



**ASIA-PACIFIC REGIONAL ECD CONFERENCE**  
**SIEM REAP, CAMBODIA MARCH 1-3, 2017**

**THE IMPACT OF ECD THROUGH HOLISTIC  
INTERVENTION ON SCHOOL READINESS  
AND FIRST GRADE ACHIEVEMENT**



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Canada**

# AGA KHAN FOUNDATION, AFGHANISTAN

Presented by

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Aga Khan Foundation, Afghanistan

An agency of the Aga Khan Development  
Network

[www.akdn.org](http://www.akdn.org)



# STRUCTURE AND PURPOSE OF PRESENTATION

## ■ *Structure:*

Context & background of ECD

Programme; where and how we work and the result of school readiness and grade one achievement study.

## ■ *Purpose:*

The impact of ECD Trough holistic intervention on school readiness and first grade achievement

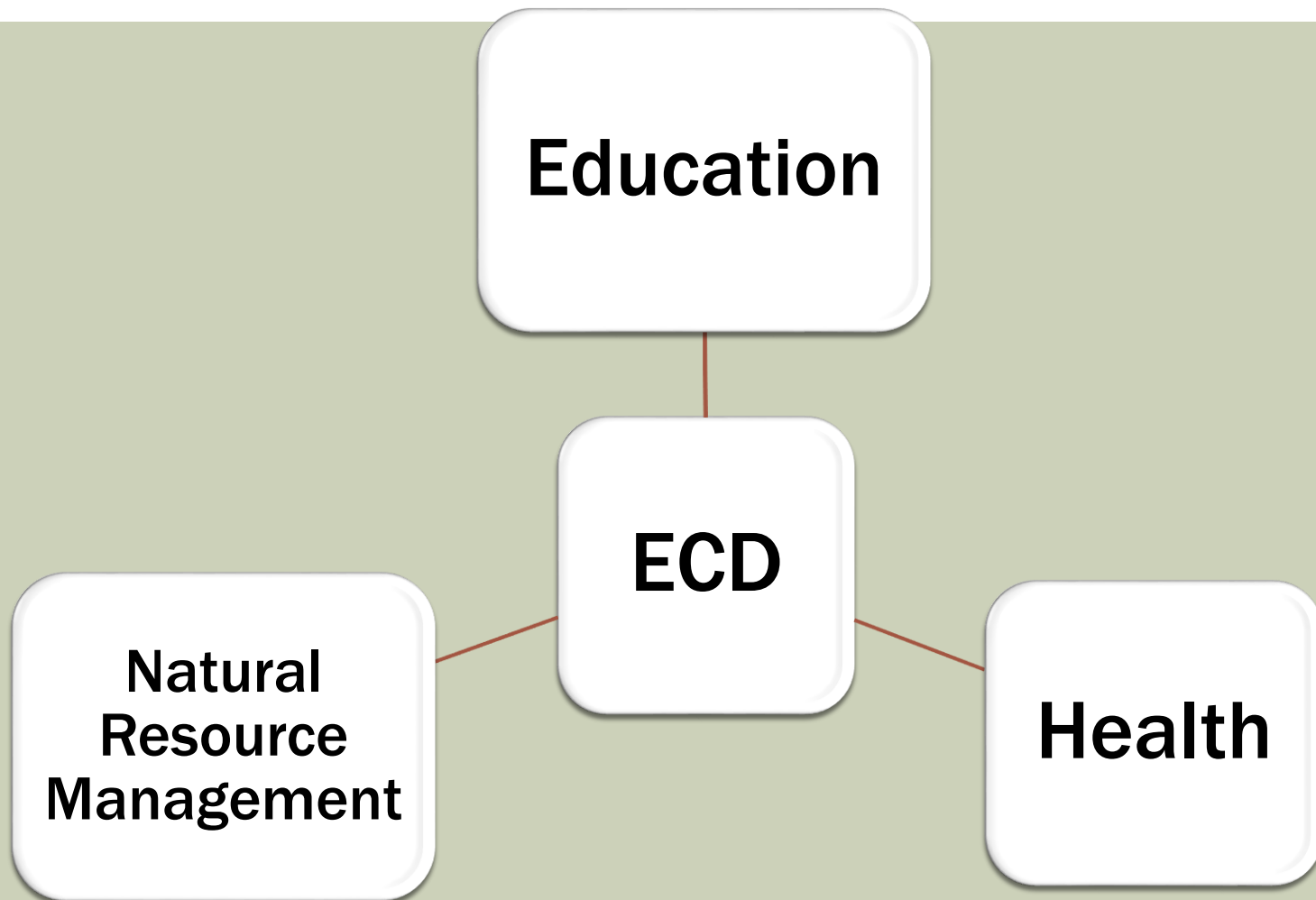


# CONTEXT & BACKGROUND TO EARLY CHILDHOOD DEVELOPMENT

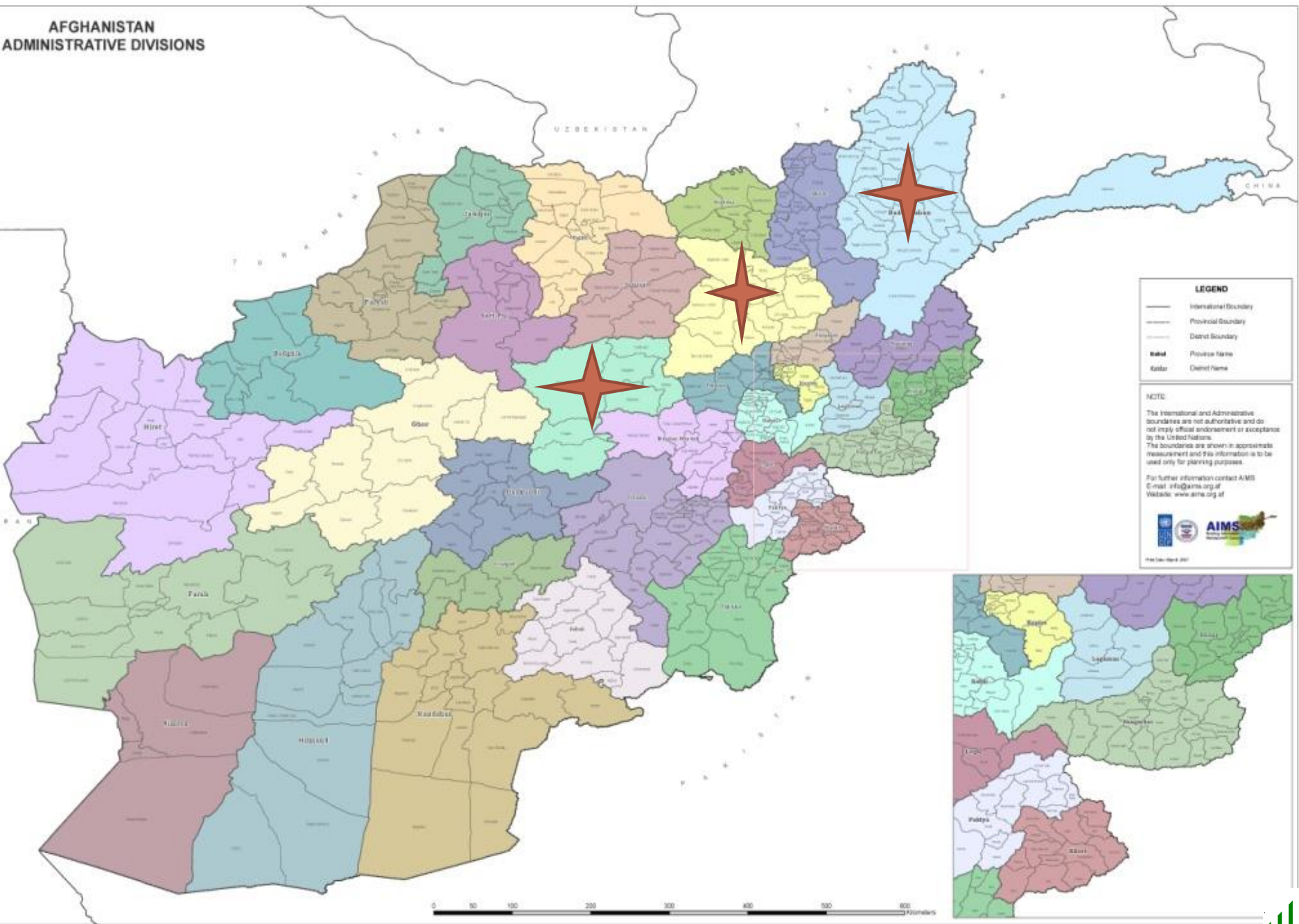
- Currently 1% of Afghan children access preschools
- ECE Department established at the ministry of Education in 2010
- Many preschools established in all provinces by NGOs and private sectors
- ECD policy developed and approved in Oct-2015
- The following NGOs supported the MoE on the ECD policy development.
  - AKF, UNICEF, CARE, CRS, IRC, PARSA, SC
- ECE working group Established in 2011 at the ministry of education
- ❖ Aga Khan Foundation and Save The Children developed preschool curriculum for the government which is under process of approval



