7.
District estimates

Arusha Rural (Tanzania)

In Tanzania, ICAN 2019 was conducted in Arusha Rural district, in the Arusha Region. The survey reached a total of 60 randomly selected rural communities, 1198 households and assessed 1655 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT ARUSHA RURAL

Tanzania is divided into 31 regions and 169 districts, which are further subdivided into divisions, and then into wards. Wards are divided into villages in rural areas and streets in urban centres. Villages are further subdivided into hamlets, the lowest level of administration.

Arusha Rural district is located in the Arusha Region, in northern Tanzania on the border with Kenya. Arusha Rural district has a total area of 1,547 km² and a population of 323,198. The main economic activities are tourism, livestock farming, maize, cereal and cassava production, and fruit farming. The district ranked 21 out of 189 councils in Standard 7 national examination results of 2019. According to the 2015 Uwezo household survey, pass rate for numeracy test among children age 9-13 years in Arusha Rural was 48% while the national average was 40%. Arusha is a popular safari destination and center of Maasai culture.

Household characteristics

Households with:

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

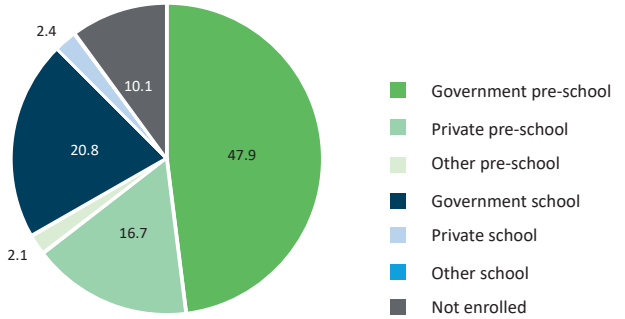


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	86.8	10.5	0.0	2.7	100
Age 6-16: Girls	88.1	10.1	0.0	1.8	100
Age 6-16: Boys	85.3	11.0	0.0	3.7	100
Age 6-10: All	83.5	13.0	0.0	3.5	100
Age 6-10: Girls	83.8	13.7	0.0	2.5	100
Age 6-10: Boys	83.2	12.4	0.0	4.5	100
Age 11-16: All	89.5	8.4	0.0	2.1	100
Age 11-16: Girls	91.5	7.3	0.0	1.3	100
Age 11-16: Boys	87.3	9.8	0.0	3.0	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

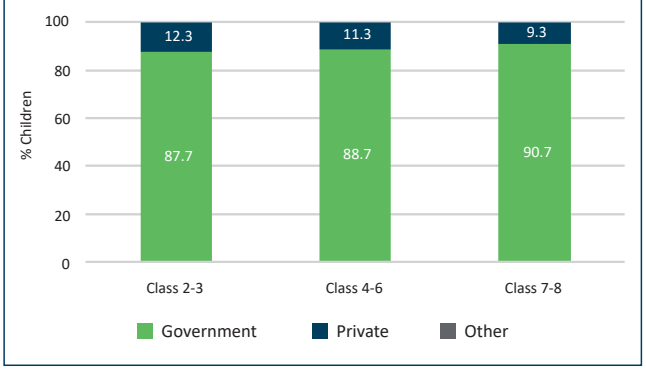
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	4.3	26.4	43.8	14.9	10.6								100
Class 2	2.8		15.7	30.7	22.2	12.9	8.1	7.7					100
Class 3	2.6			16.2	33.2	27.1	7.9	7.0	6.1				100
Class 4	0.5			5.1	12.3	24.6	24.1	15.4	9.7	8.2			100
Class 5	4.5					12.2	32.1	23.7	18.0	5.8	3.8		100
Class 6	4.5						12.3	36.1	24.5	12.3	7.1	3.2	100
Class 7	5.2							9.7	31.0	27.7	14.8	11.6	100
Class 8	4.0								20.8	38.4	24.8	12.0	100

This table shows the age distribution for each class. For example, of all children in class 3, 33.2% children are 9 years old but there are also 16.2% who are 8 years old, 27.1% who are 10 years old and 21% who are 11 years or older.

Chart 2: % Children enrolled in different types of schools, by class



Arusha Rural (Tanzania)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

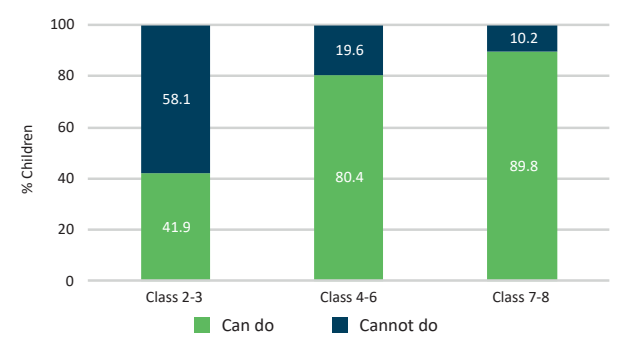
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	0.7	98.3	93.5	92.1
Shape recognition	5.0	89.0	92.0	84.8
Measurement	0.7	98.5	96.3	95.0

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	92.1	75.5	74.2	67.2	44.1	29.2	46.2	35.9	17.9	9.1	28.2	6.2
Class 4-6	96.8	91.5	90.3	87.1	84.5	68.2	72.8	63.3	53.2	33.6	57.1	33.4
Class 7-8	96.0	93.3	96.9	92.4	92.9	81.8	86.7	80.4	74.3	58.0	76.0	53.5

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	2.7	96.1	86.4	85.0
Telling time	23.7	70.6	61.6	55.5
Telling day and date	13.4	82.6	69.2	64.5

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	2.2	96.0	91.6	89.8
Telling time	19.9	76.8	71.1	66.8
Telling day and date	7.1	91.6	78.2	76.6

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Larde (Mozambique)

In Mozambique, ICAN 2019 was conducted in Larde district, in the province of Nampula. The survey reached a total of 60 randomly selected rural communities, 1200 households and assessed 1630 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT LARDE

Mozambique is divided into 11 provinces, 129 districts and 405 administrative posts.

Larde district is one of the 23 districts in the province of Nampula. It is located in the south of the province along the coast of the Indian Ocean. According to the 2017 Census, the district covers a total area of 2,458 km² and a population of 98,385 inhabitants. The main economic activities are agriculture, fishing and mining. Larde is home to KENMARE, a mining company that operates the Moma Titanium Mine. KENMARE is one of the world's largest producers of heavy sands and is the largest employer in the district. According to the 2017 TPC Mozambique assessment, 5.7% children aged 7 to 16 can solve a simple class 2 addition operation in Larde compared to 6% children in the Nampula province.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
7.8%	97.8%	18.1%	1.1%	16.8%	30.6%	38.7%	17.9%	26.5%	2.3%	1.7%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

