Appendix B: Statistical tables

Table B1: Percentage of Grade 5 low-performing children on SEA-PLM 2019 proficiency scales

	Boys		Girls		Gap between boys and girls	
	%	S.E.	%	S.E.	% dif.	S.E.
Cambodia reading	28.8	1.7	18.9	1.2	**9.9**	1.5
Cambodia writing	72.2	1.6	55.3	1.8	**16.9**	1.5
Cambodia mathematics	39.8	1.8	32	1.7	**7.7**	1.6
Lao PDR reading	51.0	1.9	48.1	2.1	2.9	2.0
Lao PDR writing	68.7	1.8	57.0	2.0	**11.7**	2.2
Lao PDR mathematics	57.3	1.9	57.0	2.2	0.3	2.0
Malaysia reading	6.6	1.7	3.0	1.5	**3.5**	1.4
Malaysia writing	17.4	1.9	6.1	1	**11.3**	2.0
Malaysia mathematics	9.2	1.5	5.9	0.9	**3.2**	1.4
Myanmar reading	20.5	1.1	17.0	0.7	**3.5**	1.2
Myanmar writing	46.6	2.4	31.3	1.9	**15.3**	1.8
Myanmar mathematics	37.7	1.7	36.5	1.8	1.2	1.6
Philippines reading	33.1	1.8	21.0	1.7	**12.2**	1.7
Philippines writing	65.3	2	48.7	2.0	**16.6**	1.9
Philippines mathematics	44.4	1.9	37.8	2.0	**6.5**	1.9
Viet Nam reading	0.8	0.4	0.4	0.3	0.4	0.3
Viet Nam writing	9.8	1.1	4.5	0.8	5.3	1.0
Viet Nam mathematics	1.1	0.4	1.0	0.4	0.1	0.4

Note: Significant differences (p<0.05) indicated in bold.

Table B2: Percentage of Grade 5 high-performing children on SEA-PLM 2019 proficiency scales

	Boys		Girls		Gap between boys and girls	
	%	S.E.	%	S.E.	% dif.	S.E.
Cambodia reading	8.1	0.8	13.8	1.5	**-5.7**	8.1
Cambodia writing	2.5	0.4	6.9	0.8	**-4.3**	2.5
Cambodia mathematics	17.0	1.5	20.2	1.8	-3.2	17.0
Lao PDR reading	2.0	0.4	3.0	0.5	-1.0	2.0
Lao PDR writing	4.6	0.6	8.8	1.0	-4.2	4.6
Lao PDR mathematics	7.9	1.0	8.6	0.9	-0.6	7.9
Malaysia reading	50.9	2.3	65.5	2.1	**-14.7**	50.9
Malaysia writing	19.9	1.7	42.1	2.1	**-22.2**	19.9
Malaysia mathematics	61.2	2.3	67.4	2.1	**-6.2**	61.2
Myanmar reading	9.5	0.9	12.1	1.1	**-2.6**	9.5
Myanmar writing	3.4	0.6	7.1	0.7	**-3.7**	3.4
Myanmar mathematics	12.0	1.1	12.3	1.2	-0.3	12.0
Philippines reading	8.3	1.6	10.8	1.4	-2.5	8.3
Philippines writing	4.6	0.9	8.5	0.9	**-3.9**	4.6
Philippines mathematics	16.2	1.7	17.6	1.6	-1.4	16.2
Viet Nam reading	79.7	1.7	84.2	1.5	**-4.5**	79.7
Viet Nam writing	41.6	1.8	61.8	2.2	**-20.2**	41.6
Viet Nam mathematics	91.4	1.2	91.7	1.2	-0.3	91.4

Note: Significant differences ($p<0.05$) indicated in bold.

Table B3: Learning differences between boys and girls within sub-national administrative divisions

	Ratio of sub-national entities where learning gap was significant between boys and girls		
	Reading	Writing	Mathematics
Cambodia	4/4	4/4	3/4
Lao PDR	1/18	5/18	0/18
Malaysia	10/16	12/16	2/16
Myanmar	3/18	10/16	1/18
Philippines	9/16	12/16	4/16
Viet Nam	3/9	8/9	0/9

Note: In all countries and learning domains, girls outperformed boys in all sub-national divisions where differences between boys and girls were significant except in 1 division in Myanmar where boys outperformed girls in mathematics.

