

# A Presentation of the 2015 National ECCD Centre Program Impact Evaluation



# Outline of presentation

Research questions

Study design

Results

- Access
- Learning
- Quality
- Equity

Conclusion

Recommendations

# Research Questions

1. What are the added gains of children in ECCD versus children who are not in ECCD over the course of one academic year?
2. Which ECCD type (community, CSO, private, NFE parenting) produces the greatest gains in children's early learning and development in one academic year?
3. How does children's learning and development vary as the ECCD center quality improves?
4. How does children's learning and development vary as the quality of the home environment improves?
5. Which children are most disadvantaged at the start of the academic year and how does the ECCD program (through centers or parents) address inequity?

# Timeline of evidence collection

March 2015

- Child skills at start of school year
- Caregiver survey

November 2015

- Child skills at end of school year
- Caregiver survey

May-September  
2015

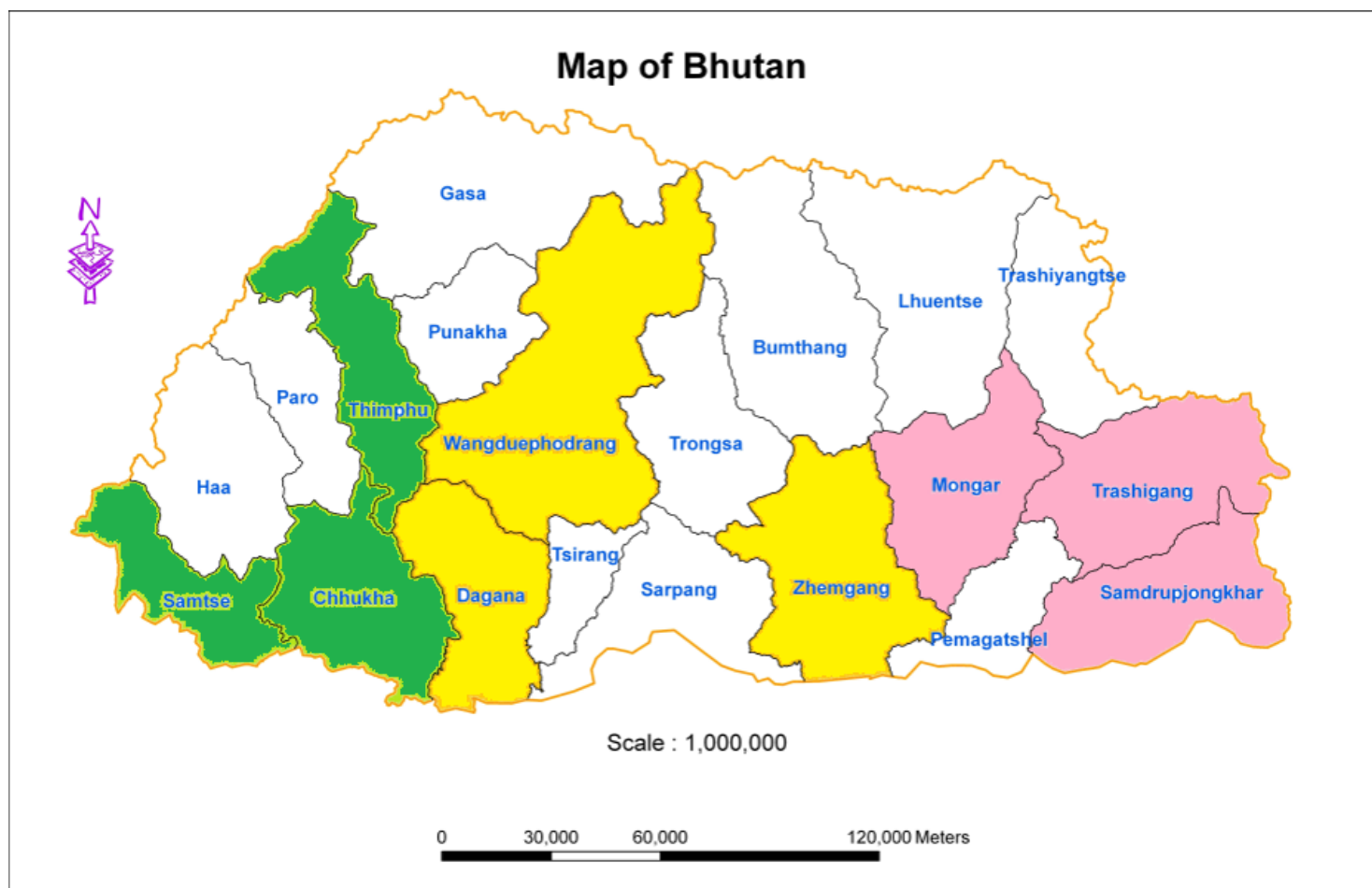
- ECCD program quality observation (National Quality Monitoring)

# Study Sample Overview

## Stratified Random Sample

- 3 districts from each region selected (9 total)
- Districts selected based on prevalence and diversity of ECCD programming
- ECCD/NFE Centers selected randomly (120 total)
- 10-15 children ages 3, 4 and 5 who are new to ECCD program within each center selected randomly
- Total sample: 1,200 – 1,800 children and parents/guardians

# Study Sites



# Study Sample: Centers

	CSO	Community	Private	Corporate	NFE Parenting	No ECCD	Total	Region
Chukha	0	2	2	5	0	5	14	1
Samtse	5	5	1	0	0	5	16	1
Thimphu	0	2	13	2	0	3	20	1
Dagana	6	5	0	0	5	0	16	2
Wangdi	0	2	3	1	3	0	9	2
Zhemgang	4	2	0	0	1	0	7	2
Mongar	5	7	1	1	9	0	23	3
SJ	0	2	0	0	2	0	4	3
Trashigang	0	4	0	0	0	7	11	3
<b>Total</b>	<b>20</b>	<b>31</b>	<b>20</b>	<b>9</b>	<b>20</b>	<b>20</b>	<b>120</b>	

# Final Study Sample: Children

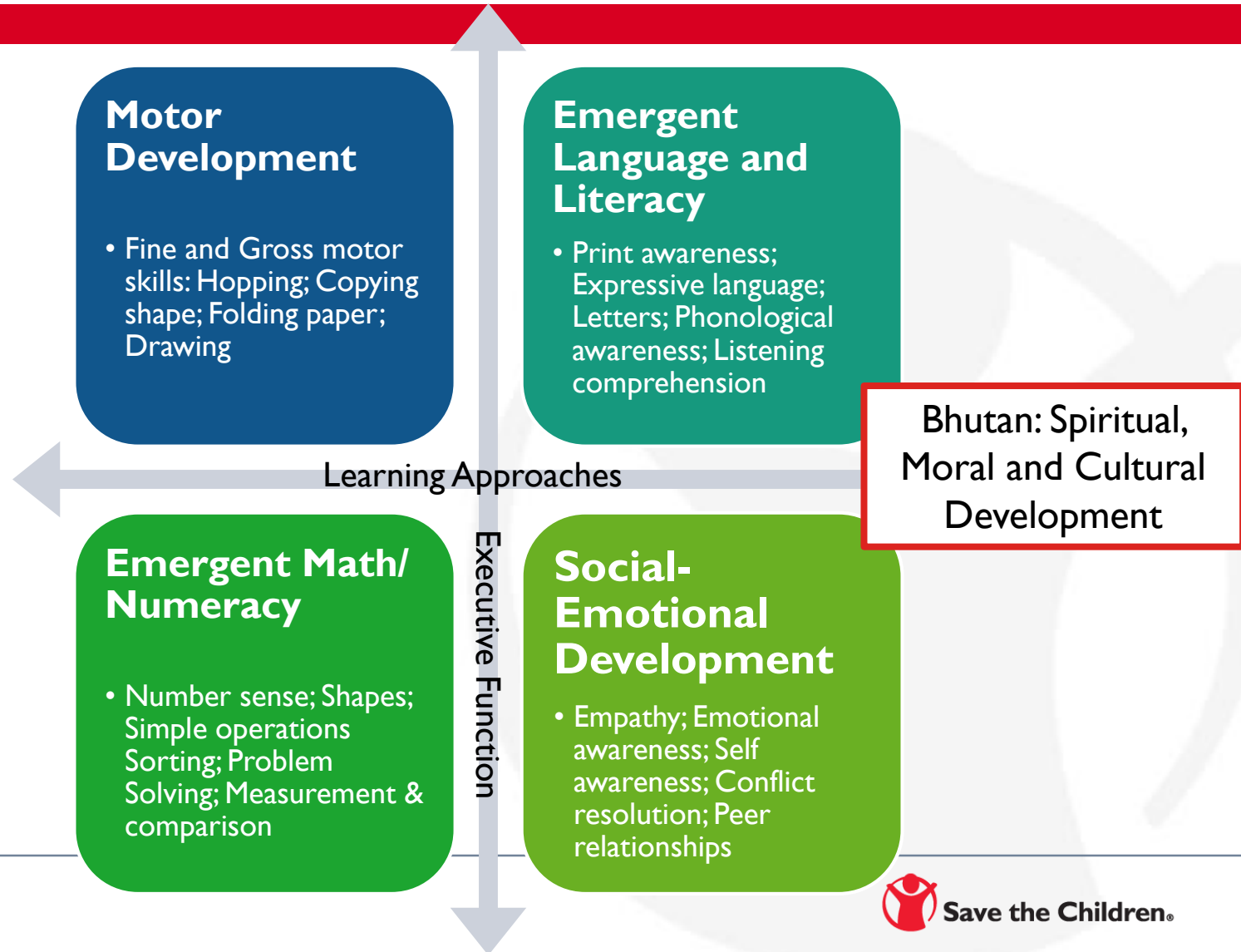
	Present at endline	# Missing	% Missing
Community	393	62	14%
Corporate	87	14	14%
Private	206	24	10%
CSO	125	27	18%
NFE parenting	169	18	10%
No ECCD	209	43	17%
Total	1,189	188	14%





# TOOLS

# International Development and Early Learning Assessment (IDELA)



# Aligning IDELA with Bhutan's ELDS

## Physical Well-Being, Health, and Motor Development

- 4 items

## Social and Emotional Development

- 5 items

## Language, Literacy and Communication

- 6 items

## Approaches to Learning

- 13 items

## Cognition and General Knowledge

- 7 items

## Spiritual, Moral and Cultural Development

- 3 items

# IDELA Caregiver Questionnaire

Section	Description
<b>General family information</b>	Sex of child, child age, parental literacy, parental education, languages spoken at home
<b>ECCD experience and educational expectations</b>	Child participation in ECCD program, details of participation, parental expectation of child's educational attainment
<b>Home learning environment and parenting practices</b>	Types of reading materials at home, types of toys at home, child-parent interactions
<b>Parent self-efficacy</b>	Parental attitudes about their role in child's development
<b>Socio-economic status</b>	Roof and wall of home materials, objects/appliances owed, land/animals owned, child work status