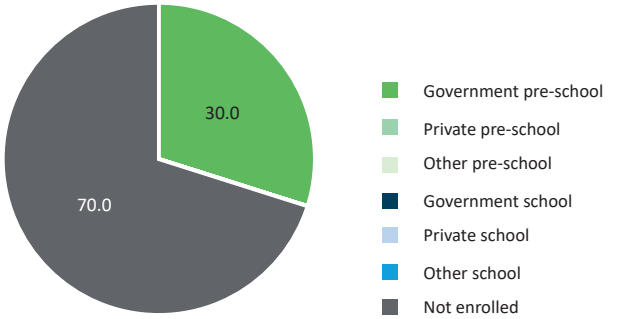


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	74.4	0.0	0.0	25.7	100
Age 6-16: Girls	71.9	0.0	0.0	28.1	100
Age 6-16: Boys	76.6	0.0	0.0	23.4	100
Age 6-10: All	69.0	0.0	0.0	31.0	100
Age 6-10: Girls	66.0	0.0	0.0	34.0	100
Age 6-10: Boys	72.0	0.0	0.0	28.0	100
Age 11-16: All	82.9	0.0	0.0	17.1	100
Age 11-16: Girls	82.5	0.0	0.0	17.5	100
Age 11-16: Boys	83.2	0.0	0.0	16.8	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

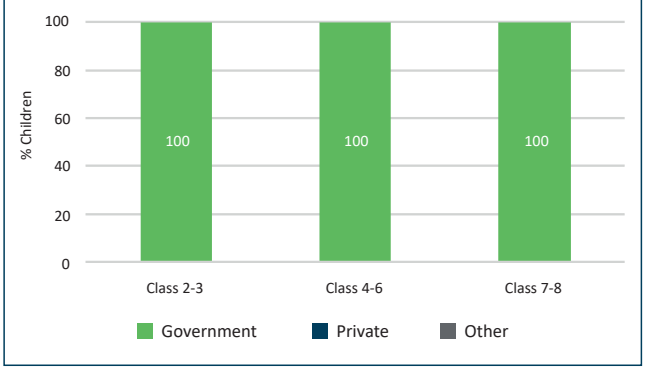
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	4.6	25.6	33.6	14.0	7.4	14.8							100
Class 2	4.4		18.1	22.1	18.5	12.7	8.7	5.4	5.4	4.7			100
Class 3	4.1			10.6	22.4	18.3	15.5	9.4	11.0	5.3	3.7		100
Class 4	3.7				9.8	17.1	22.0	13.4	11.6	9.8	7.9	4.9	100
Class 5	4.6					11.9	16.5	11.0	19.3	13.8	11.9	11.0	100
Class 6	Insufficient sample size												
Class 7													
Class 8													

This table shows the age distribution for each class. For example, of all children in class 3, 22.4% children are 9 years old but there are also 10.6% who are 8 years old, 18.3% who are 10 years old and 44.8% who are 11 years or older.

Chart 2: % Children enrolled in different types of schools, by class



Larde (Mozambique)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

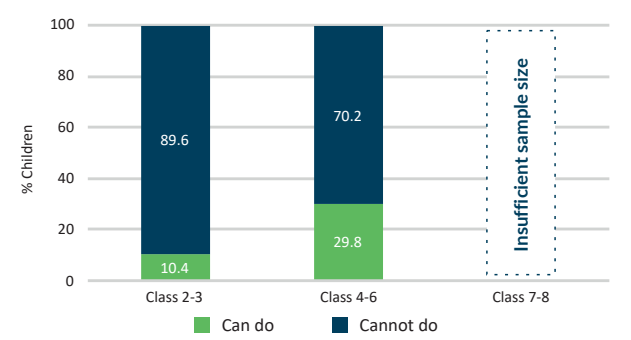
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	1.5	95.2	92.0	88.7
Shape recognition	11.3	79.6	72.3	63.0
Measurement	1.3	96.3	94.6	92.2

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	80.4	36.4	23.7	15.0	19.8	18.7	6.3	4.4	3.5	3.9	2.2	2.6
Class 4-6	90.5	54.8	48.5	36.3	34.9	33.6	20.7	20.7	15.6	13.9	14.2	12.6
Class 7-8	Insufficient sample size											

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	5.8	91.9	77.6	75.3
Telling time	63.4	29.2	22.3	14.6
Telling day and date	50.5	33.7	41.0	25.1

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	Insufficient sample size			
Telling time				
Telling day and date				

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Mubende (Uganda)

In Uganda, ICAN 2019 was conducted in Mubende district, in the Central Region. The survey reached a total of 60 randomly selected rural communities, 1200 households and assessed 1853 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT MUBENDE

Uganda is demarcated into 134 districts including the capital city of Kampala. Districts are further subdivided into sub-counties, parishes and then into villages as the lowest level of administration.

Mubende district is located in the Central Region of Uganda, with a total area of 4,620 km² and a population of 684,348. The major economic activity is agriculture focusing mostly on crop farming. In 2009, Mubende was identified by the Ministry of Education as one of the 12 worst performing districts in Uganda and selected to participate in the Ministry's Quality Enhancement Initiatives (QEI) program. Assessments have demonstrated improvements, with the 2016 Uwezo Uganda assessment ranking Mubende among the average performing districts, with 31% of its pupils in classes P3-P7 competent in English and numeracy tasks of P2 level as compared to the national average of 32%. The district is a popular tourist destination.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
51.8%	95.3%	6.4%	2.3%	21.3%	21.0%	68.8%	12.5%	63.4%	0.8%	16.9%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

No schooling	1 to 5 years	More than 5 years
27.6	36.2	36.3

% Fathers by number of years of schooling

No schooling	1 to 5 years	More than 5 years
16.8	30.3	52.9

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

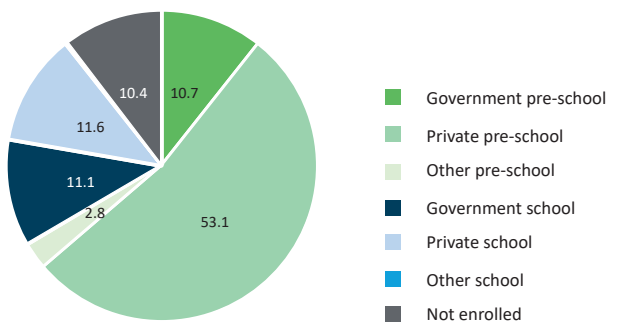


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	41.0	47.4	2.7	8.9	100
Age 6-16: Girls	39.4	47.5	3.0	10.2	100
Age 6-16: Boys	42.6	47.2	2.5	7.7	100
Age 6-10: All	38.0	53.3	2.9	5.7	100
Age 6-10: Girls	37.3	52.4	4.0	6.3	100
Age 6-10: Boys	38.7	54.1	1.9	5.2	100
Age 11-16: All	43.4	42.6	2.6	11.5	100
Age 11-16: Girls	40.9	43.6	2.2	13.2	100
Age 11-16: Boys	45.8	41.5	2.9	9.7	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

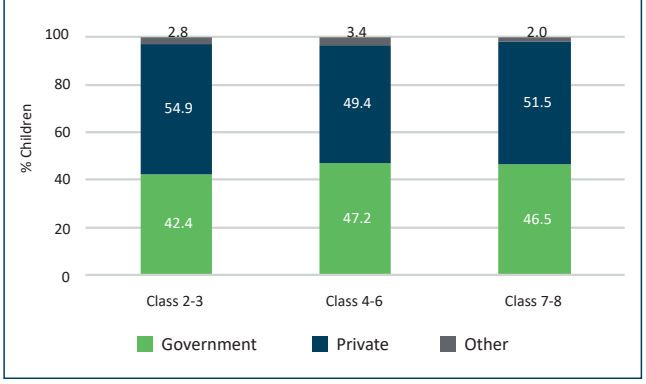
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	11.3	13.5	22.6	20.4	16.3	9.4	6.6						100
Class 2	4.7		8.3	17.4	29.6	21.7	7.9	5.9	4.4				100
Class 3	4.8			6.0	15.1	23.8	16.3	20.6	6.8	5.2	1.6		100
Class 4	4.3				6.0	13.7	15.0	28.3	15.5	10.3	6.4	0.4	100
Class 5	2.2					10.6	11.7	27.2	17.8	19.4	10.0	1.1	100
Class 6	2.1						6.9	16.7	21.5	29.2	16.0	7.6	100
Class 7	Insufficient sample size												
Class 8													

This table shows the age distribution for each class. For example, of all children in class 3, 23.8% children are 10 years old but there are also 15.1% who are 9 years old, 16.3% who are 11 years old and 34.1% who are 12 years or older.