Table B4: Differences between boys and girls regression coefficients for the effects of locality (1=rural, 0=urban) on learning performance

	Reading		Writing		Mathematics	
Cambodia	0.0	1.4	1.2	1.8	1.3	1.4
Lao PDR	0.3	1.9	0.2	2.4	0.6	1.9
Malaysia	0.4	2.6	-0.3	1.7	2.0	2.9
Myanmar	-1.4	1.5	0.3	2.3	-0.8	1.1
Philippines	1.1	1.9	0.9	2.1	1.0	1.6
Viet Nam	2.4	2.2	1.3	1.9	2.2	2.2

Note: Differences between coefficients are not significant across countries and domains.
Note: Significant differences (p<0.05) indicated in bold.

Table B5: Regression coefficients for the effects of household activities (1=1 or more household activities, 0=no household activities) on learning performance (all children)

	Reading		Writing		Mathematics	
Cambodia	-0.9	1.2	1.5	1.6	-1.5	1.3
Lao PDR	**6.7**	1.5	**9.1**	2.6	**6.6**	1.5
Malaysia	**5.7**	1.6	**5.2**	0.9	**4.8**	1.5
Myanmar	**3.6**	1.3	**4.7**	1.7	**4.7**	1.1
Philippines	-1.7	1.2	-1.5	1.6	-1.1	1.2
Viet Nam	**-4.4**	1.4	-1.3	1.4	**-3.3**	1.5

Note: Significant differences (p<0.05) indicated in bold.
Linear regression modelling reading, writing and mathematics individual variable as covariate.

Table B6: Logistic regression coefficient for the individual effects of school experiences on sex (Girls=1)

	Preschool attendance		Readiness in reading and mathematics before primary		Repeat at least 1 year		Late entry in primary school	
Cambodia	0.0	0.1	0.0	0.0	**-0.2**	0.1	**-0.1**	0.1
Lao PDR	0.0	0.1	0.0	0.0	**-0.3**	0.1	-0.1	0.1
Malaysia	-0.4	0.2	0.0	0.0	na	na	na	na
Myanmar	**-0.1**	0.1	0.0	0.0	**-0.3**	0.1	-0.1	0.2
Philippines	0.1	0.1	0.0	0.0	**-0.4**	0.1	0.0	0.1
Viet Nam	**-0.4**	0.1	0.0	0.0	**-0.5**	0.1	0.2	0.2

Note: Significant differences (p<0.05) indicated in bold.
Logistic regression modelling sex and individual variable as covariate controlling SES index.

Table B7: Logistic regression coefficient for the individual effects of school attitudes on sex (Girls=1)

	Parents expect less than university level of education		Positive attitudes towards school		Positive attitudes towards mathematics		Interest in global citizenship	
Cambodia	-0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Lao PDR	-0.12	0.07	-0.01	0.00	-0.01	0.00	**-0.01**	0.00
Malaysia	0.02	0.13	**0.02**	0.00	0.01	0.00	**0.01**	0.00
Myanmar	0.00	0.09	**0.01**	0.00	**0.01**	0.00	**0.01**	0.00
Philippines	-0.04	0.08	**0.01**	0.00	**0.01**	0.00	**0.02**	0.00
Viet Nam	0.11	0.08	0.00	0.00	-0.01	0.00	-0.01	0.00

Note: Significant differences (p<0.05) indicated in bold.
Logistic regression modelling sex and individual variable as covariate controlling SES index.

Table B8: Logistic regression coefficient for the individual effects of household responsibilities on sex (Girls=1)

	House chores		Farm work		Commercial activities		Physical work	
Cambodia	**0.89**	0.09	**-0.24**	0.08	-0.14	0.07	**-0.46**	0.10
Lao PDR	**0.29**	0.09	-0.09	0.08	-0.04	0.07	**-0.33**	0.10
Malaysia	**0.88**	0.08	**-0.61**	0.09	**-0.17**	0.08	**-0.98**	0.17
Myanmar	**0.38**	0.07	-0.02	0.08	-0.01	0.07	-0.06	0.10
Philippines	**0.43**	0.09	**-0.16**	0.07	0.06	0.06	**-0.14**	0.06
Viet Nam	**0.63**	0.08	**-0.35**	0.09	0.03	0.08	-0.31	0.17

Note: Significant differences (p<0.05) indicated in bold.
Logistic regression modelling sex and individual variable as covariate controlling SES index.