# MULTI-INPUT APPROACH IN AGA KHAN FOUNDATION, AFGHANISTAN



**AFGHANISTAN  
ADMINISTRATIVE DIVISIONS**



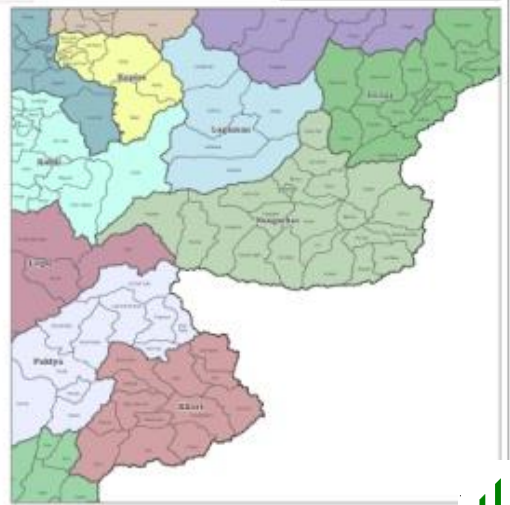
**LEGEND**

- International Boundary
- Provincial Boundary
- District Boundary
- Province Name
- District Name

**NOTE:**  
 The International and Administrative boundaries are not authoritative and do not imply official endorsement or acceptance by the United Nations. The boundaries are shown in approximate measurement and this information is to be used only for planning purposes.  
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**THE IMPACT OF ECD TROUGH HOLISTIC  
INTERVENTION ON SCHOOL READINESS AND FIRST  
GRADE ACHIEVEMENT**

**School Readiness Skills and  
Grade one Achievement Studies  
result**

Frances Aboud McGill University, Canada





# THE STUDY: RESEARCH QUESTIONS

- 1.** Does preschool make a difference in children's school readiness competencies?
- 2.** Does preschool make a difference in children's literacy and math achievement in grade one?
- 3.** Do parenting sessions make a difference in parent's engagement with their children's development?

# LOCATION OF STUDY PARTICIPANTS

## Bamyan

- 55.7% poverty rate
- 79.4% agrarian
- Mainly rural
- 17.5% adult females are literate\*



## Baghan

- 18% poverty rate
- 69.4% agrarian
- Mainly rural
- 12.9% adult females are literate\*





# MEASURES

- Post-only, non-randomized study
- Ethics approval granted
- Measures field tested: validity, inter-rater reliability

## School Readiness Test

- Adapted to Afghan context
- 35 items on math, verbal, GK concepts; 20 min. to administer

## Primary 1 Achievement Test

- Based on Wide Ranging Achievement test; Afghan Gr. 1 curriculum
- 71 items 5 Sub-Tests; 30 min to administer

## Parenting & Preventive Health Interview

- Family demographics, family assets (30 min)
- Preventive health practices (0-13 score)
- Parenting practices (0-10 score)
- Dietary Diversity (0-7 score)



# SAMPLE

Sample size estimation based on alpha of .05, power of .80, and standard deviation of .40 for each outcome