Chart 2: % Children enrolled in different types of schools, by class



Mubende (Uganda)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

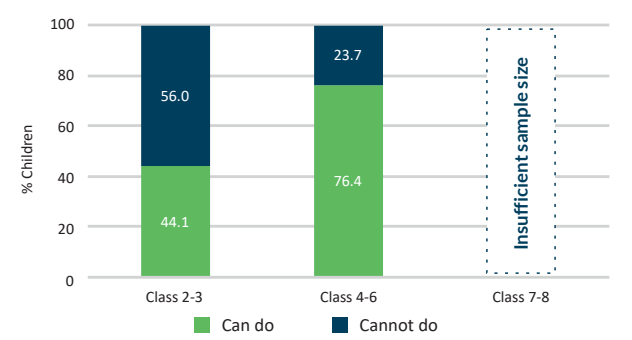
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	0.9	97.4	91.4	89.7
Shape recognition	6.2	86.8	70.9	63.9
Measurement	0.7	96.9	94.5	92.1

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	86.1	71.6	67.0	51.5	47.8	43.4	20.4	9.8	7.8	3.5	9.7	4.1
Class 4-6	95.0	88.6	89.0	81.9	80.3	72.9	62.2	39.2	34.9	14.7	31.0	19.1
Class 7-8	Insufficient sample size											

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	7.0	89.4	65.5	61.9
Telling time	36.3	57.3	38.7	32.3
Telling day and date	25.5	64.7	46.2	36.3

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	Insufficient sample size			
Telling time				
Telling day and date				

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Mwala (Kenya)

In Kenya, ICAN 2019 was conducted in Mwala sub-county, in the county of Machakos. The survey reached a total of 60 randomly selected rural communities, 1200 households and assessed 1140 children in the age group of 5 to 16 years. The sample is representative only of this sub-county.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT MWALA

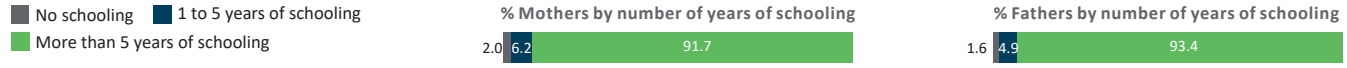
Kenya is divided into 47 counties and 334 sub-counties (spread across 290 constituencies). Sub-counties are further subdivided into locations, and then into sub-locations. The smallest administrative subdivision is a village.

Mwala sub-county is located in Machakos county, in the former eastern province of Kenya. Machakos county borders Nairobi to the East and is 102 km from the capital city. According to the 2019 Census, Mwala sub-county has a total area of 1,020 km² and has a population of 181,896. It is largely a monolingual sub-county. The main economic activities in Mwala are livestock farming and sand harvesting from quarry stones. Maize and other drought-resistant crops, such as sorghum and millet, are popular due to the area's semi-arid state and frequent drought. According to the 2015 Uwezo Kenya assessment, the mean numeracy score for children aged 6-16 years in Mwala sub-county is 56.3% as compared to the national score of 56.2%.

Household characteristics

Households with:

Parents' education



ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

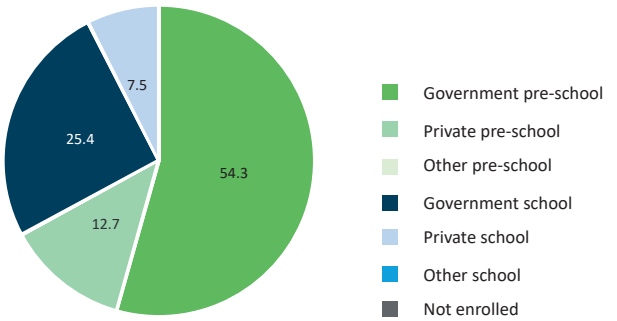


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	93.9	5.8	0.0	0.3	100
Age 6-16: Girls	94.3	5.7	0.0	0.0	100
Age 6-16: Boys	93.5	5.9	0.0	0.6	100
Age 6-10: All	89.4	10.4	0.0	0.2	100
Age 6-10: Girls	90.2	9.8	0.0	0.0	100
Age 6-10: Boys	88.6	11.0	0.0	0.4	100
Age 11-16: All	96.5	3.1	0.0	0.4	100
Age 11-16: Girls	96.7	3.3	0.0	0.0	100
Age 11-16: Boys	96.3	3.0	0.0	0.7	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

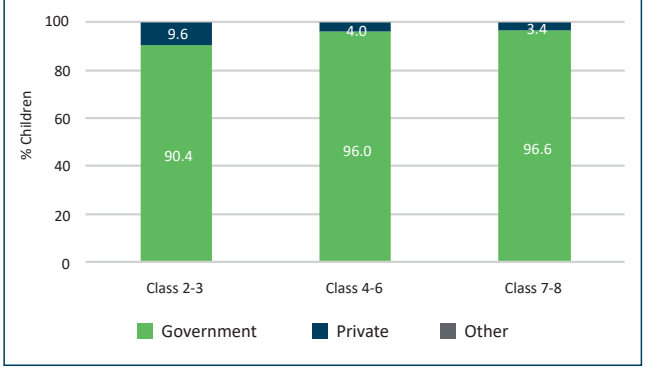
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	11.8	29.4	35.3	11.8	6.7	5.0							100
Class 2	3.8		28.7	38.8	17.1	11.7							100
Class 3	2.7			27.0	40.5	23.0	6.8						100
Class 4	0.7			5.8	20.0	31.0	26.5	11.0	5.0				100
Class 5	3.5					21.6	33.3	23.4	10.5	4.7	3.0		100
Class 6	5.0						14.4	41.9	21.3	11.9	5.6	0.0	100
Class 7	2.8							16.9	35.4	26.4	12.9	5.6	100
Class 8	5.6								16.0	30.4	35.2	12.8	100

This table shows the age distribution for each class. For example, of all children in class 3, 40.5% children are 9 years old but there are also 27% who are 8 years old, 23% who are 10 years old and 6.8% who are 11 years or older.