Table B9: Differential effect on learning performance of boys' and girls' school experiences

	Preschool attendance		Readiness in reading and mathematics before primary		Repeat at least 1 year		Late entry in primary school	
Cambodia reading	1.2	1.4	0.0	0.1	-2.2	1.5	-3.2	2.0
Cambodia writing	2.1	1.9	0.0	0.1	**-4.7**	1.9	-3.2	2.4
Cambodia mathematics	1.2	1.4	0.1	0.1	-2.3	1.4	-2.3	1.5
Lao PDR reading	-0.9	1.4	**-0.1**	0.1	**-4.2**	1.5	1.9	1.7
Lao PDR writing	-0.3	2.1	-0.2	0.1	-3.7	2.6	3.2	3.0
Lao PDR mathematics	-0.3	1.5	-0.1	0.1	**-3.9**	1.5	2.2	1.7
Malaysia reading	1.6	5.7	0.2	0.1	na	na	na	na
Malaysia writing	0.2	4.5	0.1	0.1	na	na	na	na
Malaysia mathematics	-1.5	5.8	0.1	0.1	na	na	na	na
Myanmar reading	**3.5**	1.2	0.0	0.1	**-4.1**	1.5	1.2	3.9
Myanmar writing	2.1	1.6	0.0	0.1	-2.2	1.7	-1.2	3.8
Myanmar mathematics	**3.4**	1.1	0.0	0.1	**-3.2**	1.5	0.8	2.3
Philippines reading	0.7	1.9	0.0	0.1	-0.2	1.1	-0.2	1.6
Philippines writing	-0.5	3.8	0.0	0.1	0.0	1.7	-1.3	2.6
Philippines mathematics	0.2	2.2	0.0	0.1	-0.2	1.2	1.1	1.8
Viet Nam reading	1.5	2.9	0.0	0.1	2.6	2.8	-1.3	3.4
Viet Nam writing	5.7	4.0	0.0	0.1	1.3	2.6	-0.2	4.0
Viet Nam mathematics	1.8	4.0	0.1	0.1	-1.3	3.2	-4.0	4.4

Note: Significant differences ($p<0.05$) indicated in bold.

Linear regression modelling reading, writing and mathematics by sex and individual variable as covariate controlling SES index.

Not applicable in Malaysia where repetition is almost null and late entry is almost null.

Table B10: Differential effect on learning performance of boys' and girls' school attitudes

	Parents expect less than university level of education		Positive attitudes towards school		Positive attitudes towards mathematics		Interest in global citizenship	
Cambodia reading	0.4	1.4	-0.1	0.1	-0.1	0.1	0.1	0.1
Cambodia writing	-0.7	1.7	-0.1	0.1	-0.1	0.1	0.1	0.1
Cambodia mathematics	-0.2	1.2	-0.1	0.1	**-0.2**	0.1	0.0	0.1
Lao PDR reading	-1.0	1.2	0.0	0.1	0.1	0.1	0.0	0.1
Lao PDR writing	0.0	2.1	-0.1	0.1	0.1	0.1	0.1	0.1
Lao PDR mathematics	-0.2	1.3	0.1	0.1	0.1	0.1	0.1	0.1
Malaysia reading	-2.1	3.2	0.0	0.1	-0.1	0.1	0.2	0.1
Malaysia writing	-2.1	2.4	0.0	0.1	0.0	0.1	0.1	0.1
Malaysia mathematics	-2.4	3.4	0.0	0.1	-0.1	0.1	0.1	0.1
Myanmar reading	0.6	1.8	-0.1	0.1	-0.1	0.1	-0.1	0.1
Myanmar writing	2.4	2.3	-0.1	0.1	-0.1	0.1	**-0.1**	0.1
Myanmar mathematics	0.4	1.4	0.0	0.1	0.0	0.1	-0.1	0.0
Philippines reading	2.5	1.5	0.0	0.1	0.1	0.1	0.0	0.1
Philippines writing	3.6	2.3	-0.1	0.1	0.0	0.1	0.0	0.1
Philippines mathematics	2.0	1.6	0.0	0.1	0.1	0.1	0.0	0.1
Viet Nam reading	0.0	2.4	0.0	0.1	-0.1	0.1	0.0	0.1
Viet Nam writing	0.3	2.0	-0.1	0.1	-0.1	0.1	0.0	0.1
Viet Nam mathematics	-1.1	2.5	0.0	0.1	0.0	0.1	0.0	0.1

Note: Significant differences ($p<0.05$) indicated in bold.
Linear regression modelling reading, writing and mathematics by sex and individual variable as covariate controlling SES index.

