Do Early Warning Systems and Student Engagement Activities Reduce Dropout? Findings from the Four-Country SDPP Evaluation

School Dropout Prevention Summit 2015
Washington, DC
September 10, 2015

School Dropout Prevention Pilot Program

- **Five-year, four-country project**
  - Funded by USAID
  - Implemented in Cambodia, India, Tajikistan and Timor Leste
  - Led by Creative Associates, implemented with Mathematica, School-to-School and local partners– KAPE, CARE and QUEST

- Aimed at providing **evidence-based solutions to mitigate dropout** from primary and secondary school

- **Three-step applied research process**
  - Assess global evidence on drop-out prevention
  - Understand dropout in target countries
  - Design, implement, and rigorously evaluate interventions to reduce dropout in target countries

SDPP Implements and Tests Programs in Four Asian Countries

Tajikistan

India

Cambodia

Indian Ocean

Timor-Leste
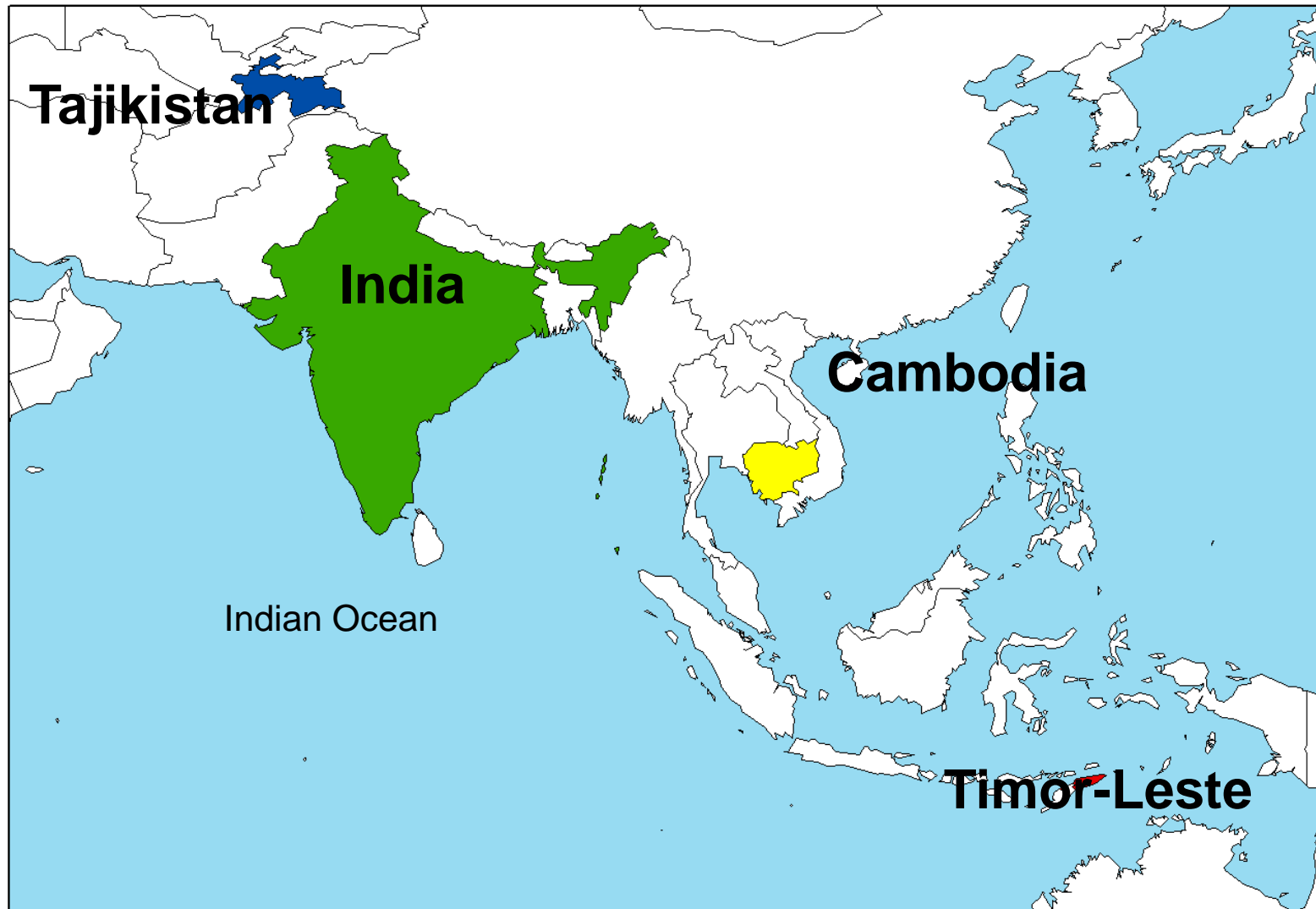
Three Step Design Process

Step 1: Literature Review
- To avoid duplication of evaluated interventions and identify promising interventions
- Literature on proven dropout prevention intervention is scarce, particularly in developing countries
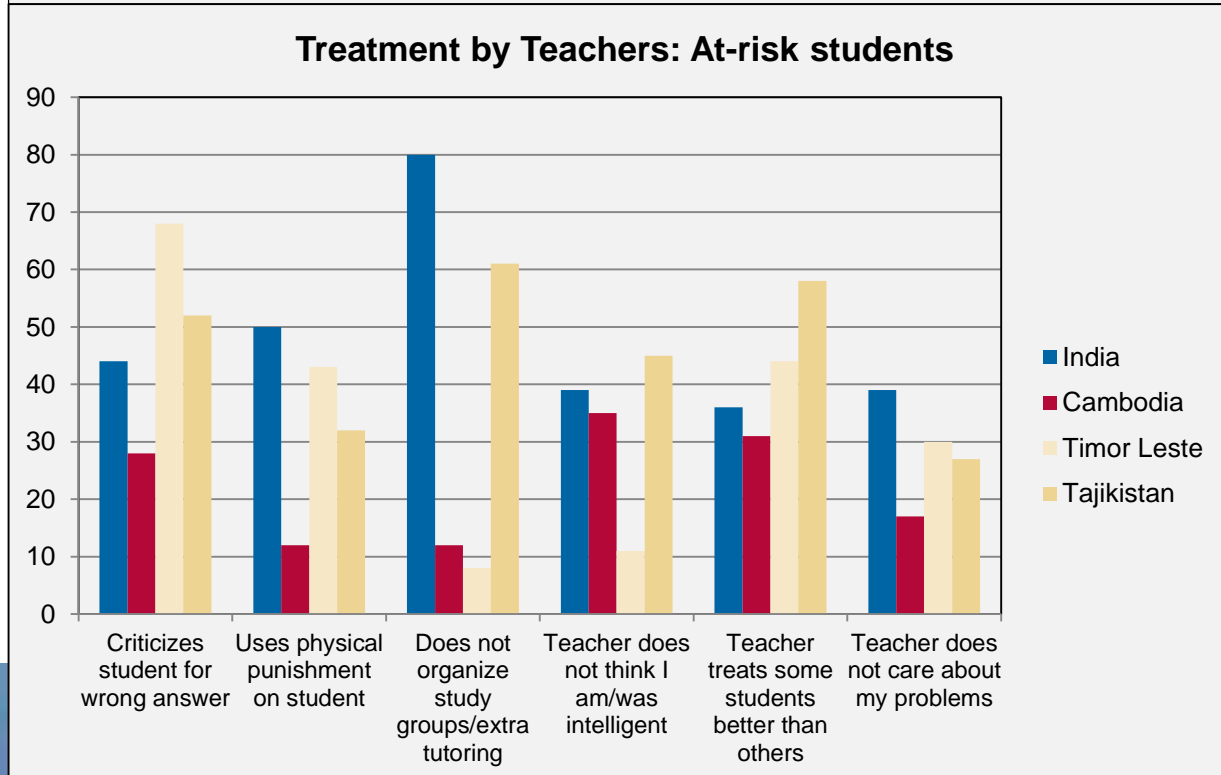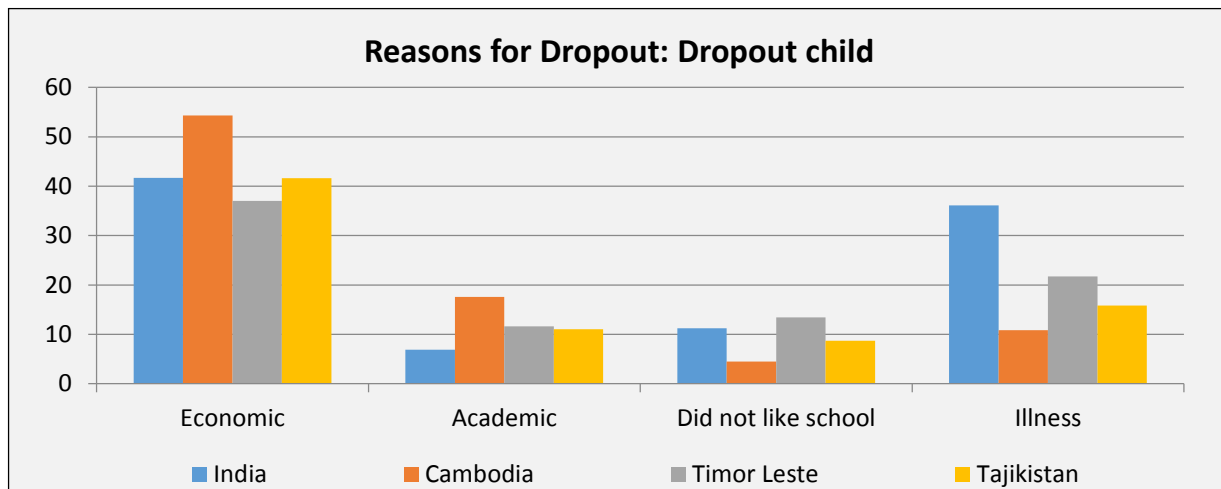- Interventions focused on financial incentives to send and support child in school

Step 2: Trend Analysis:
- To identify target areas and groups for intervention in each country
- Based on secondary national data

Three Step Design Process

Step 3: Situational Analysis: to understand factors and conditions affecting dropout
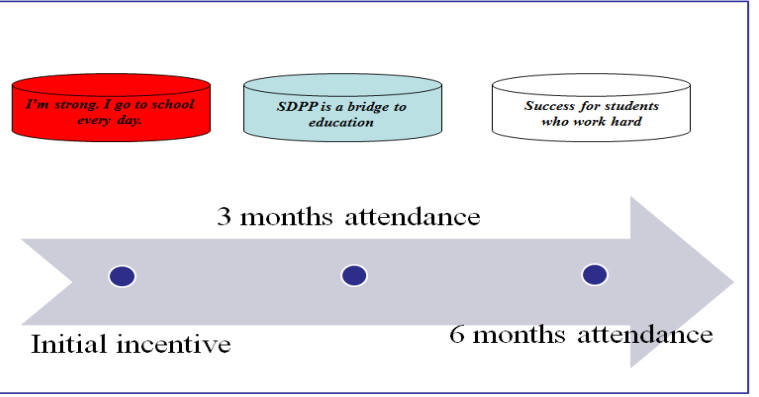
- "pull" factors (economic) predominated

- "push" factors (school experience) played a role

Reasons for Dropout: Dropout child

Legend: India, Cambodia, Timor Leste, Tajikistan

Categories: Economic, Academic, Did not like school, Illness

Treatment by Teachers: At-risk students

Legend: India, Cambodia, Timor Leste, Tajikistan

Categories: Criticizes student for wrong answer, Uses physical punishment on student, Does not organize study groups/extra tutoring, Teacher does not think I am/was intelligent, Teacher treats some students better than others, Teacher does not care about my problems

SDPP Interventions: Early Warning Systems

- **Early Warning Systems (EWS) implemented in all countries to:**
  - Identify at-risk students and monitor attendance, coursework and behavior
  - Enhance capacity of schools to address at-risk student needs
  - Create and strengthen partnerships between school, community and parents of at-risk student

- **Each EWS is unique to its country with:**
  - Customized predictors of dropout to identify students
  - Tailored activities for first response and community engagement
  - Four countries = four projects= four evaluations

Scoring Sheet

School:_____

Teacher:_____

SDPP ID No.	Student Name	Attendance	Early Departure	Course Performance	Work Obligations	Parent's Literacy	Behaviour
		0 Attended 86% or more	0 Never leaves early	0 61% and above	0 Doesn't affect attendance	0 Both parents can read	0 No problems
		1 Attended between 71-85%	1 Leaves early 1-3 times	1 51-60%	1 Intermittently affects attendance	1 One parent can read	1 Affects their own engagement in cla
		2 Attended 70% or less days	2 Leaves early 4 times or more	2 50% or lower	2 Regularly affects attendance	2 Neither parent can read	2 Affect other's engagement in cla

I'm strong. I go to school every day.

SDPP is a bridge to education

Success for students who work hard

3 months attendance

Initial incentive

6 months attendance

Hamutuk Ita Bele Prevene Labarik Husik Eskola

SDPP Interventions: Student Engagement

- **Student Engagement interventions to motivate attendance, improve engagement, build learning skills, and increase enjoyment and interest in schools**
  - Computer Labs and Computer Literacy: Cambodia
  - Structured Recreational/Enrichment programs: India and Timor Leste
  - After-school Tutoring program: Tajikistan

This presentation will…

- **Describe the impact evaluation design used to estimate the impact of SDPP in all four countries.**

- **Present final results from the quantitative impact evaluation.**

- **Present beneficiary perspectives on the results from qualitative research study**

Research Questions

- **What are the impacts on outcomes the program was primarily intended to influence?**

  - **Teacher behavior and attitudes**

  - **Attitudes of at-risk students**

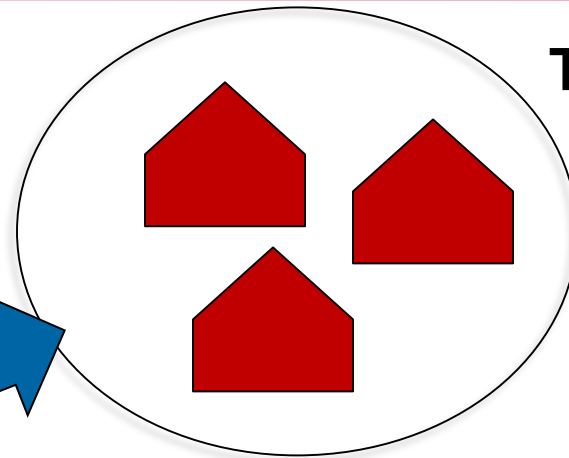 - **Student engagement**

  - **School dropout**

- **What are the impacts for students most at risk of dropping out of school?**

USAID
FROM THE AMERICAN PEOPLE

Randomized Controlled Trials Give Rigorous Answers to Research Questions
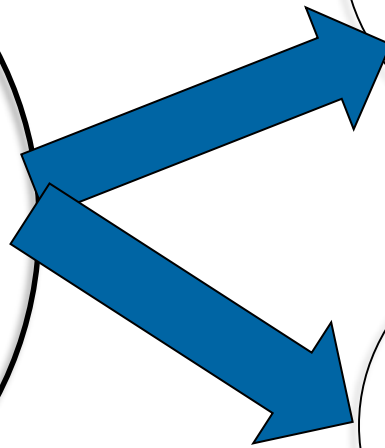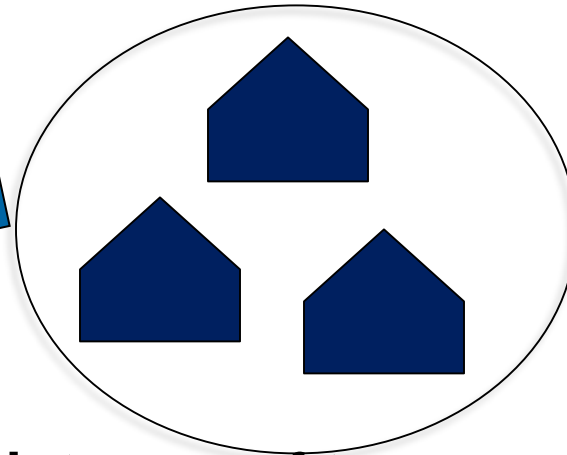
Eligible Schools
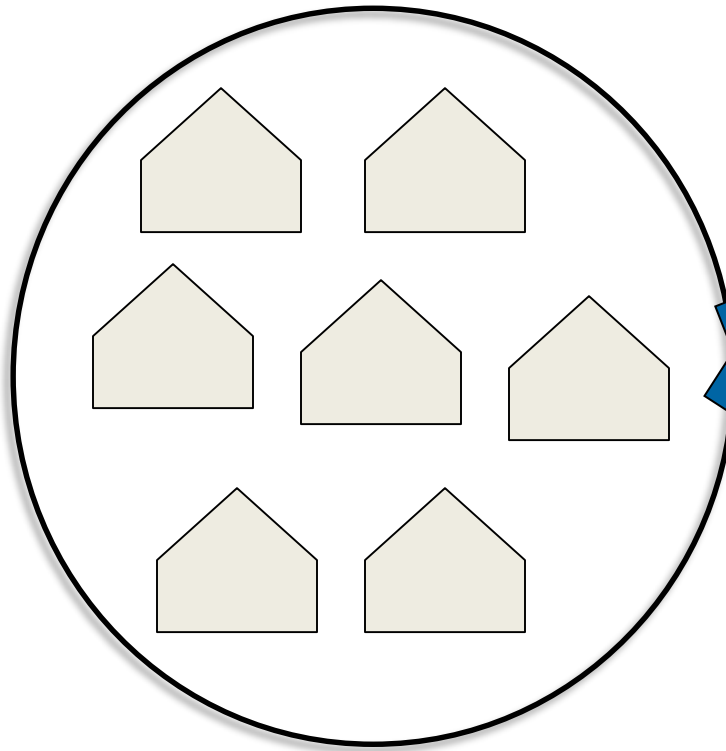
Treatment Group

Control Group

- **Each school assigned RANDOMLY into one of two groups:**
  - Treatment group (will receive the treatment)
  - Control group (will not receive the treatment)

Evaluation Sample

Country	Sample schools	Target grades	Student records	Surveyed at-risk students	Surveyed teachers
Cambodia	322	7–9	192,012	18,907	6,041
Tajikistan	165	9	16,653	4,673	1,841
India	220	5	40,254	9,932	1,182
Timor-Leste	190	4–6	37,861	7,387	1,444
TOTAL	**897**	**4-9**	**286,780**	**40,899**	**10,508**

SDPP Theory of Change
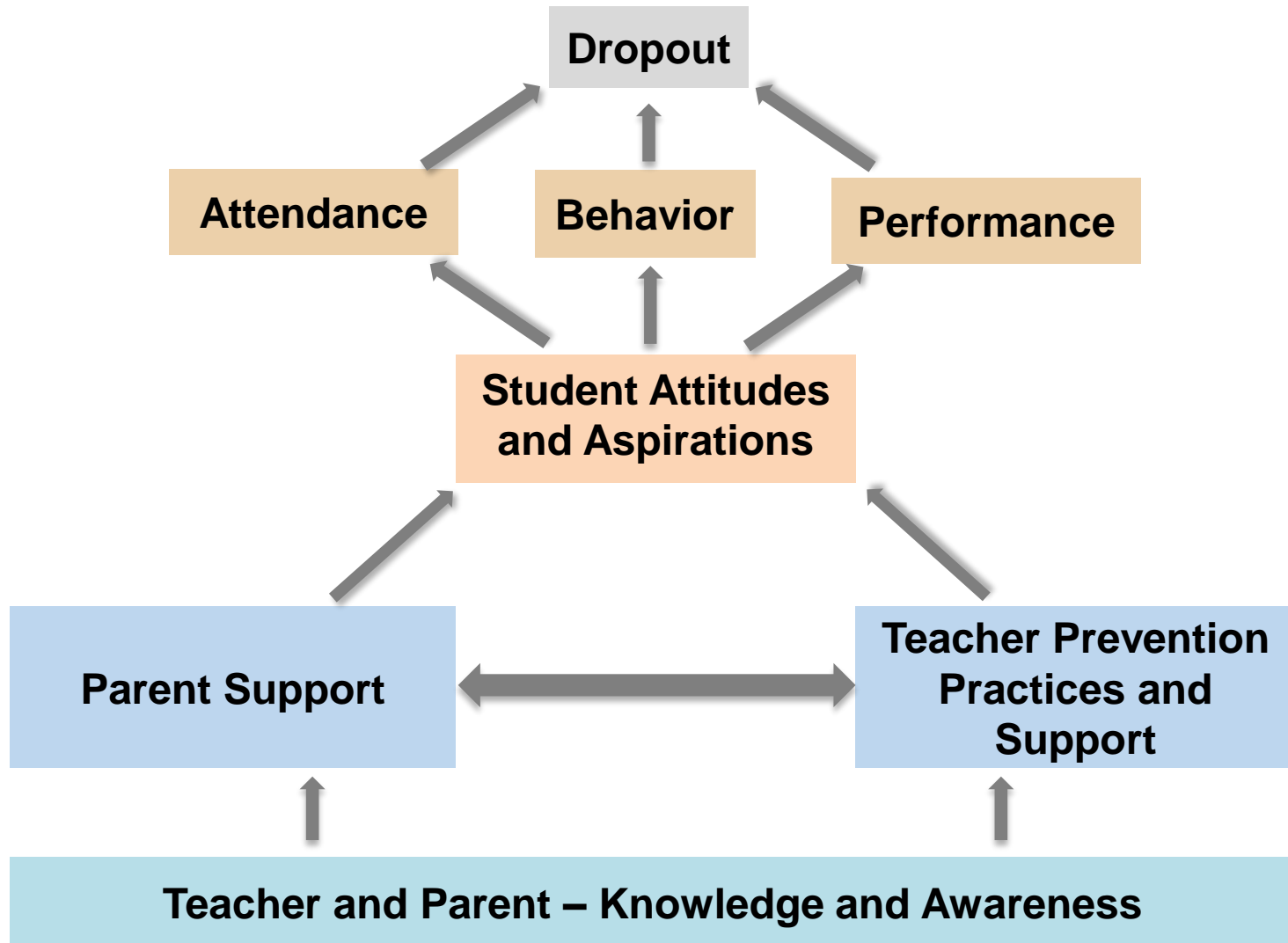
Assessment of Effectiveness Compares Groups For Outcomes in Several Domains

- **Teacher and administrator knowledge, attitudes, and practices**

- **Attitudes of at-risk students**

- **Engagement in school**

- **School dropout**

Statistical Significance

- **Determine whether differences between SDPP and control groups are sufficiently large that it is unlikely that the difference is due to chance.**

- **Impact estimates are described as *statistically significant* if there is less than a 5 percent probability that it is due to chance (and not to SDPP).**

- **Impact estimates are described as marginally significant if the probability that it is due to chance (and not to the SDPP program) is between 5 and 10 percent.**
  - In tables and figures, the statistically significant impacts at the 1 percent, 5 percent, and 10 percent levels are denoted with asterisks as ***, ** or *.

