IDELA BASELINE STUDY, BINGA

Summary of findings

JF KAPNEK TRUST | ZIMBABWE

Save the Children

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Background

Save the Children is implementing a project aimed at enhancing the quality of Early Childhood Care and Development in Binga District in partnership with The J F Kapnek Trust. The project involves the piloting of model which emphasis Early Literacy and Math(ELM) in 20 impact schools in Binga district of Zimbabwe. A baseline survey was conducted using the International Development and Early Learning Assessment(IDELA) tool to assess the pre-project conditions for the children enrolled at the 20 intervention and 20 control schools. The following is a presentation of baseline scores at baseline.

Objective

The objective of this research study was to benchmark the pre-ELM intervention conditions against which future changes amongst the target group can be evaluated.

Research questions

1. What can the baseline tell us about children's emergent learning and development skills? What does this mean for programming?

2. How comparable are children in impact(intervention) ECCD centers versus control centers in terms of learning and development skills based on ELM criteria?

3. What is the background home learning environment? What does this mean for effectively targeting our learning and development program?

Research design

This is a quasi-experimental study. Half of the centers surveyed were assigned to intervention(impact schools) and half to the comparison group.

Methods

Sampling methods

- All the(20) intervention centres were included in the study and a corresponding 20 comparisons schools were purposefully selected based on their proximity to the intervention centres. This was essential to ensure that the study and the control groups depict almost the same characteristics except the interventions.
- At each of the centers where data was collected, 10 children were randomly selected from the ECD A class. At 3 of the centers, the children were not adding up to 10 and all of them were selected.
- Convenience sampling was used to select caregivers.

Sample size

- Based on a population estimate of 3484, a confidence level of 95% and 5% confidence interval, a sample size of 340 was required.
- The final sample for this study was 364 children attending ECCD centers below the age of 6, divided between 20 ECCD centers set to receive the ELM Intervention and 20 in the comparison group.
- A total of 138 caregivers were interviewed from the intervention and comparison communities. These were equally shared.

Data collection methods and Instruments

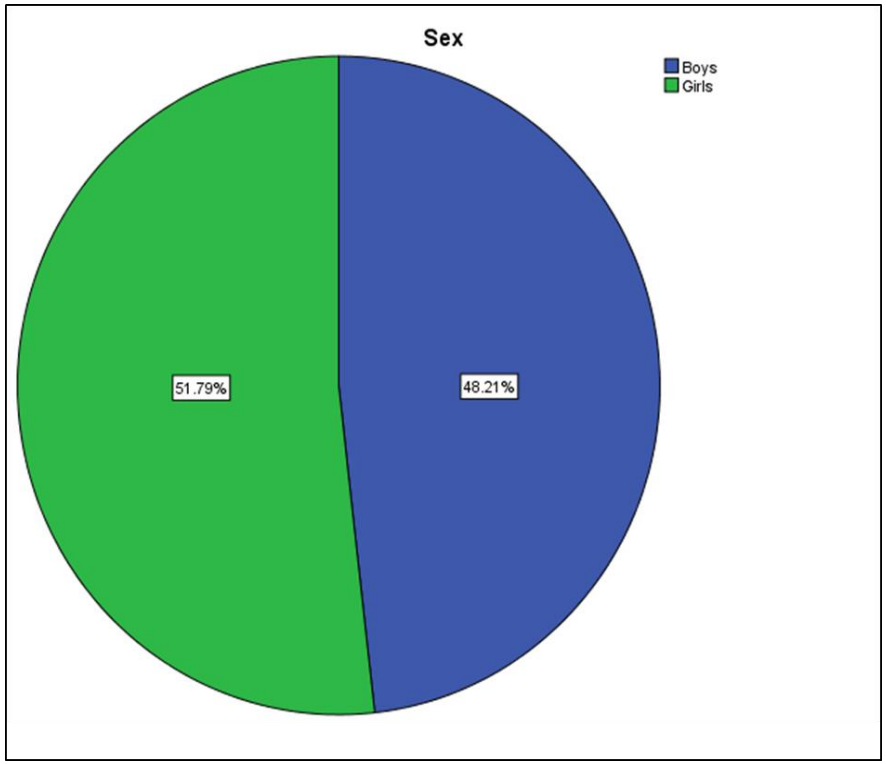
- The data collection started with assessor training and pilot at a school not in the intervention and control
- During the pilot, assessors worked through all the data collection tools, including the parent/principal consent and child assent
- A session on ethics was included in the training of assessors
- Team leaders were chosen from the trained assessors
- Interview method was used for both the children and the caregivers by trained enumerators.
- For children, assessors worked in pairs and individually with caregivers.
- IDELA child assessment tool was used with the children whilst the Caregiver questionnaire was administered to the caregivers.