**End of  
Preschool  
(5-8 year olds)**

**AKF-A  
n = 188**

**Control  
n = 176**

**End of Grade 1  
(6-9 year olds)**

**AKF-A  
n = 196**

**Control  
n = 179**

**Mothers**

**All mothers  
n = 739**



# SAMPLE SELECTION & METHODS

- 16 female external data collectors trained
- Individual interview for children and mothers

## End of Preschool (5-8 year olds)

AKF-A = children systematically selected from 22 preschools using class list

Control = same-aged children selected from 22 neighboring villages without preschool

## End of Grade 1 (6-9 year olds)

AKF-A = preschool graduates in grade on systematically selected from class lists in 22 primary schools

Control = classmates of graduates without preschool systematically selected from class lists

## Mothers

Mothers or primary caregiver interviewed at home or at the school

\*Systematic selection means every second child from the class list was selected



# SCHOOL READINESS TEST

نماز

SRQ3d

۳  
۱

SRQ5a&b



Questions on:  
Colours,  
Shapes,  
Numbers,  
Alphabets,  
Words,  
Operations,  
General  
Knowledge,  
Health,  
Expressive  
Vocabulary



# PRESCHOOL RESULTS: CORRELATION WITH OUTCOMES

School Readiness outcomes were covaried with:  
 Child's Age, Height-for-Age, Mother's Age & Education,  
 and Family Assets

Variable	School Readiness	Parenting(10)	Preventive(13)	Diversity(7)
Age (months)	.49 ***	.25 ***	.15 (.004)	-0.05 (.37)
Sex (girls)	.05 (.32)	.02 (.71)	.10 (.04)	.07 (.20)
Height for age z	.17 (.001)	-.05 (.34)	.07 (.19)	-.07 (.21)
Assets	.11 (.03)	.41 ***	.33 ***	.34 ***
Mo's education	.07 (.13)	.43 ***	.22 ***	.28 ***
Mother's age	.14 (.007)	.04 (.48)	-.06 (.27)	-.11 (.03)
Land ownership	.06 (.21)	.04 (.39)	.06 (.24)	-.03 (.59)

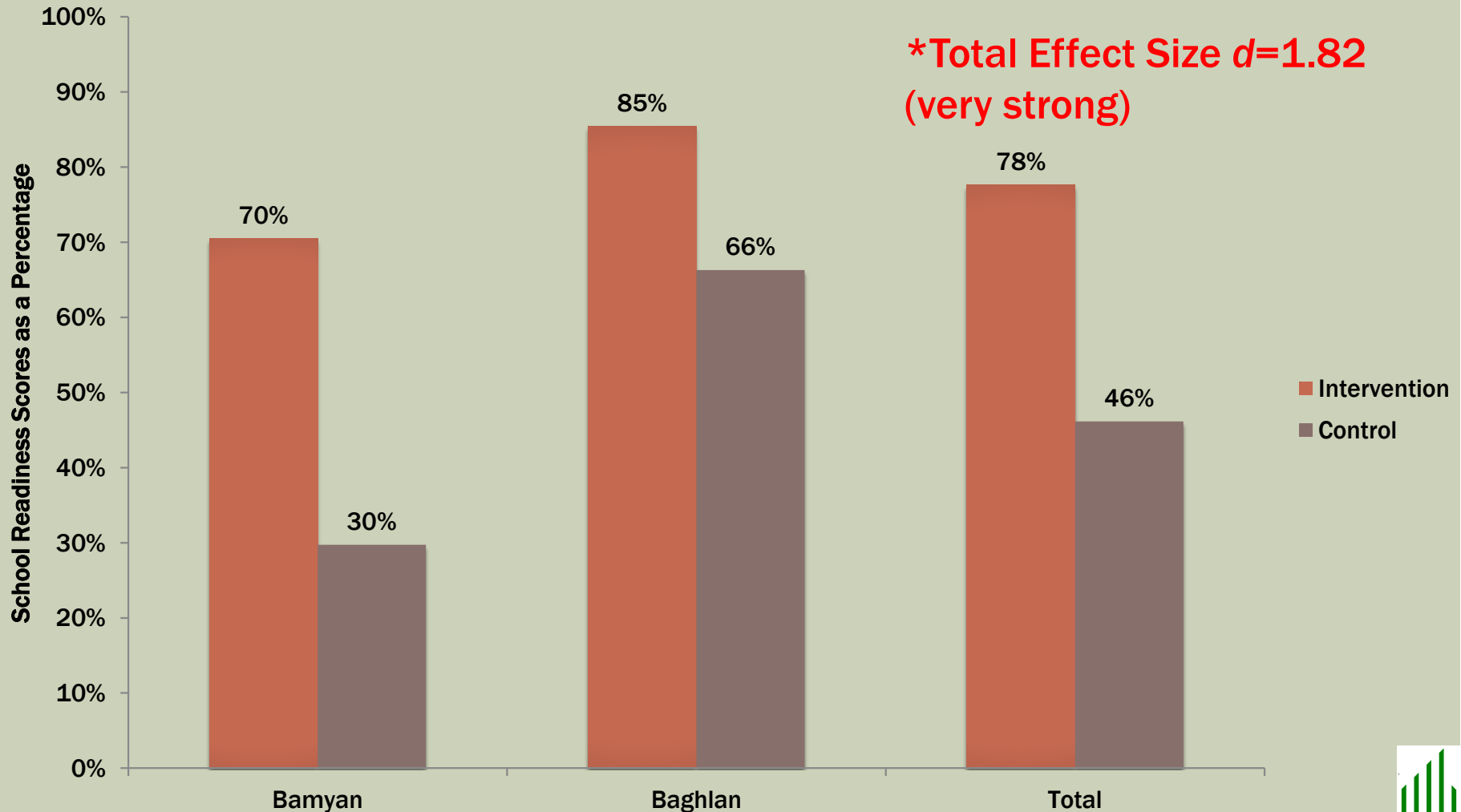
Note. Values are r (p) partialling out age for all but the first row. \*\*\* p <.0001