Impacts on Teacher and Administrator Practices and Attitudes

Teacher and Administrator Dropout Prevention Practices

- **We examine teacher/administrator *practices aimed at preventing dropout*.**

- **Teachers and administrators responded yes or no to each of 8 survey questions:**
  - recording daily attendance
  - taking action when students are absent for more than 3 days
  - giving weak students individual feedback, having regular meetings to support weak students
  - having a plan to support weak students
  - communicating with parents of weak students about their child's schooling
  - having regular meetings with weak students
  - willing to come early or stay late to help weak students

SDPP Had a Positive Impact on Teacher Dropout Prevention Practices in Cambodia and Timor-Leste
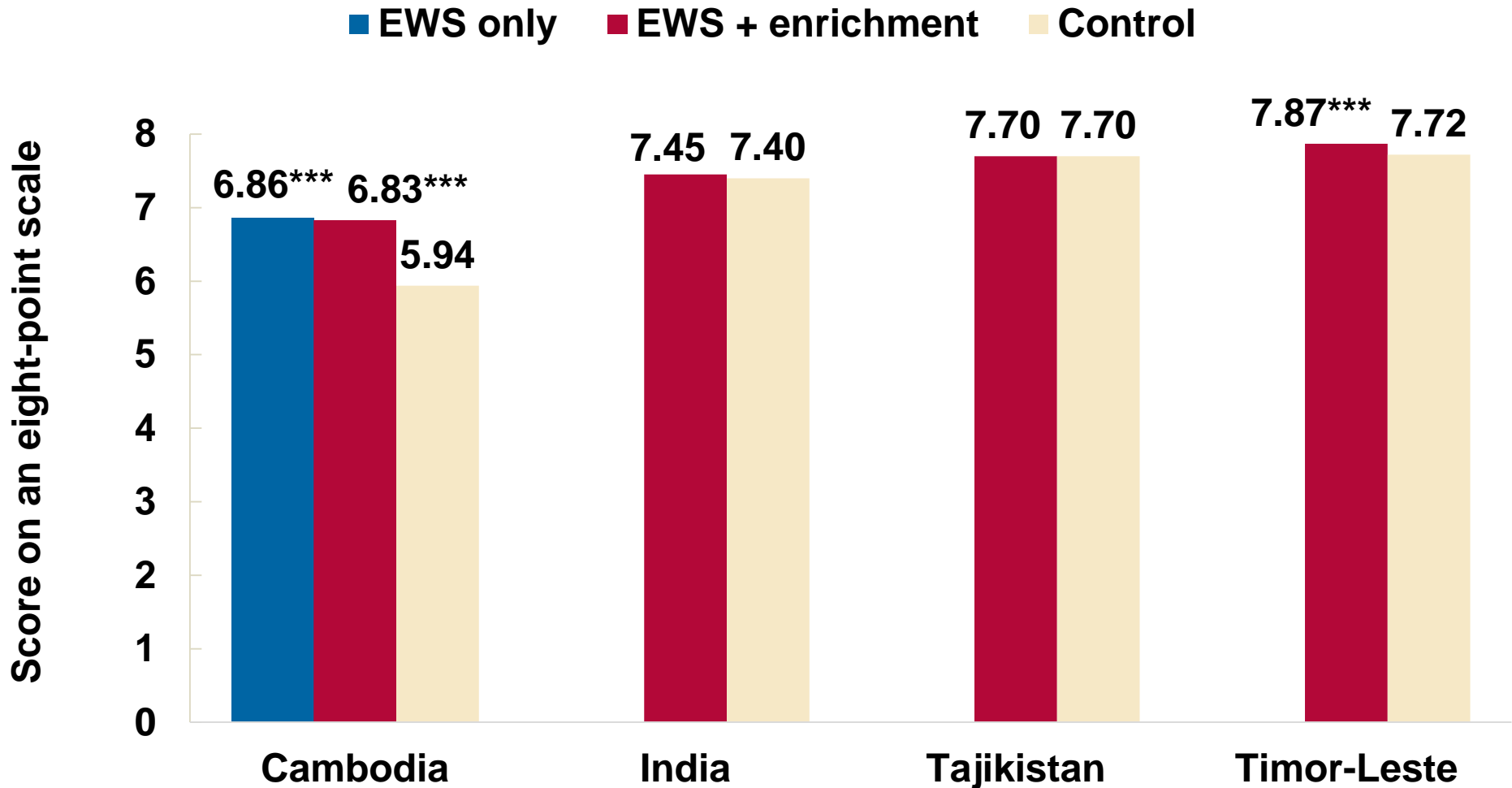
***Difference from control group mean is statistically significant at the 1% level.

SDPP Improved Administrator Dropout Prevention Practices in Cambodia and Tajikistan

Legend: ■ EWS only ■ EWS+enrichment ▢ Control

Score on an eight-point scale

Cambodia: 7.16*** (EWS only), 7.09*** (EWS+enrichment), 6.57 (Control)

India: 7.37 (EWS+enrichment), 7.25 (Control)

Tajikistan: 7.80** (EWS+enrichment), 7.62 (Control)

Timor-Leste: 7.85 (EWS+enrichment), 7.74 (Control)
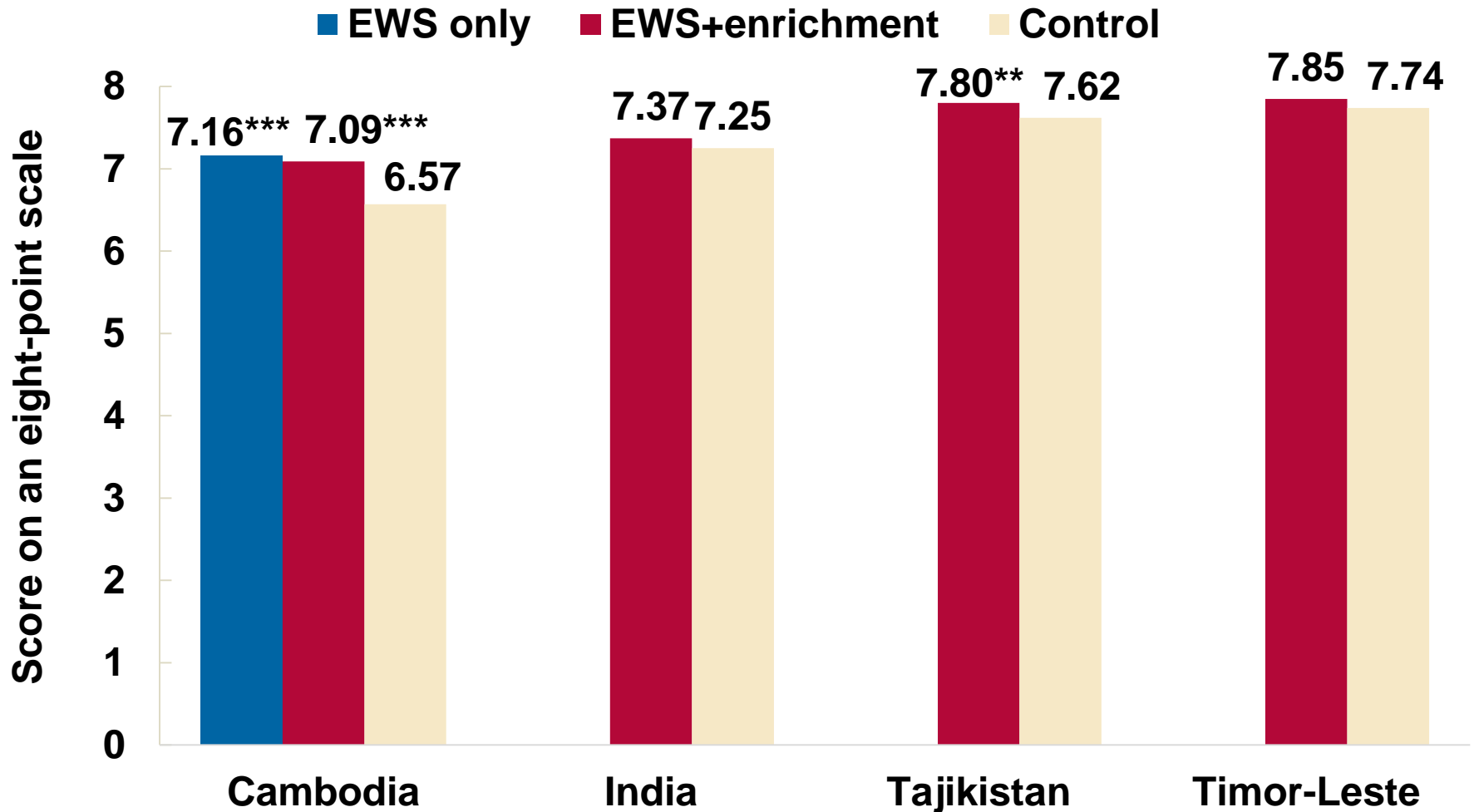
***/**Difference from control group mean is statistically significant at the 1%/5% level.

Teacher and Administrator Sense of Self-Efficacy

- **Teacher's feeling that they have _influence over the situation of at risk students_.**

- **Teachers selected 1 of 5 answer choices on a scale from "Nothing" (no control) to "A Great Deal" (total control) for 12 survey questions.**

- **Examples:**
    - "How much can you do to control disruptive behavior in the classroom?"
    - "How much can you do to get children to follow classroom rules?"
    - "How much can you assist families in helping their children do well in school?".

SDPP Improved Teachers' Sense of Self-Efficacy in Cambodia and Timor-Leste

■ EWS only   ■ EWS+Enrichment   Control

Score on a five-point scale

- Cambodia: 3.54 (EWS only), 3.55* (EWS+Enrichment), 3.50 (Control)
- India: 4.76 (EWS+Enrichment), 4.76 (Control)
- Tajikistan: 4.64 (EWS+Enrichment), 4.69 (Control)
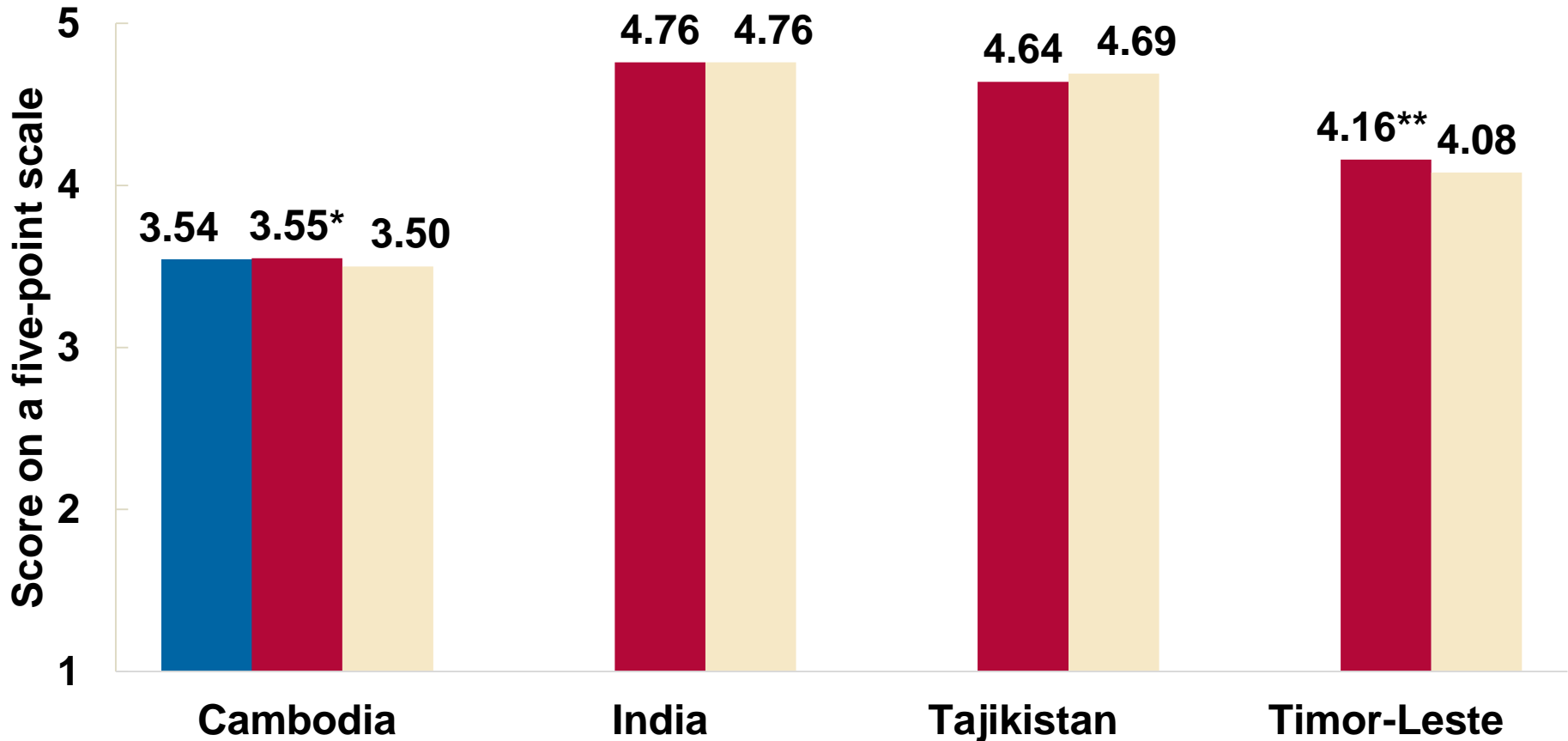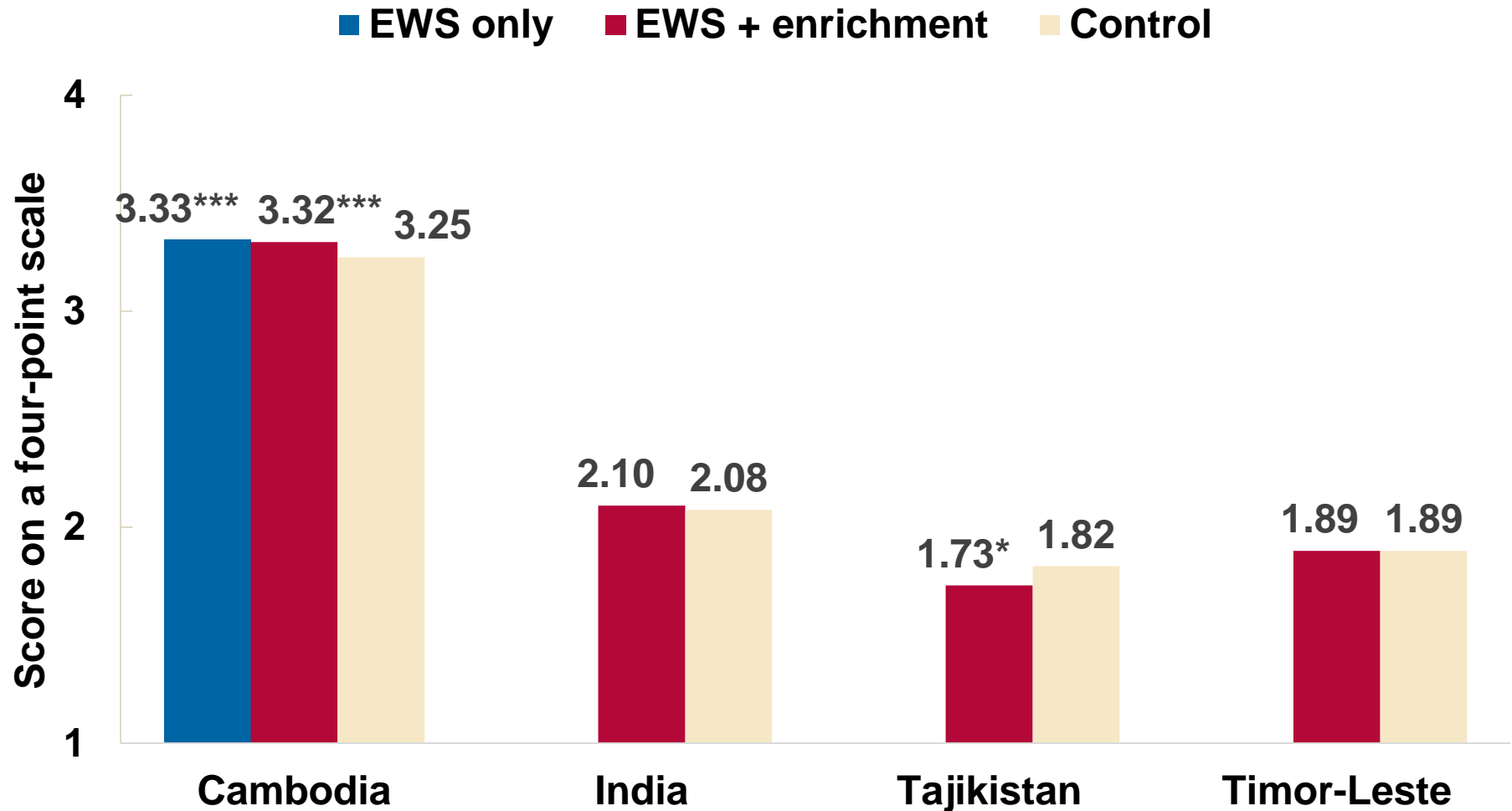- Timor-Leste: 4.16** (EWS+Enrichment), 4.08 (Control)

**/*Difference from control group mean is statistically significant at the 5%/10% level.

Teacher and Administrator Sense of Responsibility

- **Teacher's feeling that they are _part of the solution_.**

- **Teachers selected 1 of 4 answer choices on a scale from "Strongly Disagree" to "Strongly Agree".**

- **5 survey questions:**
  - "Students at risk of dropping out of school should work harder"
  - "At-risk students face too many challenges to succeed in school"
  - "Students at risk of dropping out need more help than teachers have time or resources to provide"
  - "If a student is at risk of dropping out, it is mainly the fault of the parent/guardian or family"
  - "There is little that can be done by the teacher or school to help students who are at-risk of dropping out of school."