# Quality Monitoring Tool for ECCD Centers (QMTEC): 4 Guiding Principles/Areas

ECCD programs are safe and protective of children's health and wellbeing: Five Indicators

ECCD programs meet the physical, social-emotional, linguistic and cognitive developmental needs of young children: Ten Indicators

ECCD programs encourage and support active engagement for children, child centered teaching, and improved learning outcomes of all children.: Five Indicators

ECCD programs, parents and local communities are actively involved in planning, decision-making and action to improve early education: Three Indicators

# Early Childhood Environment Rating Scale (ECERS)

## Language and Literacy Environment

- Print environment
- Book and literacy access
- Adult reading with children
- Words and sounds
- Emergent writing
- Talking and listening
- Books and pictures

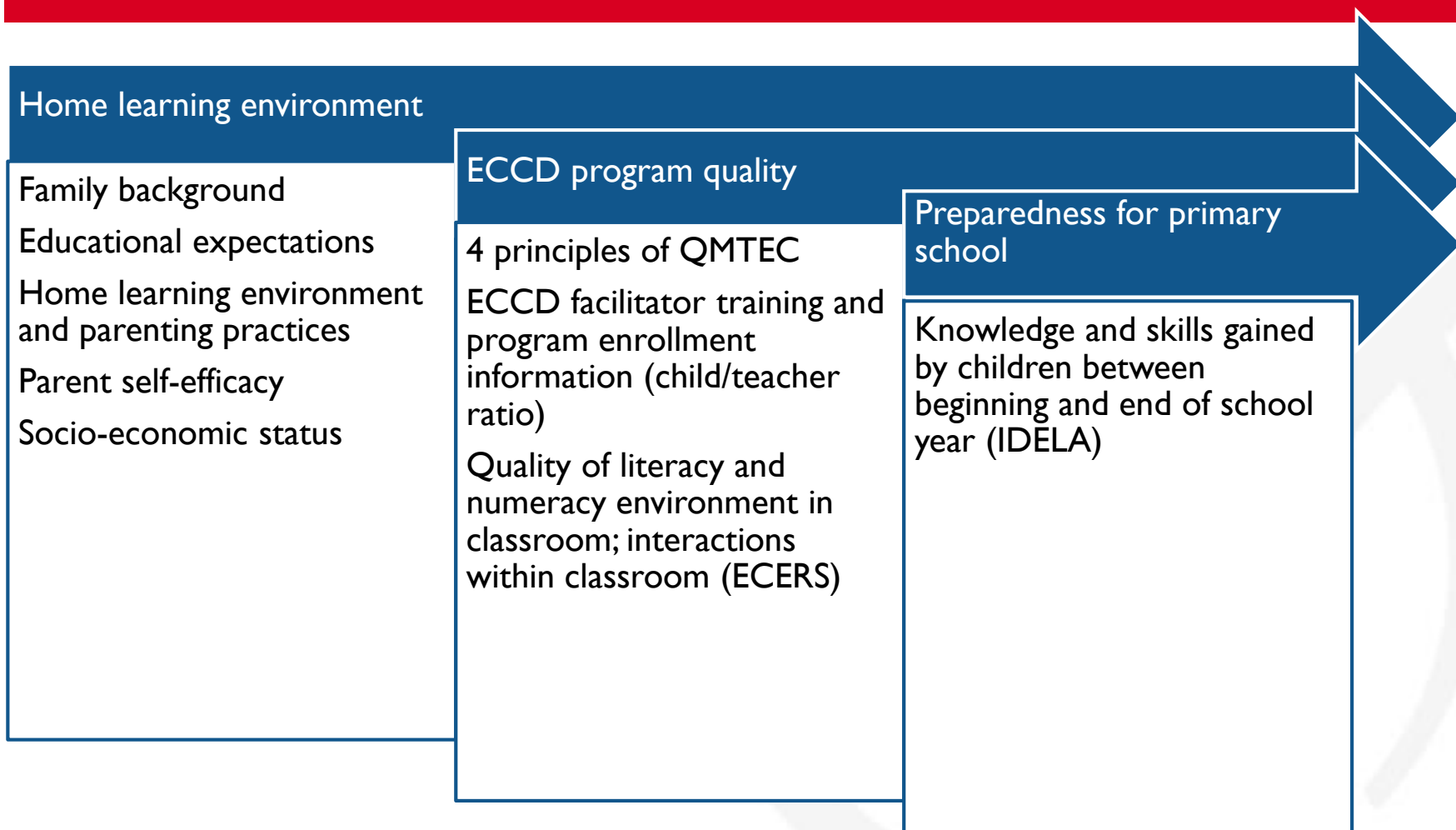
## Emergent Mathematics Environment

- Math and numbers
- Counting
- Reading simple numbers
- Math activities

## Interactions in Classroom

- Discipline
- Teacher-child interactions
- Child-child interactions

# Overview of results framework





# RESULTS: ACCESS





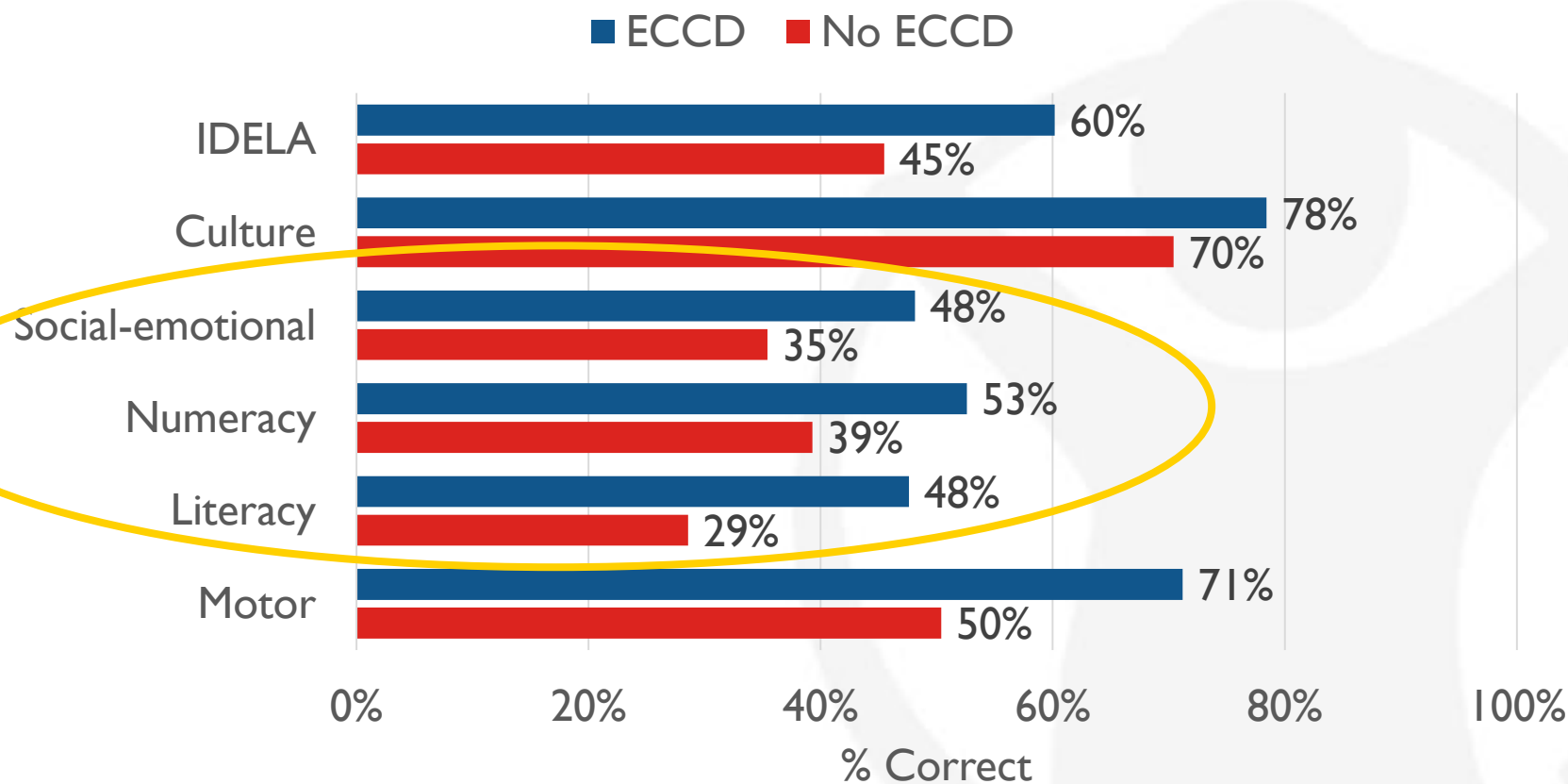
# Access Results: Conclusions

Children who attend ECCD centers are better prepared for primary school than those who do not