**Boys & Girls performed similarly**





# SCHOOL READINESS RESULTS





# PRIMARY 1 ACHIEVEMENT TEST



٥١٤٣٤٢

دختر توپ بازی میکند

بچه غذای خود را میخورد

٥١٤٣٤٢



٥١٤٣٤٢

٧١	٢٥١
١٠٠	١٥

٥١٤٣٤٢

Five Sub-tests:

1. Speaking
2. Reading
3. Writing
4. Oral Math
5. Written Math

Based on Grade 1 Curriculum

# PRIMARY 1 RESULTS: CORRELATION WITH OUTCOMES

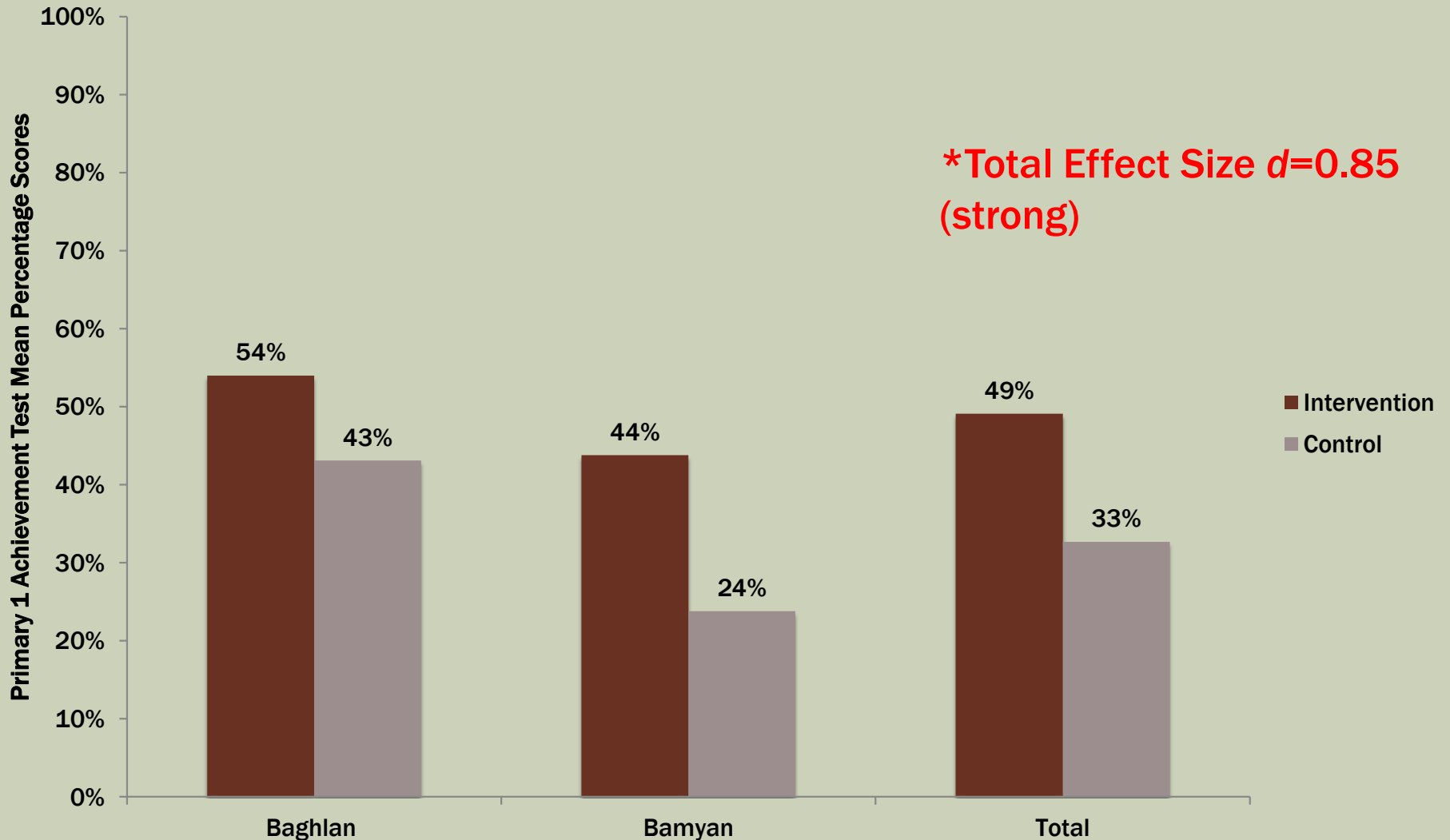
Primary 1 Achievement outcomes were covaried with:  
 Child's Age, Height-for-Age, Mother's Age & Education, Land ownership and Family Assets

Variable	Achievement test	Parenting(10)	Preventive(13)	Diversity(7)
Age (months)	-.10 (.06)	-.05 (.32)	.01 (.89)	-.11 (.03)
Sex	-.01 (.80)	-.02 (.72)	.06 (.25)	.00 (.95)
Height-for-age z	.27 ***	.12 (.02)	.04 (.40)	.13 (.01)
Assets	.08 (.08)	.37 ***	.21 ***	.35 ***
Mo's education	.18 (.0004)	.34 ***	.17 (.0007)	.30 ***
Mother's age	.10 (.05)	-.04 (.44)	-.11 (.03)	-.09 (.10)
Land ownership	-.18 (.0005)	-.03 (.62)	-.07 (.16)	-.21 ***
Household size	-.01 (.84)	.002 (.97)	.01 (.80)	.06 (.23)