SDPP Had a Positive Impact on Teachers' Sense of Responsibility in Cambodia

***/*Difference from control group mean is statistically significant at the 1%/10% level.

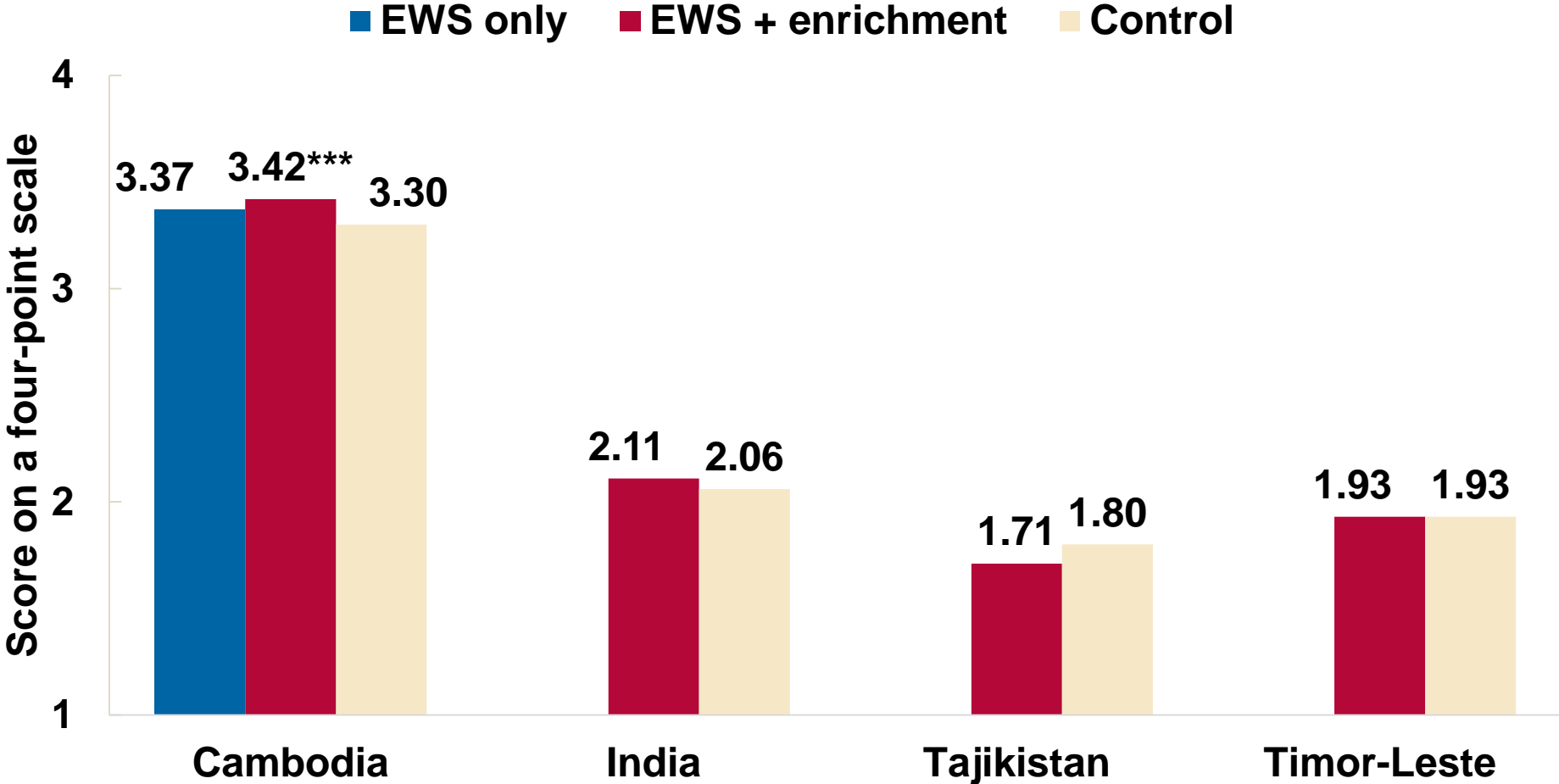# Positive Impact on Administrators' Sense of Responsibility in Cambodia EWS+C Schools

***Difference from control group mean is statistically significant at the 1% level.

Impacts at Endline on At-Risk Students' Attitudes

At-risk Student Attitudes

- **Students respond to questions measuring emotional, behavioral, and cognitive attitudes toward school, using 1 of 4 answer choices on a scale from "Strongly Disagree" to "Strongly Agree".**

- **Emotional Attitudes Toward School: How does the student feel about school?**
  - **Based on responses to 6 questions, for example:**
    - "School is a fun place to be"
    - "There are teachers I can talk to"

- **Cognitive Attitudes Toward School : How does the student think about school?**
  - **Based on responses to 9 questions, for example:**
    - "Doing homework helps me do well in school"
    - "I check my school work for mistakes"

- **Behavioral Attitudes Toward School : How does the student act towards school?**
  - **Based on responses to 10 questions, for example:**
    - "I arrive on time"
    - "I follow school rules"

SDPP Improved At-Risk Students' Emotional Attitudes Toward School in Tajikistan and India

Left chart: Score on a four-point scale

- Cambodia: EWS only 3.61, EWS + enrichment 3.61, Control 3.59
- Tajikistan: EWS + enrichment 3.58**, Control 3.51

Right chart: Percentage of scale items with which student agreed

- India: EWS + enrichment 93.0***, Control 91.3
- Timor-Leste: EWS + enrichment 85.0, Control 85.9

Legend: ■ EWS only ■ EWS + enrichment ■ Control
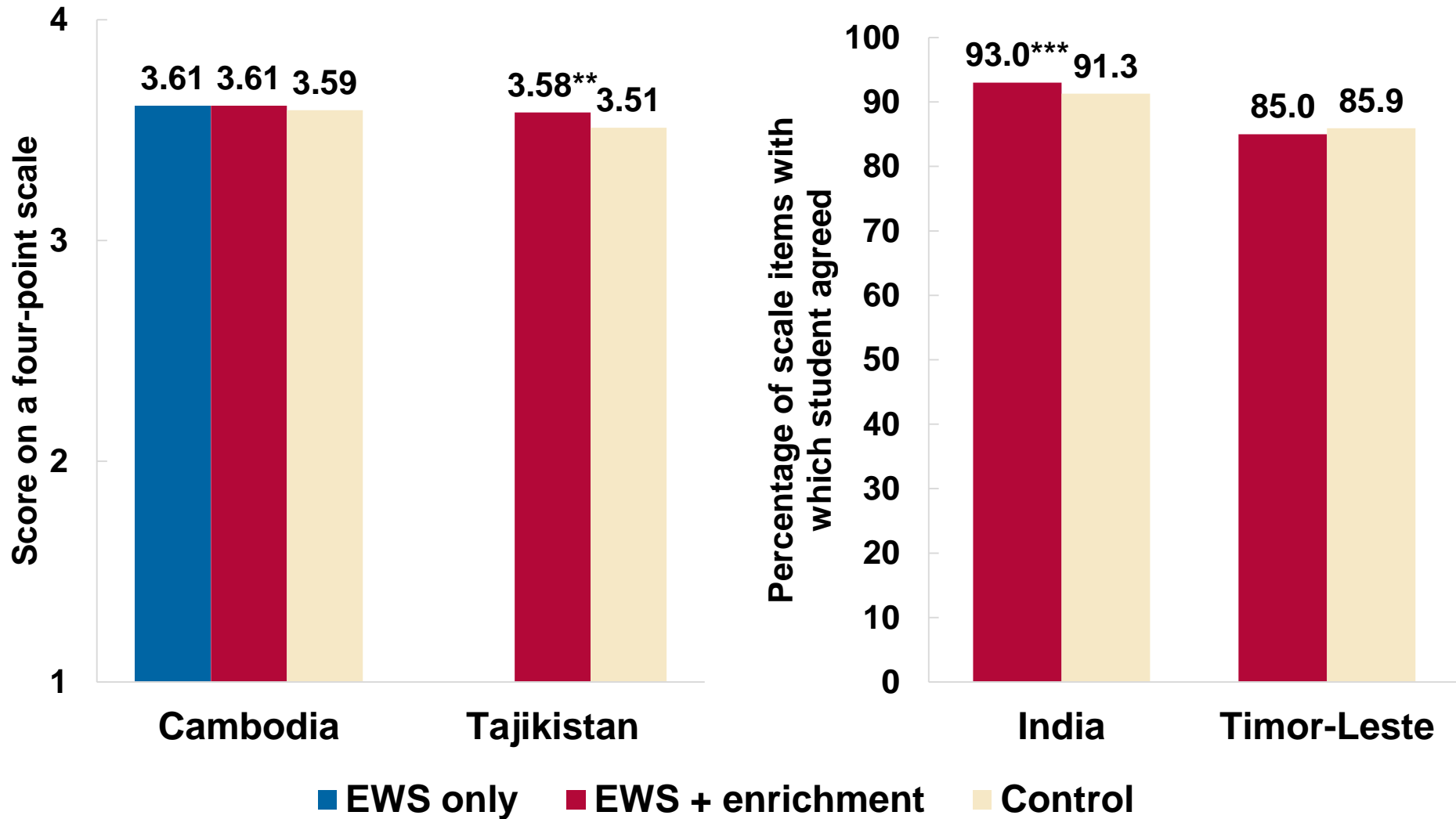
***/** Difference from control group mean is statistically significant at the 1%/5% level.

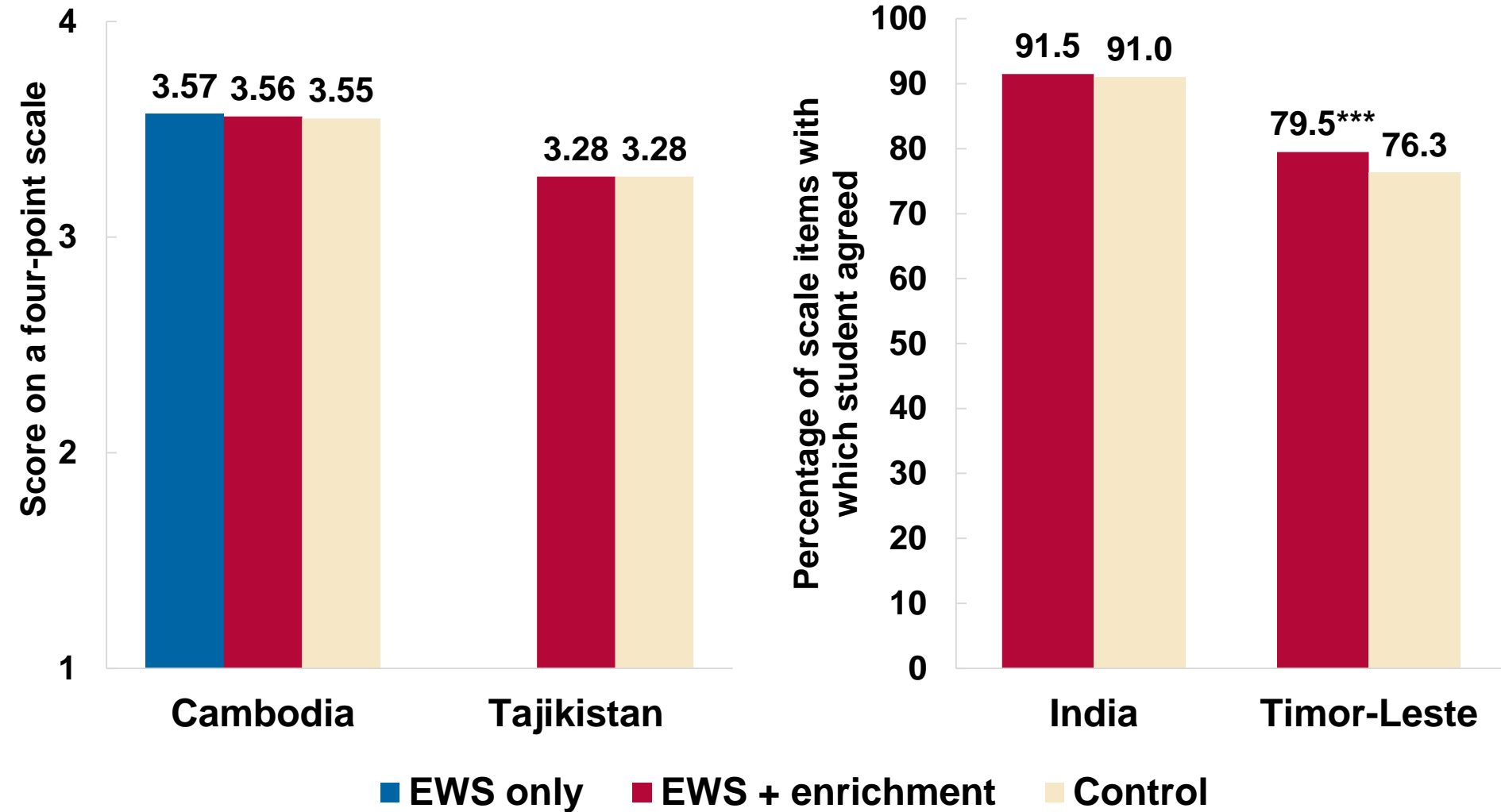# SDPP Did Not Affect At-Risk Students' Cognitive Attitudes Toward School
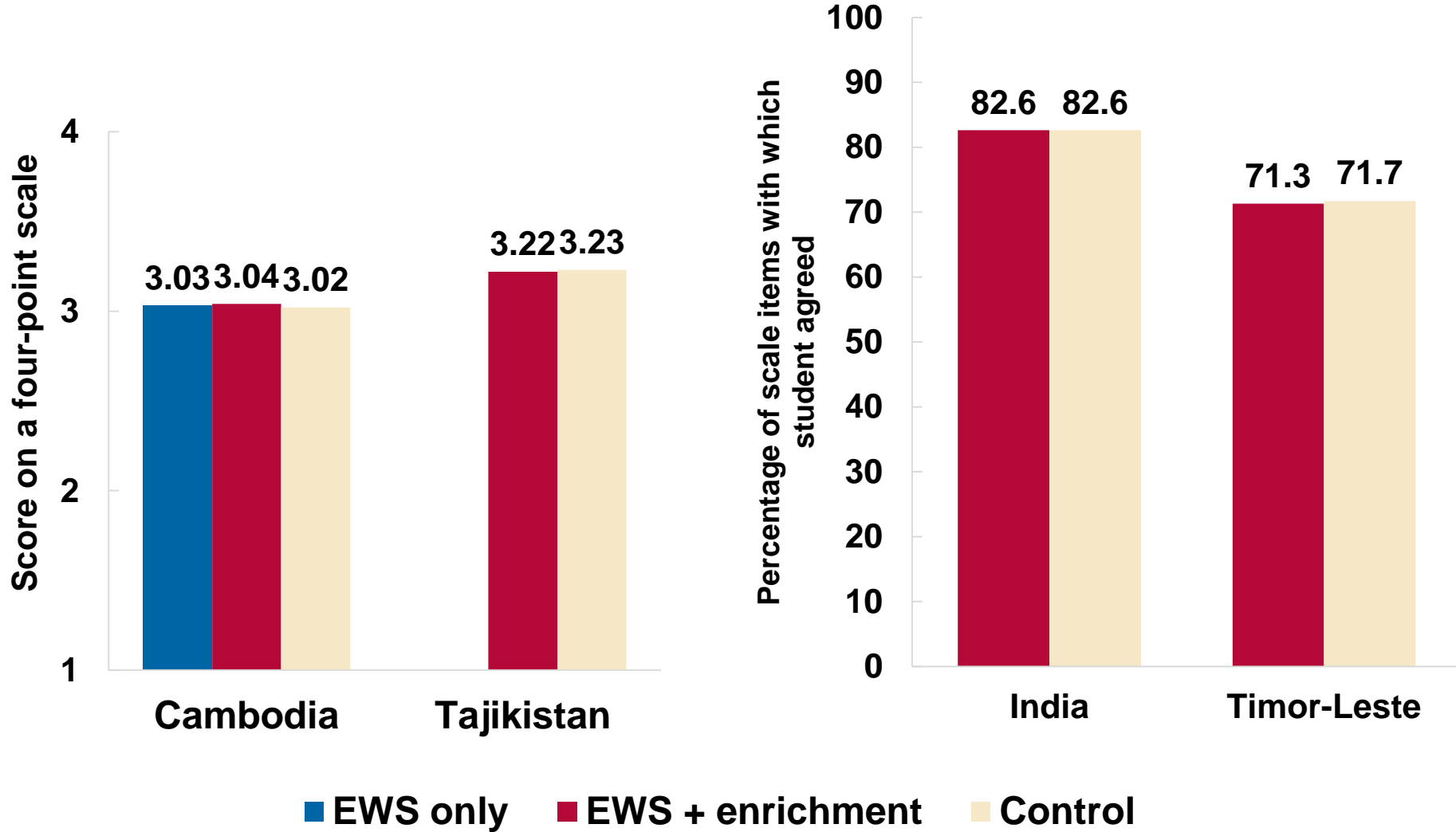
Differences between treatment and control group means are not statistically significant.

SDPP Improved At-Risk Students' Behavioral Attitudes Toward School in Timor-Leste

*** Difference from control group mean is statistically significant at the 1% level.

At-Risk Students' Perceptions of Teacher and Parent Support

- **Students respond to questions measuring their perceptions of their teachers and parents, using 1 of 4 answer choices on a scale from "Strongly Disagree" to "Strongly Agree".**

- **Perceptions of Teachers: What do students think of the support they receive from their teachers?**
  - **Based on responses to 11 questions, for example:**
    - "My teacher(s) care about how I am doing"
    - "My teacher(s) help me if I am having problems with a lesson"
    - "My teacher(s) talk(s) to me if I miss school or class"

- **Perceptions of Parents: What do students think of the support they receive from their parents?**
  - **Based on responses to 11 questions, for example:**
    - "My parents make sure I go to school every day"
    - "My parents attend school events"
    - "My parents try to support me with my studies"

SDPP Had a Positive Impact on At-Risk Students' Perceptions of Teacher Support In Cambodia and India
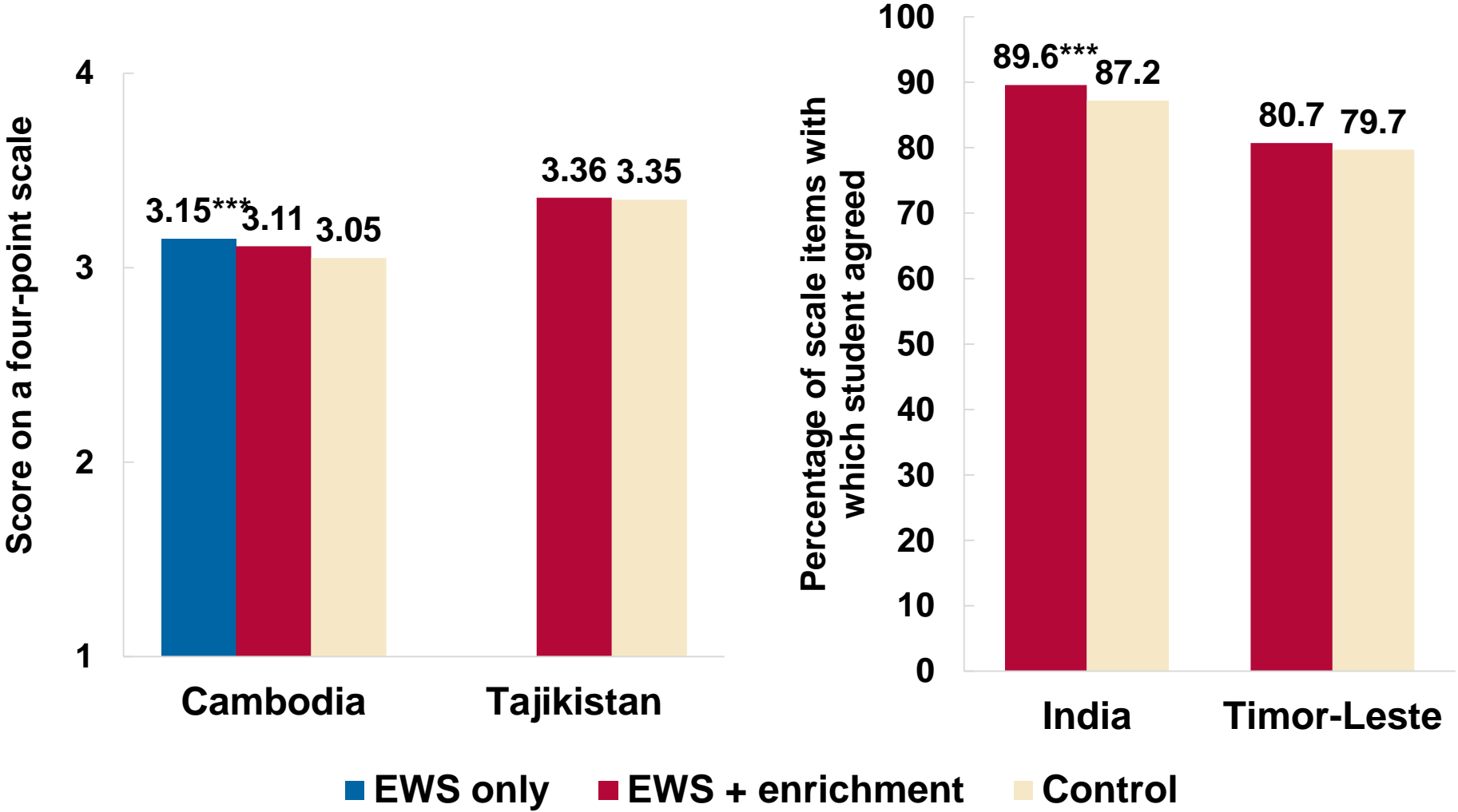
*** Difference from control group mean is statistically significant at the 1% level.