Data entry and analysis

- Data was collected manually and entered into IDELA Kobo collect mobile application files. Files were then exported to Excel and SPSS for analysis.
- Analysis was done using MS Excel IDELA templates and SPSSv23 to compute summary of variables.
- Data analysis includes the comparability of children in the Intervention and comparison samples through the comparison of means through t-tests with clustered standard errors to account for the grouping of student-level data within schools.

Study Results

Characteristics of Children sampled N=363



In total assessments were completed for **363** children composed of **188** girls and **175** boys. The target for each school was to assesses 20 children however some centres did not have children up to 20 in the target class and in some centres attendance was low at the day of assessment.

Sample by gender and ECCD type

	Standard ECCD	ELM centres
Average Age	4.5	4.6
Male	77	98
Female	85	103
Total	162 (46%)	201(54%)

Although the design was to have equal sample sizes for the control and intervention groups, more children from the intervention group were assessed than the control group. It was observed that intervention centres had higher enrolments and attendance was also higher.

IDELA DOMAINS

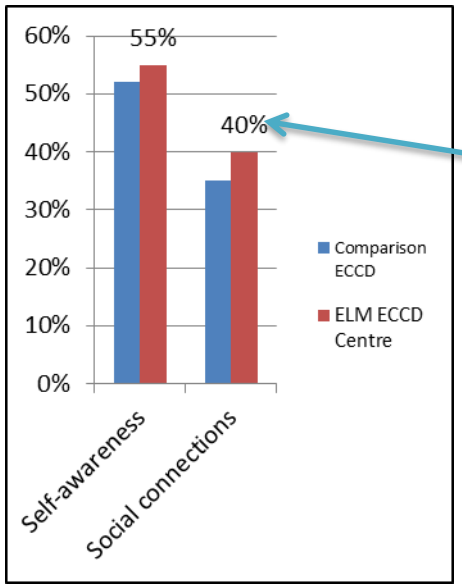
Gross and Fine Motor Development	Emergent Literacy and Language	Emergent Numeracy	Social emotional Development	Executive Functioning
Hopping on one foot	Measurement	Print Awareness	Self-awareness	Short-term memory
Drawing a person	Sorting	Letter ID	Social connections	Inhibitory controls
Folding	Shape ID	Expressive Vocabulary	Emotional awareness	
Copying a shape	Number ID	Oral Comprehension	Empathy	
	One-to-one correspondence	Phonemic Awarness	Conflict resolution	
	Simple operations	Writing		
	Puzzle			

How to read the slides

On Average, children in the standard ECCD centre answered 85% of measurement item correctly

***-There is significant difference Between children in control and Intervention ECCD centres

	Standard ECCD	ELM ECCD Centre	Significant Difference	Average Total
Measurement	85%	80%	***	83%
Sorting	27%	32%		30%



On average, children in ELM centres answered 40% of social connections IDELA item correctly