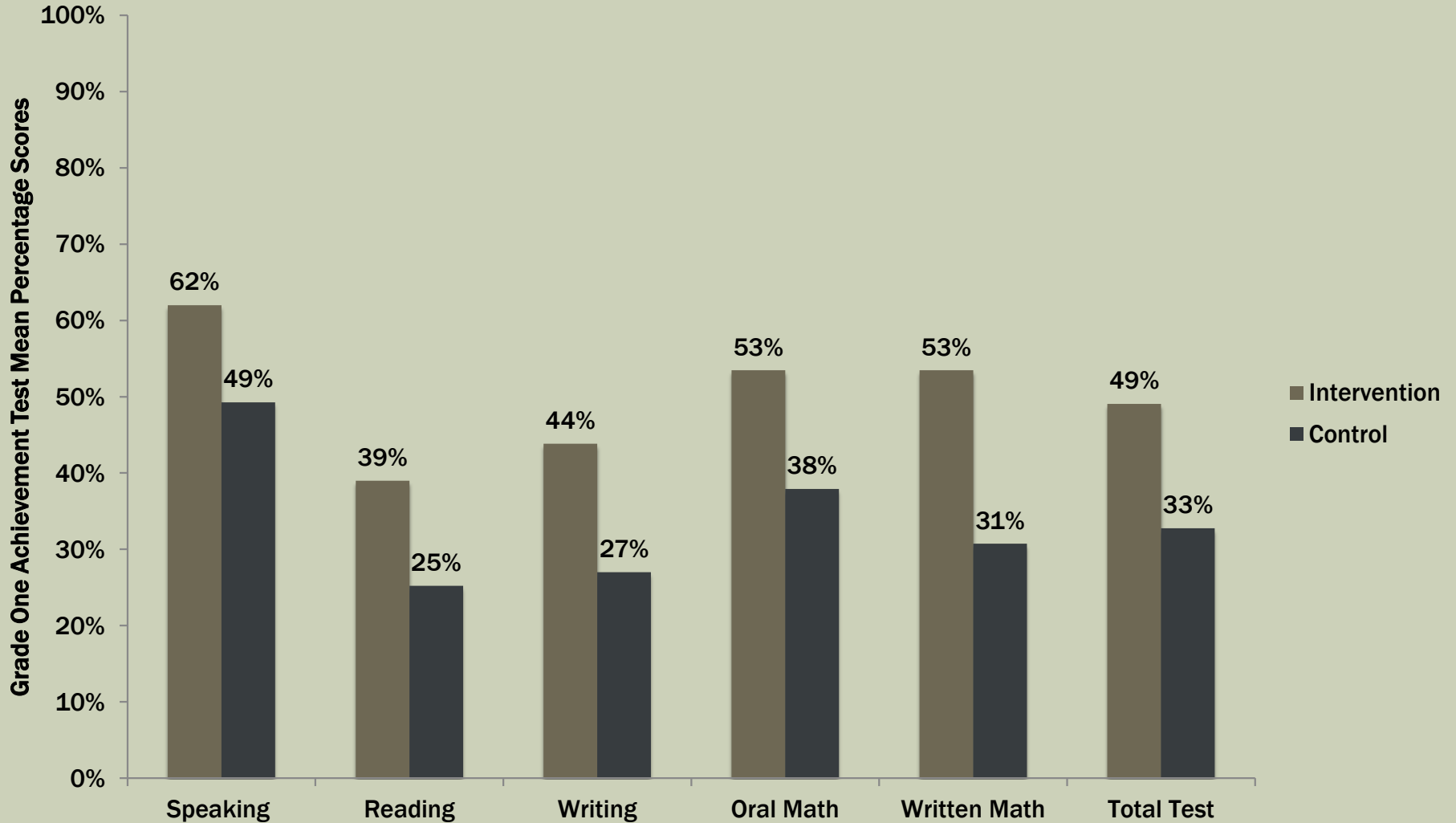
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**Boys & Girls performed similarly.**