SDPP Had a Positive Impact on At-Risk Students' Perceptions of Parent Support in Cambodia and India
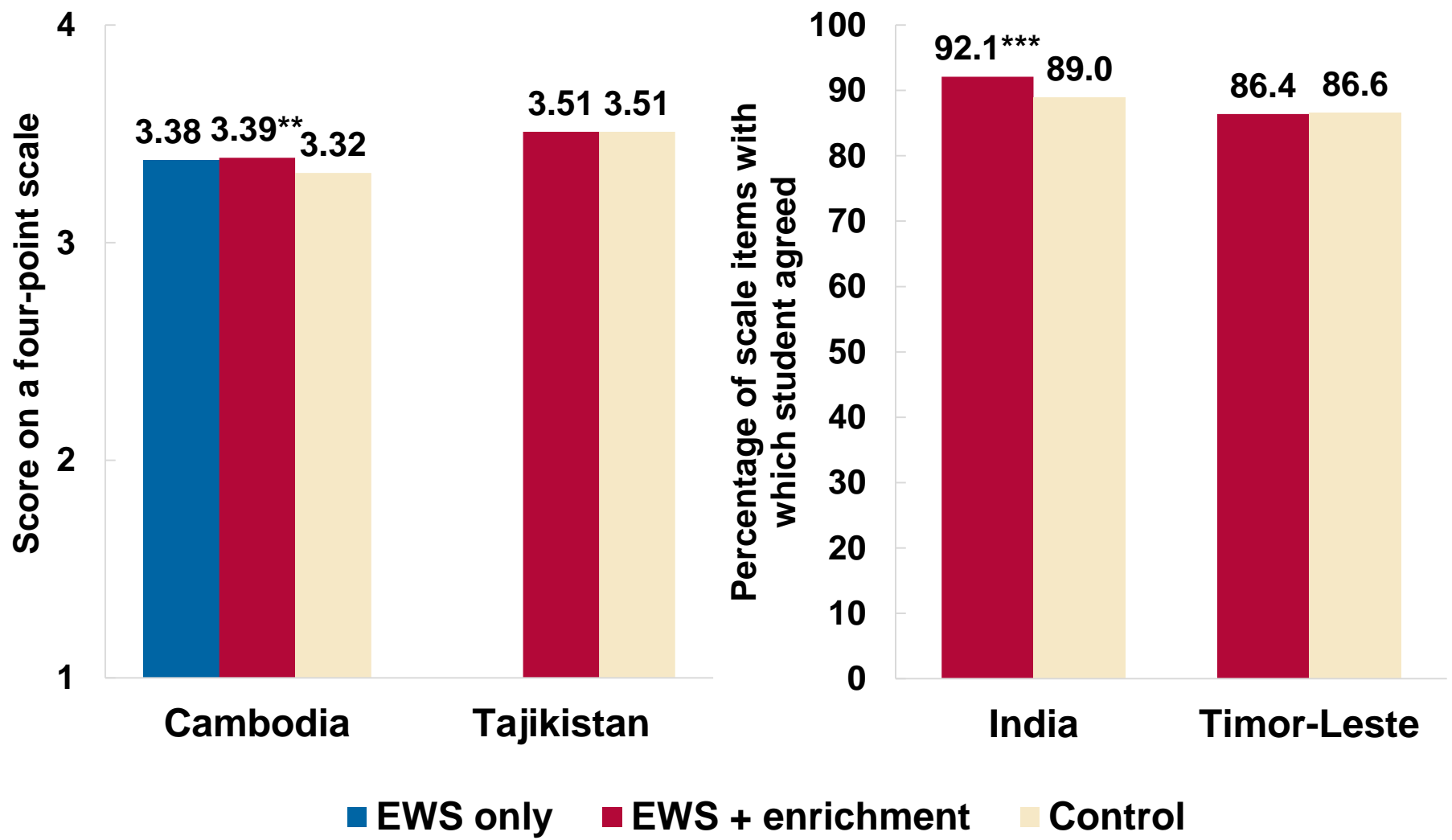
***/** Difference from control group mean is statistically significant at the 1%/5% level.

Impacts at Endline on Student Attendance and Academic Performance

SDPP Improved Attendance Among Students Overall and At-risk in Some Countries

All students

Cambodia: 78.2 (EWS only), 79 (EWS + enrichment), 79.1 (Control)
India: 65.2*** (EWS + enrichment), 63.5 (Control)
Tajikistan: 91.2* (EWS + enrichment), 90.4 (Control)
Timor-Leste: 82.0** (EWS + enrichment), 80.3 (Control)

At-risk students

Cambodia: 69.5 (EWS only), 69.6 (EWS + enrichment), 70.5 (Control)
India: 62.7*** (EWS + enrichment), 60.8 (Control)
Tajikistan: 89.3 (EWS + enrichment), 88.4 (Control)
Timor-Leste: 78.9*** (EWS + enrichment), 76.6 (Control)

Y-axis: Percentage of Days Attended

Legend: ■ EWS only   ■ EWS + enrichment   ■ Control

***/**/*Difference from control group mean is statistically significant at the 1%/5%/10% level.

SDPP Improved Math Performance in Tajikistan

Cambodia (Score percentage): EWS only: 60.6, 62.70, 61.90

India (Percentage scoring above average): 59.10, 56.30

Tajikistan (Score on a five-point scale): 3.48**, 3.44

Timor-Leste (Score on a ten-point scale): 6.30, 6.20
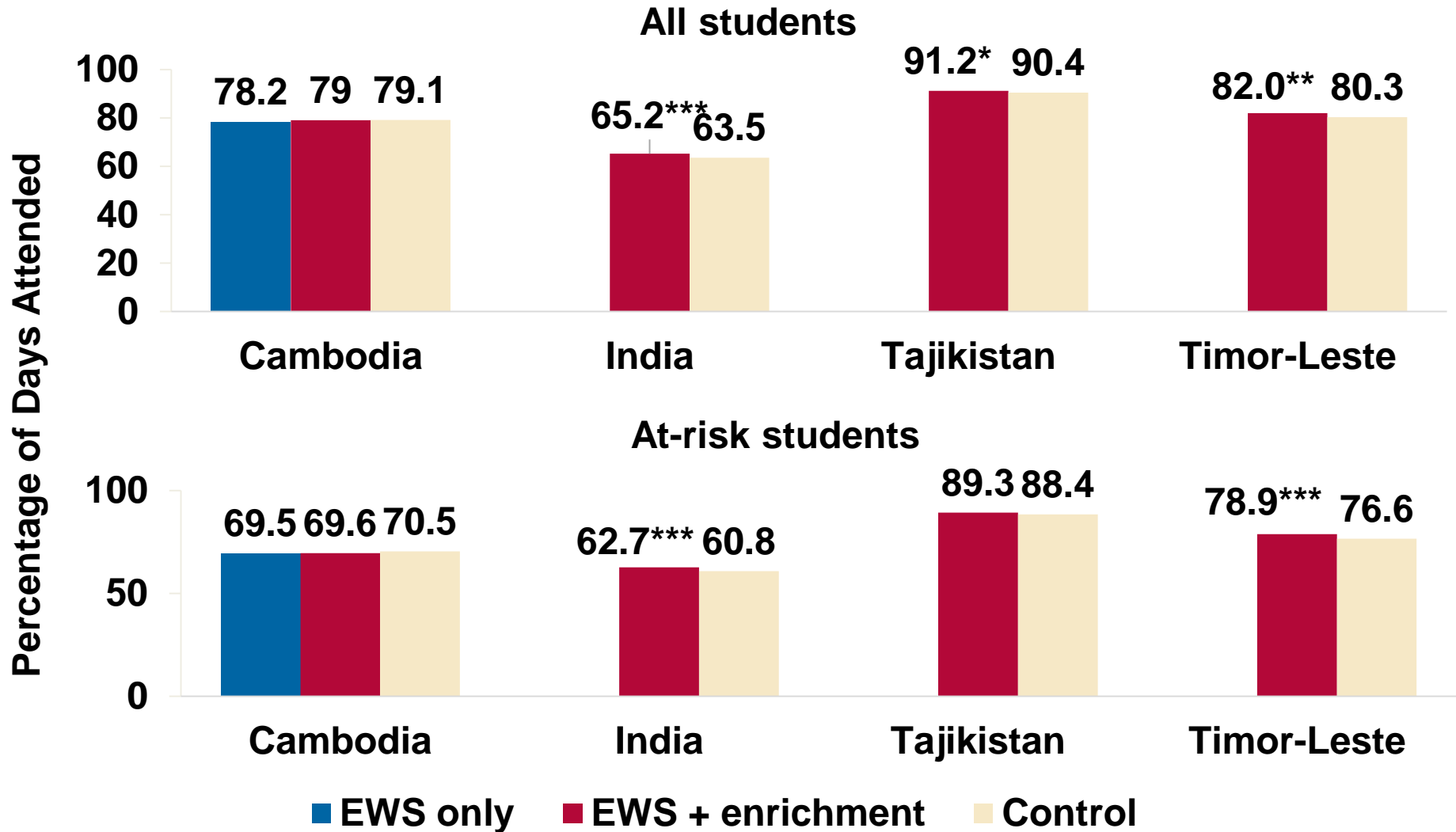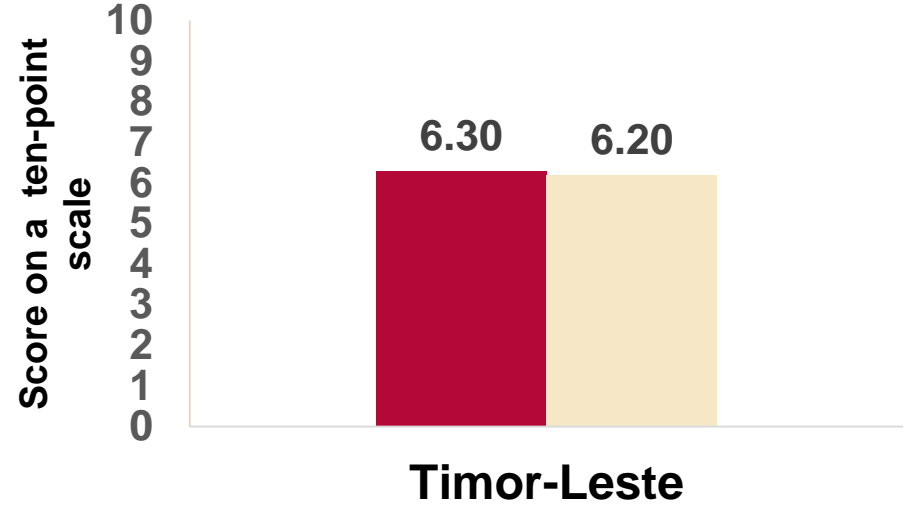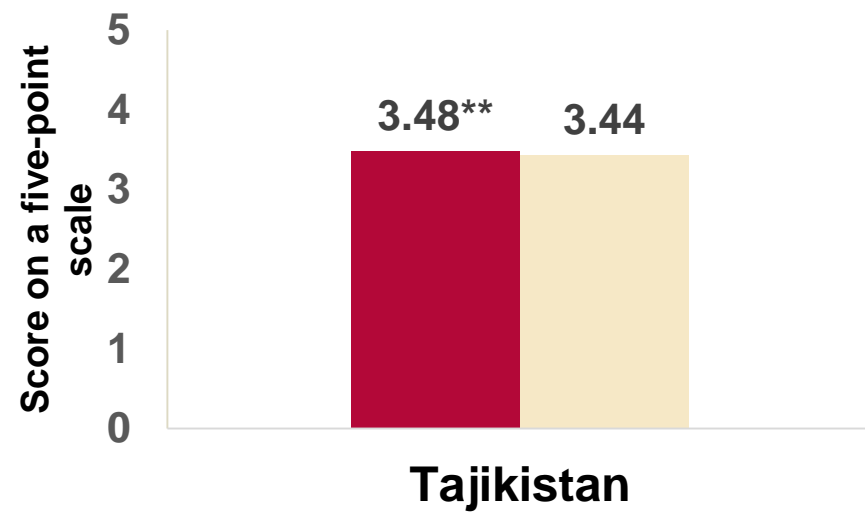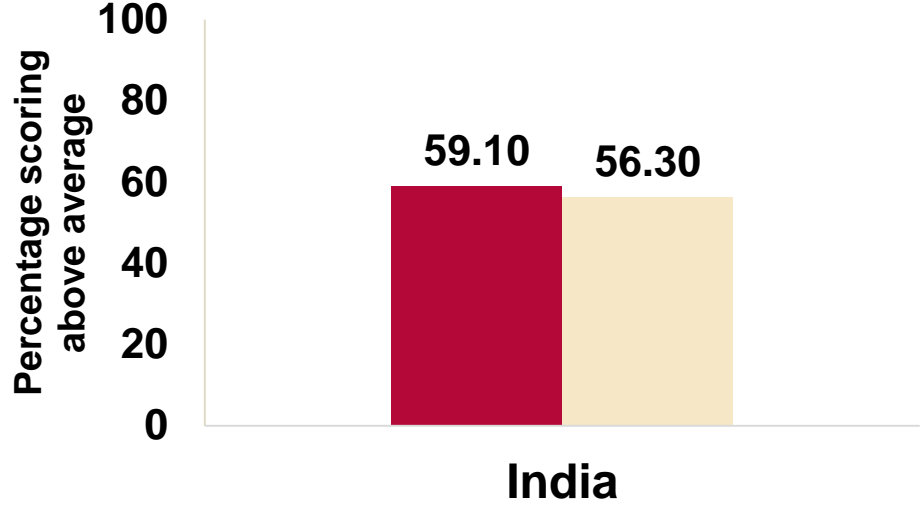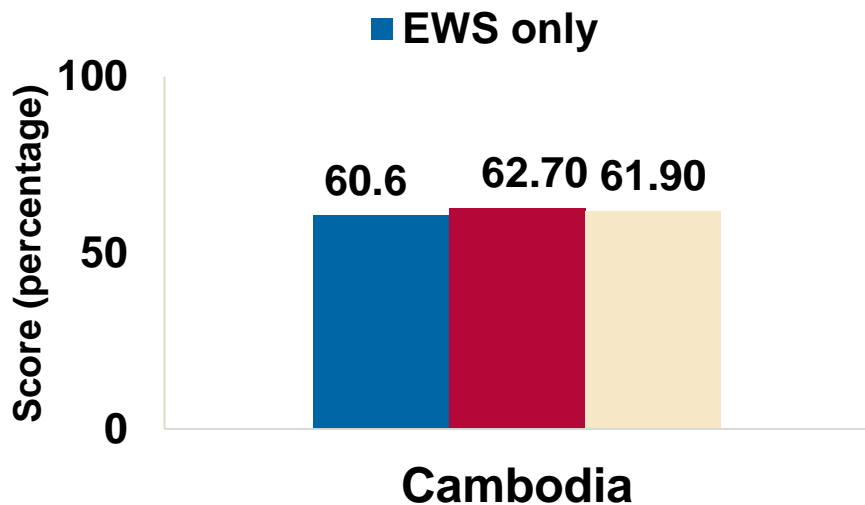
**Difference from control group mean is statistically significant at the 5% level.

Impacts at Endline on Student Dropout

SDPP Reduced Dropout in Cambodia

All students

Percentage of students dropped out

- Cambodia: 38.7** (EWS only), 39.3* (EWS + enrichment), 41.1 (Control)
- India: 8.3 (EWS + enrichment), 8.3 (Control)
- Tajikistan: 9.1 (EWS + enrichment), 8.8 (Control)
- Timor-Leste: 16.3 (EWS + enrichment), 15.5 (Control)

At-risk students

- Cambodia: 48.0*** (EWS only), 51.6 (EWS + enrichment), 54.1 (Control)
- India: 9.3 (EWS + enrichment), 9.3 (Control)
- Tajikistan: 10.1 (EWS + enrichment), 10.1 (Control)
- Timor-Leste: 17.7 (EWS + enrichment), 17.7 (Control)
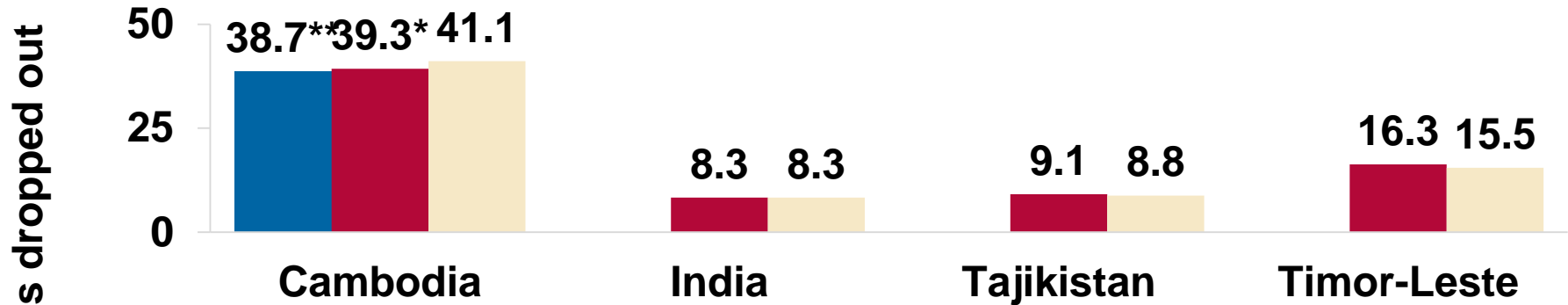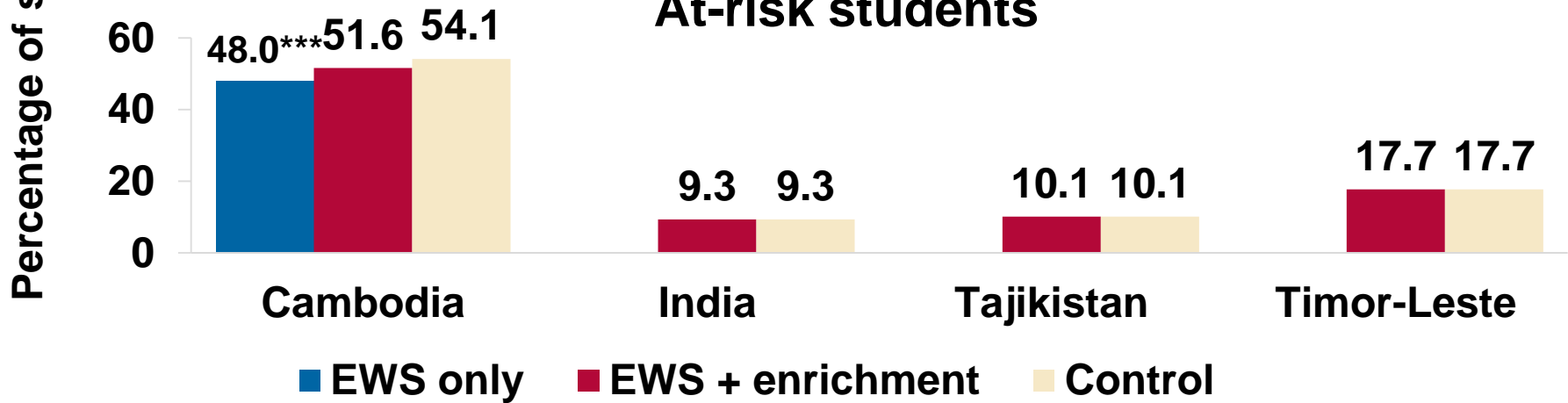
Legend: ■ EWS only ■ EWS + enrichment ☐ Control

***/**/*Differences from control group mean is statistically significant at the 1%/5%/10% level.

SDPP Improved Grade Progression in the EWS+Computers Group in Cambodia

Bar chart showing grade progression percentages by country and group:

Country	EWS only	EWS + enrichment	Control
Cambodia	62.3	63.3*	61.5
India		85.4	85.1
Tajikistan		79.7	77.9
Timor-Leste		80.0	78.3

Legend: ■ EWS only ■ EWS + enrichment ■ Control
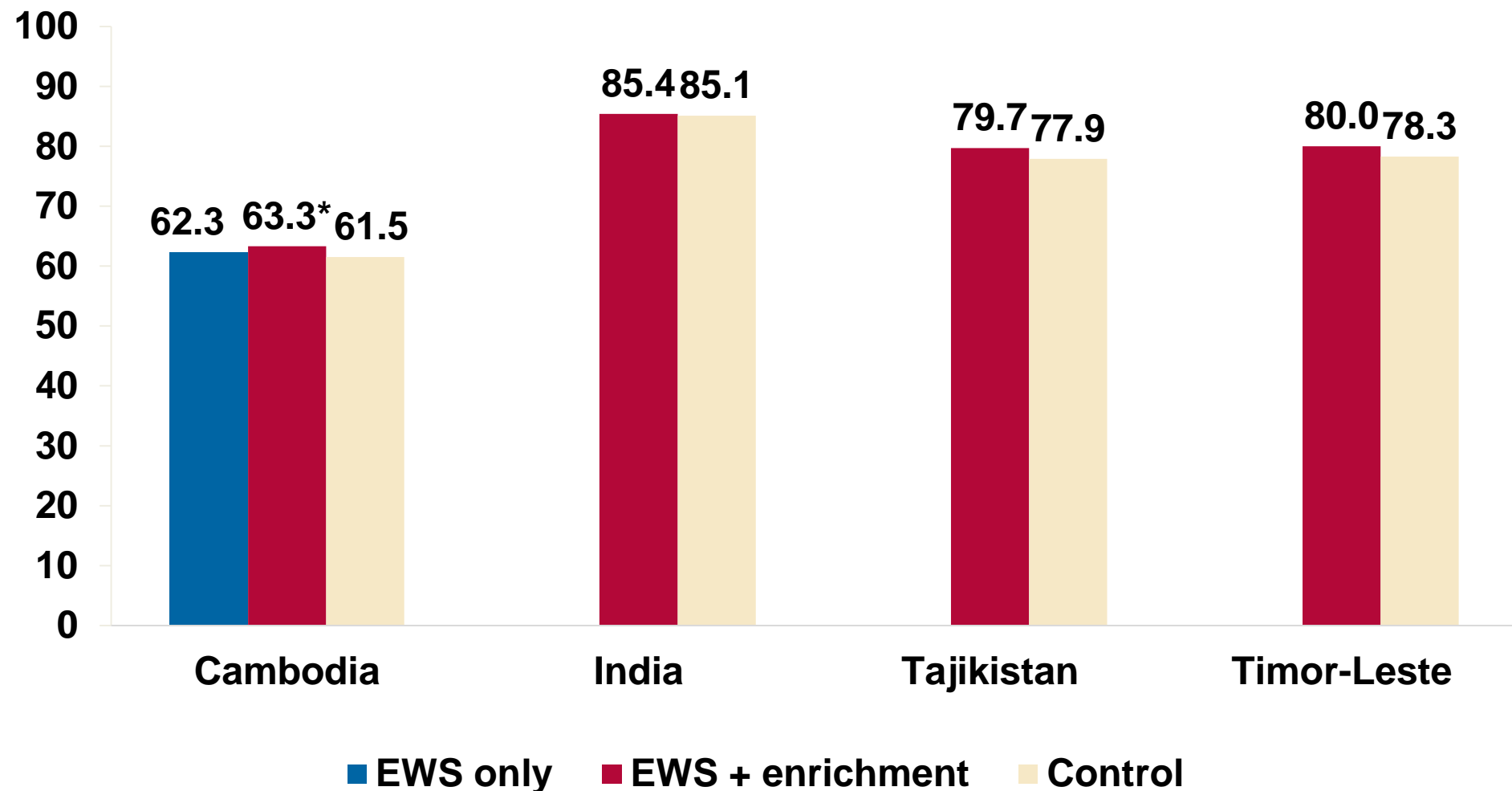
* Difference between treatment and control group means is significant at the 10% level.