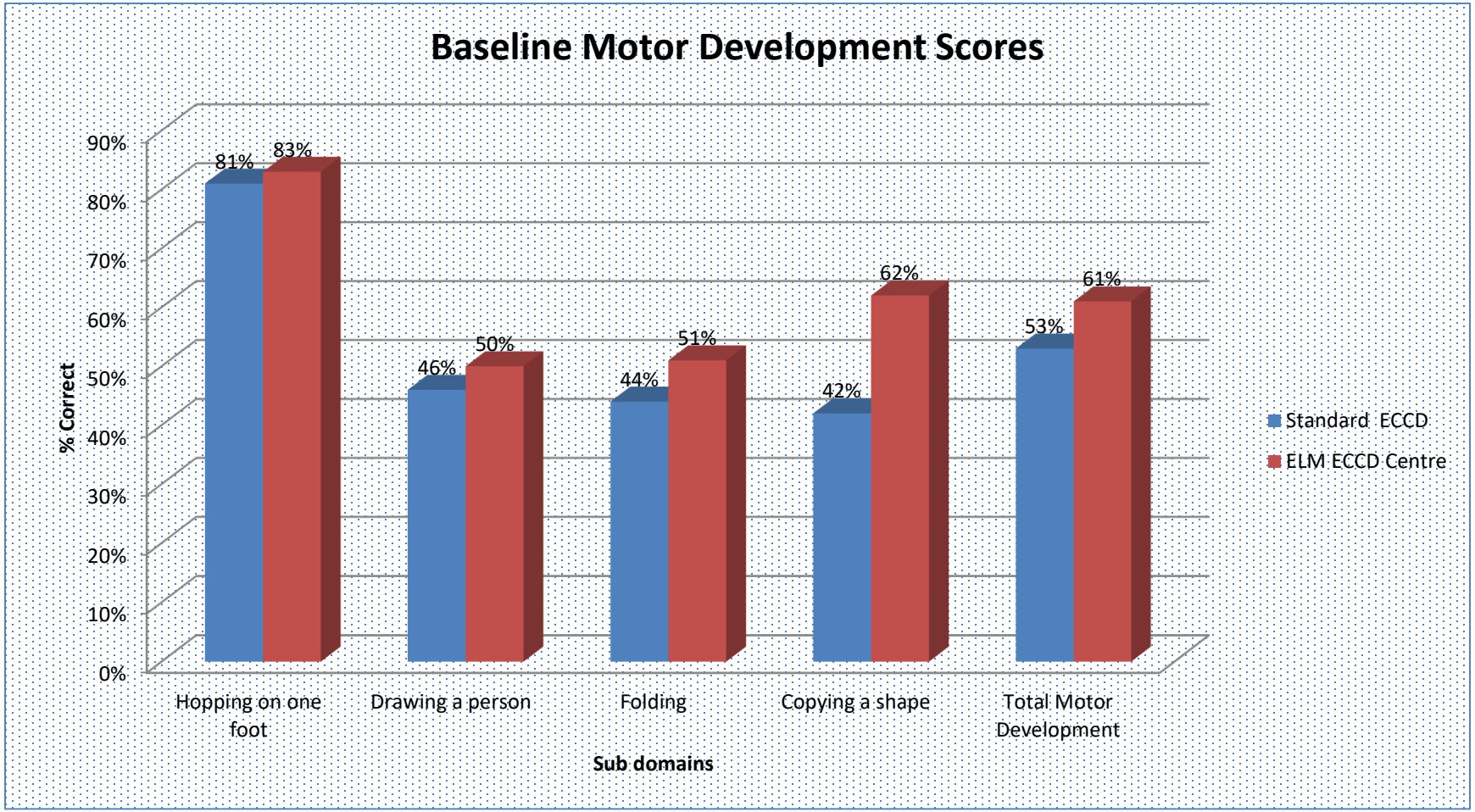
Blank-There is no difference between Children in ELM and control centres With respect to sorting

Gross Motor Skills

	Standard ECCD	ELM ECCD Centre	Significant Difference	Average Total
Hopping on one foot	81%	83%		82%
Drawing a person	46%	50%		48%
Folding	44%	51%	*	48%
Copying a shape	42%	62%	***	53%
Total Motor Development	53%	61%	***	58%

