

# Experimental Impacts of the ‘Quality Preschool for Ghana’ Intervention: Implications for System-level Reform

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# Outline

## Part I: Background

- Early childhood education
- The Ghanaian context
- Quality Preschool for Ghana (QP4G)
- Research design and Theory of change

## Part II: Impacts of QP4G

- Classroom quality and teacher well-being
- Children's school readiness
- Differences in public and private schools and child characteristics

## Part III: Conclusions & Next Steps

# Early childhood education (ECE)

- Early behavioral and social skills have lifelong consequences for children.
- Potential return on ECE investment is large.
- Emotional climate of ECE classrooms: important for early adjustment and learning.

# The policy context in Ghana

- The 2012 GES report that the 2004 KG curriculum is sound, but that teacher behavior has not adapted to reflect new pedagogy.
- Top priority: Train 27,000 untrained **teachers** in KG-specific pedagogy.
- Another priority: engaging **parents** in schools and raising their awareness of KG-specific pedagogy.
- Private schools must comply with the national curriculum and standards.

# Quality Preschool for Ghana (QP4G)

- In partnership with **Ghana Education Service, National Nursery Teacher Training Center, University of Pennsylvania, NYU** and **Innovations for Poverty Action**:
- Develop and test a *nationally scalable* model for teachers and parents with the goal of improving KG quality and children's school readiness.

# The In-Service Teacher Training Program

- 5 days in September, followed by refresher trainings in January (2 days) and May (1 day) implemented by NNTTC trainers.
- Classroom visits paired with monitoring / feedback from district coordinators.

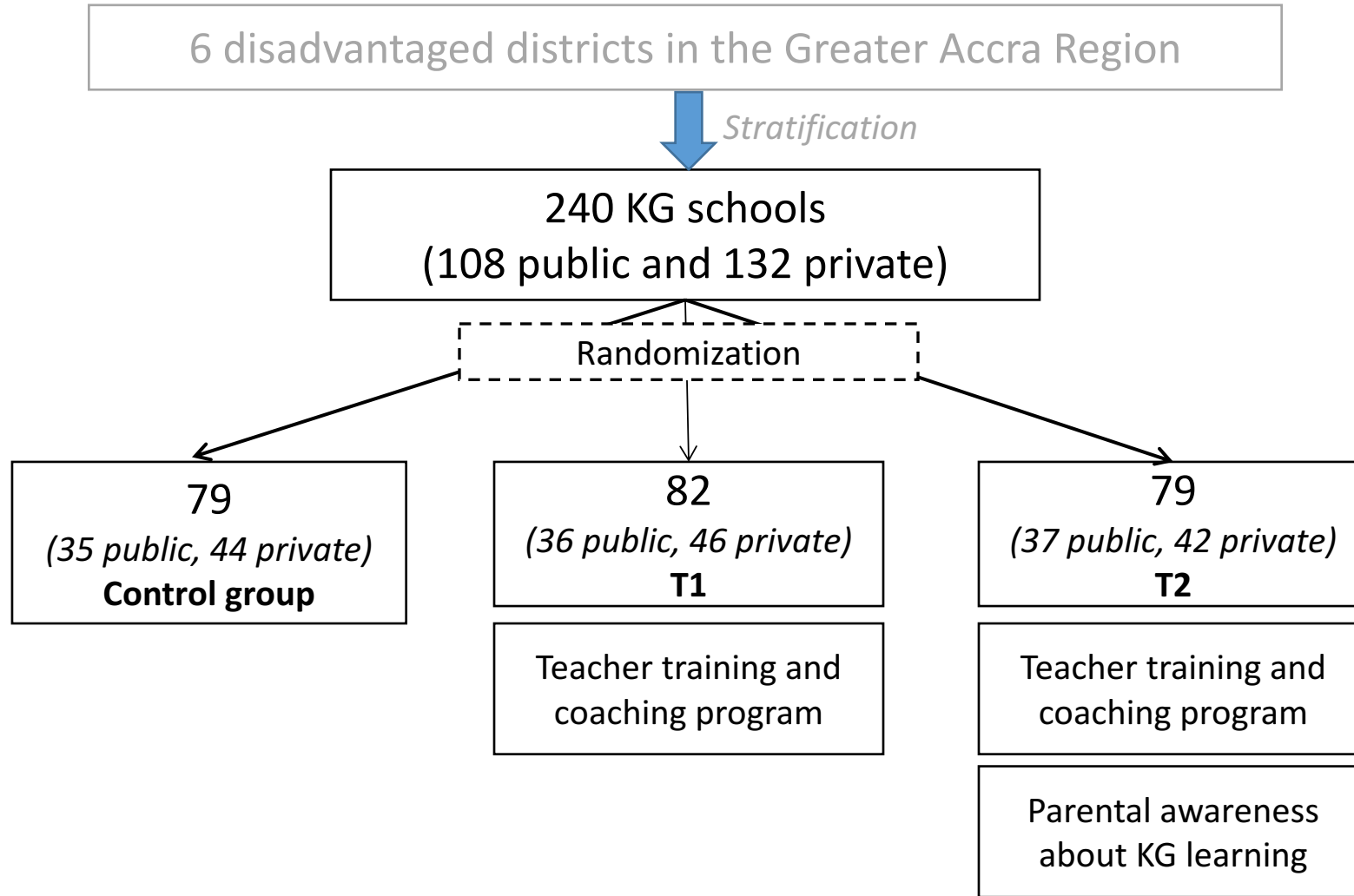
## ***5 areas:***

- (1) How children learn—developing a child-friendly environment
- (2) Classroom management
- (3) Integrating play into language and literacy instruction
- (4) Integrating play into early numeracy instruction
- (5) Assessment and planning