SDPP Improved Between-Grade Dropout for Not-At-Risk Students in Tajikistan

Tajikistan

Progression

Category	EWS+Enrichment	Control
All Students	20.2	22.1
At-Risk Students	25.5	27.1
Not-At-Risk Students	13.3*	15.6

■ EWS+Enrichment   ☐ Control
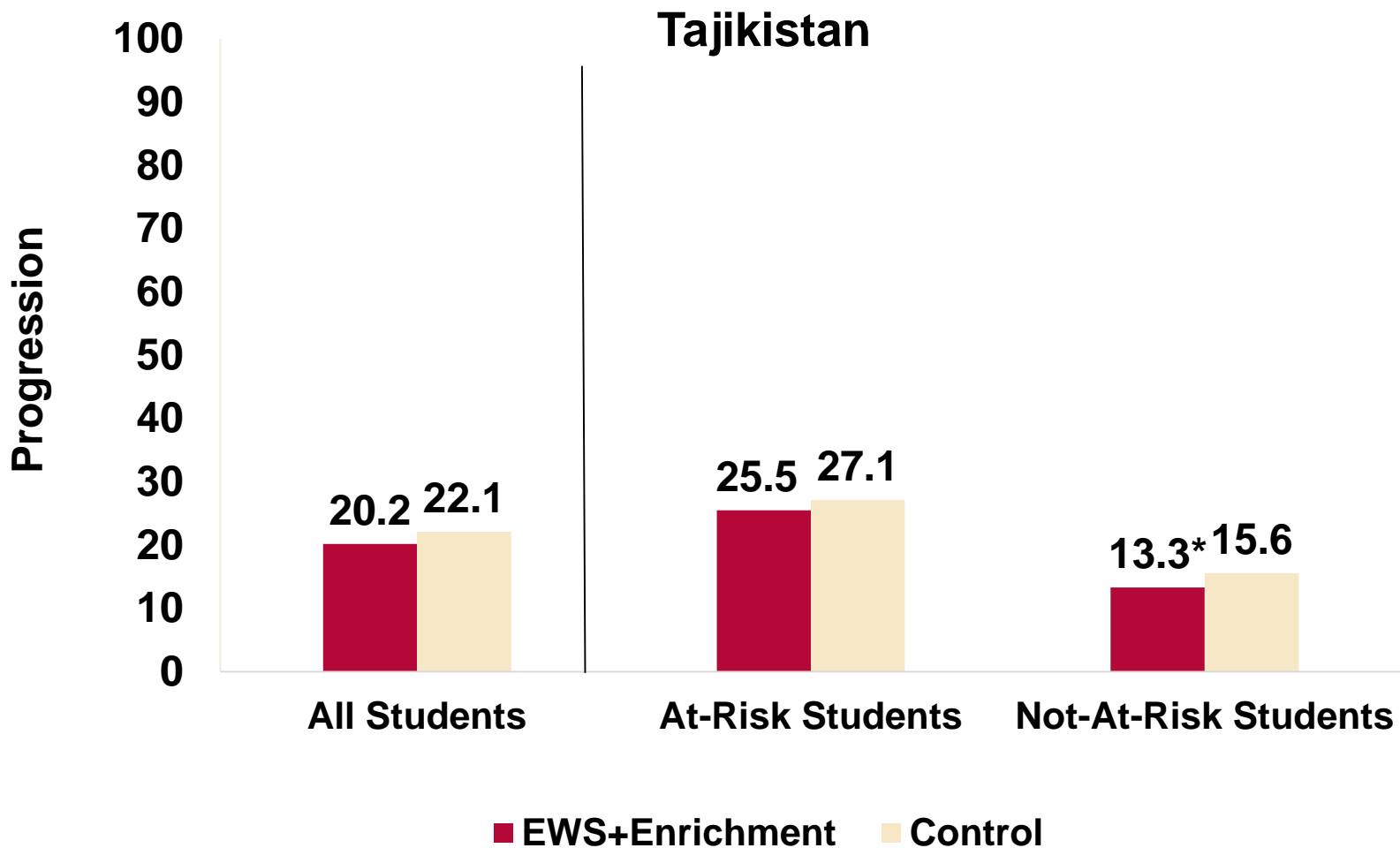
* Difference between treatment and control group means is significant at the 10% level.

Summary of Findings
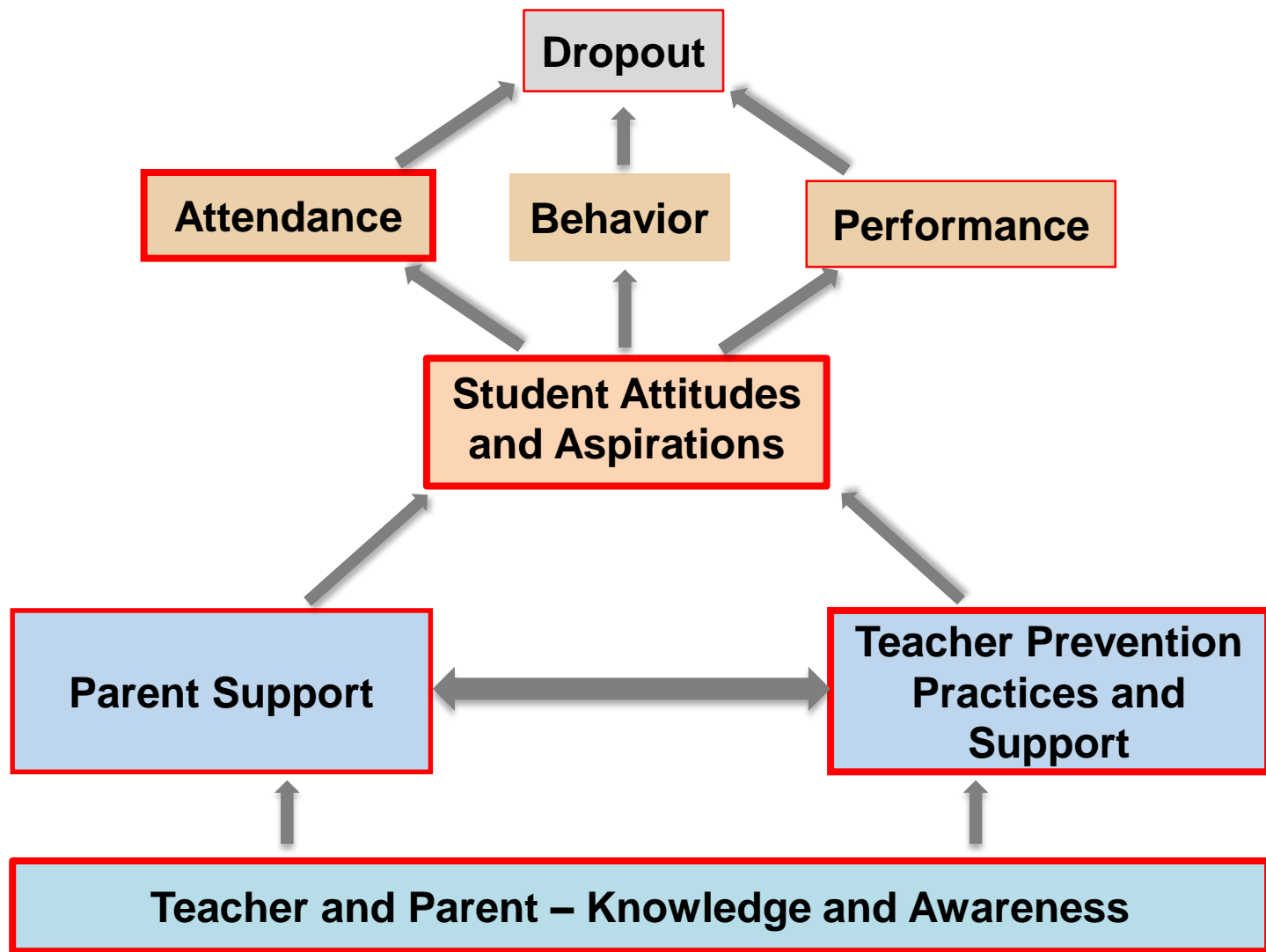
Impacts in Context

- **Duration of Exposure to SDPP:**
  - Only a year in India and Tajikistan; closer to two years in Timor Leste and Cambodia

- **Enforcement of Compulsory Education in India and Tajikistan:**
  - Concurrent reductions in dropout due in these two countries may have made it harder for SDPP to have impacts

- **Inconsistent Implementation of SDPP in Timor Leste:**
  - Especially for EWS communications with parents/follow-up actions

- **Complexity of Factors Related to Dropout:**
  - SDPP doesn't address all of them (particularly economic motivations)

SDPP Successfully Achieved Its Goal of Reducing Dropout and Dropout Related Behaviors

- **A high level of dropout and low levels of prevention practices provide the ideal context for impact**
  - SDPP reduced dropout and improved teacher dropout prevention practices in Cambodia, the country with the highest dropout rate and lowest teacher prevention practices.

- **The value-added of an ICT intervention is not apparent.**
  - Computer training combined with an EWS did not produce important impacts beyond those for EWS alone in Cambodia.

- **SDPP improved important intermediate outcomes such as student attitudes and attendance in Tajikistan, India and Timor-Leste, through the EWS combined with enrichment activities with recreational elements.**

Obrigadu, धन्यवाद , អរគុណ, Tashakur!

EXTRA SLIDES

Impacts on Dropout in Cambodia: What Does This Mean?

- **SDPP served about 45,000 students in each of the treatment groups in Cambodia**
  - In the absence of SDPP, about 18,500 students (41%) would have dropped out
  - SDPP kept about 2,655 (5.9%) of these students in school in EWS schools and about 1,980 (4.4%) of these students in school in EWS+Computer schools

- **SDPP served about 8,200 at-risk students in the EWS group**
  - In the absence of SDPP, about 4,400 (54%) of these at-risk students would have dropped out
  - SDPP kept about 500 (11%) of these students in school in the EWS group

Summary of Findings Related to Teacher and Administrator Practices

- **SDPP had a positive impact on dropout prevention practices for teachers and administrators in Cambodia, for teachers in Timor-Leste, and for administrators in Tajikistan.**

- **Teacher and administrator dropout prevention practices were high in India, Tajikistan, and Timor-Leste in SDPP and control schools.**

- **SDPP improved teachers' and administrators' sense of self-efficacy and responsibility in some countries.**

Summary of Findings Related to At-risk Student Attitudes

- **SDPP had a positive impact on at-risk students' emotional attitudes toward school in Tajikistan and India.**

- **SDPP had a positive impact on at-risk students' behavioral attitudes toward school in Timor-Leste.**

- **SDPP did not affect at-risk students' cognitive attitudes toward school in any country.**

- **SDPP improved at-risk students' perceptions of parent and teacher support in Cambodia and India.**

Summary of Findings Related to Student Attendance and Dropout

- **SDPP improved attendance in India, Tajikistan, and Timor-Leste.**

- **SDPP reduced dropout for students overall in Cambodia, in both the EWS+Computers group and the EWS group. The program also reduced dropout among at-risk students in the EWS group.**

- **There was a small improvement in grade progression in Cambodia in the EWS+Computers group.**

SDPP Program Rollout

	2012									2013												2014												2015		
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Cambodia				T		A		E									E A							X												
India		T	E		A								E A									E A													X	
Tajikistan			T		E A									E A						X																
Timor-Leste			T	E	A			E A								T E A				X																

The school year in Cambodia runs October to June, in India April to March, in Tajikistan it runs September to May, and in Timor-Leste January to November

T = teacher and school administrator training begins; E = EWS intervention rolled out to students; A = additional enrichment intervention rolled out to students; X = end of activities in schools

SDPP Improved At-Risk Students' Perceptions of Computer Training In Cambodia, for EWS+Computers Students
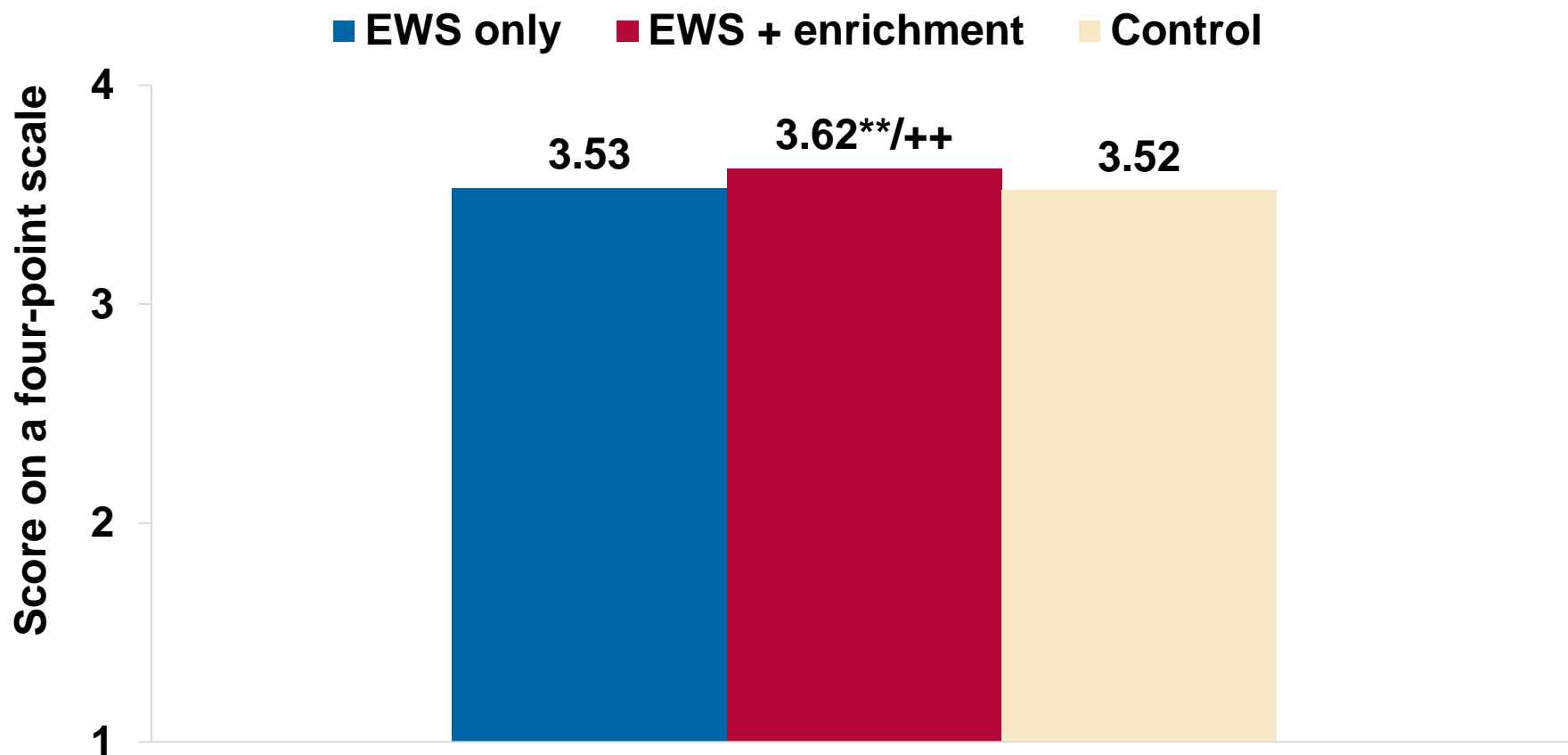
** Difference from control group mean is statistically significant at the 5% level.
++Difference between the EWS-only and EWS + enrichment group means is statistically significant at the 5% level.

SDPP Did Not Affect Language Performance in Any Country
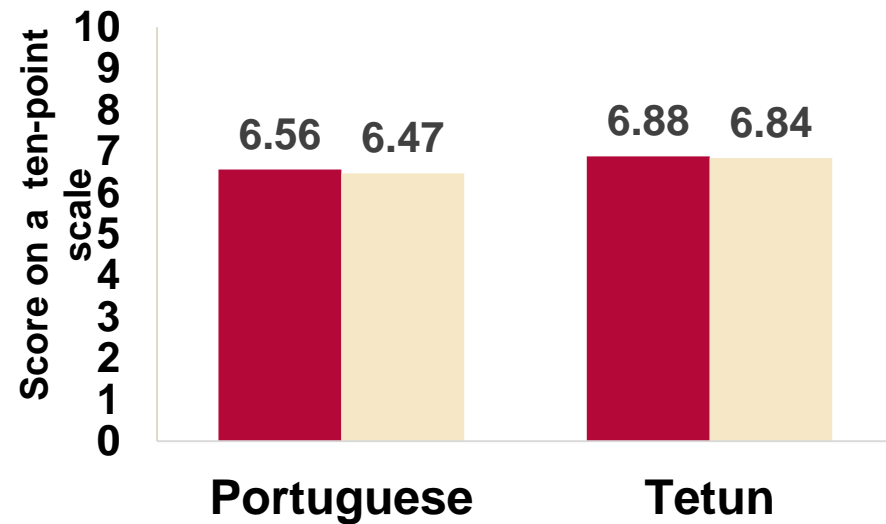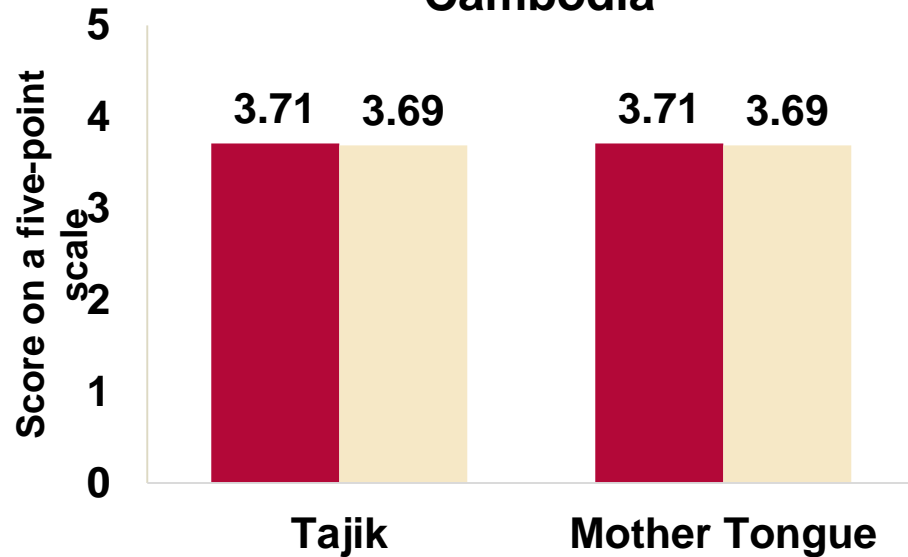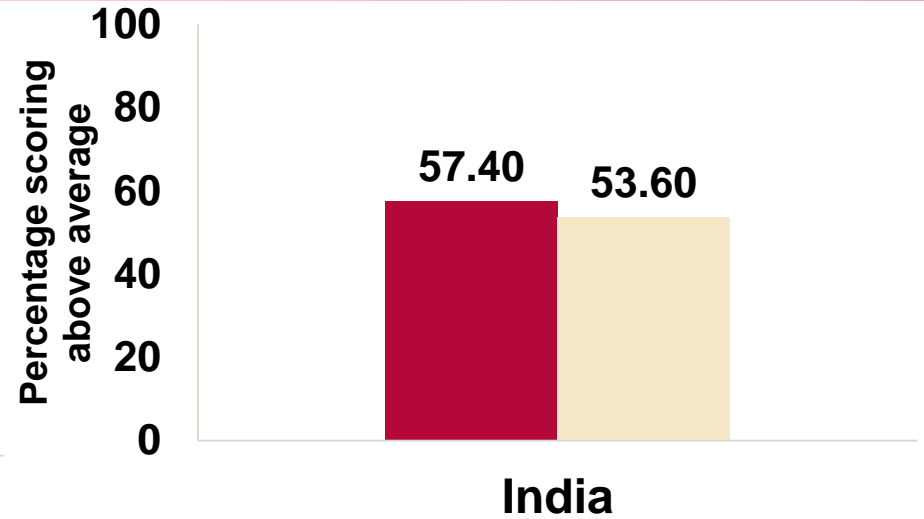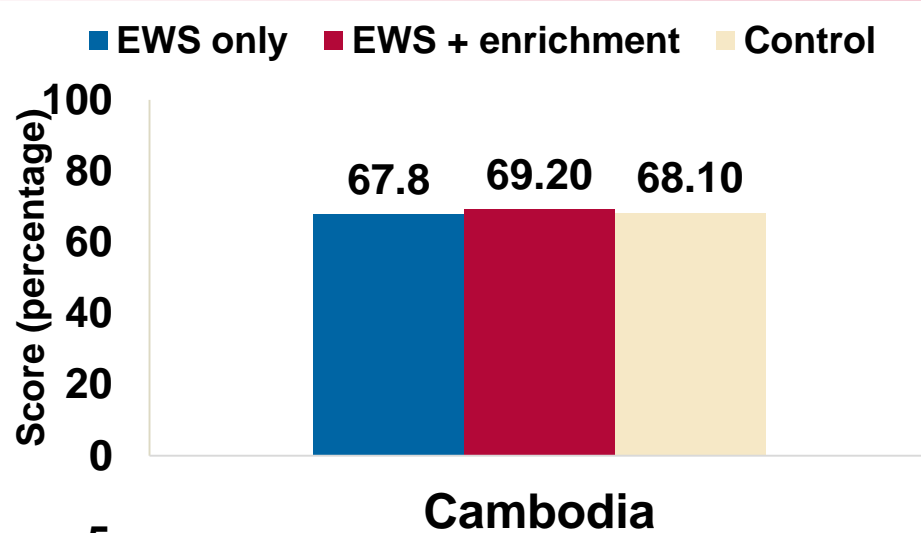
*Difference from control group mean is statistically significant at the 10% level.