Chart 2: % Children enrolled in different types of schools, by class



LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

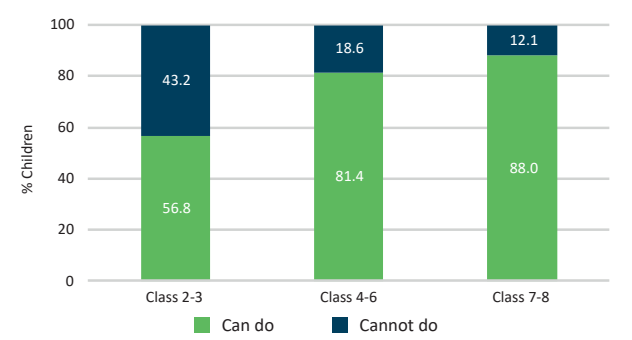
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	1.9	96.6	85.4	83.5
Shape recognition	1.0	93.2	90.8	84.5
Measurement	1.0	96.1	91.7	87.9

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	93.7	91.2	89.8	78.5	56.8	52.5	63.9	31.1	13.8	12.2	29.3	11.4
Class 4-6	94.5	92.6	94.8	90.2	88.3	75.8	86.5	68.0	60.1	34.5	71.8	35.8
Class 7-8	93.3	92.0	95.1	87.1	96.9	94.1	92.4	78.6	84.8	74.6	76.2	73.8

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	9.3	87.7	53.4	50.0
Telling time	50.8	41.4	25.1	16.9
Telling day and date	22.1	66.6	55.7	44.3

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	4.9	91.1	71.4	67.4
Telling time	26.3	64.1	55.4	45.5
Telling day and date	8.0	85.6	75.0	67.9

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Ikorodu (Nigeria)

In Nigeria, ICAN 2019 was conducted in Ikorodu local government area, in the state of Lagos. The survey reached a total of 60 randomly selected rural communities, 1193 households and assessed 1552 children in the age group of 5 to 16 years. The sample is representative only of this local government area.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT IKORODU

Nigeria is divided into 36 states and one federal capital territory, subdivided into 6 geopolitical zones, which are further subdivided into 774 local government areas.

Ikorodu is a local government area located in Lagos state, southwestern Nigeria. It lies near the Lagos Lagoon, on the Bight of Benin, 23 km northwest of Lagos. According to the 2006 Census, Ikorodu local government has a total area of 345 km² and a population of 535,619. The main economic activities are trading, farming and manufacturing. Ikorodu has a large industrial area containing several manufacturing factories. According to 2017/2018 LEARNigeria assessment data, 65% sampled students in Junior Secondary School 3 (JSS 3, or class 9) in Ikorodu local government area were able to read a story of class 2 level, and only 37% were able to complete a set of 1 by 1-digit multiplication tasks of class 2 level.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
99.4%	97.6%	100%	11.3%	6.6%	2.1%	74.9%	85.2%	61.1%	25.1%	51.6%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

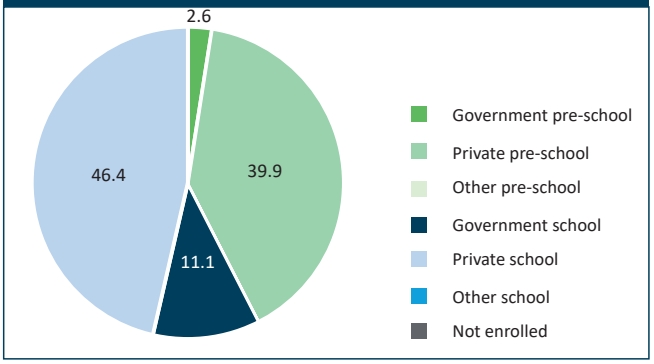


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	43.5	55.8	0.1	0.7	100
Age 6-16: Girls	43.5	55.7	0.1	0.7	100
Age 6-16: Boys	43.5	55.9	0.0	0.7	100
Age 6-10: All	29.4	70.1	0.1	0.4	100
Age 6-10: Girls	31.2	68.1	0.2	0.5	100
Age 6-10: Boys	27.4	72.3	0.0	0.3	100
Age 11-16: All	59.4	39.7	0.0	1.0	100
Age 11-16: Girls	57.8	41.3	0.0	0.8	100
Age 11-16: Boys	60.9	38.0	0.0	1.1	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

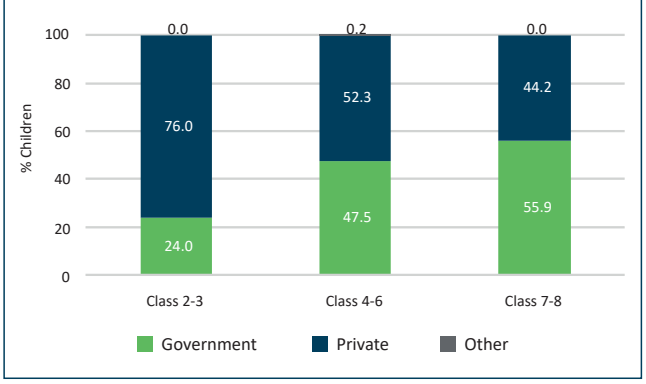
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	29.7	45.8	14.2	5.8	4.5								100
Class 2	8.2	28.3	38.6	16.3	8.7								100
Class 3	3.9		36.0	36.0	18.3	5.9							100
Class 4	3.4		7.4	32.0	33.1	13.7	10.3						100
Class 5	3.4			5.4	30.9	34.2	12.1	10.7	3.4				100
Class 6	5.7				18.0	26.2	18.9	16.4	5.7	4.9	4.1		100
Class 7	6.6					22.5	33.8	16.6	11.3	5.3	4.0		100
Class 8	3.9					9.0	21.3	31.6	16.1	12.9	4.5	0.7	100

This table shows the age distribution for each class. For example, of all children in class 3, 36% children are 8 years old but there are also 36% who are 7 years old, 18.3% who are 9 years old and 5.9% who are 10 years or older.

Chart 2: % Children enrolled in different types of schools, by class



LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

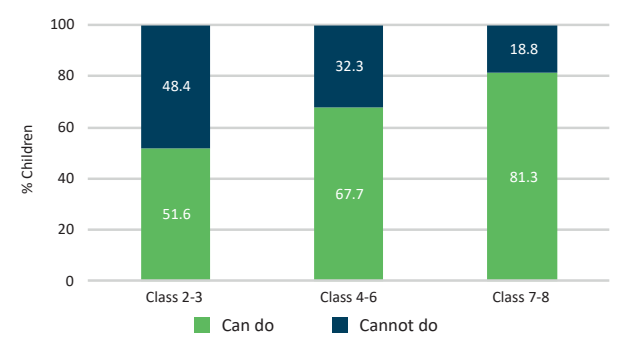
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	9.2	89.4	47.5	45.2
Shape recognition	7.3	79.5	84.5	71.0
Measurement	7.6	82.5	70.9	60.7

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	92.7	82.7	73.2	60.4	68.5	47.9	41.4	27.1	19.4	9.3	18.6	7.9
Class 4-6	93.4	88.6	85.4	75.6	80.7	69.3	62.2	48.1	45.3	22.6	41.1	20.3
Class 7-8	95.7	93.3	89.8	82.4	88.7	78.0	72.3	58.3	59.0	34.0	54.3	29.7

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	12.5	84.6	30.8	27.9
Telling time	24.7	68.9	43.6	36.7
Telling day and date	36.7	49.9	51.4	37.8

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	7.4	87.9	46.3	41.4
Telling time	16.0	77.7	64.5	58.2
Telling day and date	19.5	71.1	69.8	60.2

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Ségou (Mali)

In Mali, ICAN 2019 was conducted in Ségou circle, in the Ségou Region. The survey reached a total of 60 randomly selected rural communities, 1173 households and assessed 2649 children in the age group of 5 to 16 years. The sample is representative only of this circle.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT SÉGOU

Mali is divided into 8 regions and one capital district, Bamako, which are further subdivided into 49 circles. Administratively, the Ségou Region has 7 circles, 117 municipalities and more than 2,100 villages and hamlets, representing the smallest administrative division.