*p<0.05 **p<0.01 ***p<0.001

Gross Motor Skills

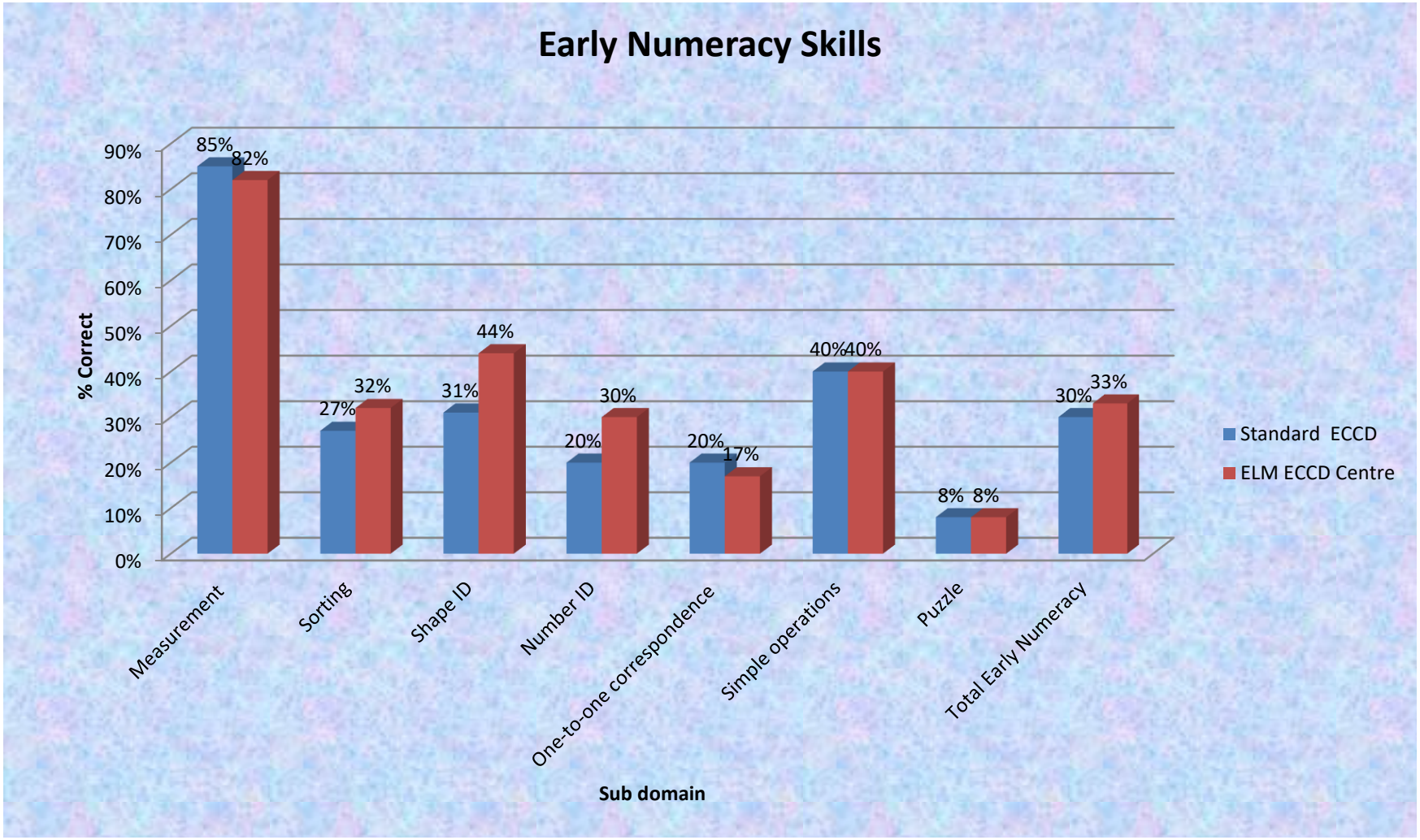


Early Numeracy

	Standard ECCD	ELM ECCD Centre	Significant Difference	Average Total
Measurement	85%	82%		84%
Sorting	27%	32%		30%
Shape ID	31%	44%	***	38%
Number ID	20%	30%		30%
One-to-one correspondence	20%	17%		18%
Simple operations	40%	40%		40%
Puzzle	8%	8%		8%
Total Early Numeracy	**30%**	**33%**		**32%**