SDPP Did Not Affect Behavior in Any Country
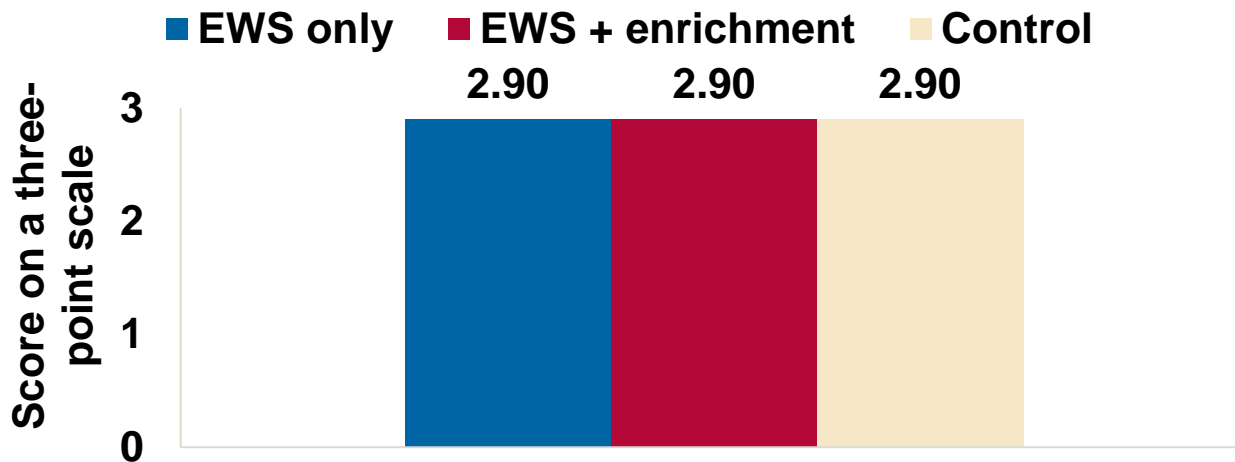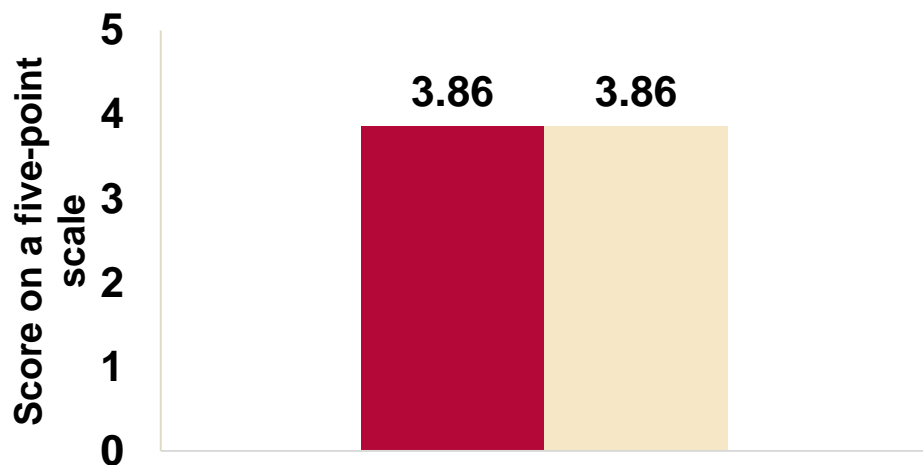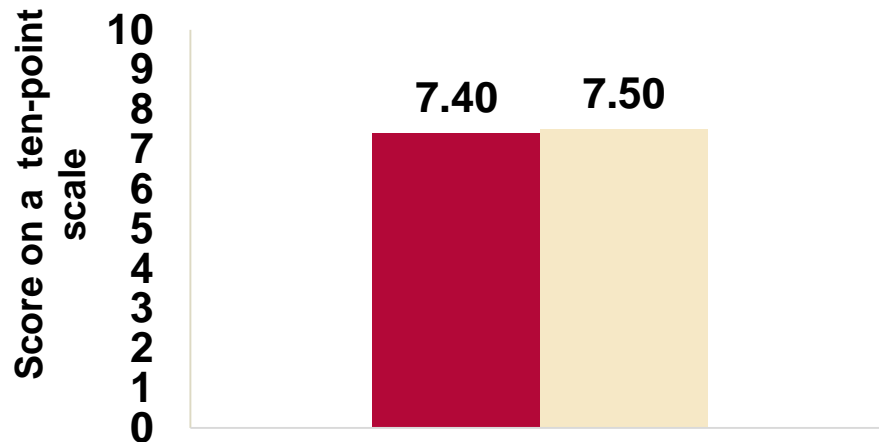
Legend: ■ EWS only ■ EWS + enrichment □ Control

Cambodia (Score on a three-point scale)
- EWS only: 2.90
- EWS + enrichment: 2.90
- Control: 2.90

Tajikistan (Score on a five-point scale)
- EWS + enrichment: 3.86
- Control: 3.86

Timor-Leste (Score on a ten-point scale)
- EWS + enrichment: 7.40
- Control: 7.50

*Difference from control group mean is statistically significant at the 10% level.

Teachers' Sense of Self Efficacy vs. Sense of Responsibility in Cambodia
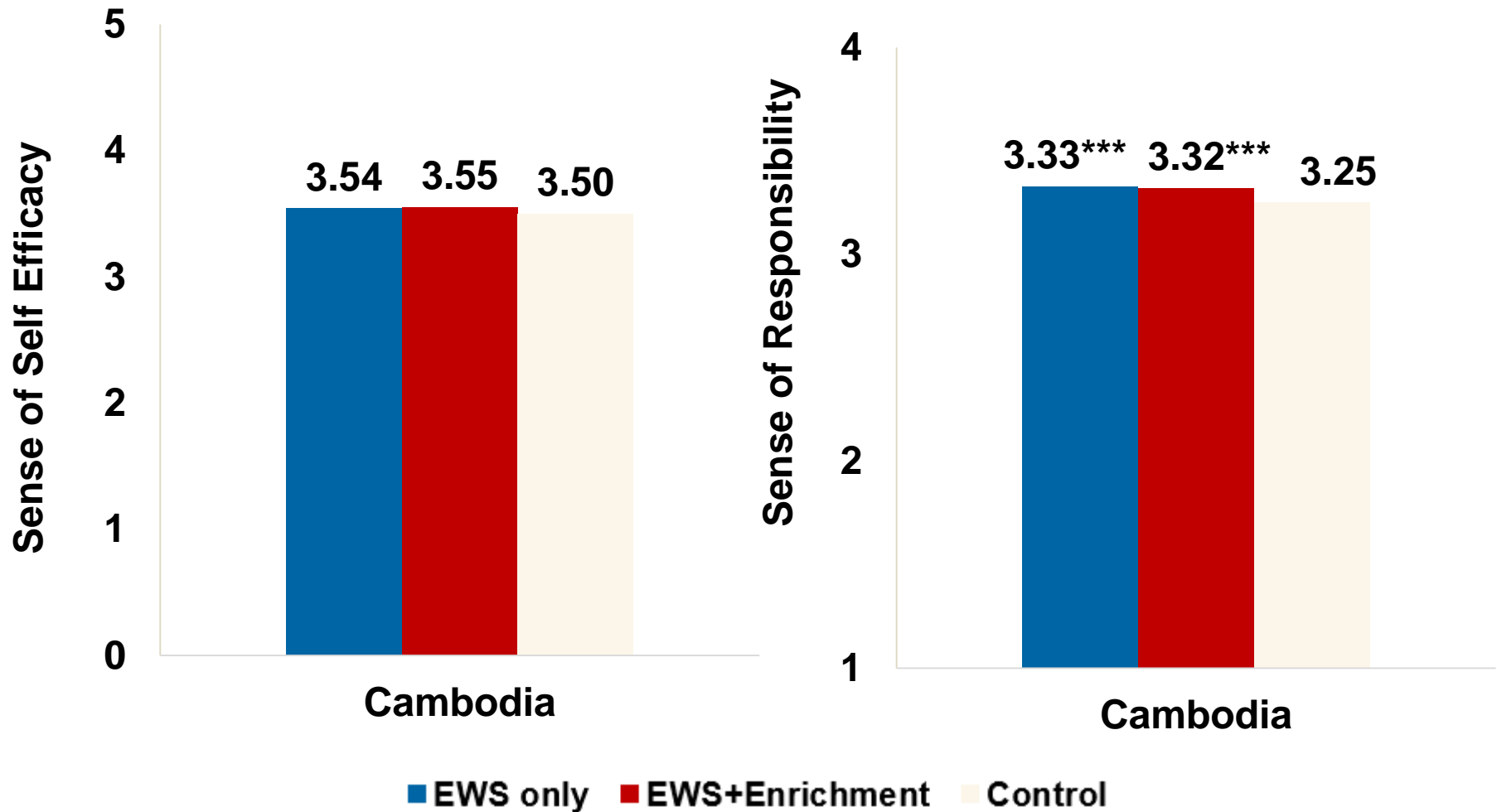
***/*Difference from control group mean is statistically significant at the 1%/10% level.

Impacts on Teacher Dropout Prevention Practices by Subgroup

	Cambodia		India	Tajikistan	Timor-Leste
	EWS only	EWS + Enrichment			
Teacher gender					
Female	+++	+++	○	○	○
Male	+++	+++	○	○	+++
Teacher full-time status					
Full-time	+++	+++	+	○	+++
Not full-time	○	+++	○	○	○
School percentage at-risk					
High	+++	+++	○	○	○
Low	+++	+++	○	○	+++
School location					
Remote	+++	+++	○	○	++
Not remote	+++	+++	○	○	+

+ + +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.
— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.

Subgroup Impacts on Teacher Dropout Prevention Practices

Cambodia

Subgroup	EWS only	EWS+Enrichment
Female	1.06***	0.93***
Male	0.83**	0.87***
Full-time	0.92***	0.88***
Not full-time	1.00	1.57***
High % At-risk	0.87***	1.00***
Low % At-risk	0.93***	0.83***
Remote schools	0.96***	0.95***
Not remote schools	0.88***	0.83***

India

Subgroup	EWS+Enrichment
Female	-0.08
Male	0.15
Full-time	0.39*
Not full-time	-0.05
High % At-risk	0.08
Low % At-risk	0.03
Remote schools	-0.06
Not remote schools	0.16

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Subgroup Impacts on Teacher Dropout Prevention Practices

Tajikistan

Subgroup	EWS+Enrichment
Female	0.07
Male	-0.03
Full-time	0.01
Not full-time	-0.07
High % At-risk	-0.08
Low % At-risk	0.03
Remote schools	0.03
Not remote schools	-0.02

■ EWS+Enrichment

Timor-Leste

Subgroup	EWS+Enrichment
Female	0.15
Male	0.15***
Full-time	0.14***
Not full-time	0.18
High % At-risk	0.1
Low % At-risk	0.18***
Remote schools	0.14**
Not remote schools	0.18*

■ EWS+Enrichment

Impact on Teacher Dropout Prevention Practices in India for Full Time Employees
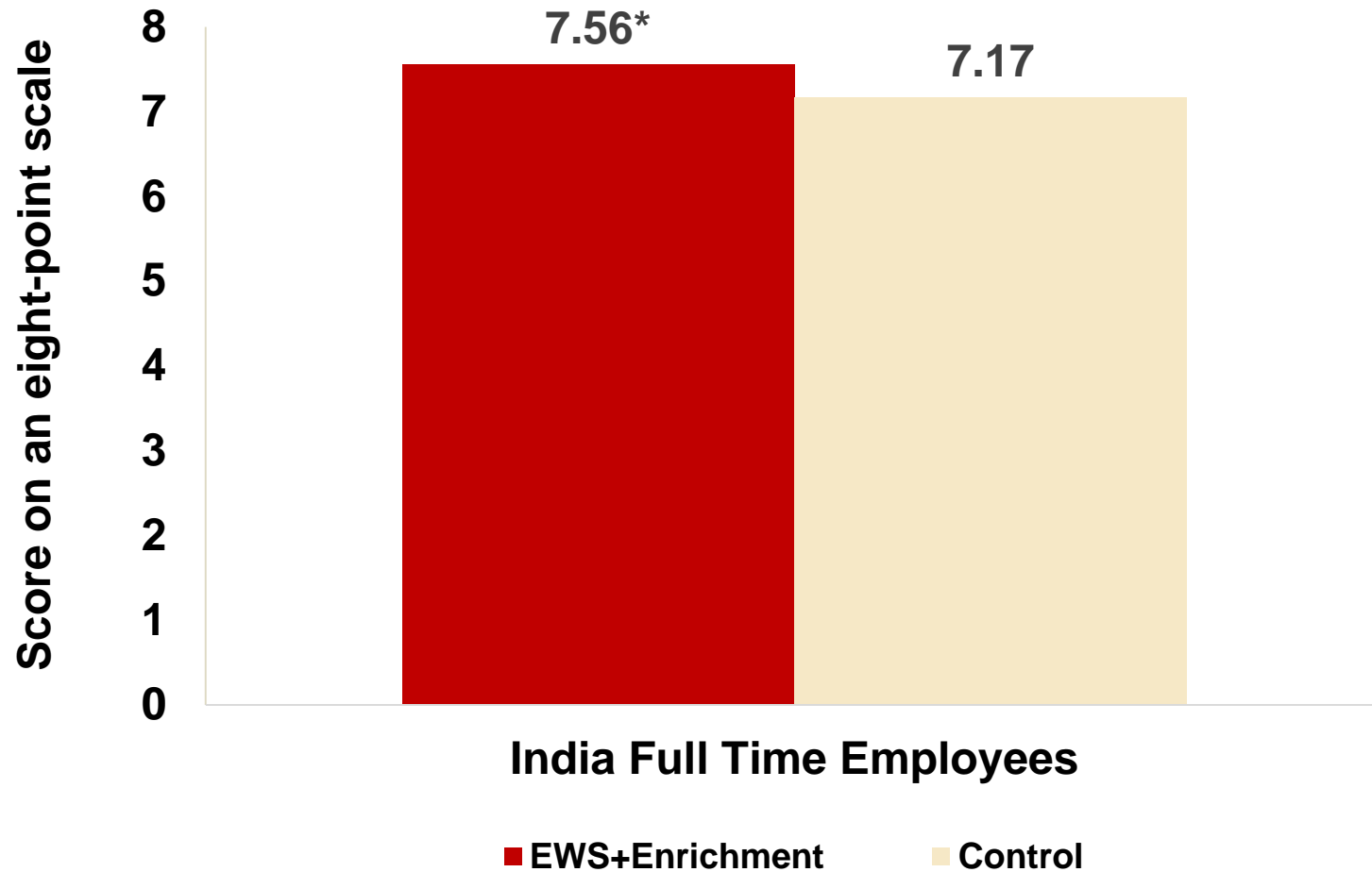
* Difference from control group mean is statistically significant at the 10% level.

Impacts on Emotional Attitudes Toward School by Subgroup

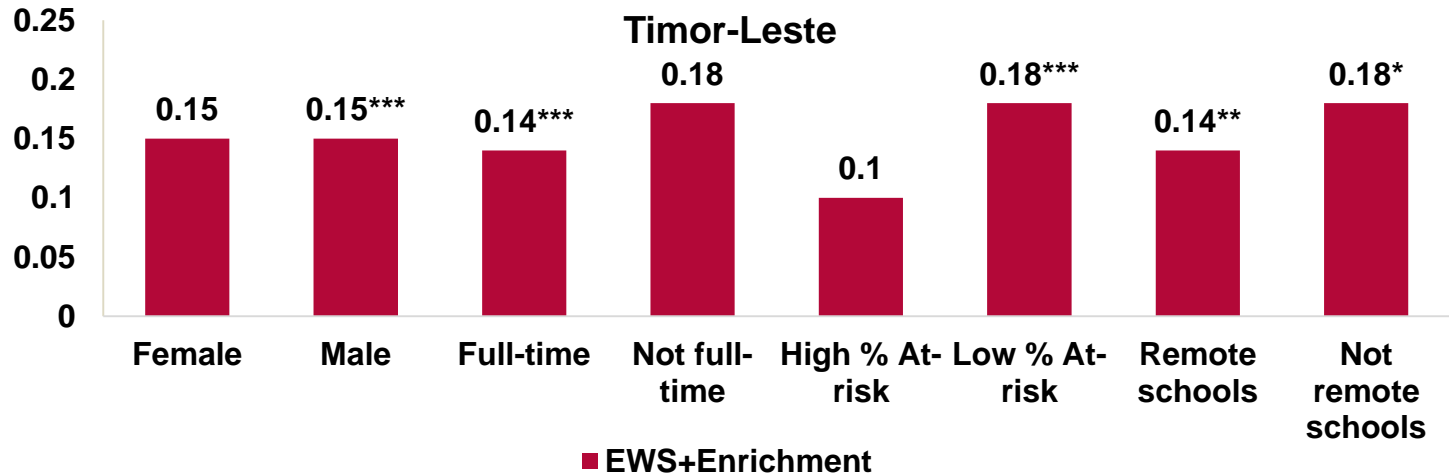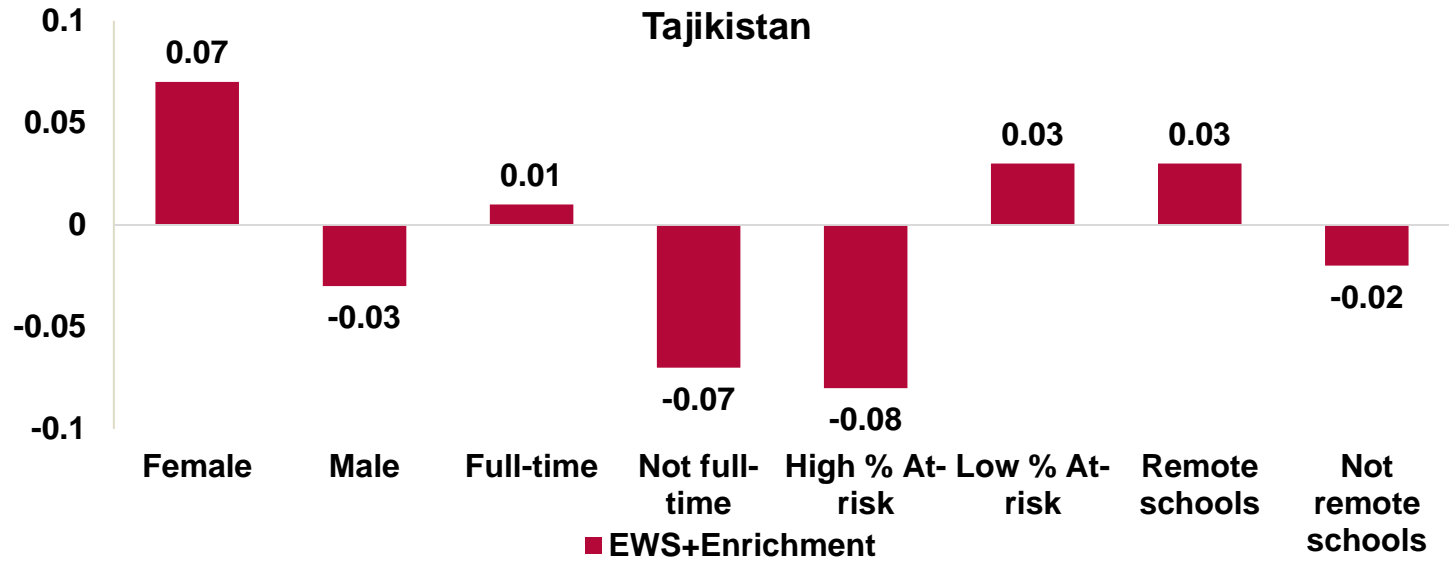|	Cambodia		India	Tajikistan	Timor-Leste
	EWS only	**EWS + Enrichment**			
Student gender					
Females	○	○	+++	+++	○
Males	○	○	○	○	○
Student overage status					
Overage	○	○	○	○	○
Not overage	○	○	+++	+++	○
Student caste					
Low caste	N/A	N/A	○	N/A	N/A
Not low caste	N/A	N/A	+++	N/A	N/A
School percentage at-risk					
High percent at-risk	○	○	○	+	○
Low percent at-risk	○	○	+++	+	○
School location					
Remote	○	○	++	○	○
Not remote	○	○	++	+++	—

+ + +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.
— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.