# Child who attend ECCD are better prepared for primary school

Figure I. Learning and Development at Endline for 5 & 6 year olds



# Access Results: Recommendations

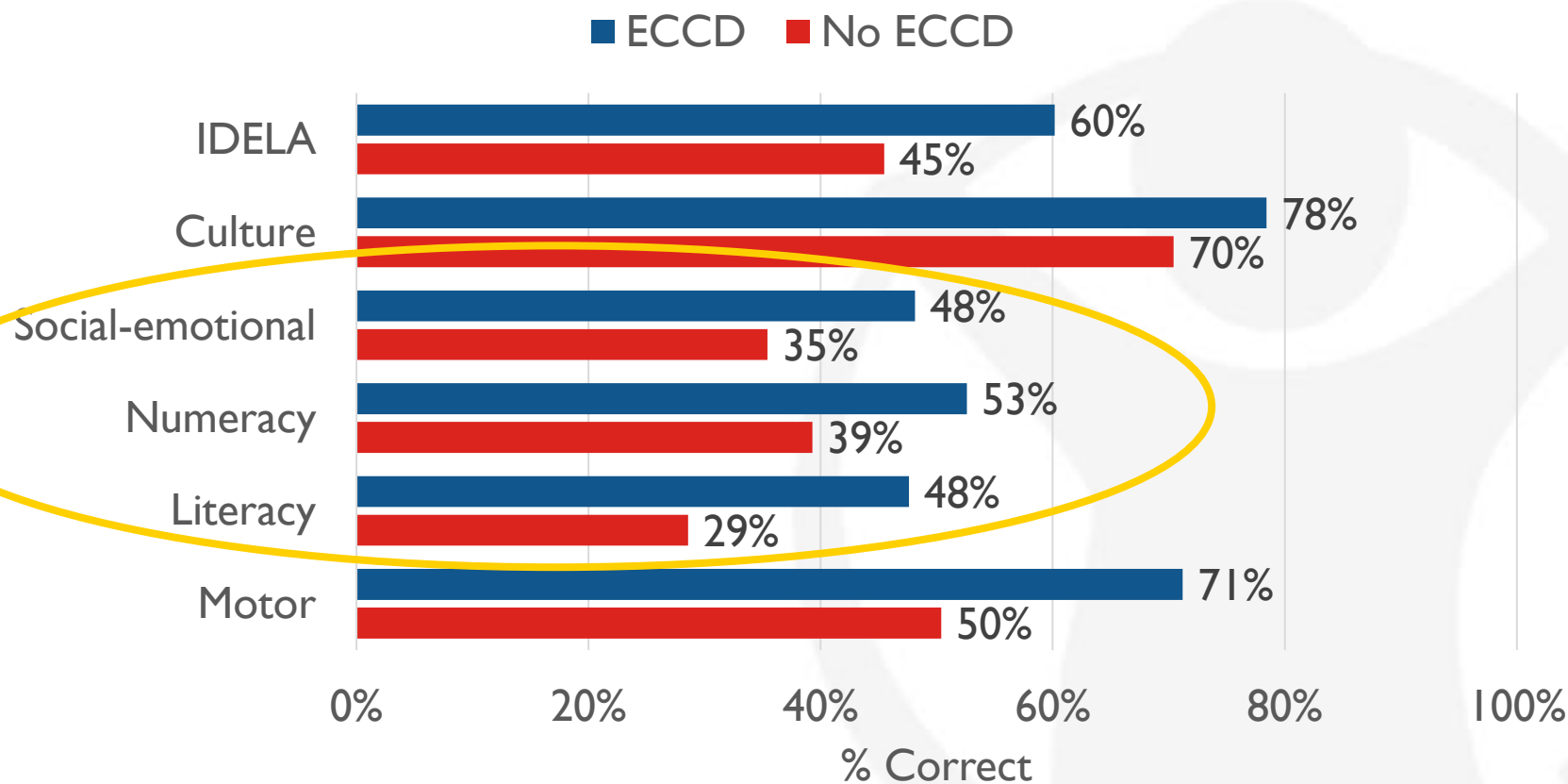
Children who attend ECCD are better prepared for primary school than those who do not

- **Recommendation:** Increase access to ECCD centers
- **Recommendation:** Undertake longitudinal study of the effects of ECCD in primary school



# Child who attend ECCD are better prepared for primary school

Figure I. Learning and Development at Endline for 5 & 6 year olds



# Access Results: Recommendations

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# RESULTS: LEARNING & DEVELOPMENT



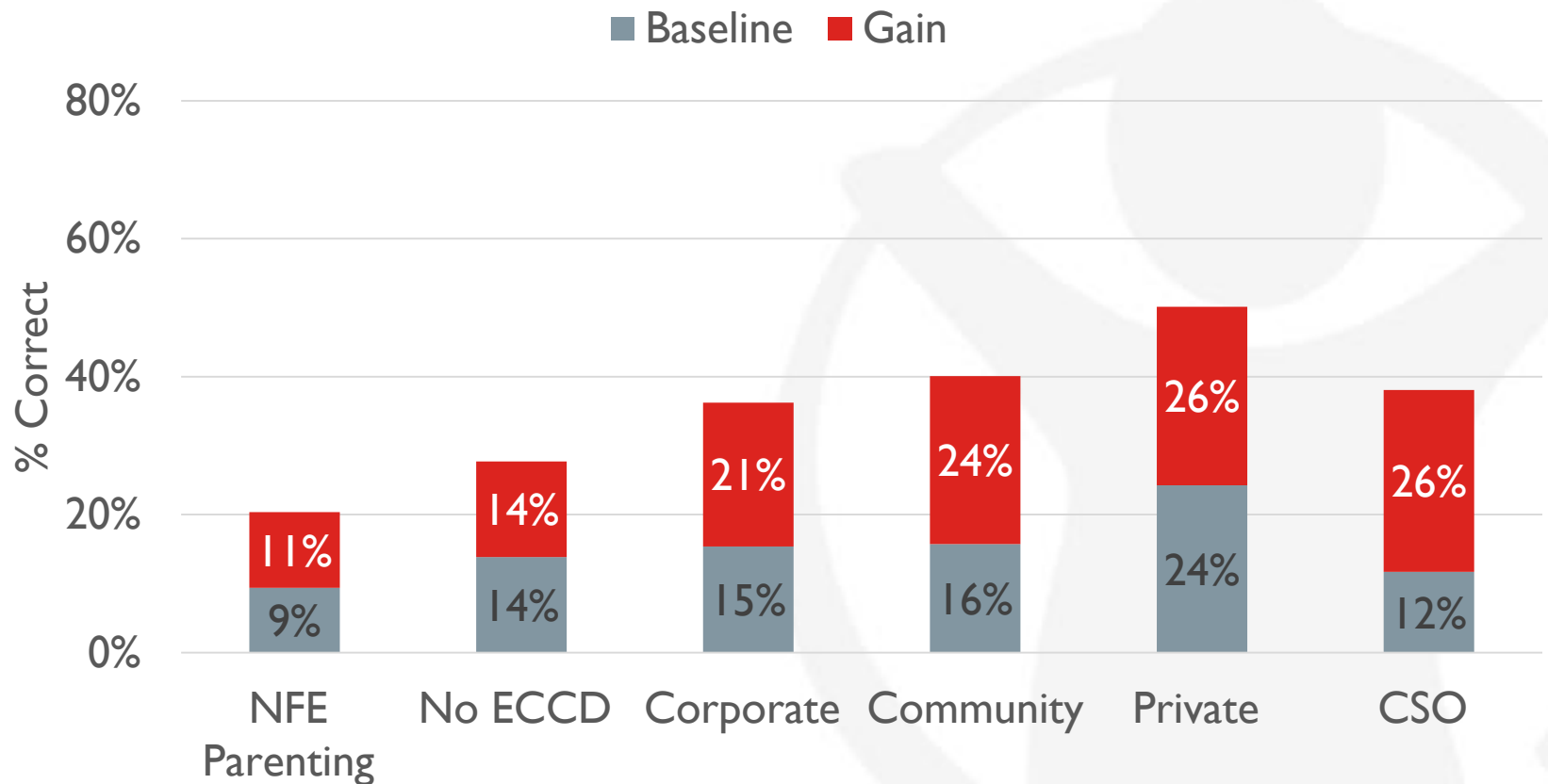
# Learning & Development Results: Conclusions

Strongest learning gains occur in  
Community, CSO and Private centers

Children's weakest skills areas are  
literacy, social-emotional and math

# Child Learning & Development: Emergent Literacy

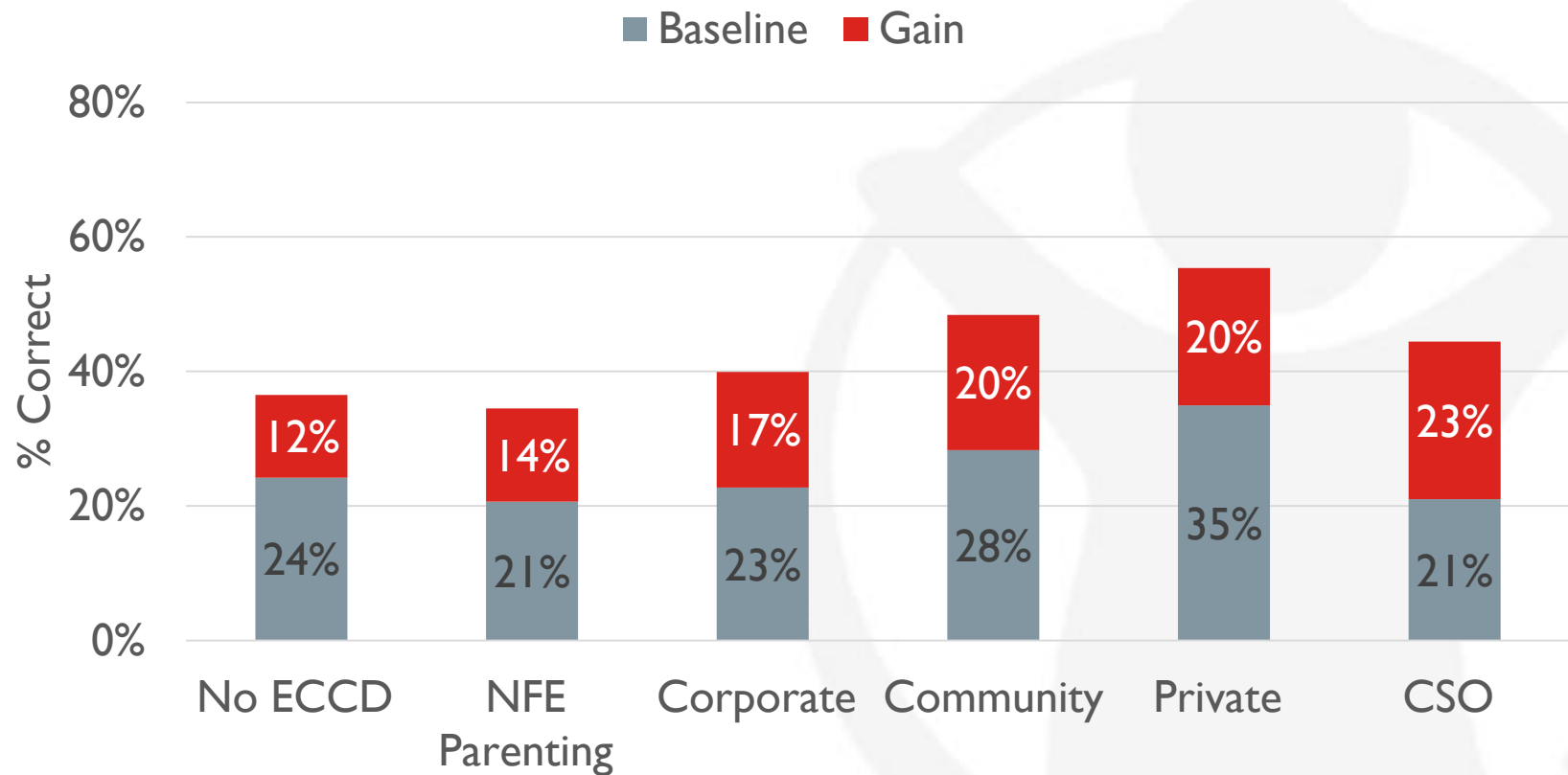
**Figure 2. IDELA Emergent Literacy Gains, by ECCD Type**