*p<0.05 **p<0.01 ***p<0.001

Early Numeracy

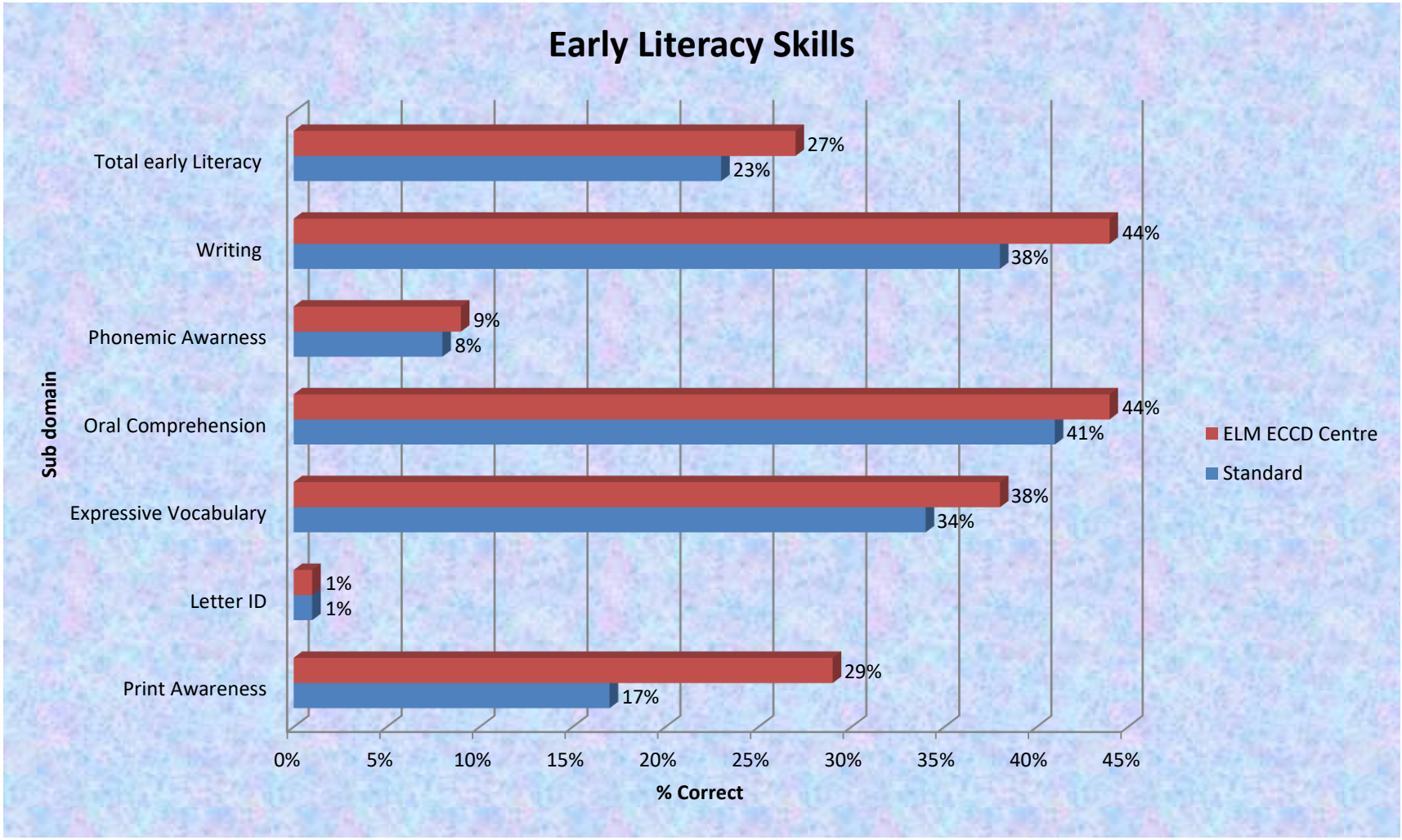


Early Literacy

	Standard ECCD	ELM ECCD Centre	Significant Difference	Average Total
Print Awareness	17%	29%	***	23%
Letter ID	1%	1%		1%
Expressive Vocabulary	34%	38%		36%
Oral Comprehension	41%	44%		43%
Phonemic Awarness	8%	9%		8%
Writing	38%	44%		41%
Total early Literacy	23%	27%	***	25%