# The Parental Awareness Program

- 3 sessions (1/term) held at school PTA meeting, open to all parents with KG children. Parental awareness training about KG learning.
- Video screening followed by discussion, led by district coordinators, focused on (1) play-based learning, (2) parents' role in child learning, and (3) encouraging parent-teacher and parent-school communication.

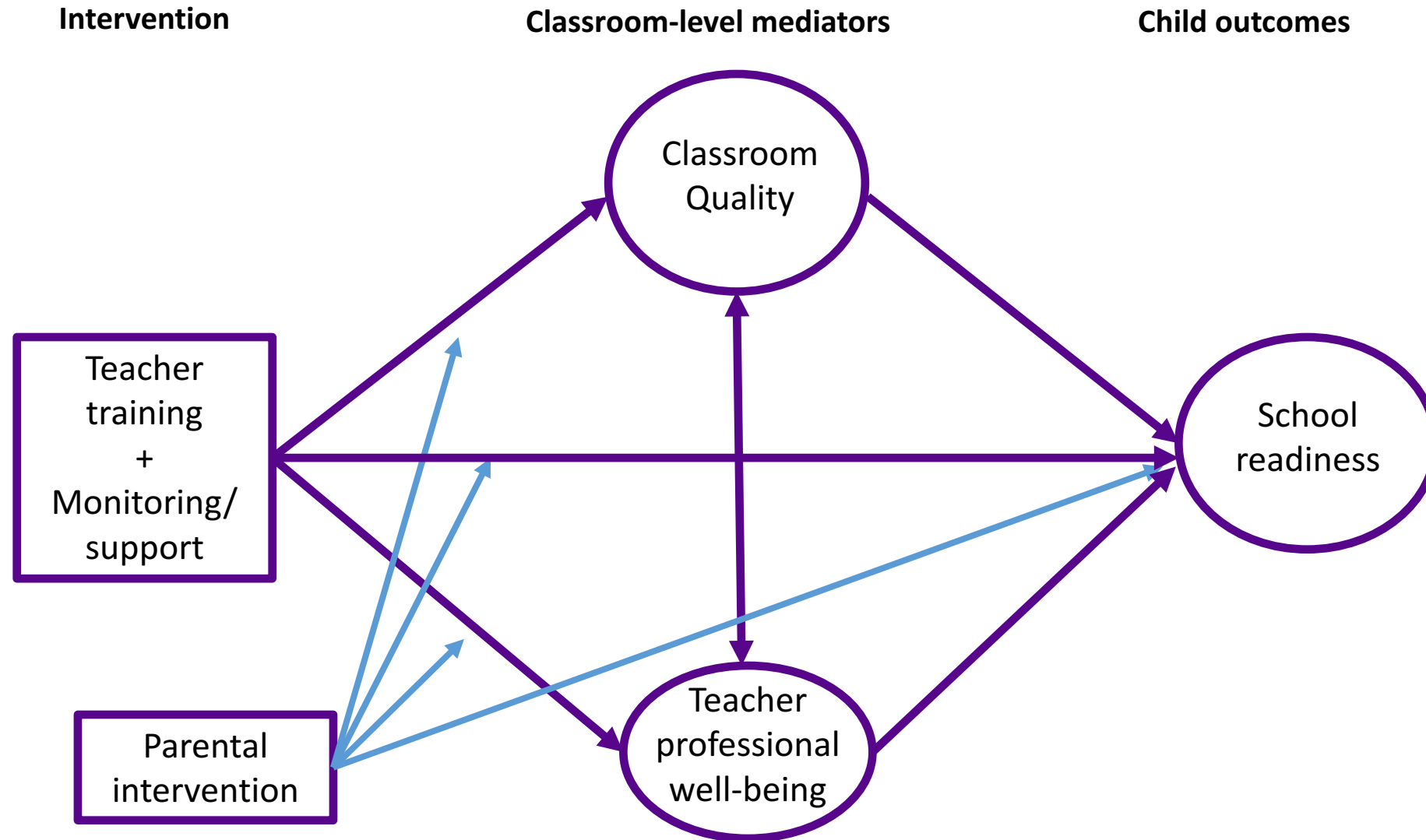
# QP4G: Research design



Summer of 2015



# QP4G Theory of Change



2015-16 academic year

September 2015 (baseline), June 2016 (follow up 1), June 2017 (follow up 2)