Subgroup Impacts on Emotional Attitudes Toward School

Cambodia

Improvements on a four-point scale

Subgroup	EWS only	EWS+Enrichment
Female	0.01	0.01
Male	0.03	0.04
Overage	0.31	0.31
Not overage	0.01	0.01
High % At-risk	0.06	0.03
Low % At-risk	0.00	0.02
Remote schools	0.00	-0.01
Not remote schools	0.03	0.04

■ EWS only ■ EWS+Enrichment

Tajikistan

Improvements on a four-point scale

Subgroup	EWS+Enrichment
Female	0.1***
Male	0.04
Overage	0.02
Not overage	0.07***
High % At-risk	0.08*
Low % At-risk	0.06*
Remote schools	0.04
Not remote schools	0.09***

■ EWS+Enrichment

Subgroup Impacts on Emotional Attitudes Toward School

India

Subgroup	EWS+Enrichment
Female	2.8***
Male	0.6
Low caste	0
Not low caste	2.6***
Overage	0.8
Not overage	1.9***
High % At-risk	0.8
Low % At-risk	2.3***
Remote schools	1.8**
Not remote schools	1.8**

Y-axis: Improvements in percentage of scale items with which student agreed

Timor-Leste

Subgroup	EWS+Enrichment
Female	-0.5
Male	-1.2
Overage	0.5
Not overage	-0.9
High % At-risk	-1.6
Low % At-risk	-0.5
Remote schools	-0.2
Not remote schools	-3.1*

Y-axis: Improvements in percentage of scale items with which student agreed

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Impacts on Cognitive Attitudes Toward School by Subgroup

	Cambodia		India	Tajikistan	Timor-Leste
	EWS only	EWS + Enrichment			
Student gender					
Females	○	○	○	○	○
Males	○	○	○	○	○
Student overage status					
Overage	○	**+**	○	○	○
Not overage	○	○	○	○	○
Student caste					
Low caste	N/A	N/A	○	N/A	N/A
Not low caste	N/A	N/A	○	N/A	N/A
School percentage at-risk					
High percent at-risk	○	○	○	○	○
Low percent at-risk	○	○	○	○	○
School location					
Remote	○	○	○	○	○
Not remote	○	○	○	○	○

+ + +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.
— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.

SDPP Improved At-Risk Students' Cognitive Attitudes Toward School for Overage Students in Cambodia

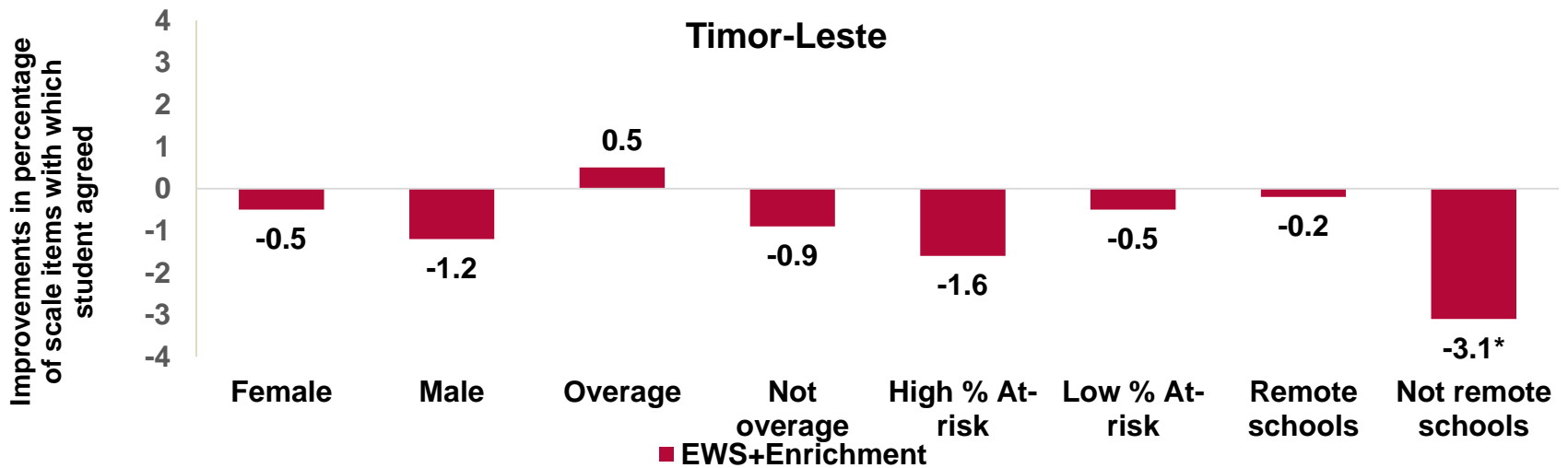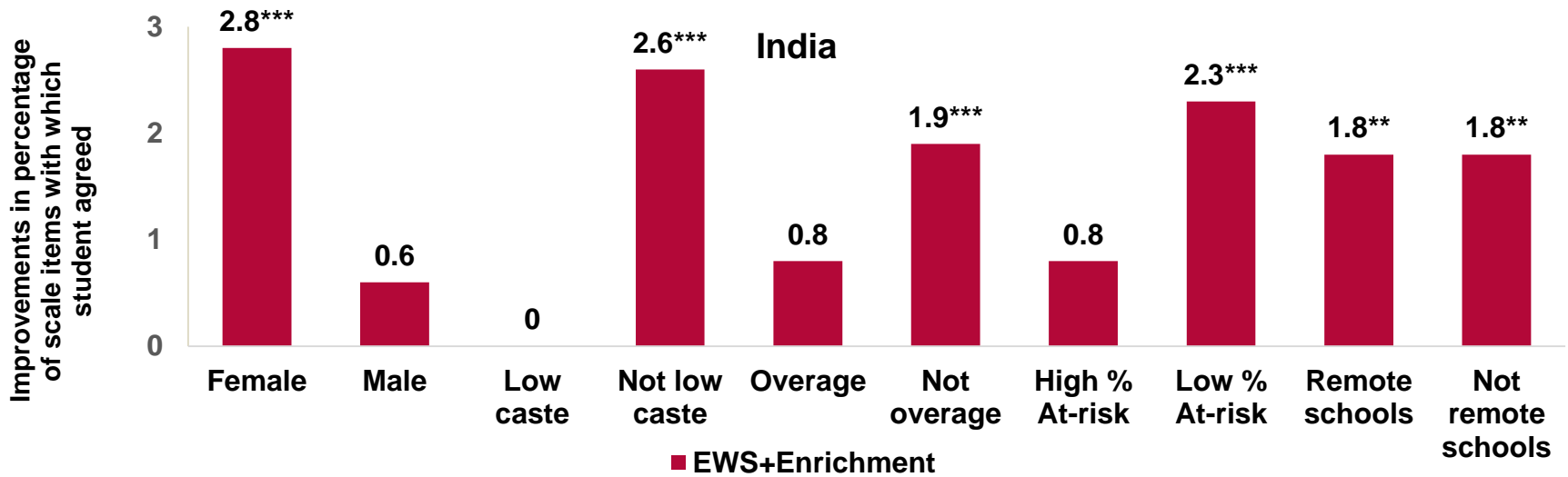* Difference from control group mean is statistically significant at the 10% level.

Impacts on Behavioral Attitudes Toward School by Subgroup

	Cambodia		India	Tajikistan	Timor-Leste
	EWS only	**EWS + Enrichment**			
Student gender					
Females	○	○	○	○	**+++**
Males	○	○	○	○	**+++**
Student overage status					
Overage	○	○	○	○	**+++**
Not overage	○	○	○	○	**+++**
Student caste					
Low caste	N/A	N/A	○	N/A	N/A
Not low caste	N/A	N/A	○	N/A	N/A
School percentage at-risk					
High percent at-risk	○	○	○	**++**	**+++**
Low percent at-risk	○	○	○	○	○
School location					
Remote	○	○	○	○	**+++**
Not remote	○	○	○	○	**+**

+ + +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.
— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.

Subgroup Impacts on Behavioral Attitudes Toward School
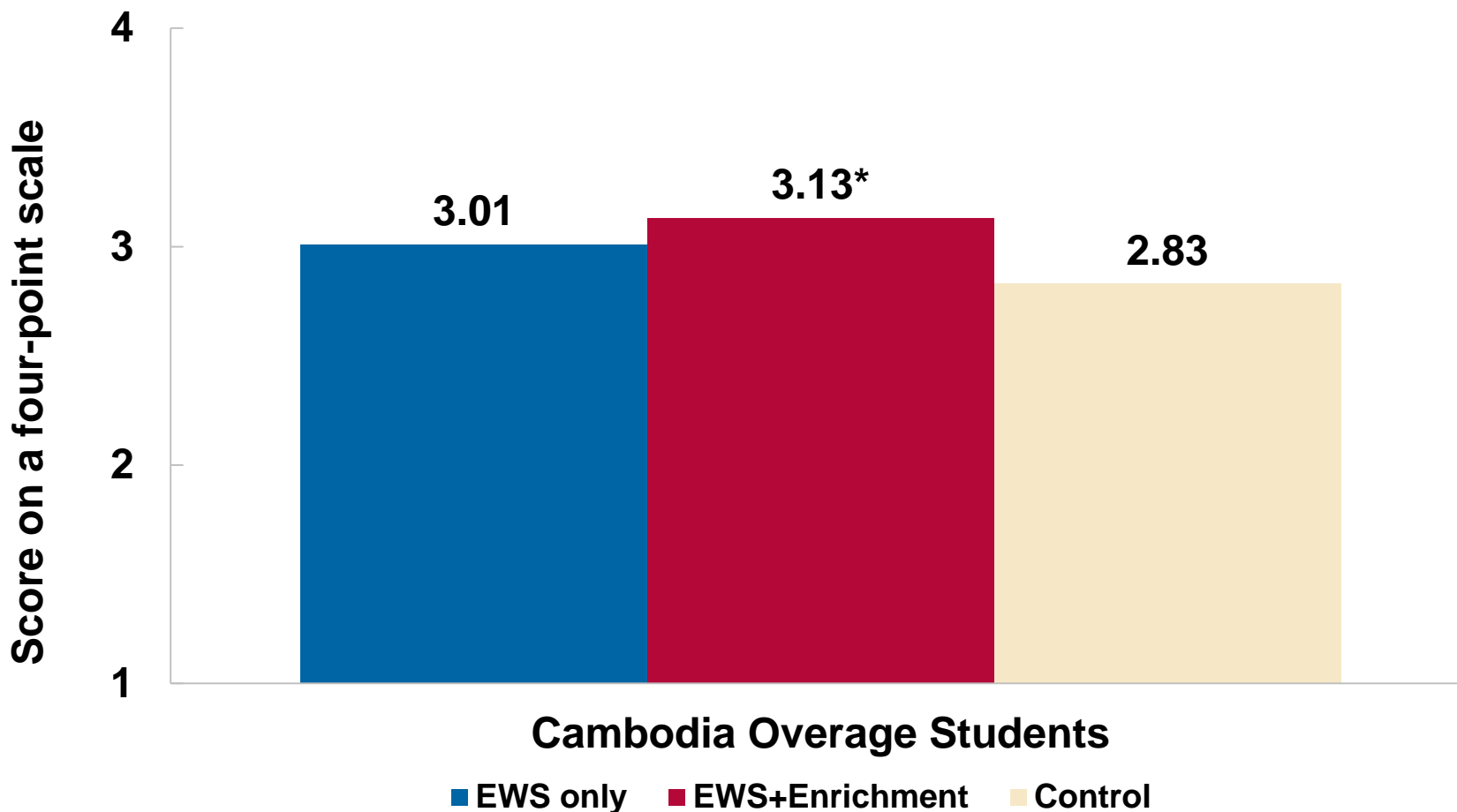
Subgroup Impacts on Behavioral Attitudes Toward School

India (EWS+Enrichment) bar chart, Improvements in percentage of scale items with which student agreed:
- Female: 0.5
- Male: 0.6
- Not low caste: 0.9
- Low caste: -0.3
- Overage: -0.6
- Not overage: 0.7
- High % At-risk: 0.2
- Low % At-risk: 0.8
- Remote schools: 0.9
- Not remote schools: 0

Timor-Leste (EWS+Enrichment) bar chart, Improvements in percentage of scale items with which student agreed:
- Female: 3.4***
- Male: 3.1***
- Overage: 6.8***
- Not overage: 3***
- High % At-risk: 5.9***
- Low % At-risk: 1.8
- Remote schools: 3.5*
- Not remote schools: 3.2***

SDPP Improved Behavioral Attitudes Toward School for Students in Schools with a High Percentage of At-Risk Students in Tajikistan

** Difference from control group mean is statistically significant at the 5% level.

Impacts on Attendance by Subgroup

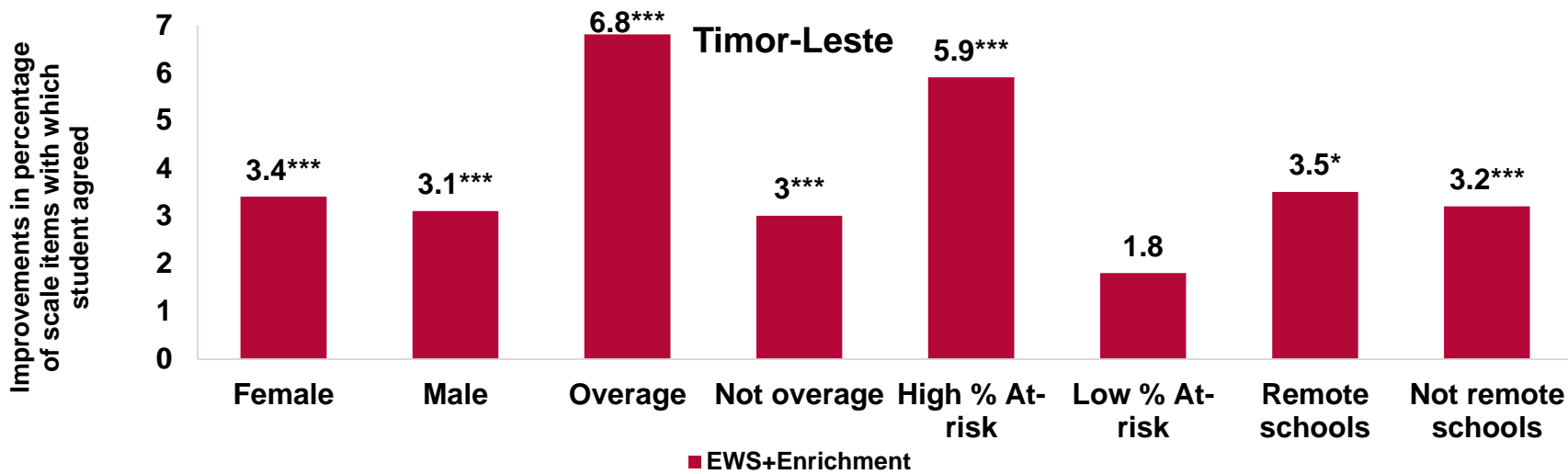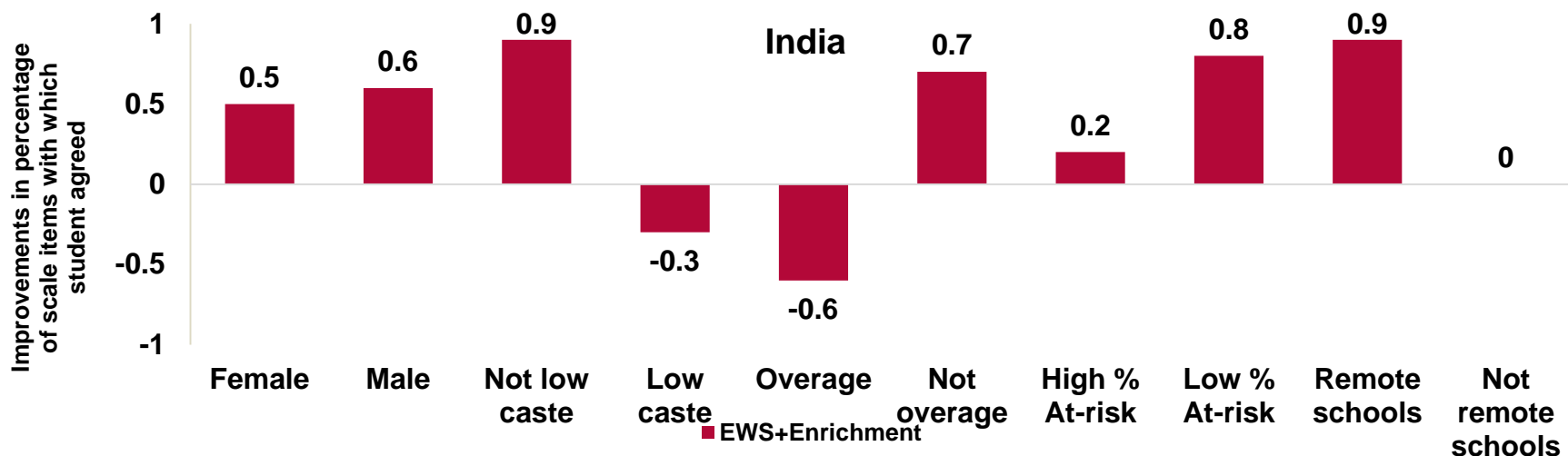|	Cambodia		India	Tajikistan	Timor-Leste
	EWS only	EWS + Enrichment			
Student gender					
Females	○	○	+++	++	++
Males	○	○	++	○	++
Student overage status					
Overage	○	○	++	○	++
Not overage	○	○	+++	+	++
Student caste					
Low caste	N/A	N/A	++	N/A	N/A
Not low caste	N/A	N/A	++	N/A	N/A
School percentage at-risk					
High percent at-risk	○	○	○	○	○
Low percent at-risk	○	○	+++	++	++
School location					
Remote	○	○	○	○	+
Not remote	○	○	++	+	○

+ + +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.
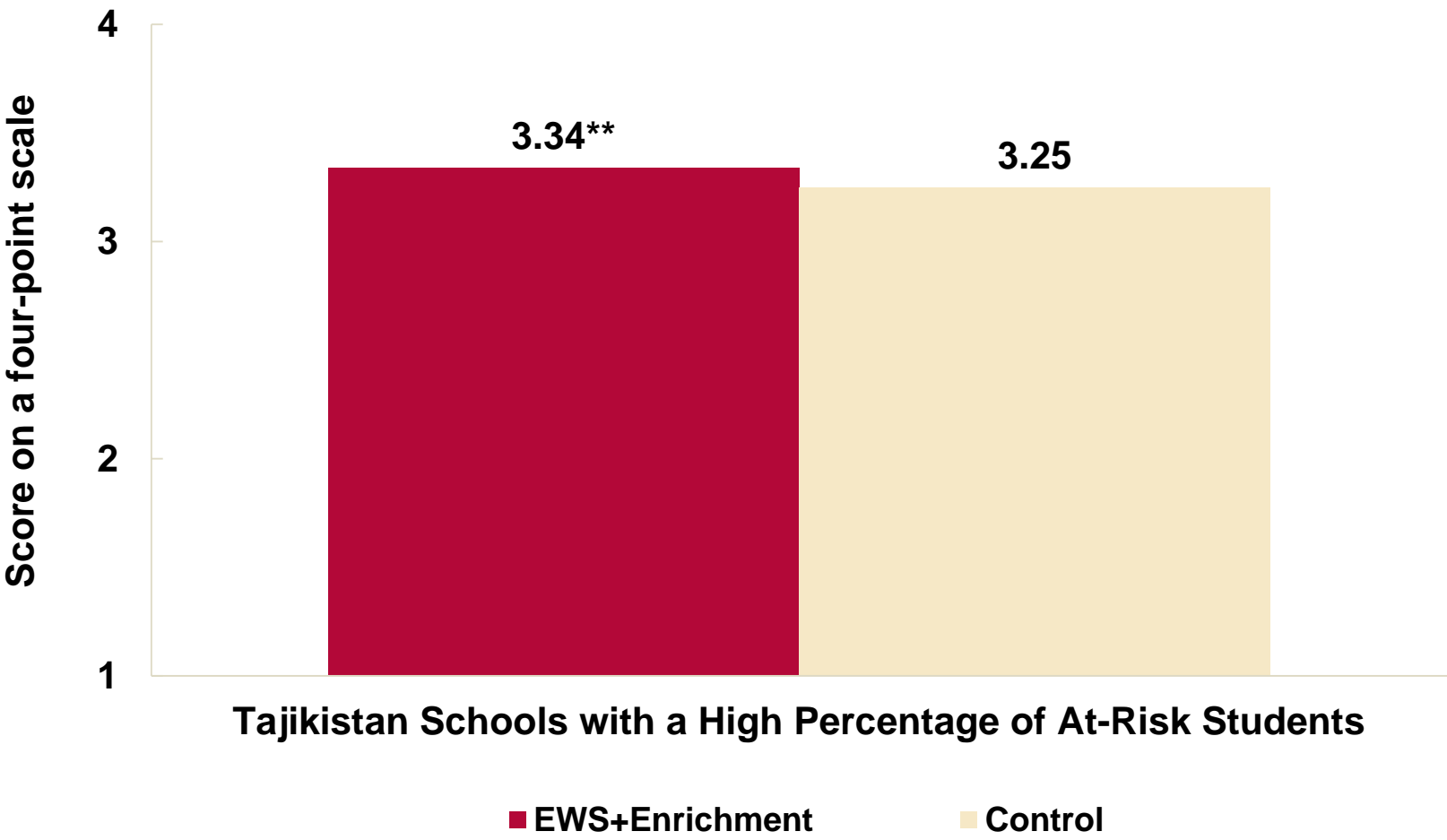— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.