Table B11: Differential effect on learning performance of boys' and girls' household responsibilities

	House chores		Farm work		Commercial activities		Physical work	
Cambodia reading	**5.9**	1.7	0.6	1.6	0.3	1.6	-3.1	2.1
Cambodia writing	**6.9**	2.2	1.1	1.9	1.0	2.1	-2.4	2.5
Cambodia mathematics	**5.0**	1.7	0.8	1.6	0.8	1.5	**-4.0**	1.8
Lao PDR reading	1.6	1.6	**-3.6**	1.4	0.4	1.5	-2.1	2.1
Lao PDR writing	4.8	2.9	0.2	2.8	2.4	2.5	-3.8	2.7
Lao PDR mathematics	2.4	1.7	-1.4	1.4	1.8	1.5	-1.8	2.0
Malaysia reading	0.7	2.3	-0.5	2.4	**4.2**	1.7	5.9	4.8
Malaysia writing	-0.4	1.6	0.5	2.0	**2.5**	1.2	5.2	3.6
Malaysia mathematics	-1.4	2.3	1.1	1.9	2.8	1.5	6.6	4.4
Myanmar reading	2.1	1.5	-0.4	1.8	-0.7	1.6	-2.6	1.7
Myanmar writing	1.1	1.7	-1.7	1.5	0.6	1.5	-1.9	2.1
Myanmar mathematics	0.0	1.1	0.3	1.3	-0.8	1.4	-1.1	1.5
Philippines reading	2.2	1.3	-0.5	1.3	0.2	1.1	-1.3	1.1
Philippines writing	1.2	1.6	-1.8	1.6	-0.6	1.4	-0.9	1.7
Philippines mathematics	2.2	1.3	-0.9	1.2	0.5	1.1	-1.0	1.2
Viet Nam reading	**-4.4**	2.1	-0.3	1.9	1.7	1.7	-1.9	3.8
Viet Nam writing	-1.9	1.7	-1.0	1.6	1.5	1.6	-1.2	4.1
Viet Nam mathematics	-2.8	2.3	-0.3	2.1	2.4	1.9	-2.4	3.9

Note: Significant differences (p<0.05) indicated in bold.
Linear regression modelling of reading, writing and mathematics by sex, and individual variable as covariate controlling SES index.

Table B12: Girls' and boys' writing achievement: score differences by socioeconomic status (SES)

	Writing points difference in favour of girls comparing to boys							
	SES bottom quartile		SES second quartile		SES third quartile		SES upper quartile	
Cambodia	**11.3**	1.6	**13.2**	1.5	**14.0**	1.5	**10.6**	1.8
Lao PDR	**6.4**	2.3	**9.6**	2.4	**11.4**	1.8	**8.8**	2.2
Malaysia	**12.3**	1.7	**11.2**	1.3	**9.6**	1.1	**10.1**	1.2
Myanmar	**6.8**	1.1	**6.7**	1.8	**9.1**	1.3	**6.4**	1.2
Philippines	**13.2**	1.7	**14.1**	1.6	**10.3**	1.6	**10.2**	2.0
Viet Nam	**9.0**	1.5	**11.2**	1.1	**10.7**	1.4	**11.1**	1.2

Note: Significant differences (p<0.05) indicated in bold.

Table B13: Girls' and boys' mathematical achievement: score differences by socioeconomic status (SES)

	Mathematics points difference in favour of girls comparing to boys							
	SES bottom quartile		SES second quartile		SES third quartile		SES upper quartile	
Cambodia	**3.0**	1.1	**4.5**	1.3	**4.3**	1.2	**3.6**	1.5
Lao PDR	-1.5	1.3	0.6	1.5	1.1	1.3	1.2	1.5
Malaysia	**3.7**	1.7	2.2	1.6	1.7	1.5	1.0	1.2
Myanmar	-0.8	1.0	-0.5	1.2	**2.3**	1.0	2.1	1.7
Philippines	**3.5**	1.1	**4.7**	1.0	1.8	1.1	1.5	1.8
Viet Nam	-0.9	1.7	0.7	1.3	-0.3	1.6	0.8	1.6

Note: Significant differences ($p < 0.05$) indicated in bold.