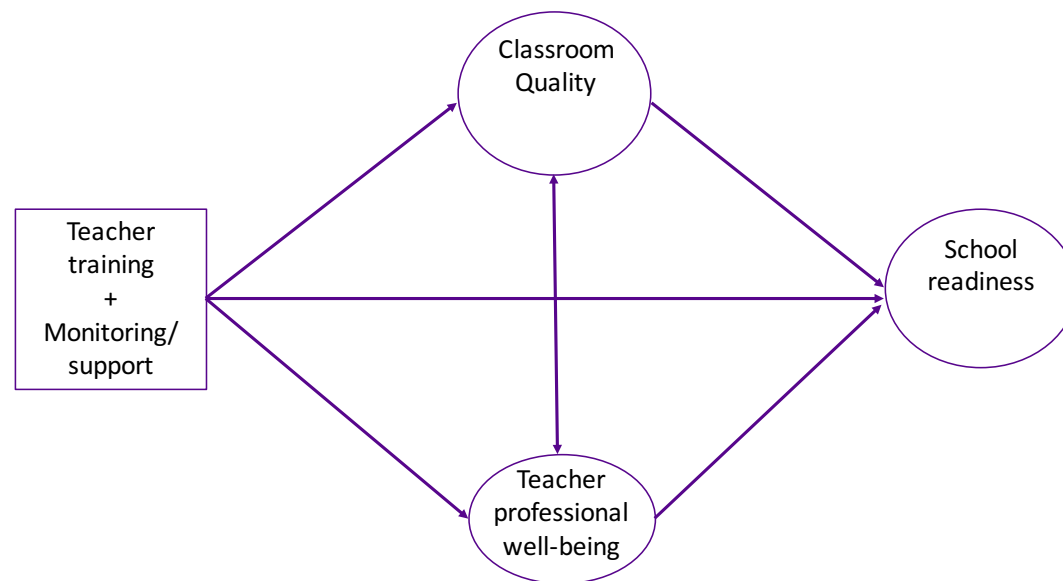
## **Part II: Impacts of QP4G**

# Measures

1. Classroom quality – implementation and quality
2. Teacher professional well-being
3. Teacher attrition
4. Child school readiness

*Impacts are assessed:*

- End of implementation year
- One year later



# Implementation: Are teachers integrating practices from the training in their classroom?

Checklist with 15 teaching practices that were in the training. For example:

*Teacher praises children for positive behavior*

*Teacher uses one or multiple songs to facilitate learning*

*Teacher threatens children with or uses a cane on children at least once*

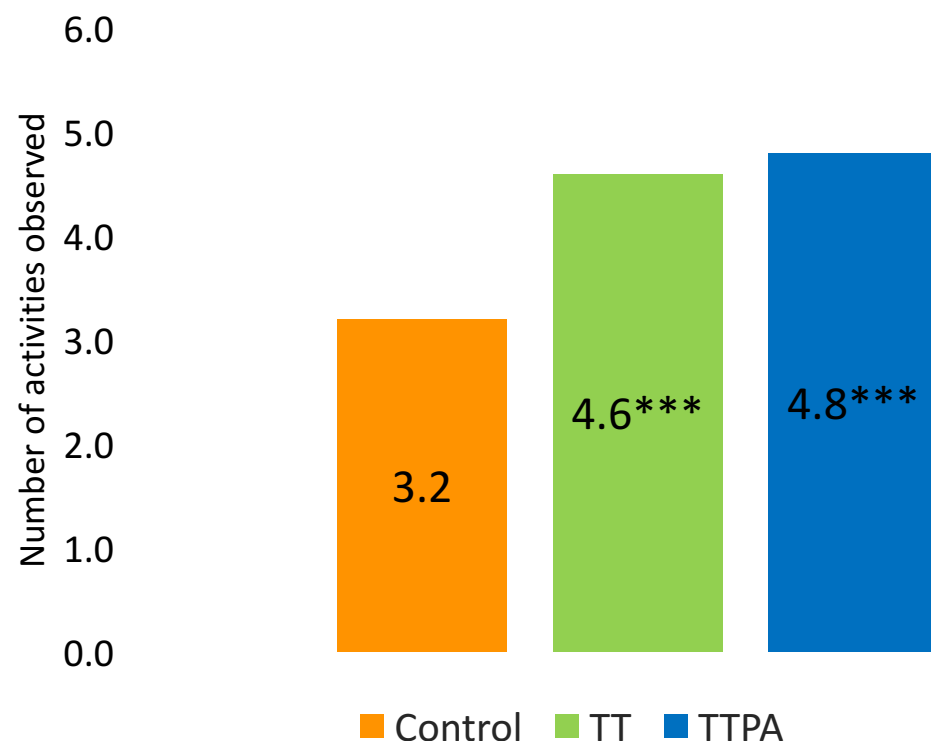
*The lesson consists of a game that facilitated the lesson objectives*

*Teacher explicitly reminds children of the class rules*

*Teacher asks students at least two open-ended questions during the class*

*Teacher incorporates found items as Learning Materials (e.g., bottle caps, milk cartons)*

# Teachers integrate training practices in their classrooms



Teachers were videotaped teaching for 30-45 minutes.

On average, teachers in both treatment conditions implemented **1.5 additional “developmentally appropriate” activities** during the observed period of teaching practice.