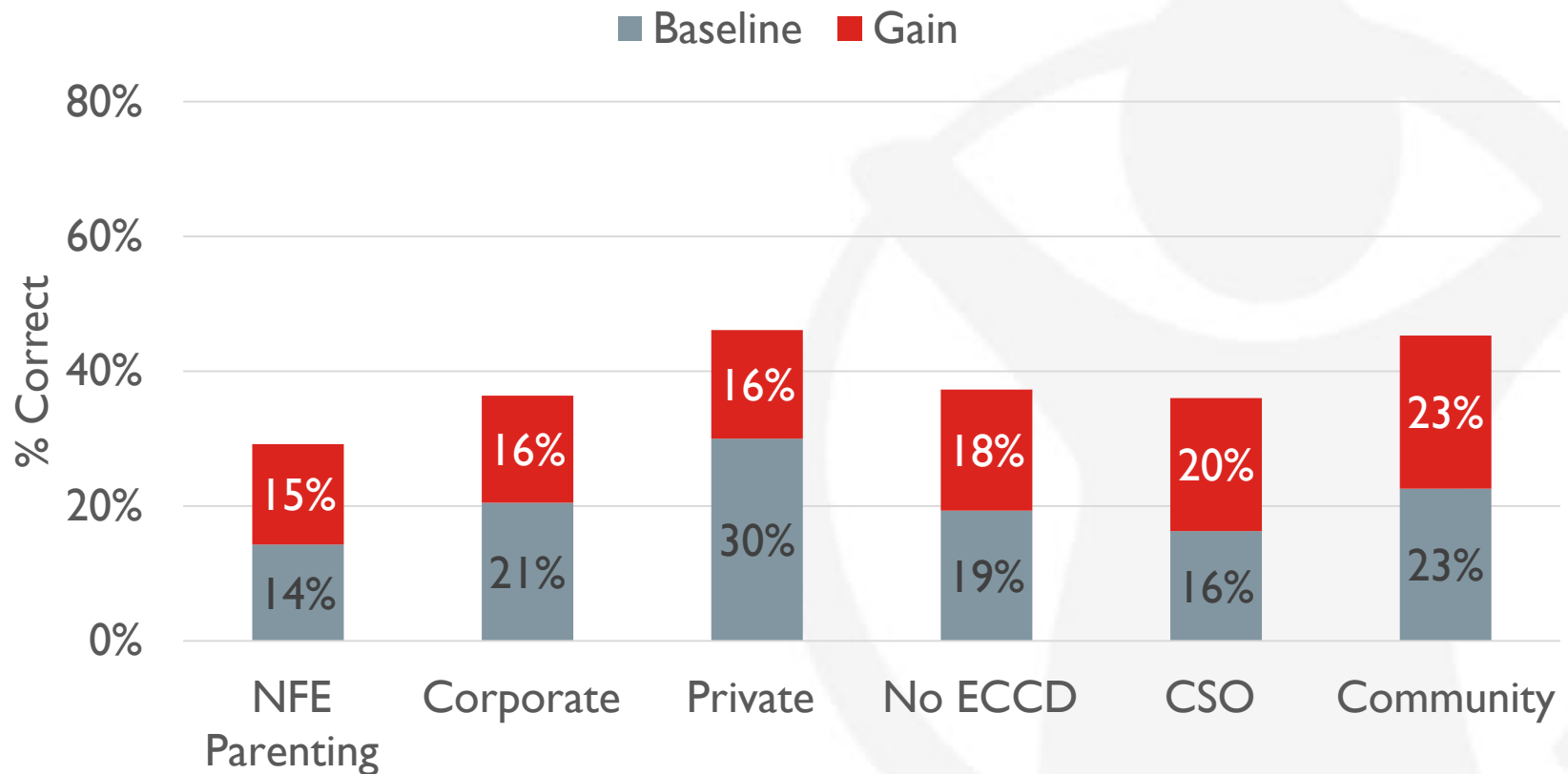
# Child Learning & Development: Emergent Math

**Figure 3. IDELA Emergent Math Gains, by ECCD Type**



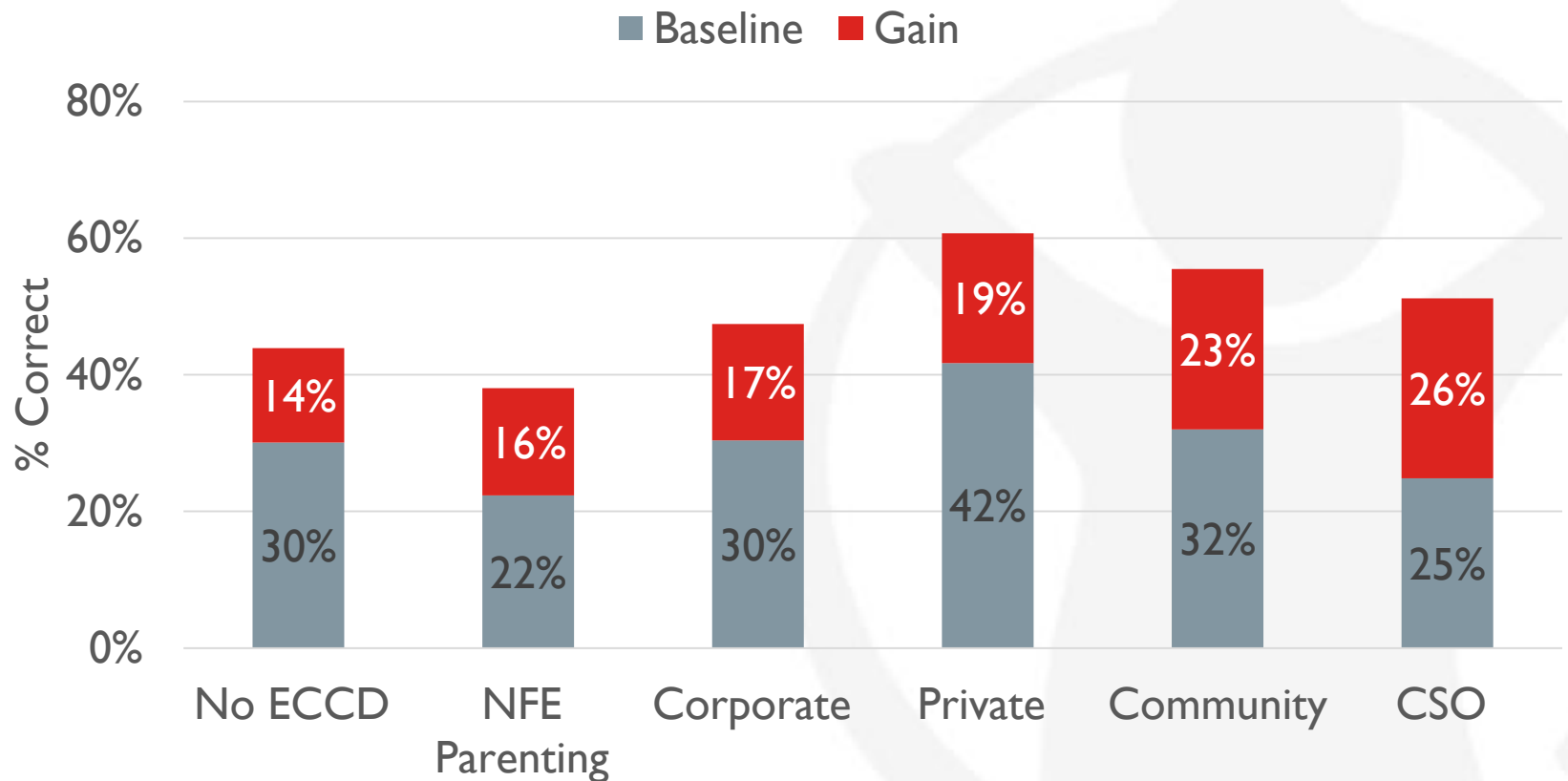
# Child Learning & Development: Social-Emotional Development

**Figure 4. IDELA Social-Emotional Development Gains, by ECCD Type**



# Child Learning & Development: Total IDELA Score

**Figure 5. Total IDELA Score Gains, by ECCD Type**



# Learning & Development Results: Recommendations

Strongest learning gains occur in Community, CSO and Private centers

- **Recommendation:** Provide further support to Corporate centers
- **Recommendation:** Review and improve NFE parenting program

Children's weakest skills areas are literacy, social-emotional and math

- **Recommendation:** Improve instruction in literacy, social-emotional development and math for all ECCD centers

# RESULTS: QUALITY



# Quality Results: Conclusions

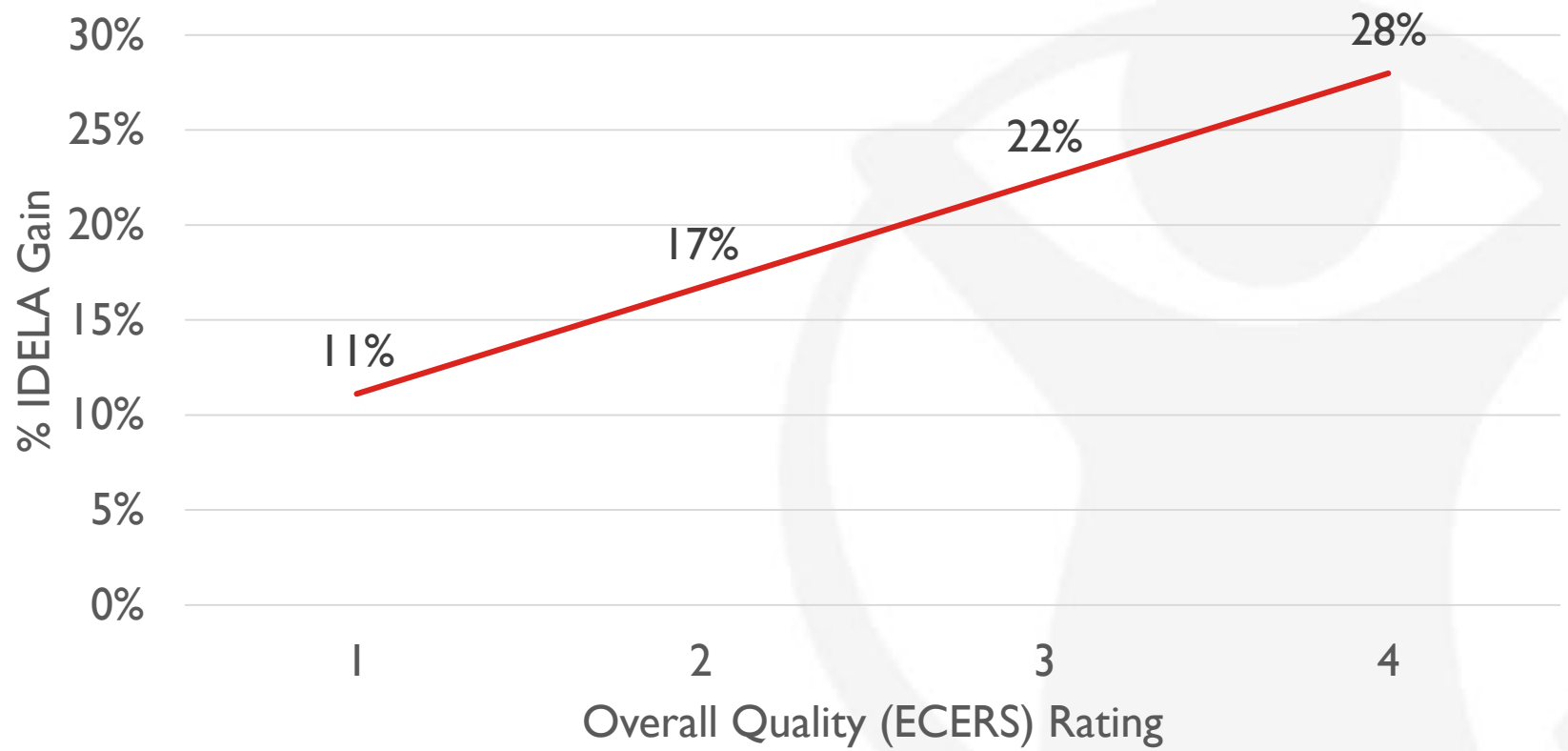
More learning happens in higher quality classrooms