Ségou is located in south-central Mali and lies 235 km northeast of Bamako on the bank of the river Niger. According to the 2009 Census, the Ségou circle has a total area of 10,844 km² and a population of 80,461. The major economic activity is described as "Agro-Silvo Pastoralism" (combining pastoralism, or extensive livestock husbandry on pastures, and agriculture in a partially wooded environment). According to the 2016 Beekunko assessment, children achieved an average score of 12% in mathematics, which is the same as the national average. Ségou hosts one of West Africa's most exciting celebrations of tribal traditions and cultures – the annual Ségou Arts Festival, bringing together Malian and international artists.

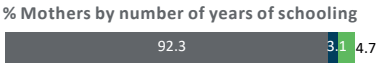
Household characteristics

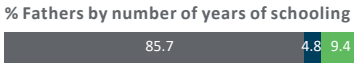
Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
17.3%	98.2%	8.1%	4.4%	82.4%	92.1%	79.8%	46.5%	77.4%	3.9%	7.1%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling





ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

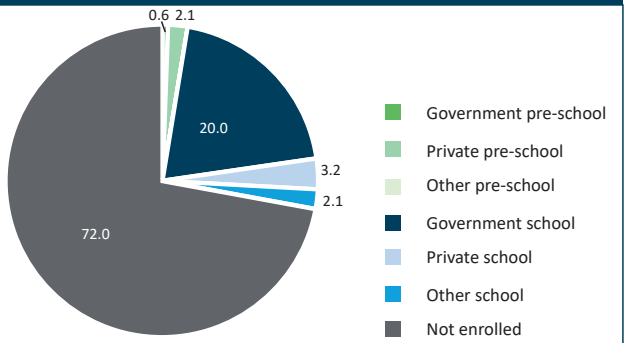


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	45.7	3.6	2.3	48.4	100
Age 6-16: Girls	44.5	3.5	1.7	50.3	100
Age 6-16: Boys	46.7	3.8	2.8	46.7	100
Age 6-10: All	44.5	3.9	2.7	48.9	100
Age 6-10: Girls	43.1	3.8	1.9	51.1	100
Age 6-10: Boys	45.8	3.9	3.4	46.9	100
Age 11-16: All	47.3	3.3	1.8	47.6	100
Age 11-16: Girls	46.7	3.0	1.4	49.0	100
Age 11-16: Boys	47.9	3.6	2.1	46.5	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

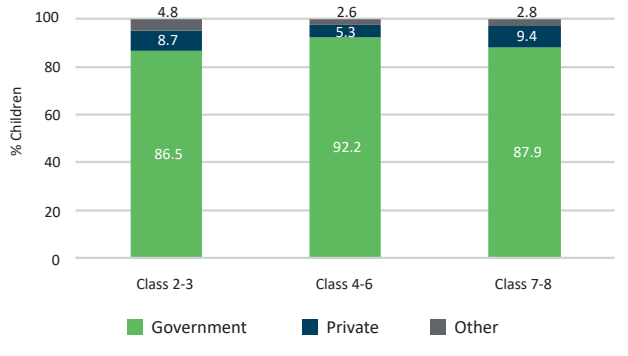
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	13.6	27.5	36.7	14.2	8.0								100
Class 2	1.6	6.2	24.8	31.7	21.1	9.3	5.3						100
Class 3	4.7			18.4	19.1	28.9	10.5	11.9	6.5				100
Class 4	2.2			5.7	14.8	24.4	23.9	16.1	6.1	5.7	1.3		100
Class 5	6.5					12.0	25.5	27.2	13.6	7.6	6.5	1.1	100
Class 6	1.7					6.4	8.1	26.7	25.6	16.9	9.9	4.7	100
Class 7	Insufficient sample size												
Class 8													

This table shows the age distribution for each class. For example, of all children in class 3, 28.9% children are 10 years old but there are also 19.1% who are 9 years old, 10.5% who are 11 years old and 18.4% who are 12 years or older.

Chart 2: % Children enrolled in different types of schools, by class



LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

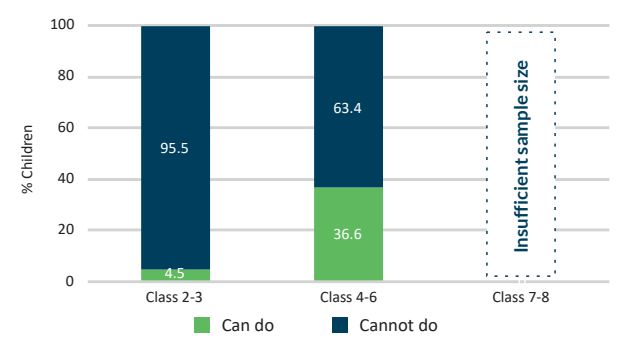
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	3.3	91.6	82.6	77.5
Shape recognition	18.1	71.1	58.1	47.0
Measurement	2.3	94.5	85.4	82.1

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	51.0	14.4	18.1	7.8	11.7	5.6	3.9	1.0	0.2	0.2	0.4	0.2
Class 4-6	86.4	53.0	53.6	42.5	48.3	34.5	25.6	15.5	15.4	6.9	10.0	4.8
Class 7-8	Insufficient sample size											

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	10.8	86.5	66.4	63.6
Telling time	84.1	11.2	9.3	4.7
Telling day and date	58.7	29.6	25.7	13.8

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	Insufficient sample size			
Telling time				
Telling day and date				

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Tivaouane (Senegal)

In Senegal, ICAN 2019 was conducted in Tivaouane department, in the Thiès Region. The survey reached a total of 59 randomly selected rural communities, 1180 households and assessed 3125 children in the age group of 5 to 16 years. The sample is representative only of this department.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT TIVAOUANE

Senegal is divided into 14 regions and 45 departments, which are further subdivided into 150 urban and 340 rural communities, as the smallest administrative unit.