*p<0.05 **p<0.01 ***p<0.001

Early Literacy

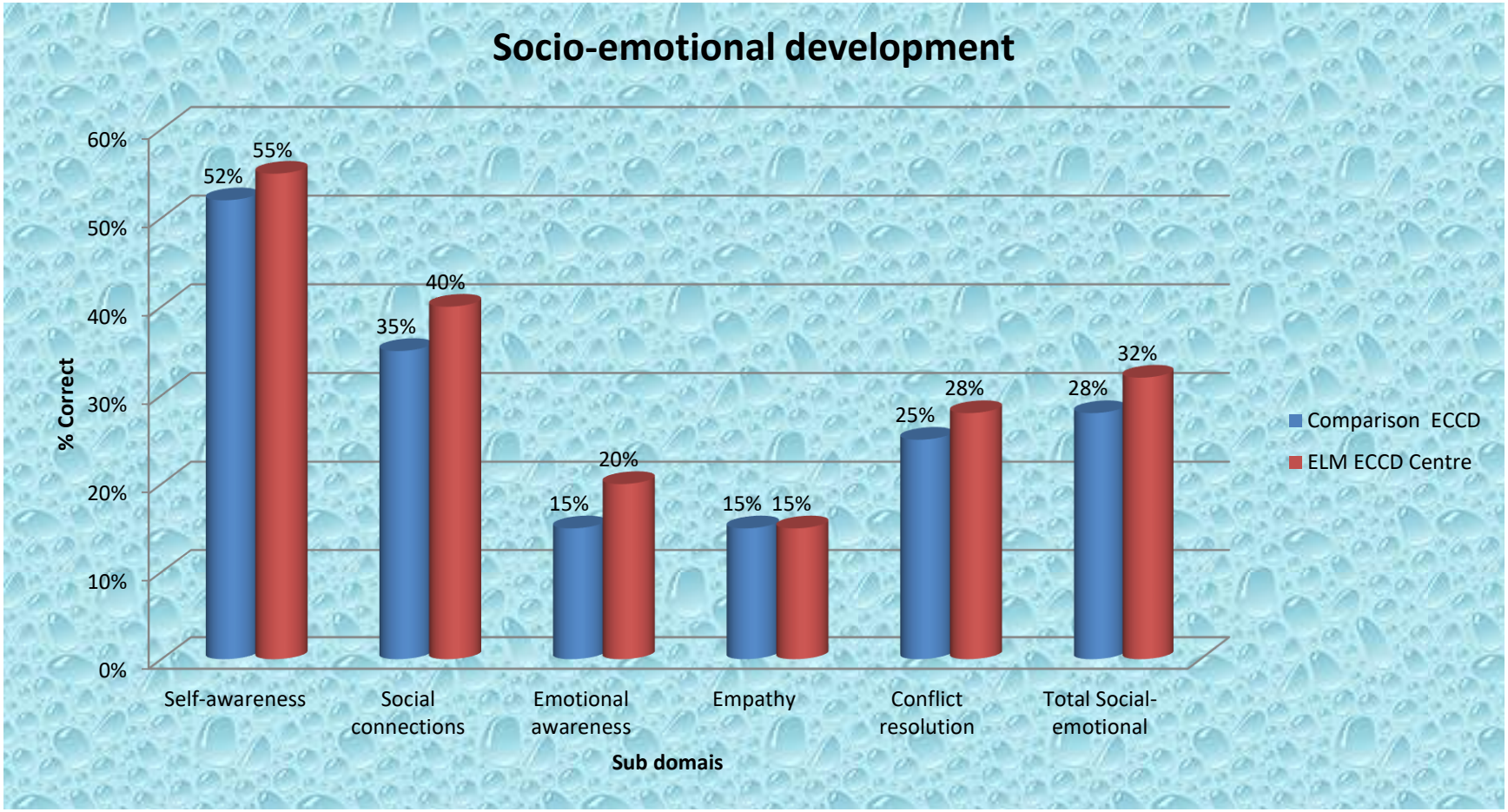


Socio-Emotional development Skills

	Comparison ECCD	ELM ECCD Centre	Significant Difference	Total
Self-awareness	52%	55%		54%
Social connections	35%	40%	*	38%
Emotional awareness	15%	20%		18%
Empathy	15%	15%		15%
Conflict resolution	25%	28%		27%
Total Social-emotional development	**28%**	**32%**		**30%**