Classroom quality is driven by the interactions between facilitators and children

Lower social-emotional gains in larger classes

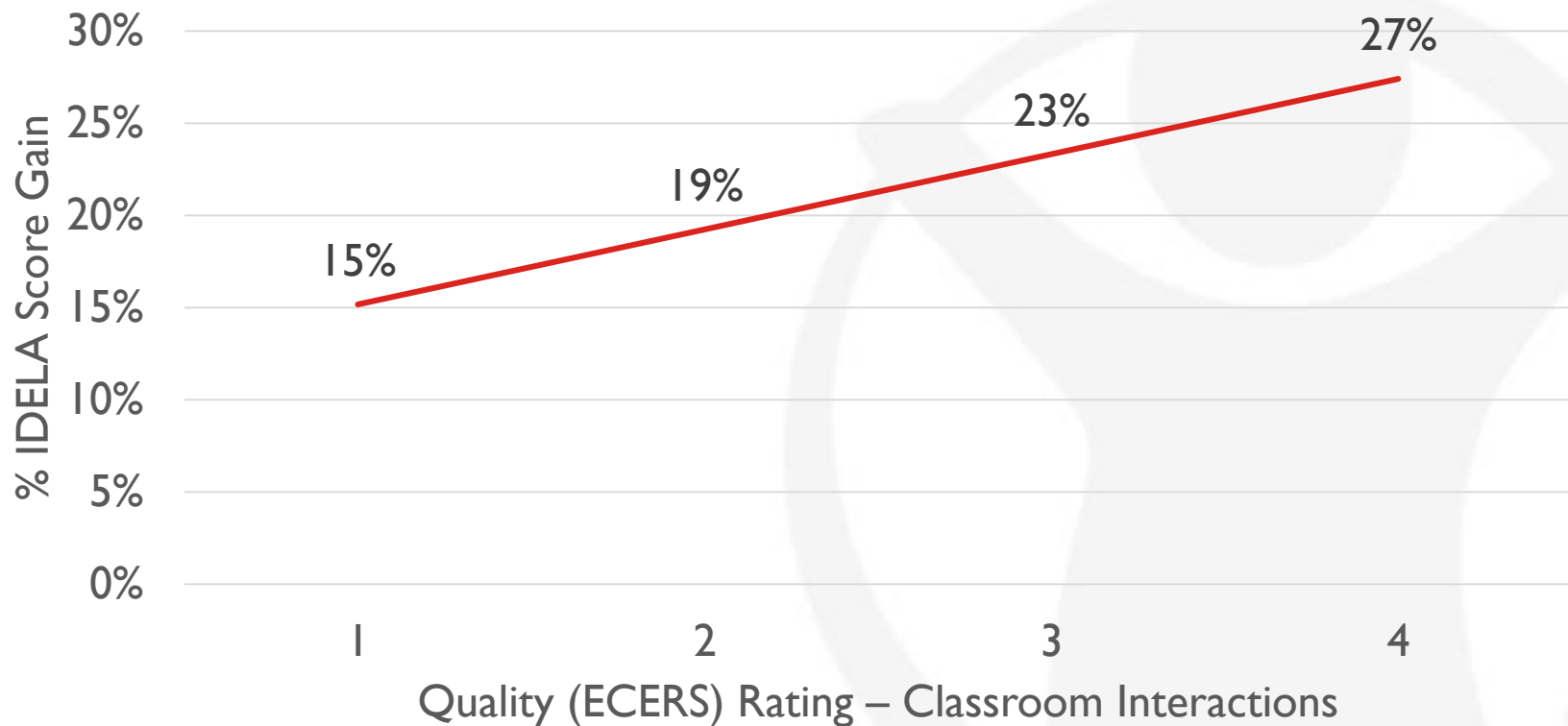
# More learning in higher quality classrooms

**Figure 6. Quality (ECERS) Scores & IDELA Learning Gains, Community Centers**



# Classroom quality driven by facilitator-child and child-child interactions

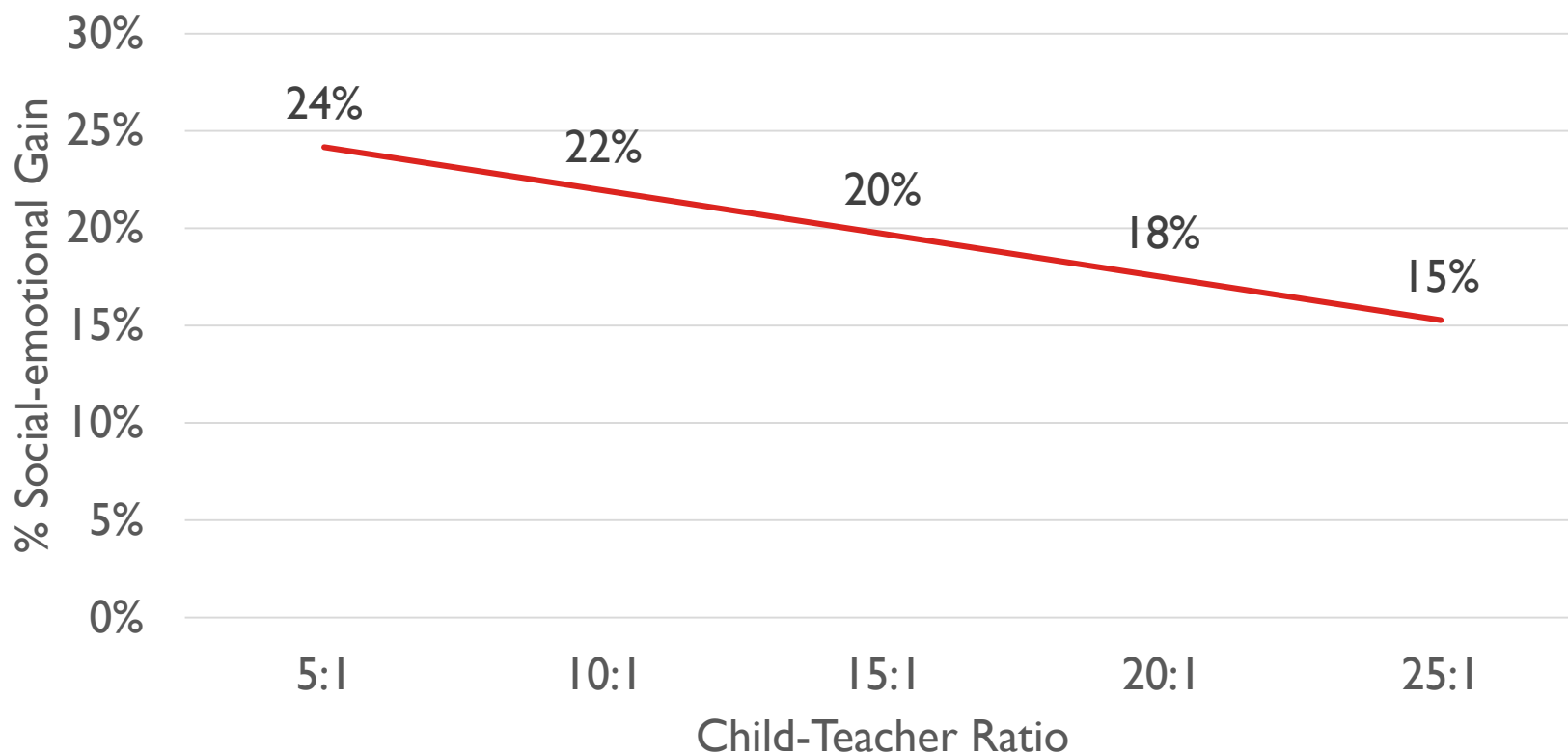
**Figure 7. Quality (ECERS) Classroom Interactions & IDELA Learning Gains, Community Centers**





# Lower social-emotional gains in larger classrooms

**Figure 8. Relationship between social-emotional gains and child-teacher ratio, All Centers**



# Quality Results: Recommendations

## More learning happens in higher quality classrooms

- **Recommendation:** Focus on ensuring quality in all ECCD programs

## Classroom quality is driven by interactions between facilitators and children

- **Recommendation:** Invest in quality pre-service training and in-service support for facilitators

## Lower social-emotional gains in larger classes

- **Recommendation:** Maintain class size of 15:1 as recommended by Bhutan's Ministry of Education



# RESULTS: EQUITY

# Equity Results: Conclusions

Children with more learning and play at home have stronger baseline skills and make stronger gains

Children in rural areas have the weakest home learning environments – both materials and activities