The department of Tivaouane is a subdivision of the Thiès Region, which is located in the center-West of Senegal, commonly known as the Groundnut Basin. The department of Tivaouane has a total area of 3,121 km² and a population of 342,519. The main economic activities include farming peanuts, millet, cowpeas and fruit trees, as well as breeding cattle, sheep and goats. According to the 2017 regional report published by the Government of Senegal, the department of Tivaouane has a literacy rate of 70%. The department of Tivaouane is one of the bastions of a religious order in Senegal called Tijanniyya, and the religious festivals in the holy city generate additional economic activities.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
77.9%	89.6%	59.2%	16.2%	11.0%	11.6%	94.5%	57.4%	80.2%	7.6%	28.6%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

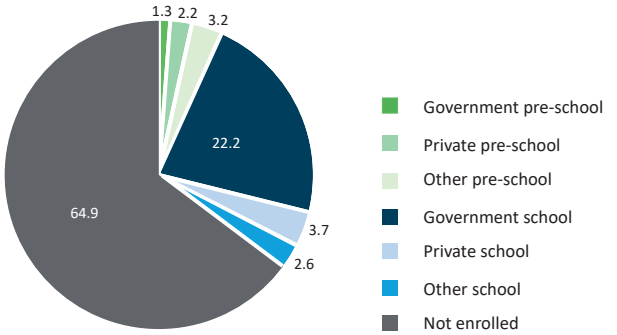


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	59.6	4.5	1.6	34.2	100
Age 6-16: Girls	63.3	4.5	1.9	30.3	100
Age 6-16: Boys	55.5	4.5	1.3	38.6	100
Age 6-10: All	56.7	5.0	1.9	36.3	100
Age 6-10: Girls	61.8	4.1	2.6	31.5	100
Age 6-10: Boys	50.9	6.1	1.2	41.8	100
Age 11-16: All	63.1	3.9	1.3	31.7	100
Age 11-16: Girls	64.9	5.0	1.1	29.0	100
Age 11-16: Boys	61.0	2.6	1.6	34.8	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

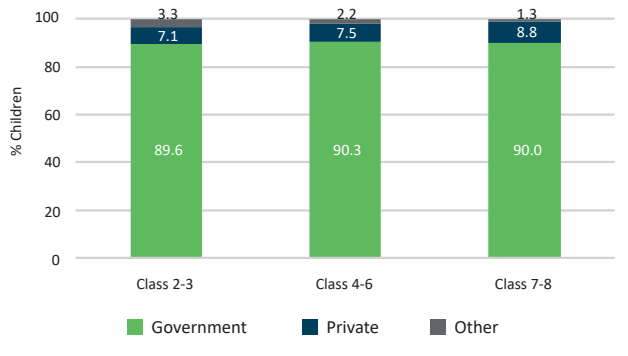
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	10.0	23.6	37.2	14.8	6.3	8.2							100
Class 2	4.9		26.1	24.6	17.8	11.5	15.2						100
Class 3	4.7			13.5	24.9	26.6	11.5	9.8	6.1	3.0			100
Class 4	0.0			6.9	11.4	25.6	17.8	19.6	9.6	5.5	3.7		100
Class 5	6.5					14.8	16.0	29.0	14.2	7.7	8.3	3.6	100
Class 6	1.5					5.9	9.4	26.6	21.7	16.8	14.3	3.9	100
Class 7	Insufficient sample size												
Class 8													

This table shows the age distribution for each class. For example, of all children in class 3, 26.6% children are 10 years old but there are also 24.9% who are 9 years old, 11.5% who are 11 years old and 18.8% who are 12 years or older.

Chart 2: % Children enrolled in different types of schools, by class



LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

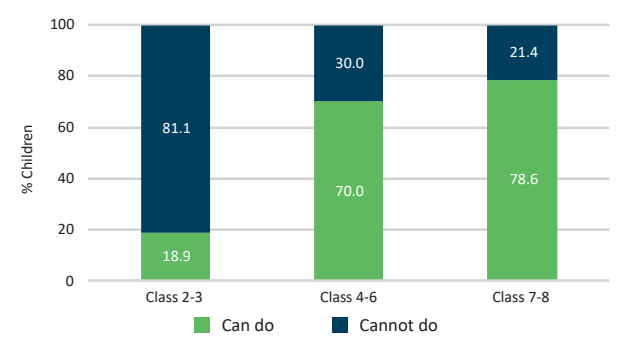
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	2.2	92.8	92.1	86.9
Shape recognition	6.7	86.0	81.0	73.6
Measurement	1.2	97.4	84.5	83.2

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	78.2	36.8	33.2	25.9	29.6	17.1	14.6	8.8	7.1	4.4	4.5	2.5
Class 4-6	94.8	82.6	77.5	68.7	76.1	58.6	55.0	39.5	37.1	23.9	32.0	19.1
Class 7-8	96.4	90.0	87.1	82.1	81.4	74.3	75.0	66.4	69.3	51.4	55.2	42.1

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	6.5	89.5	71.3	67.2
Telling time	79.4	16.6	13.2	9.2
Telling day and date	30.2	61.3	48.7	40.1

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	2.9	95.0	85.0	82.9
Telling time	60.0	34.3	30.0	24.3
Telling day and date	11.4	82.0	74.1	66.4

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Matagalpa (Nicaragua)

In Nicaragua, ICAN 2019 was conducted in Matagalpa municipality, in the department of Matagalpa. The survey reached a total of 60 randomly selected rural communities, 1191 households and assessed 1172 children in the age group of 5 to 16 years. The sample is representative only of this municipality.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT MATAGALPA

Nicaragua is divided into 2 regions and 15 departments, which are further subdivided into 153 municipalities.

Matagalpa is a department in central Nicaragua with 13 municipalities. The city of Matagalpa is the capital of the department, and is located in a municipality with the same name. The municipality has a total area of 619 km² and a population of 200,000 (50,000 of whom live rurally). The municipality produces basic grains such as beans, vegetables and coffee, which is processed in the coffee mills located in the south of the municipality. The municipality of Matagalpa was selected for the ICAN assessment in consultation with the Ministry of Education's Director of Teacher Training and the Presidential Advisor on Education as it is considered representative of the primary-level learning outcomes. The city of Matagalpa is the 4th largest in Nicaragua and known as the "Pearl of the North" and "Land of Eternal Spring". A large part of the economy in Matagalpa depends on eco-tourism.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
91.7%	93.4%	98.0%	7.4%	24.1%	23.1%	81.4%	74.8%	72.7%	7.6%	23.6%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

No schooling	1 to 5 years	More than 5 years
17.3	38.1	44.6

% Fathers by number of years of schooling

No schooling	1 to 5 years	More than 5 years
21.8	42.2	36.0

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

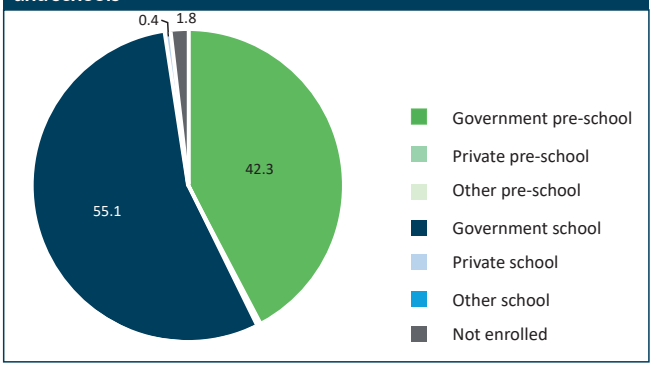


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	94.1	0.4	0.0	5.5	100
Age 6-16: Girls	94.5	0.3	0.0	5.2	100
Age 6-16: Boys	93.6	0.6	0.0	5.8	100
Age 6-10: All	97.1	0.4	0.0	2.5	100
Age 6-10: Girls	97.7	0.3	0.0	2.0	100
Age 6-10: Boys	96.4	0.5	0.0	3.1	100
Age 11-16: All	90.4	0.5	0.0	9.1	100
Age 11-16: Girls	90.5	0.3	0.0	9.2	100
Age 11-16: Boys	90.3	0.6	0.0	9.1	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