TT= Teacher training; TTPA = Teacher training + Parental awareness training

# Classroom quality: Does QP4G improve the quality of teacher-child interactions?

Developed based exploratory and confirmatory factor analysis, we assess impacts on three dimensions of classroom quality.

## Facilitating deeper learning

- *Scaffolding (concept development)*
- *Quality of feedback*
- *Objectives explicit*

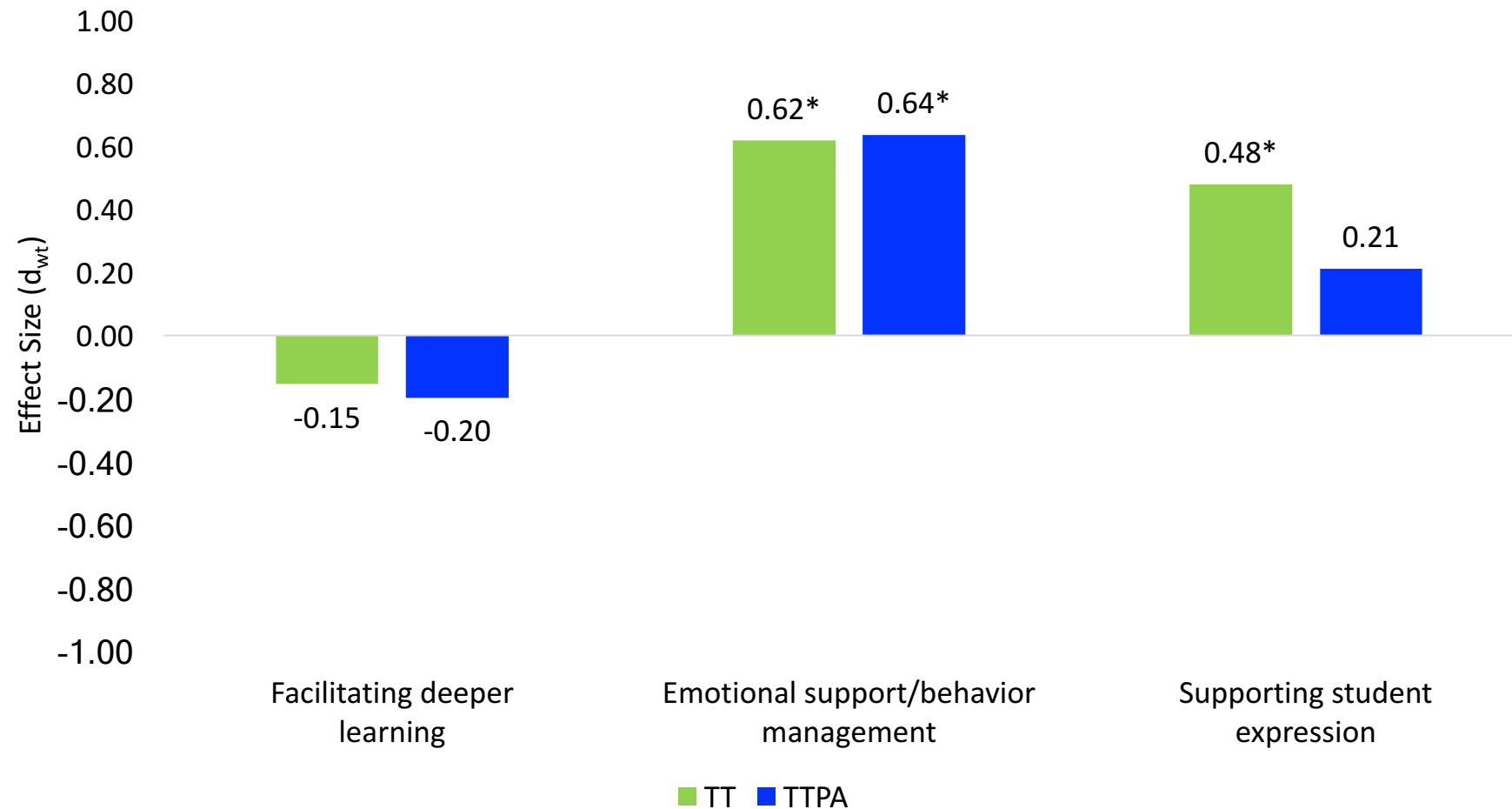
## Emotional support & behavior management

- *Positive climate*
- *Negative climate*
- *Teacher sensitivity/tone*
- *Behavior management*
- *Consistent Routine*