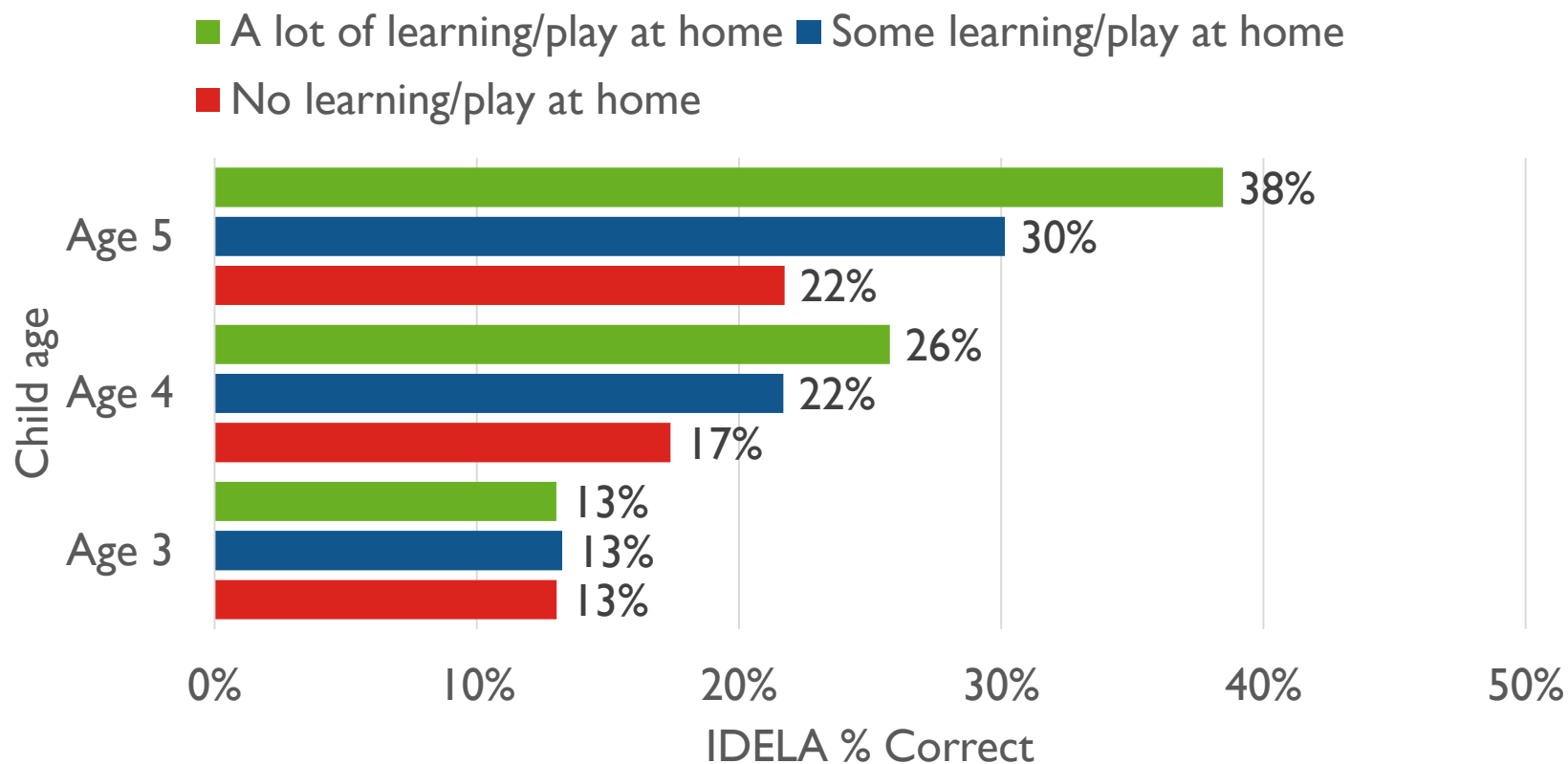
Children experiencing more negative discipline at home make smaller learning gains

No gender differences in learning gains

Children in rural areas gained as much as children in urban areas despite many disadvantages

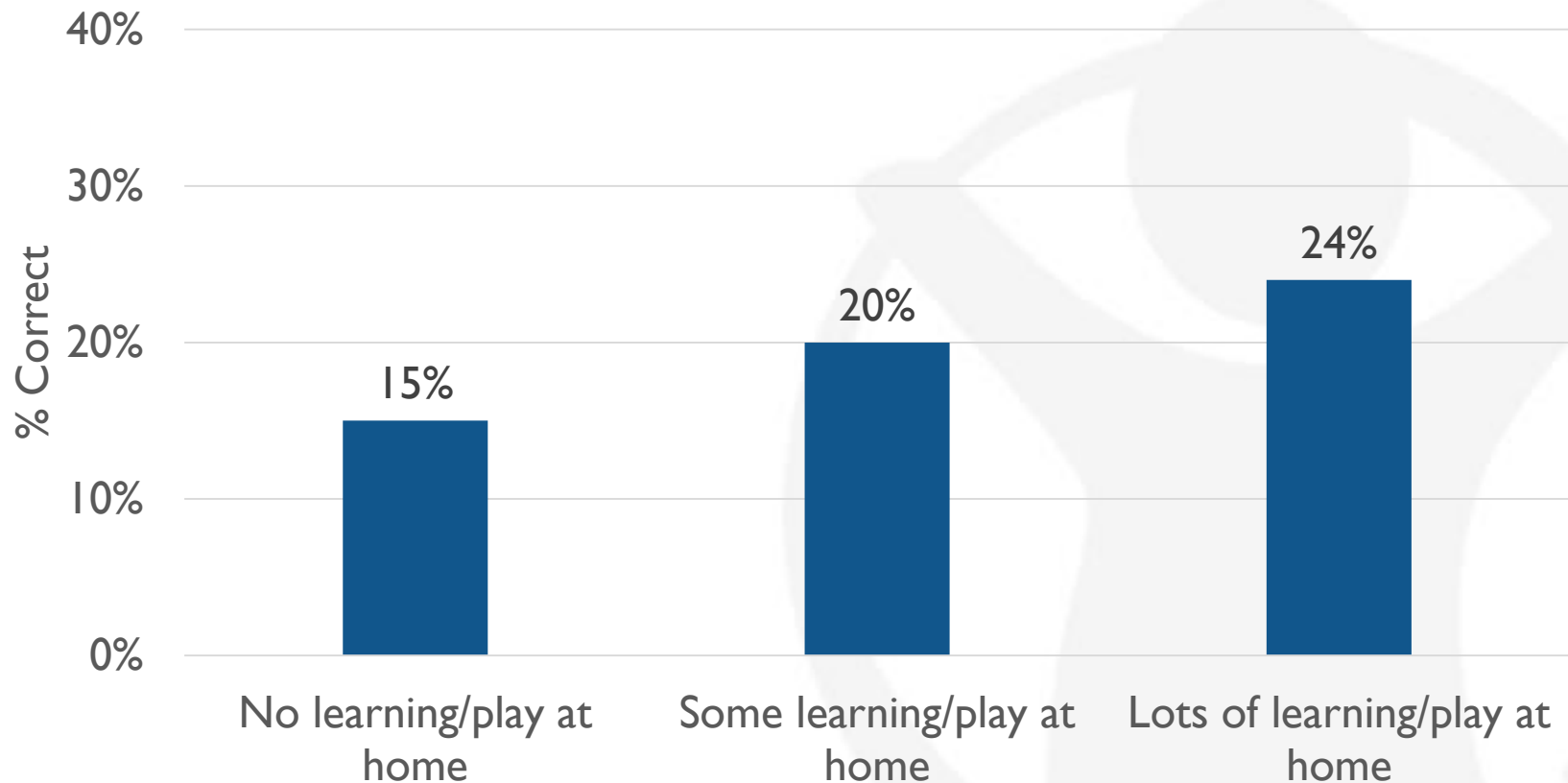
# Children with more learning and play at home have stronger baseline skills

**Figure 9. Home Learning Activities & IDELA Baseline**



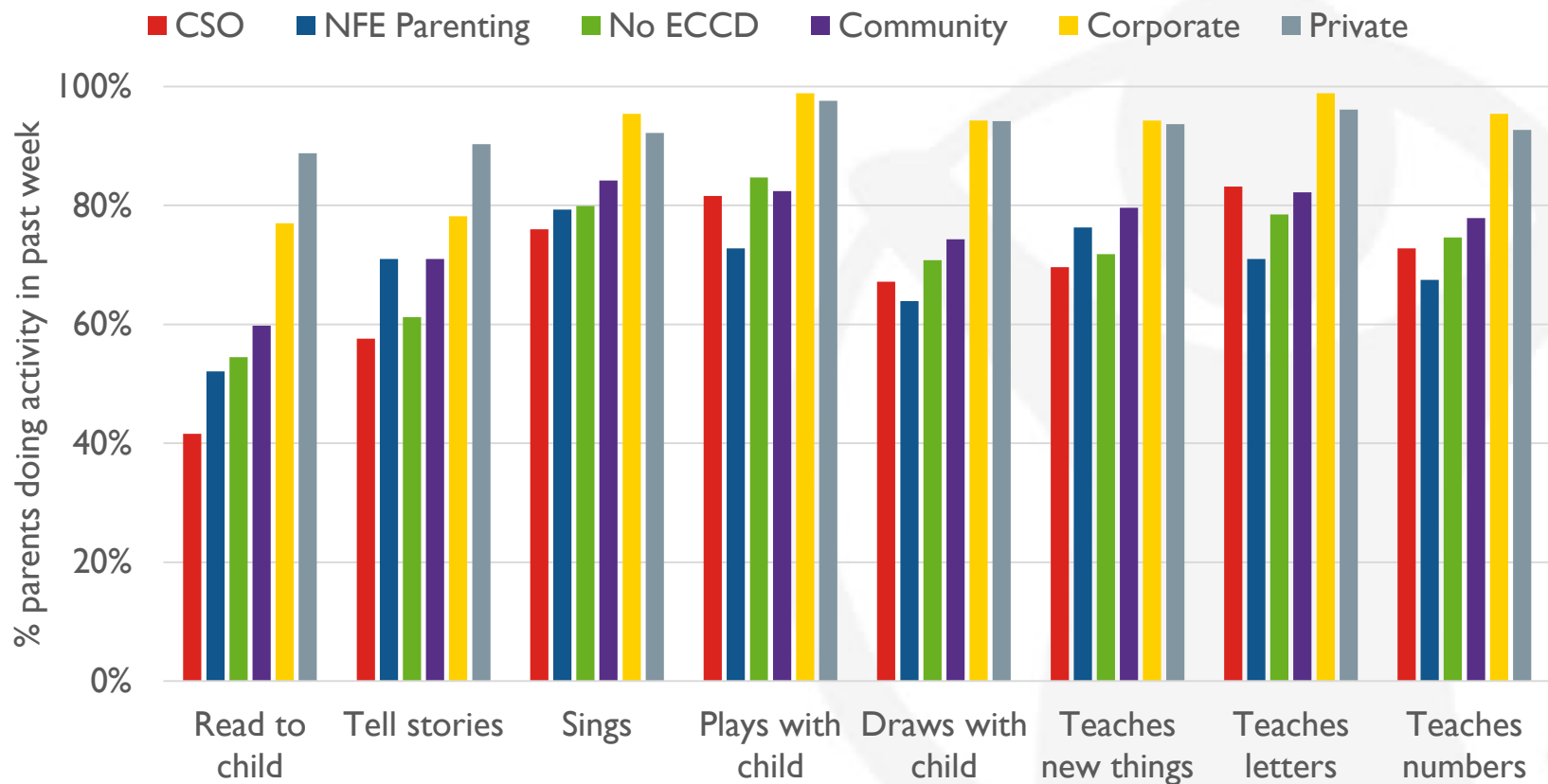
# And make stronger gains, across all types of ECCD centers