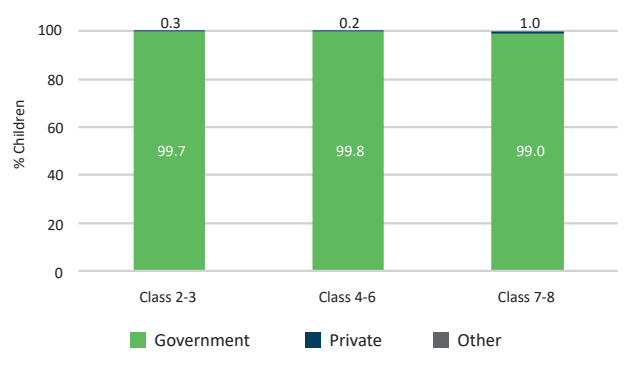
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	7.6	59.6	16.7	7.1	5.1	4.1							100
Class 2	0.5	6.2	56.4	18.0	6.2	12.8							100
Class 3	1.0		7.2	45.9	21.1	11.3	6.2	7.2					100
Class 4	0.6			7.8	45.0	23.9	7.8	3.9	5.0	6.1			100
Class 5	1.6				14.8	41.4	21.9	5.5	10.2	4.7			100
Class 6	0.7					17.4	40.3	15.3	13.2	8.3	4.9		100
Class 7	2.8						8.4	41.1	24.3	10.3	8.4	4.7	100
Class 8	Insufficient sample size												

This table shows the age distribution for each class. For example, of all children in class 3, 45.9% children are 8 years old but there are also 7.2% who are 7 years old, 21.1% who are 9 years old and 24.7% who are 10 years or older.

Chart 2: % Children enrolled in different types of schools, by class



Matagalpa (Nicaragua)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

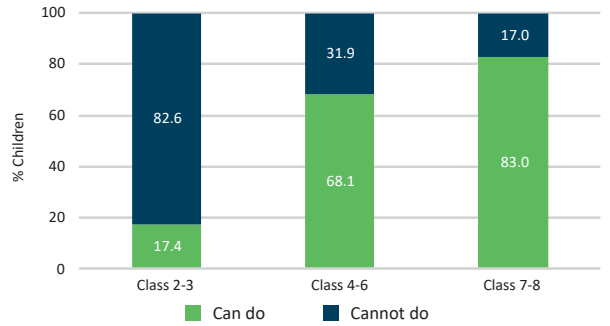
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	0.6	97.9	91.2	89.3
Shape recognition	2.1	92.4	83.2	77.7
Measurement	0.9	93.6	88.1	82.6

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	91.8	63.1	39.6	29.6	28.0	7.6	11.3	6.1	5.2	1.5	4.7	0.6
Class 4-6	98.9	95.5	86.3	71.8	83.9	41.8	56.9	22.2	41.4	15.3	20.5	11.4
Class 7-8	98.0	96.0	89.0	78.0	94.0	73.0	75.8	43.0	70.0	37.0	41.0	33.0

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	11.9	85.8	42.3	39.8
Telling time	62.5	29.3	27.2	19.0
Telling day and date	10.8	86.0	58.3	55.2

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	7.0	93.0	54.0	54.0
Telling time	49.0	36.0	45.0	30.0
Telling day and date	3.0	97.0	82.0	82.0

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Xalapa Rural (Mexico)

In Mexico, ICAN 2019 was conducted in Xalapa Rural district, in the state of Veracruz. The survey reached a total of 60 randomly selected rural communities, 1199 households and assessed 586 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT XALAPA RURAL

Mexico is divided into 32 states, which are further subdivided into 2,457 municipalities and 304,495 localities. To conduct federal elections, the country is divided into 300 districts, established by dividing the population equally.

District 8: Xalapa Rural, is located in the state of Veracruz. It is a rural district that extends from the mountain areas of the municipalities bordering the capital, Mexico City, to the coastal area of the Gulf of Mexico. According to the 2010 Census, the district has a total area of 4,424 km² and a population of 799,909. The main economic activities of the district are agriculture, fishing and livestock. The average literacy rate for youth aged 15 to 24 is 97%. However, 2017 data from the Institute for the National Planning for the Evaluation of Learning (PLANEA) showed that 38% of rural schools in the region have more than a third of students who are significantly underperforming.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
97.5%	96.3%	99.7%	30.8%	21.6%	33.5%	73.7%	92.4%	59.4%	19.6%	39.3%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

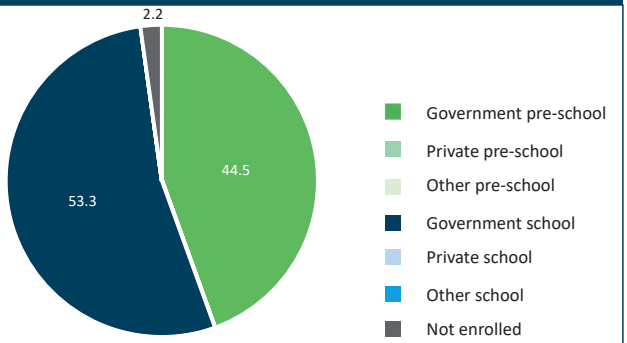


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	95.2	0.0	0.0	4.8	100
Age 6-16: Girls	95.0	0.0	0.0	5.0	100
Age 6-16: Boys	95.5	0.0	0.0	4.5	100
Age 6-10: All	98.9	0.0	0.0	1.1	100
Age 6-10: Girls	98.4	0.0	0.0	1.6	100
Age 6-10: Boys	99.5	0.0	0.0	0.5	100
Age 11-16: All	91.6	0.0	0.0	8.4	100
Age 11-16: Girls	91.8	0.0	0.0	8.2	100
Age 11-16: Boys	91.5	0.0	0.0	8.5	100

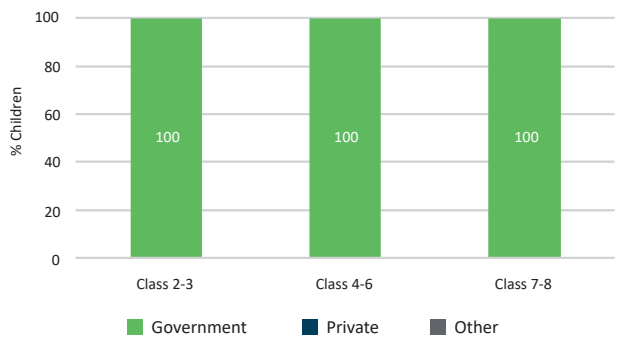
'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	Insufficient sample size												
Class 2													
Class 3													
Class 4													
Class 5													
Class 6													
Class 7													
Class 8													