*p<0.05 **p<0.01 ***p<0.001

Socio-Emotional Development Skills



Executive Function

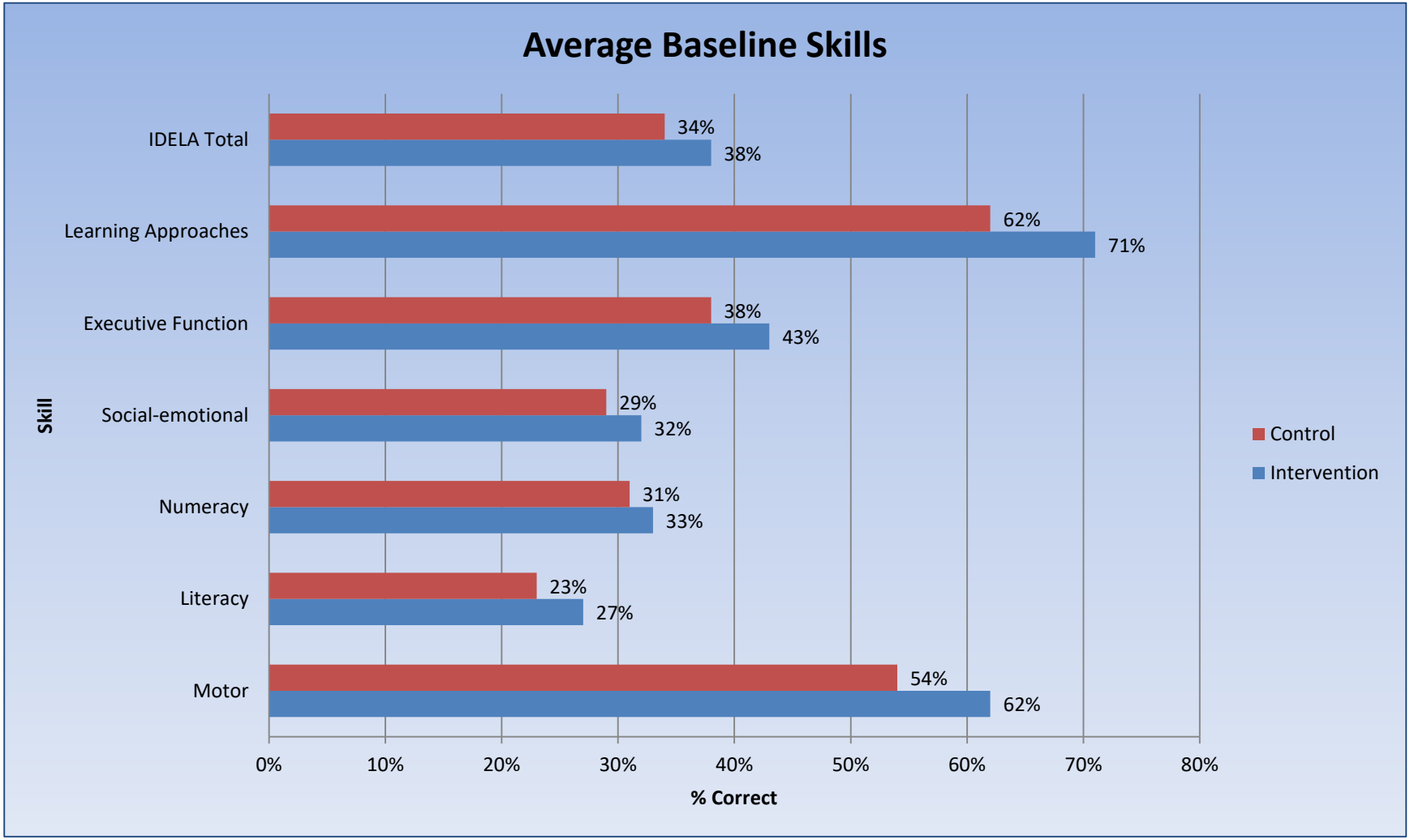
	Standard ECCD	ELM ECCD Centre	Significant Difference	Total
Short-term memory	50%	55%		53%
Inhibitory controls	25%	30%		28%
Total Executive Function	38%	43%		40%