**Figure 10. Home Learning Activities & IDELA Gains**



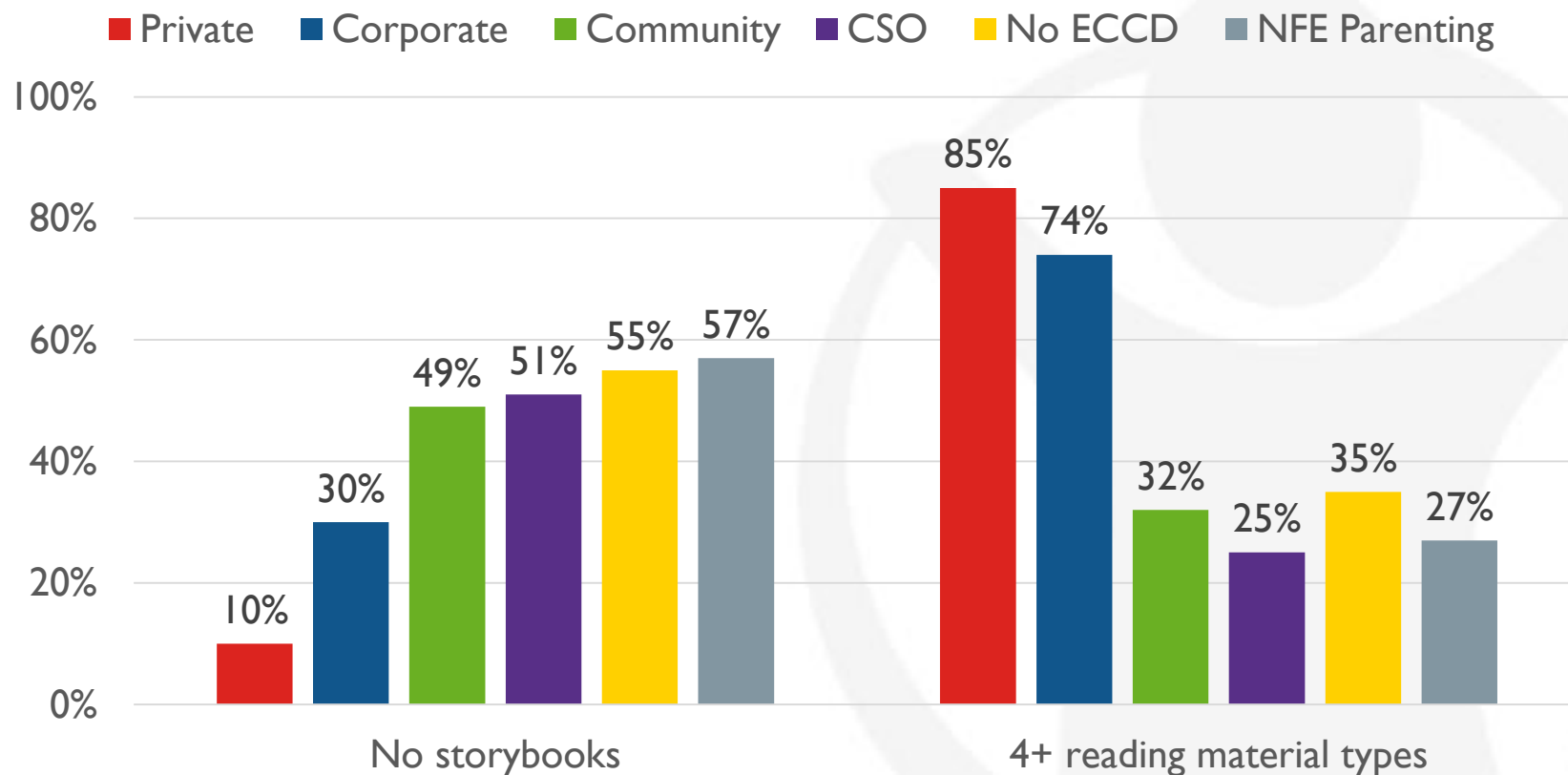
# Children in Private and Corporate centers experience more learning activities at home

Figure 11. Home learning activities, by center type



# Children in Private and Corporate centers have more reading materials at home

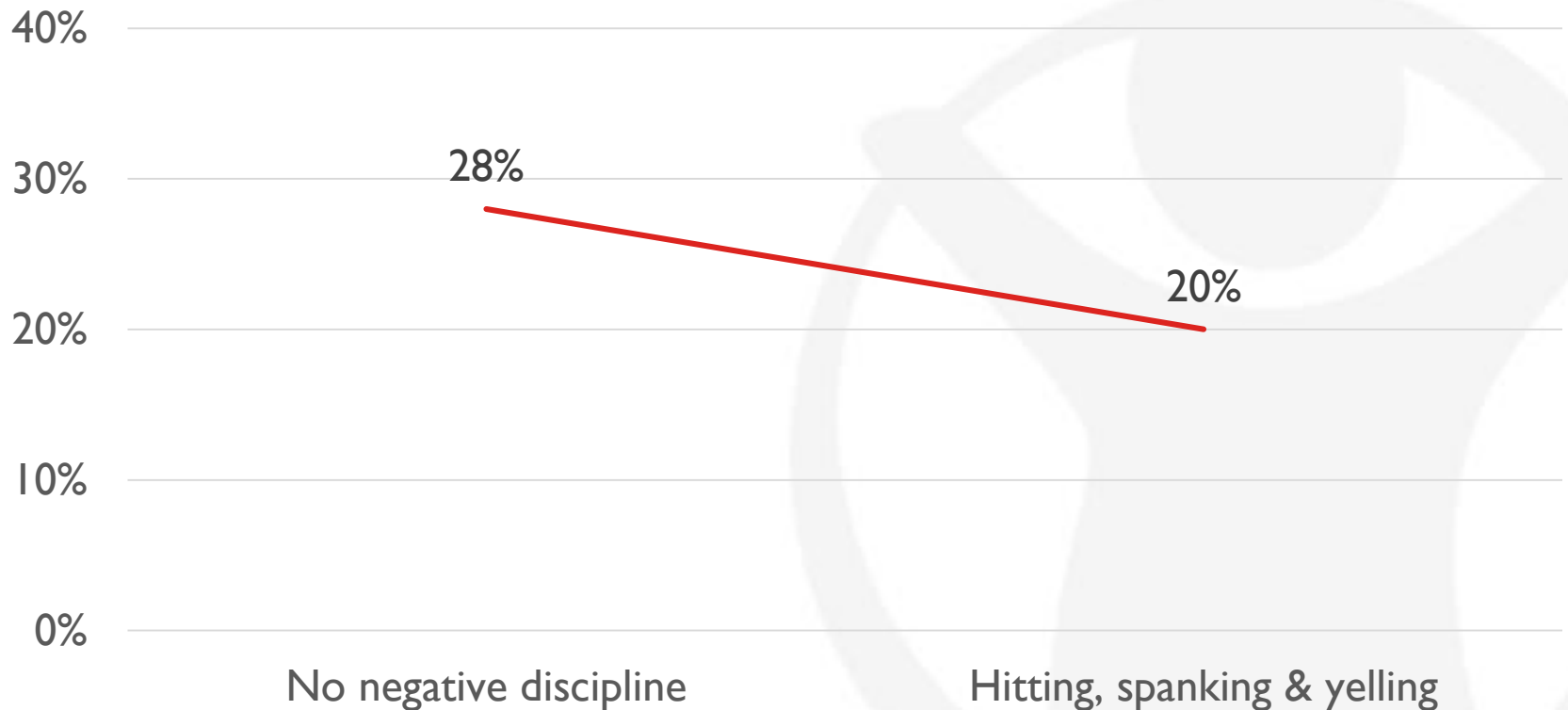
**Figure 12. Home Learning Materials, by ECCD Type**





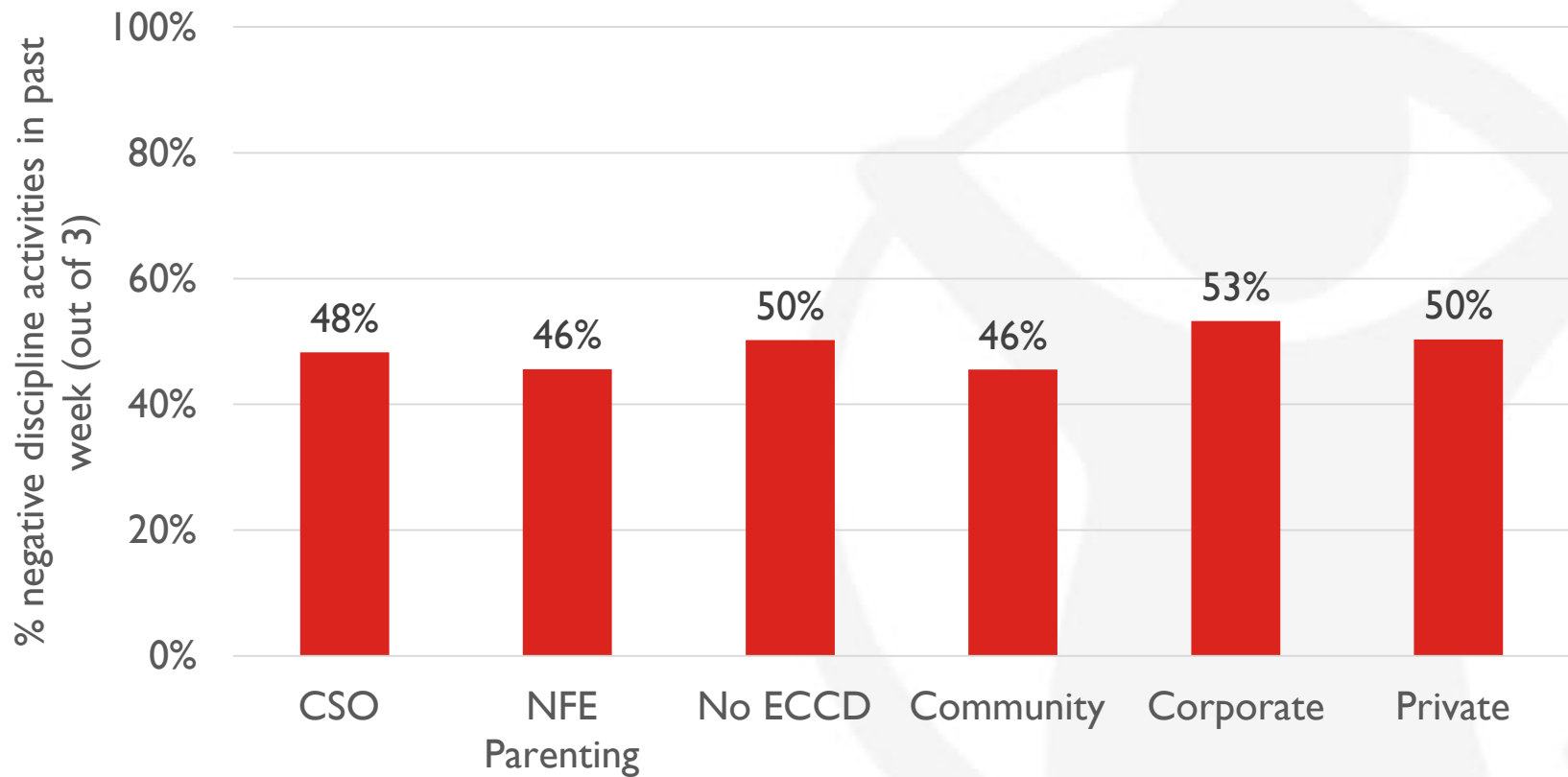
# Children experiencing more negative discipline at home make smaller learning gains