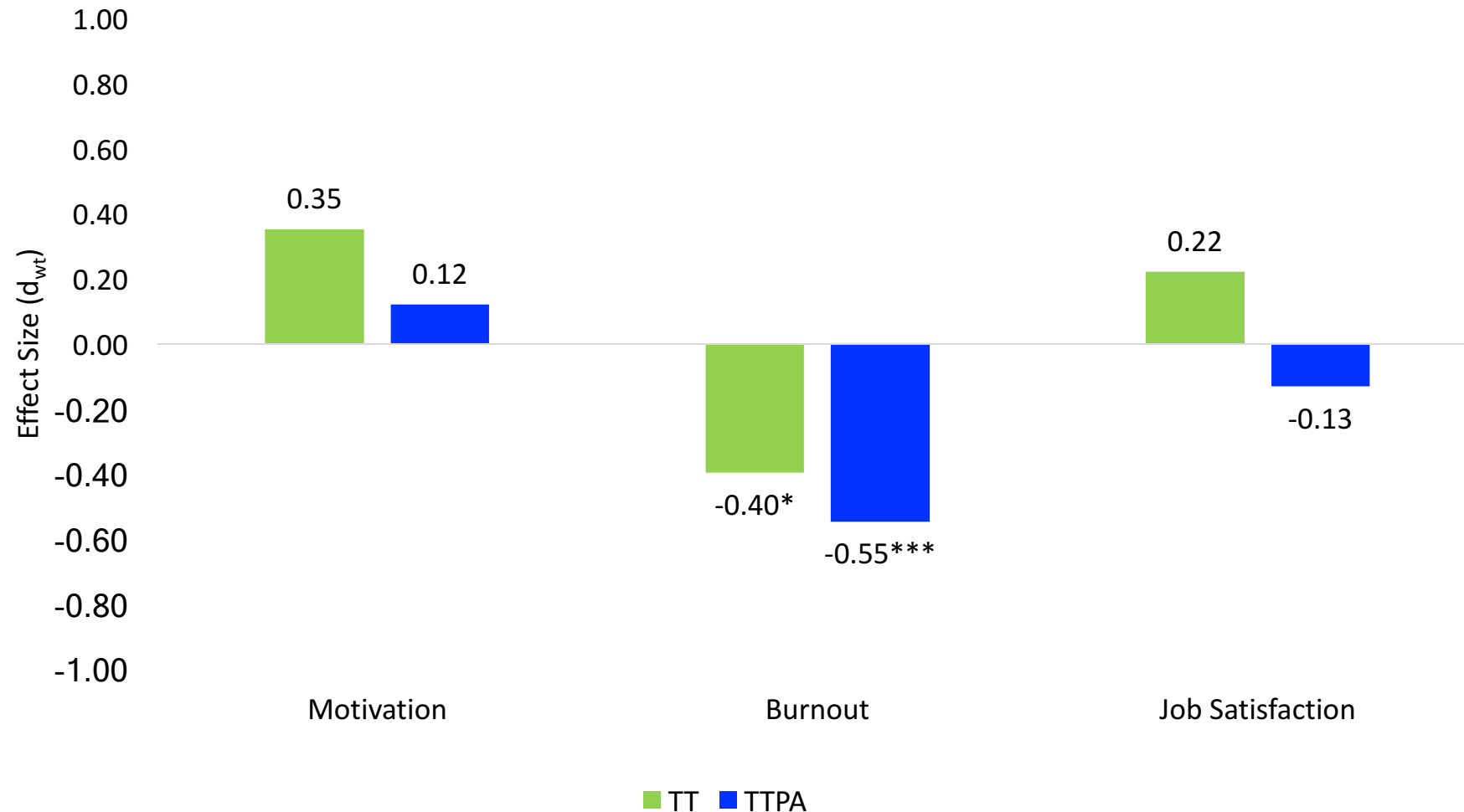
## Supporting student expression

- *Student ideas considered*
- *Reasoning/problem solve*
- *Connections to life*
- *Language modeling*