# PRIMARY 1: ACHIEVEMENT RESULTS



# PRIMARY 1 ACHIEVEMENT RESULTS



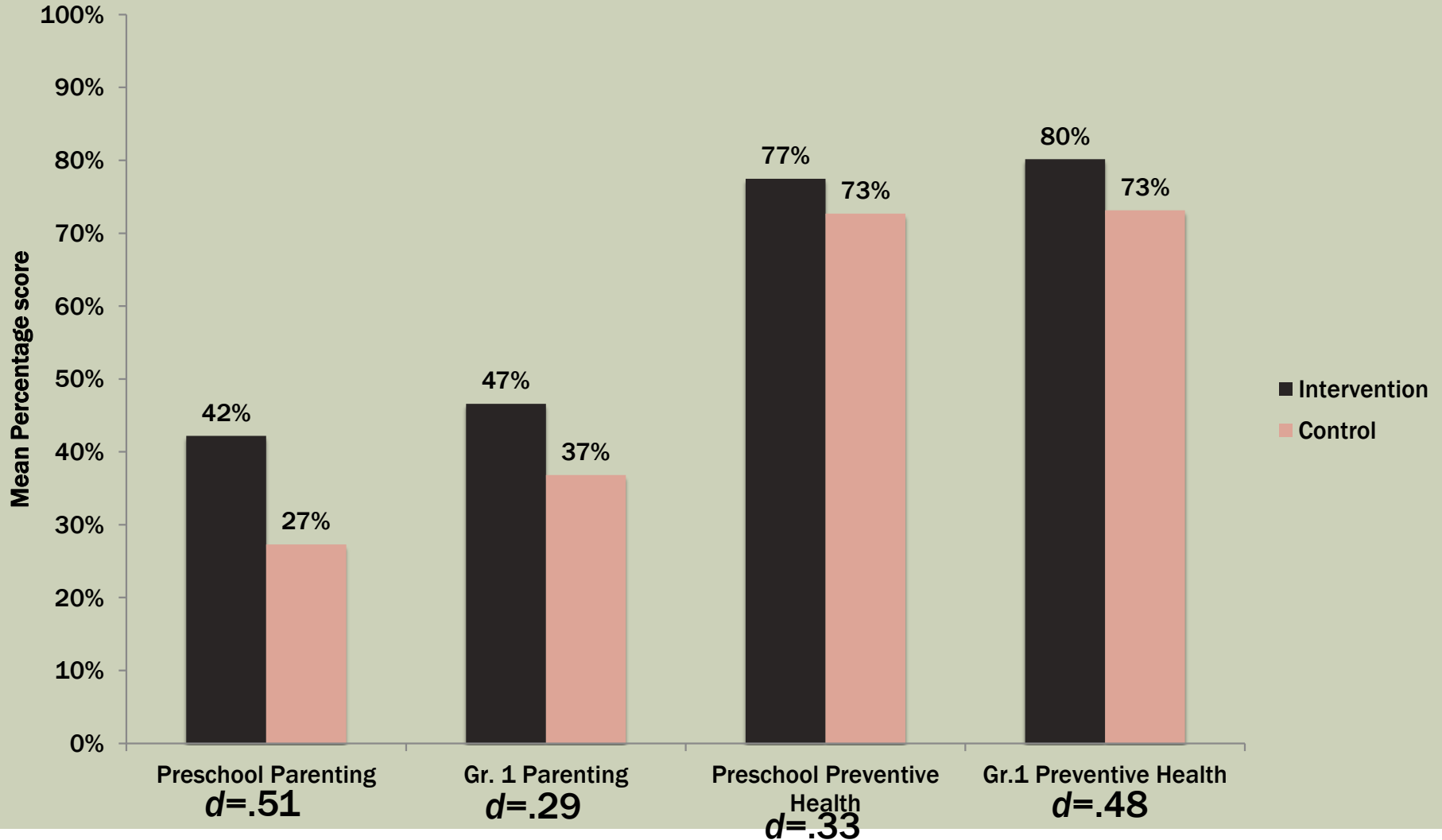
# PRIMARY 1 ACHIEVEMENT TEST: IMPLICATIONS

- Preschool attendance has an effect even a year later
- Overall scores were low, particularly Literacy.

“The non ECD kid is so scared and cant even say they want to go to the bathroom and pee themselves. And the ECD kids can solve their own problems they have no problem in primary school. They are so courageous.” – primary school teacher

“They cry a lot. They don’t know how to say Bismillah...they are like a little animal...when you talk to them they would go to a corner. And they are without courage and are shy...boys would not sit with girls...they were shy but now they are brothers and sisters...and now they’ve learned to get along.” – ECD teacher

# PARENTING & PREVENTIVE HEALTH









# PARENTING & PREVENTIVE HEALTH RESULTS: IMPLICATION

- Parenting education significantly impacts the level of parent's engagement in:
  - providing more play and learning materials; spending more time on learning activities like telling stories, singing, counting and reading with their children
  - preventive health practices like: immunization, water and sanitation, deworming
- Effect is seen even one year later
- Scope for improvement; overall scores below 50% for Parenting