Subgroup Impacts on Attendance

Cambodia

Improvements in percentage of days attended

- Female: EWS only -0.6, EWS+Enrichment 0.1
- Male: EWS only -1.2, EWS+Enrichment -0.2
- Overage: EWS only 0.3, EWS+Enrichment 1.2
- Not overage: EWS only -0.9, EWS+Enrichment 0.0
- High % At-risk: EWS only -1.6, EWS+Enrichment -0.8
- Low % At-risk: EWS only -0.6, EWS+Enrichment 0.2
- Remote schools: EWS only -1.2, EWS+Enrichment 0.0
- Not remote schools: EWS only -0.6, EWS+Enrichment -0.3

Legend: ■ EWS only ■ EWS+Enrichment

India

Improvements in percentage of days attended

- Female: 1.7***
- Male: 1.7**
- Low caste: 2.5***
- Not low caste: 1.4**
- Overage: 2.1**
- Not overage: 1.6***
- High % At-risk: -0.3
- Low % At-risk: 2.7***
- Remote schools: 1.3
- Not remote schools: 2.2**

Legend: ■ EWS+Enrichment

Subgroup Impacts on Attendance

Tajikistan

Improvements in percentage of days attended

Female	Male	Overage	Not overage	High % At-risk	Low % At-risk	Remote schools	Not remote schools
1.1**	0.6	2.1	0.8*	-0.3	1.3**	0.3	1.3*

■ EWS+Enrichment

Timor-Leste

Improvements in percentage of days attended

Female	Male	Overage	Not overage	High % At-risk	Low % At-risk	Remote schools	Not remote schools
1.7**	1.7**	2.3**	1.7**	1.1	2.1**	1.6*	1.9

■ EWS+Enrichment

Impacts on Dropout by Subgroup

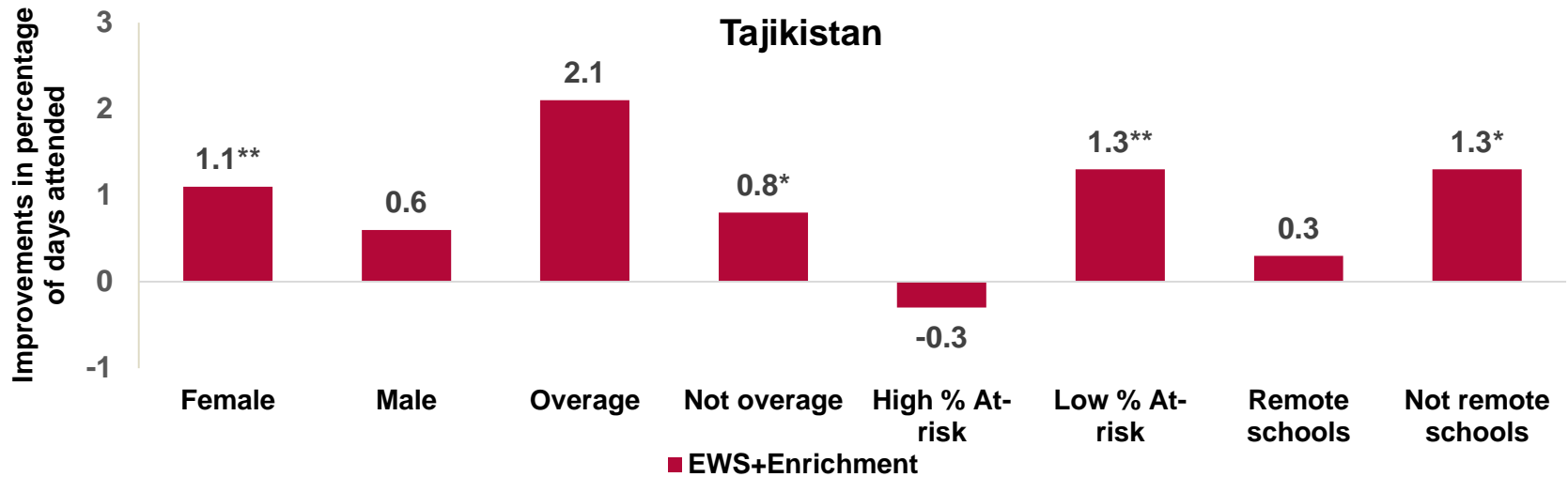|	Cambodia		India	Tajikistan	Timor-Leste
	EWS only	EWS + Enrichment			
Student gender					
Females	—	○	○	○	○
Males	— —	○	○	○	○
Student overage status					
Overage	○	○	○	○	○
Not overage	— —	—	○	○	○
Student caste					
Low caste	N/A	N/A	○	N/A	N/A
Not low caste	N/A	N/A	○	N/A	N/A
School percentage at-risk					
High percent at-risk	○	○	+++	○	++
Low percent at-risk	— —	○	— —	○	○
School location					
Remote[d]	○	— —	○	○	○
Not remote[d]	○	○	○	○	○

+ + +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.
— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.
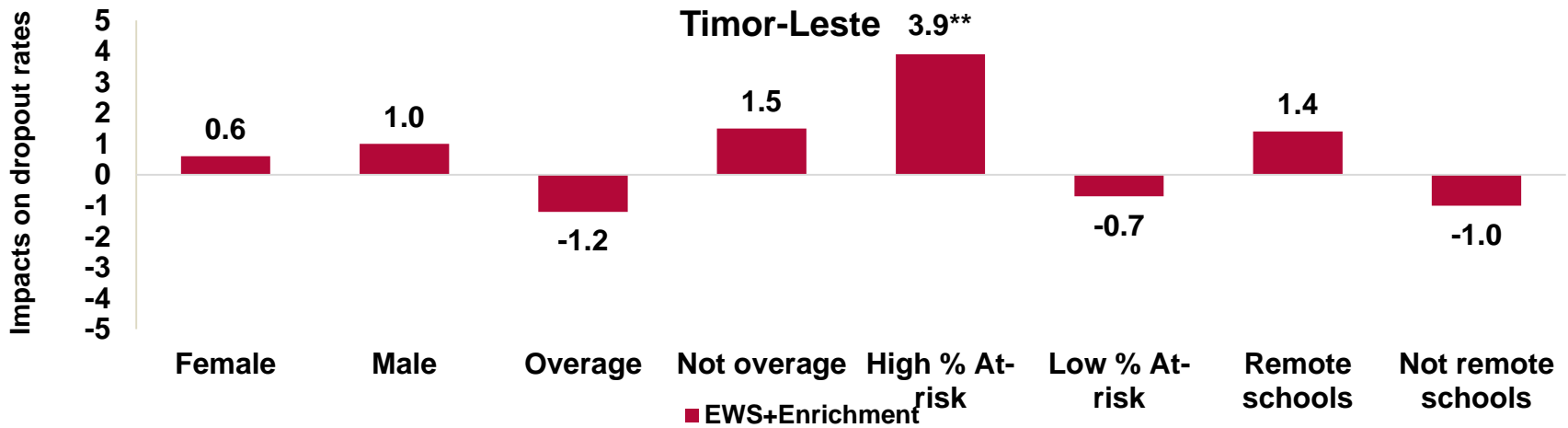
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Subgroup Impacts on Dropout

Cambodia

	Female	Male	Overage	Not overage	High % At-risk	Low % At-risk	Remote schools	Not remote schools
EWS only	-2.1*	-2.7**	-3.5	-2.5**	-1.5	-2.8**	-2.2	-2.4
EWS+Enrichment	-1.6	-1.9	-2.2	-2.0*	-1.4	-2.1	-3.3**	-0.3

India

	Female	Male	Low caste	Not low caste	Overage	Not overage	High % At-risk	Low % At-risk	Remote schools	Not remote schools
EWS+Enrichment	-0.6	0.6	-1.3	0.4	-0.1	0.0	3.8***	-2.0**	-0.6	0.7

Subgroup Impacts on Dropout

Tajikistan

(Impacts on dropout rates)

Female: -0.4, Male: 0.7, Overage: -0.6, Not overage: 0.3, High % At-risk: 0.6, Low % At-risk: 0.1, Remote schools: -0.3, Not remote schools: 0.6

EWS+Enrichment

Timor-Leste

(Impacts on dropout rates)

Female: 0.6, Male: 1.0, Overage: -1.2, Not overage: 1.5, High % At-risk: 3.9**, Low % At-risk: -0.7, Remote schools: 1.4, Not remote schools: -1.0

EWS+Enrichment

SDPP Reduced Dropout for Students in Schools with a Low Percentage of At-Risk Students in India
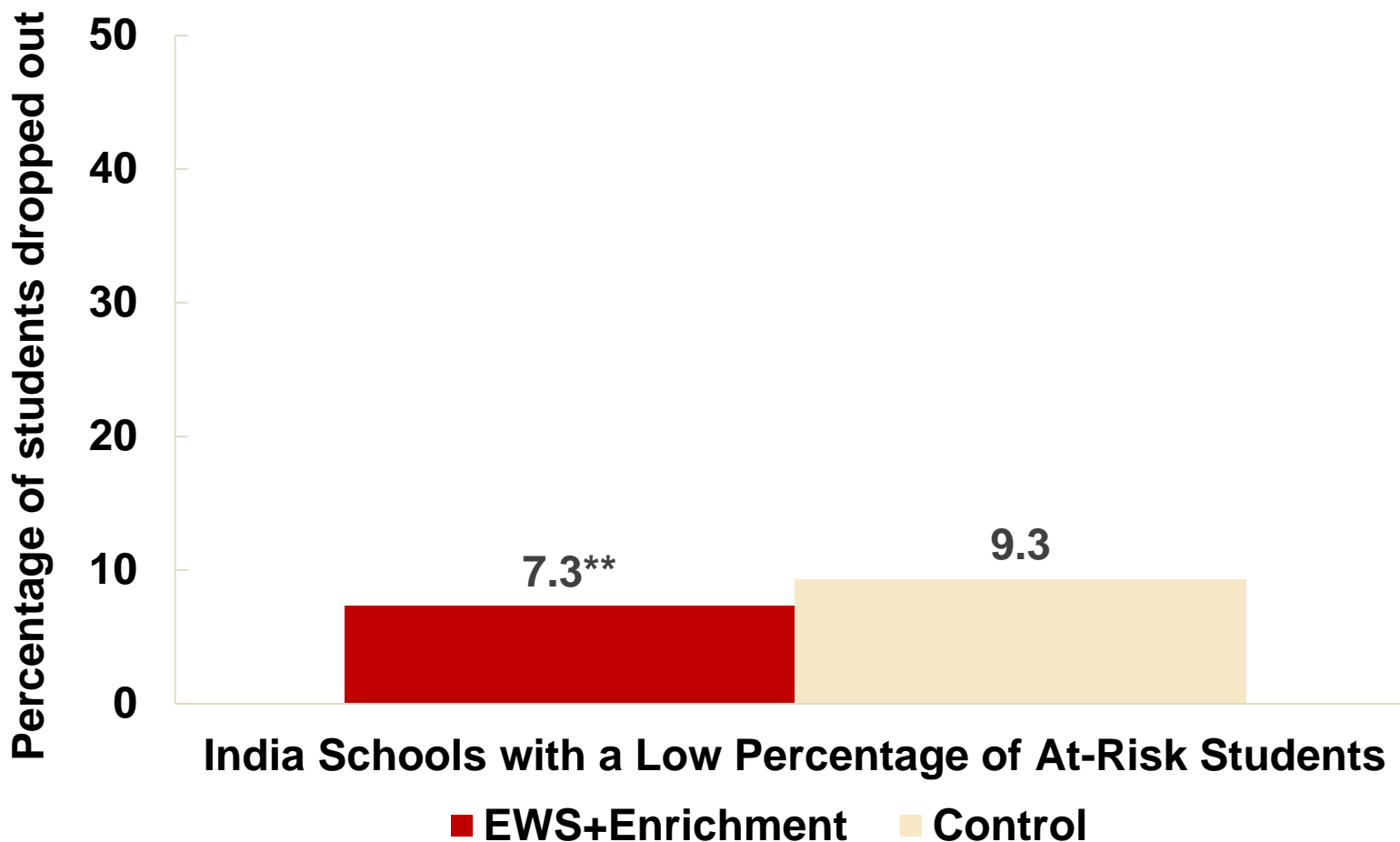
*** Difference from control group mean is statistically significant at the 1% level.

Impacts on Daily Attendance: What does this mean?

	India	Tajikistan	Timor-Leste
Number of Days School is Open in a School Year	225	198	240
Number of Days Absent for a Typical Student	82	19	47
Number of Days Absent for an At-Risk Student	88	23	56
Total Additional School Days Attended Per Student			
All students	4	2	4
At-risk students	4	No impact	6
Total Additional School Days Attended			
All students	76,000	15,000	77,000
At-risk students	65,000	No impact	32,000

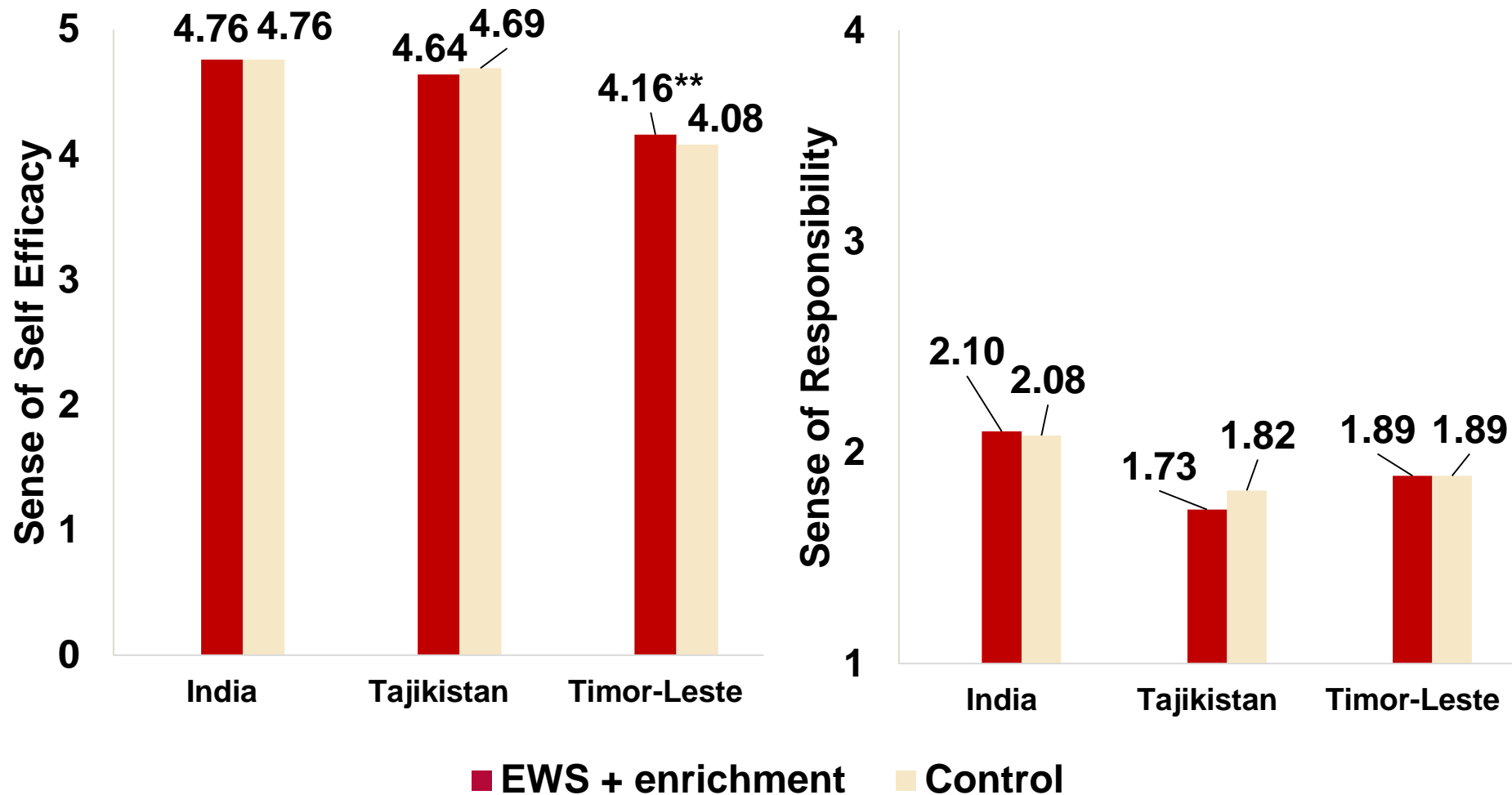# Impacts on Dropout in Cambodia: What Does This Mean?

	Number (%) of Students
Students overall	
Number of Students in SDPP Schools	45,000
% Dropping Out in Absence of SDPP	41%
Number of Students Dropping Out in Absence of SDPP	18,500
Number of Students that SDPP Kept in School	4635
At risk students	
Number of At-Risk Students in SDPP Schools	24,600
% At-Risk Students Dropping Out in Absence of SDPP	54%
Number of At-Risk Students Dropping Out in Absence of SDPP	13,200
Number of At-Risk Students that SDPP Kept in School	2,700

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SDPP Did Not Affect Administrators' Sense of Self-Efficacy
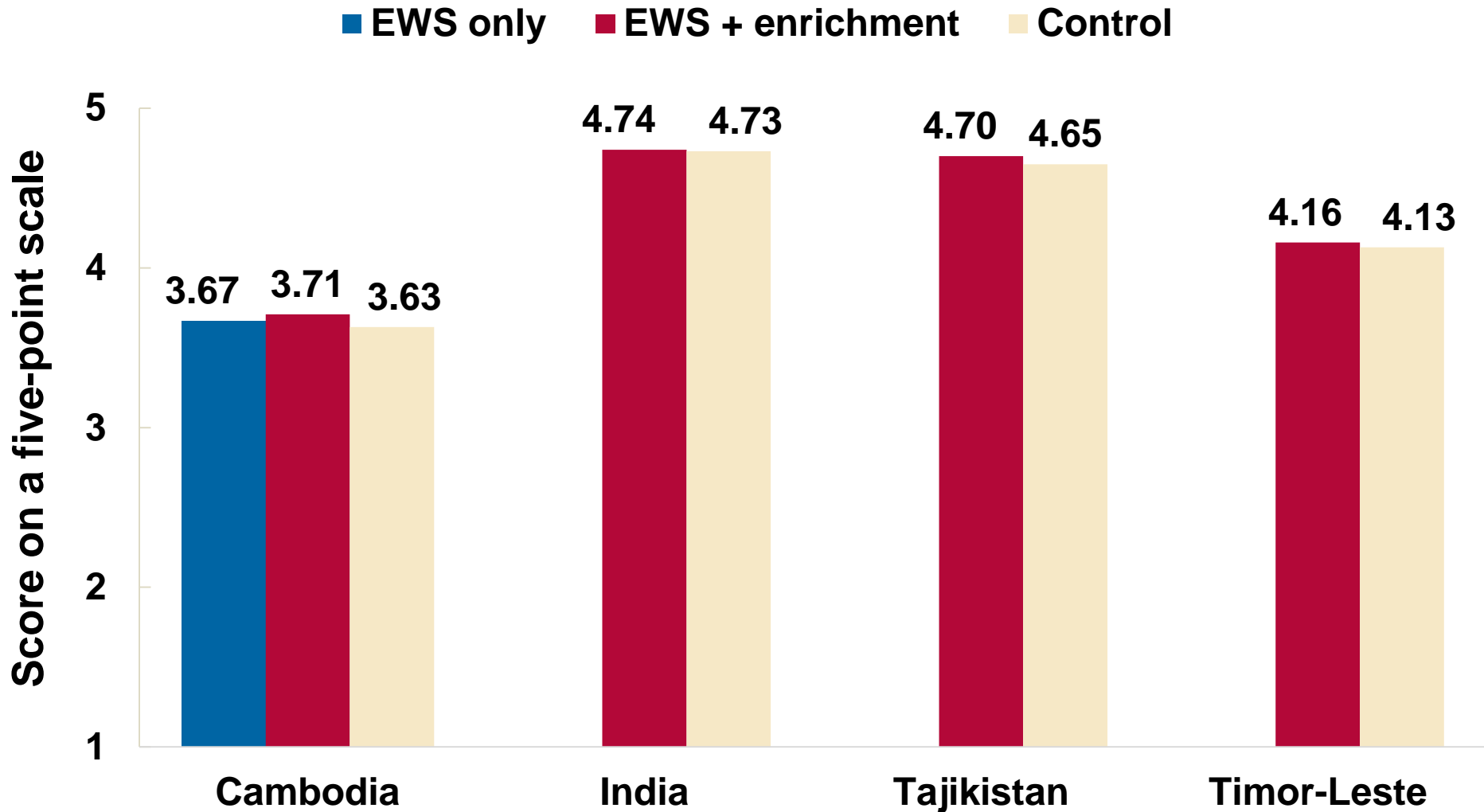
Differences between treatment and control group means are not statistically significant.

Teachers' Sense of Self Efficacy vs. Sense of Responsibility in India, Tajikistan and Timor-Leste

Sense of Self Efficacy

	India	Tajikistan	Timor-Leste
EWS + enrichment	4.76	4.64	4.16**
Control	4.76	4.69	4.08

Sense of Responsibility

	India	Tajikistan	Timor-Leste
EWS + enrichment	2.10	1.73	1.89
Control	2.08	1.82	1.89

■ **EWS + enrichment** ■ **Control**

**Difference from control group mean is statistically significant at the 5% level.