# QP4G improves the quality of some teacher-child interactions



# Teacher professional well-being: Does QP4G improve teacher well-being?



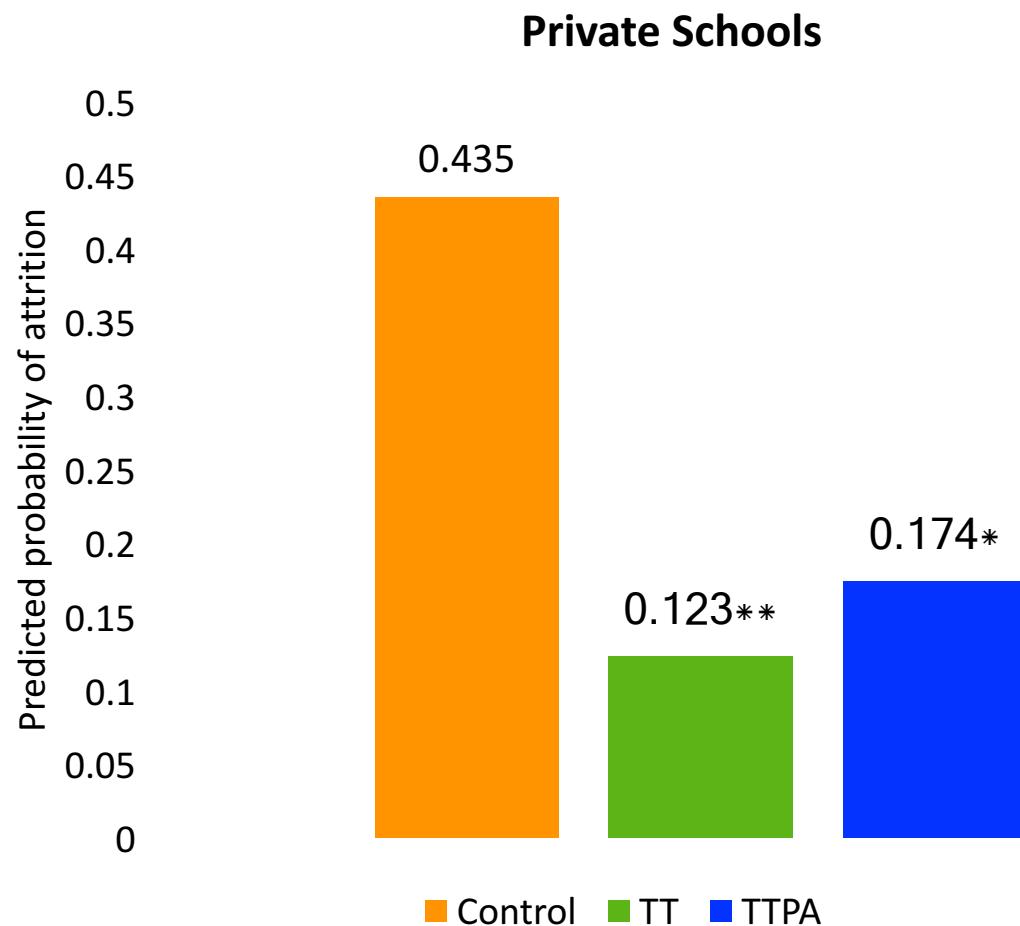


# Teacher attrition: Does QP4G reduce the likelihood that teachers' leave the school mid-year?

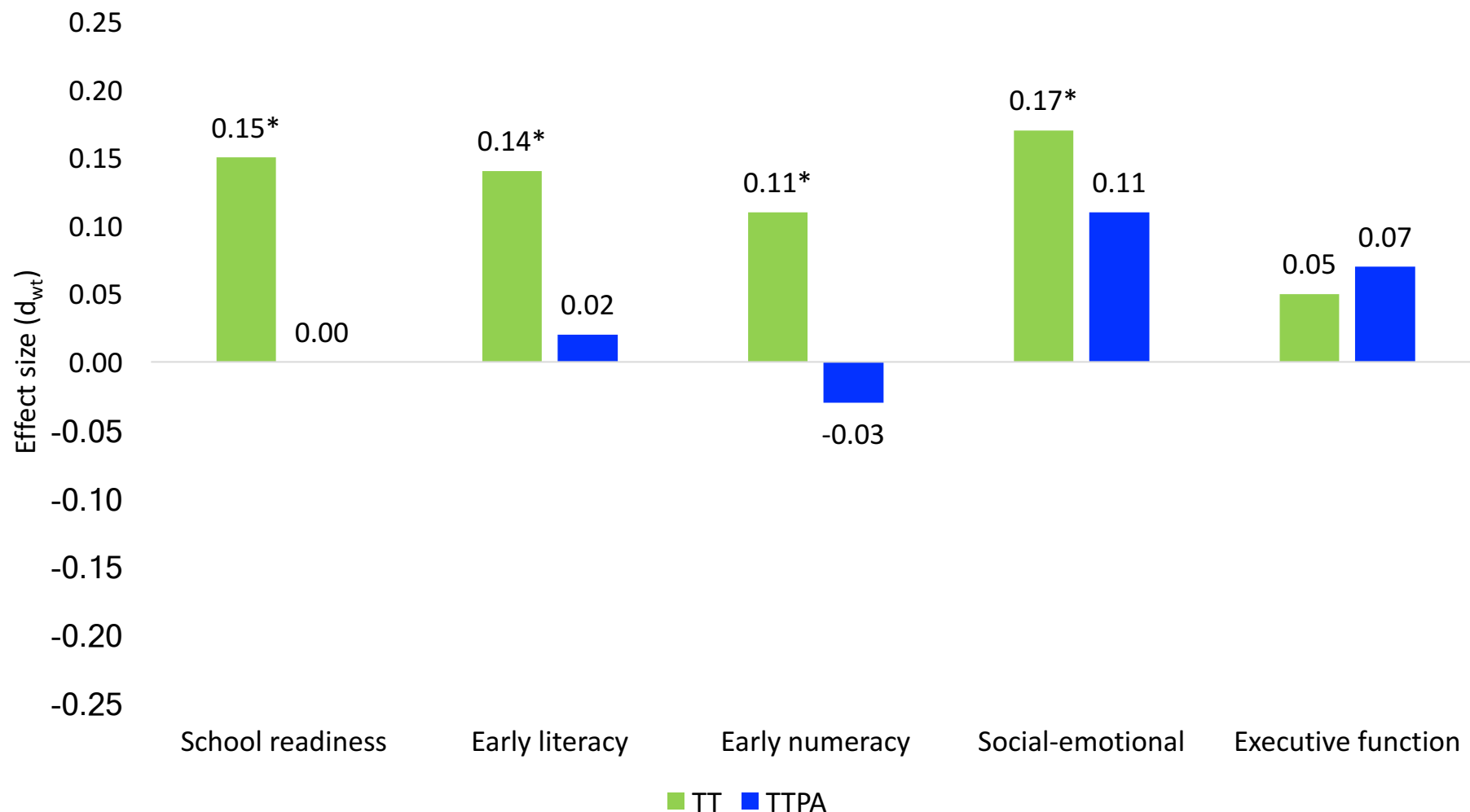
YES

Notably, this occurred entirely in the **private sector**.

