:**

Please use the general guidelines provided below.

|            |   |
|------------|---|
| <b>Yes</b> | Child identified already as needing special assistance due to chronic medical, physical, or mental disabling conditions (e.g., autism, fetal alcohol syndrome, Down syndrome)   |
|            | Child requires special assistance in the classroom  |
| <b>No</b>  | * Gifted or talented (please mark, instead, their special talents in Section B, questions 34-39)  |
|            | If you only suspect that the child may be suffering from a disabling condition, or the condition is not severe enough for the child to be classified as “special needs” (please indicate the problem in Section D of the questionnaire) |

**Standard Deviation:**

Standard Deviation ( $\pm$  SD) indicates the range in which approximately two-thirds of the scores fall. For example, two-thirds of the scores on the normative cohort’s “physical health and well-being” fall between 8.79 - 1.05 (7.74) and 8.79 + 1.05 (9.84).