Approaches to Learning

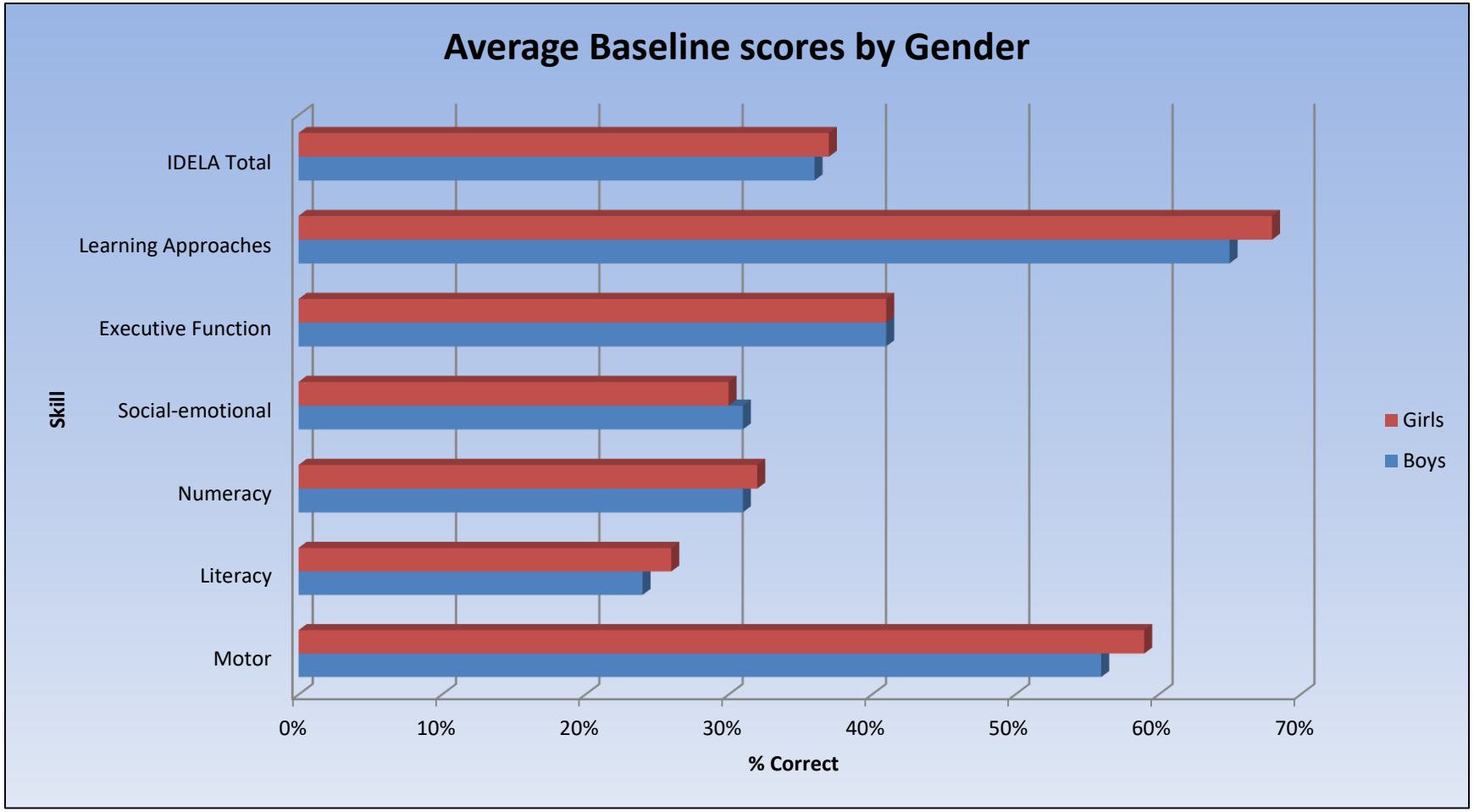
	Standard ECCD	ELM ECCD Centre	Significant Difference	Total
Persistence during assessment	64%	71%		68%
Observation post assessment	60%	70%		65%
Total Approaches to Learning	62%	71%	***	67%

*p<0.05 **p<0.01 ***p<0.001

IDELA scores by ECCD type



Baseline scores by gender



Conclusions and Recommendations

Conclusion: Children in ELM(Impact) centres have stronger skills than children in control ECCD centres however there is no statistically significant difference between the two.

Recommendation : Control for baseline scores at endline analysis

Conclusion: No gender difference between children's learning and learning

Recommendation: Repeat analysis at endline to test whether there is differential learning between boys and girls over the two years

Conclusion: Overall, children's skills are weakest in the area of literacy(26%), followed by social-emotional development(30%) and numeracy(32%)

Recommendation: Focus on learning gains in these areas at endline to see where both ELM and standard ECCD programs have strengths and weaknesses in supporting children's learning.