The probability of a teacher leaving the school in the private sector was reduced by **82%**.



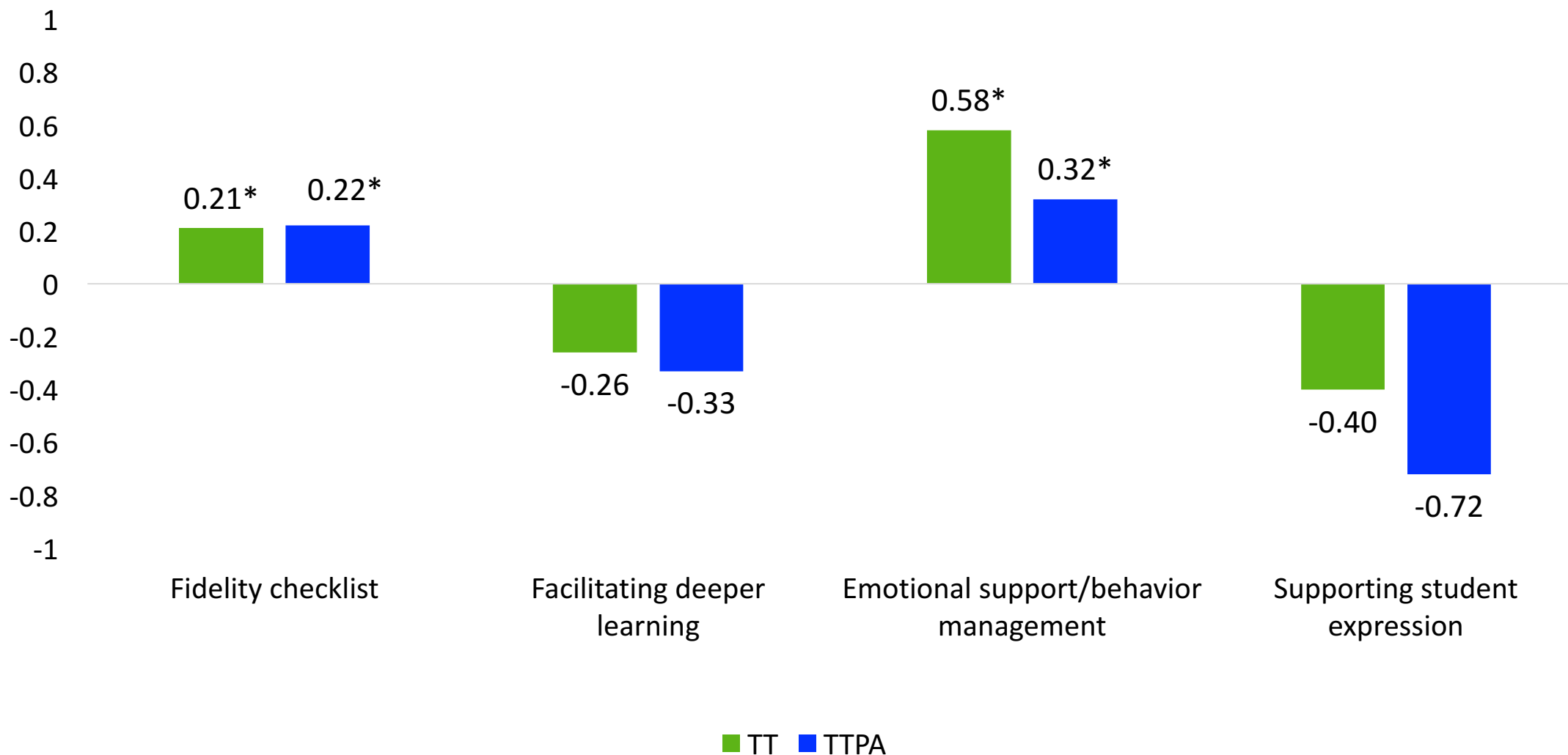
# QP4G improves children's school readiness, primarily social-emotional development