**Figure 13. Negative Discipline & IDELA Learning Gains**



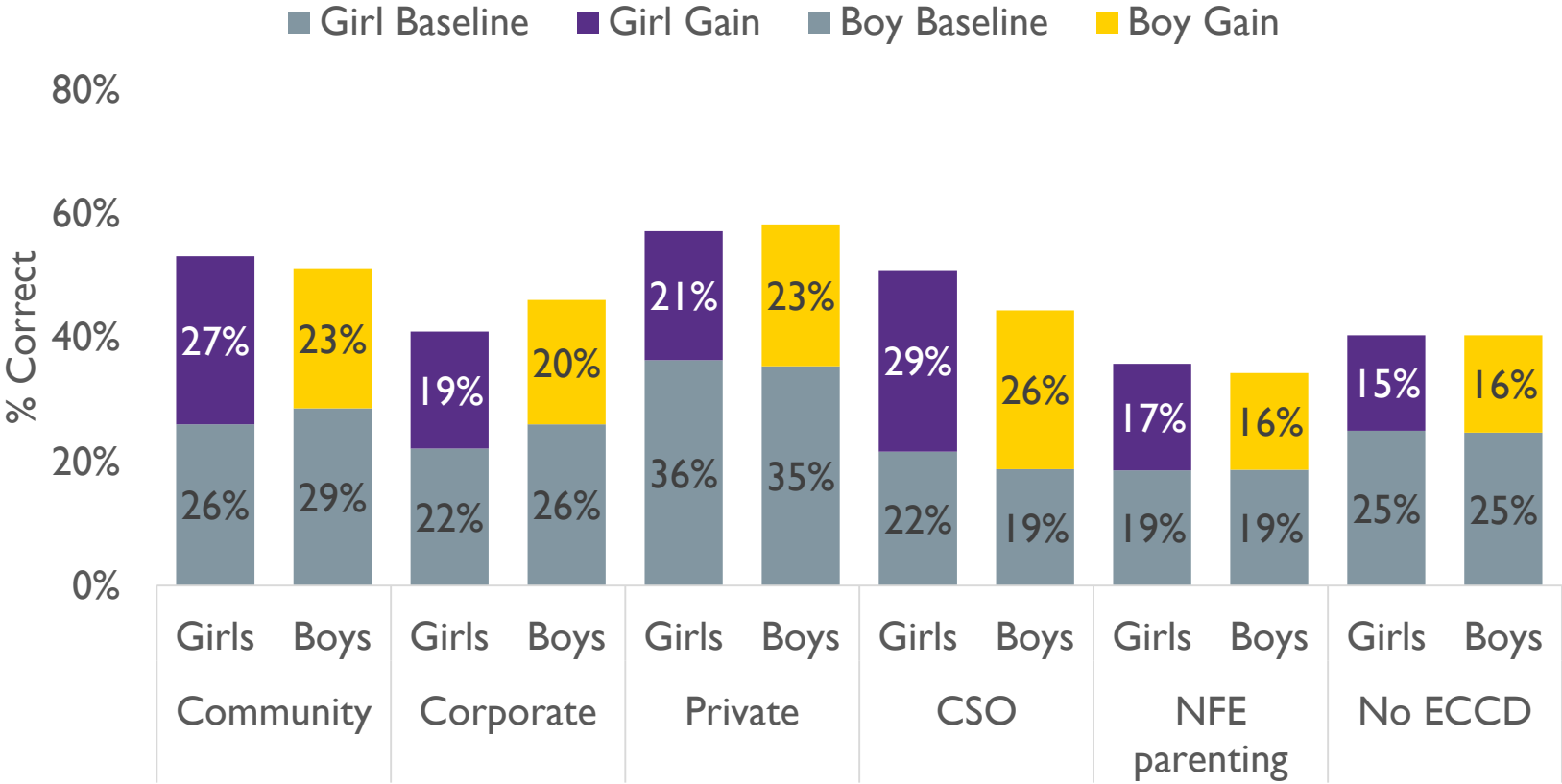
# All parents report using negative discipline

Figure 14. Negative discipline, by center type



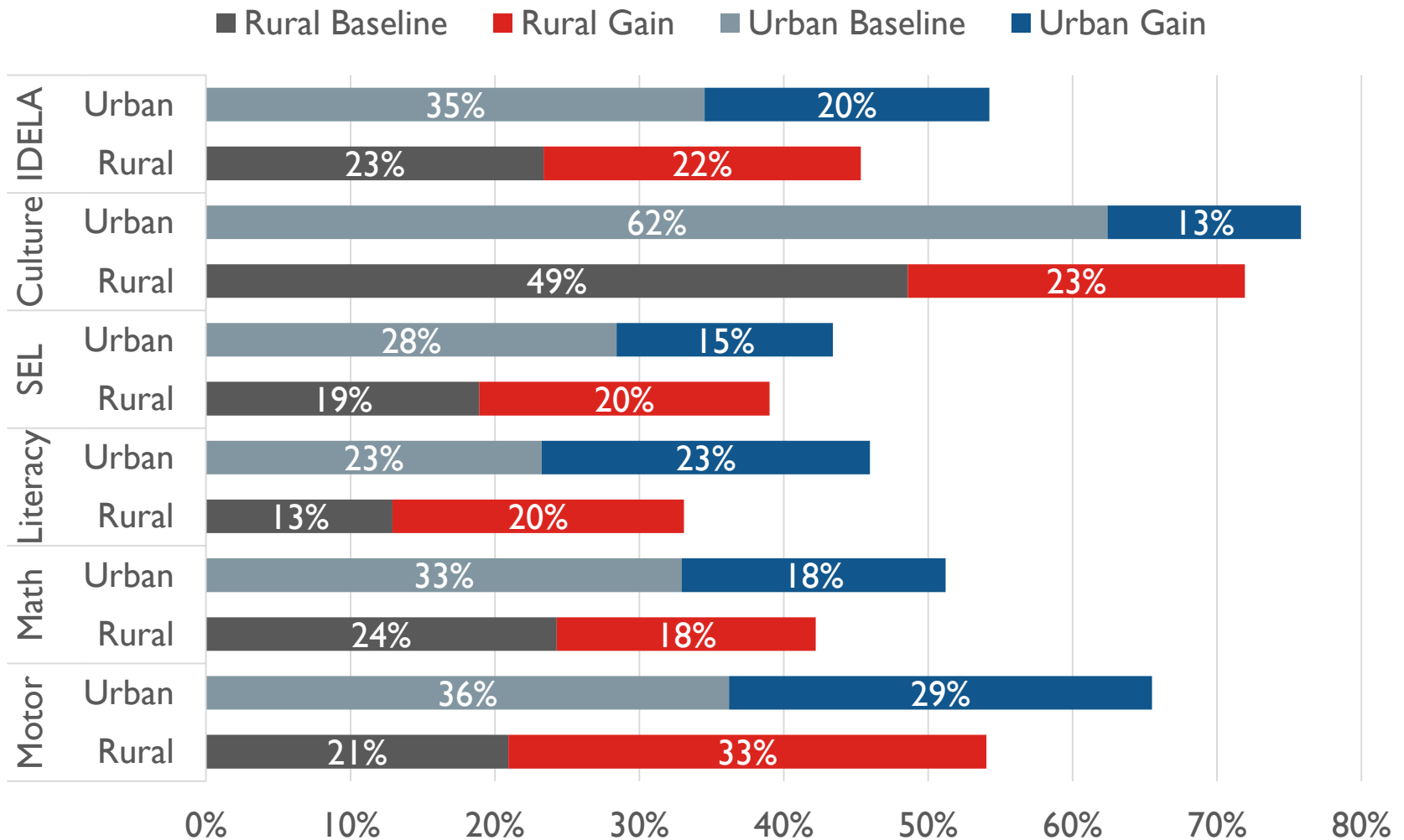
# No gender differences in early learning

**Figure 15. IDELA Learning & Development Gains, by Gender**



# Children in rural areas make gains as strong as those in urban areas

**Figure 16. Total IDELA Score Gains, by Urban/Rural**



# Equity Results: Recommendations

Children with more learning and play at home have stronger baseline skills and make stronger gains

- **Recommendation:** Invest in parenting programs that emphasize learning and play at home, as well as creation of child-friendly learning materials

Children in rural areas have weakest home learning environments – both materials and activities

- **Recommendation:** Increase provision of parenting programs, especially in disadvantaged communities

Children experiencing more negative discipline at home make smaller learning gains

- **Recommendation:** Incorporate positive parenting messages into all parenting curricula

No gender differences in learning gains

Children in rural areas gained as much as children in urban areas despite many disadvantages

- **Recommendation:** Continue to increase opportunities for rural children to enroll in ECCD centers

# Conclusions

## Access

- Children who attend ECCD centers are better prepared for primary school

## Learning

- Strongest learning gains come from Private, Community and CSO centers
- Weakest skill in areas are literacy, social-emotional and math

## Quality

- More learning in higher quality classrooms
- Classroom quality driven by interactions between facilitators and children
- Lower social-emotional gains in larger classes

## Equity

- Children with more learning and play at home have stronger baseline skills and make stronger gains
- Children in rural areas have weakest home learning environments – both materials and activities
- Children experiencing more negative discipline at home make smaller learning gains
- No gender differences in learning gains
- Children in rural areas gained as much as children in urban areas despite many disadvantages

# Recommendations

## Access

- Increase access to ECCD center programs
- Undertake longitudinal study of the effects of ECCD in primary school

## Learning

- Provide more support to Corporate ECCD centers
- Review and improve NFE parenting program
- Improve instruction in literacy, numeracy and social-emotional development for all ECCD centers

## Quality

- Focus on improving quality of all ECCD programs
- Invest in quality pre-service facilitator training and in-service support
- Maintain class size of 15:1 as recommended by Bhutan's Ministry of Education

## Equity

- Invest in parenting programs that emphasize learning and play at home, as well as creation of child-friendly learning materials
- Increase provision of parenting programs, especially in disadvantaged communities
- Incorporate positive parenting messages into all parenting curricula
- Continue to increase opportunities for rural children to enroll in ECCD centers

# Discussion







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