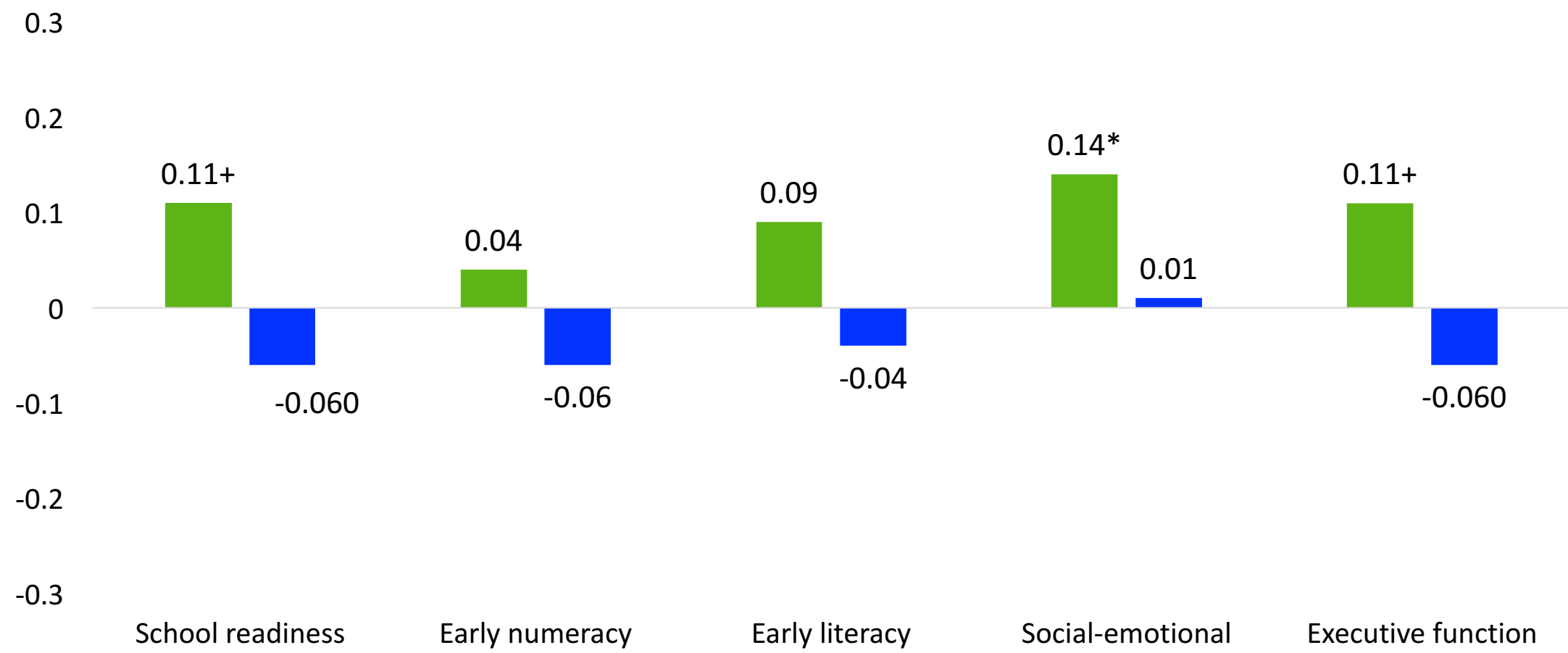
## Differences by public and private sectors

- In the 9 outcomes assessed, we find two significant difference in public and private sector schools.
  - Impacts on reduced teacher burnout are larger in private schools.
  - Impacts on reduced teacher attrition occur in private schools only.
- **No major differences** in how QP4G impacted classroom quality and children's outcomes in public or private schools.
- But significant differences in improving teacher well-being.

One year later: Teachers are still using some of the training practices, but other impacts have faded out or become negative



# One year later: Impacts on social-emotional outcomes sustained



# Conclusions

- QP4G is one of the **first impact evaluations in sub-Saharan Africa** to show an in-service teacher training can improve KG quality and school readiness.
- The important role of **refresher trainings and coaching visits** is consistent with research in high-income country contexts.
- Findings are **consistent with related research**, which find medium to large effects on classroom process quality and a small effects on child outcomes.
- It would be important to assess **if these effects persist** to support children's transition to primary school.
- QP4G took place in the peri-urban communities. It is critical to consider if and how **different contexts** would require adaptations to ensure program success.

# Next steps

- Follow children for one more year as they transition in to primary school (ongoing this academic year).
- Understand the counteracting effects of the parent-awareness intervention.
- Complete a cost analysis of the program and assess its implications for policy. Current resource cost estimates are \$841.66, \$402.10, and \$16.08 per school, teacher, and child respectively.
- Consider needs of and adaptations for rural areas in Ghana, where teaching quality and learning is generally lower than peri-urban and urban areas.

# Implications for Policy

## **1. Recommendations for in-service teacher trainings in general:**

Brief, affordable **in-service, teacher training can be successful** if teachers are given ongoing support and messages are reinforced throughout the year

## **2. Teachers continue to use some training activities one year later, but some aspects of classroom quality decrease.**

- This highlights the importance of the **monitoring and coaching visits** in supporting improved classroom quality, in addition to the need for **ongoing annual professional development**.

## ***3. Parental engagement counter-acted the impact of the teacher training***

- Parent engagement is valuable. However, a **more intensive approach may be needed**.
- Careful attention should be paid to **how parents interpret messages** and **who would best deliver them**. Positive impacts should not be assumed.



# Thank you

- Ghana Education Service
  - District Coordinators
  - National Nursery Teacher Training Center (NNTTC)
  - UBS Optimus Foundation and World Bank SIEF
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- Thank you to all of the KG teachers and Head Teachers, and KG children and their caregivers that participated in this study. None of this would be possible without you!



**+ Thank You**