Chart 2: % Children enrolled in different types of schools, by class



Xalapa Rural (Mexico)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

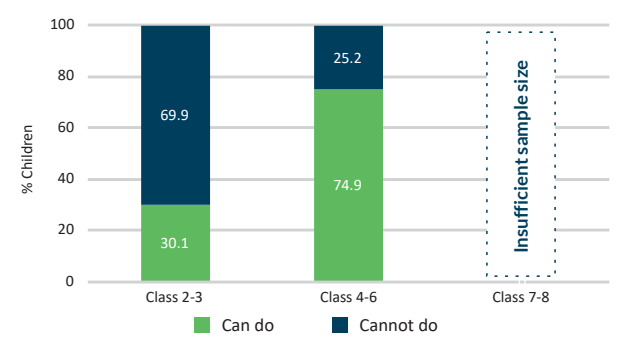
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	0.0	97.7	97.0	94.7
Shape recognition	5.3	83.5	84.2	72.9
Measurement	3.0	89.5	83.5	75.9

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	97.0	81.8	66.2	46.6	48.1	8.3	37.6	11.3	12.8	1.5	11.5	1.5
Class 4-6	98.2	94.7	87.1	75.4	89.5	55.9	69.0	36.8	48.5	32.9	42.4	24.3
Class 7-8	Insufficient sample size											

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	7.0	81.9	54.4	43.3
Telling time	40.9	49.1	45.0	35.1
Telling day and date	12.3	84.8	58.5	55.6

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	Insufficient sample size			
Telling time				
Telling day and date				

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Betul (India)

In India, ICAN 2019 was conducted in Betul district, in the state of Madhya Pradesh. The survey reached a total of 60 randomly selected rural communities, 1200 households and assessed 1194 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT BETUL

India is composed of 28 states and 8 union territories. These are further subdivided into districts and smaller administrative divisions like tehsils and blocks. In rural areas, the smallest subdivision is a village.

Betul is one of the southern districts in the central state of Madhya Pradesh, lying on the Satpura plateau. According to the Census 2011, Betul district has a population of 1,575,362 and an area of 10,043 km². The district is rich in tribal populations, mainly Gonds and Korkus. Betul district is rich in mountains, forests, and biodiversity. The main timber species of Betul forest is Teak. Asia's biggest wood depot is in Betul. Apart from access to forest resources most of the people are dependent on agriculture and dairy production. According to the National Achievement Survey (NAS) 2017, the average performance of class 3 students in Betul in Mathematics is 64%, very close to the national average of 63%. According to Census 2011, the literacy rate of Betul is 70.14%.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
54.2%	71.7%	99.1%	4.7%	47.7%	43.9%	80.4%	56.9%	3.9%	2.4%	7.4%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

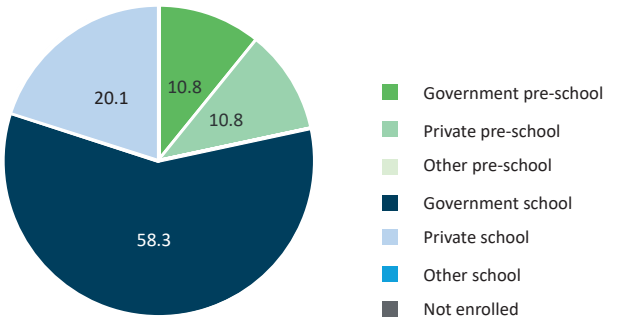


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	76.3	17.6	0.0	6.1	100
Age 6-16: Girls	77.3	15.6	0.0	7.2	100
Age 6-16: Boys	75.2	19.9	0.0	4.9	100
Age 6-10: All	73.3	26.2	0.0	0.5	100
Age 6-10: Girls	75.9	23.2	0.0	0.9	100
Age 6-10: Boys	70.4	29.6	0.0	0.0	100
Age 11-16: All	78.6	11.3	0.0	10.2	100
Age 11-16: Girls	78.2	10.3	0.0	11.4	100
Age 11-16: Boys	79.0	12.4	0.0	8.6	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

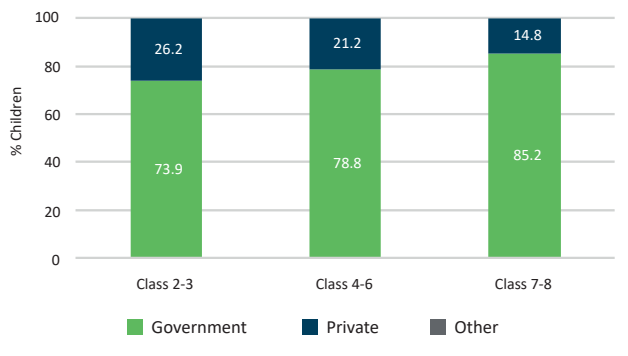
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	22.1	60.0	13.1	4.8									100
Class 2	4.7	16.5	52.8	22.1	3.9								100
Class 3	2.2		17.2	56.0	17.9	6.7							100
Class 4	2.2			21.6	49.3	23.1	3.7						100
Class 5	0.9				16.4	56.0	22.4	4.3					100
Class 6	0.8					13.5	55.6	24.8	5.3				100
Class 7	2.5						20.0	47.5	20.0	7.5	2.5		100
Class 8	5.3							23.2	53.0	14.6	4.0		100

This table shows the age distribution for each class. For example, of all children in class 3, 56% children are 8 years old but there are also 17.2% who are 7 years old, 17.9% who are 9 years old and 6.7% who are 10 years or older.

Chart 2: % Children enrolled in different types of schools, by class



LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

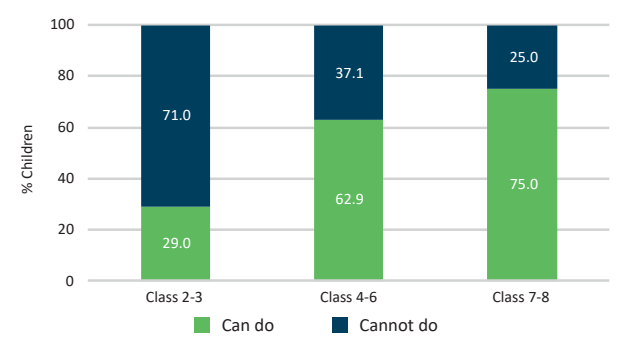
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	0.5	99.1	92.5	91.6
Shape recognition	6.1	89.1	84.9	79.7
Measurement	0.0	99.5	87.7	87.3

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	89.2	52.8	54.7	35.4	39.2	12.8	28.0	13.7	12.0	3.8	10.1	2.4
Class 4-6	97.7	79.1	84.1	68.2	73.1	39.2	66.9	44.8	45.9	26.5	36.9	13.9
Class 7-8	99.5	89.8	90.7	82.4	80.1	51.4	76.7	51.4	60.0	32.6	47.9	23.9

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	4.5	93.2	57.8	55.3
Telling time	22.7	71.5	53.1	47.3
Telling day and date	30.7	65.3	49.8	45.6

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	3.7	92.6	73.6	69.4
Telling time	16.7	77.7	64.8	58.8
Telling day and date	20.8	74.5	61.9	56.9

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Jhenaidah (Bangladesh)

In Bangladesh, ICAN 2019 was conducted in Jhenaidah district, in the Khulna Division. The survey reached a total of 60 randomly selected rural communities, 1200 households and assessed 893 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT JHENAIDAH

Bangladesh is divided into 8 divisions, which are further subdivided into 64 districts (Zila), and 491 subdivisions (Upazila). Upazilas are divided into union councils (in rural areas), municipalities (in suburbs) and city corporations (in metropolis). The smallest subdivision is a village (in rural areas) or a ward (in urban areas).

Jhenaidah subdivision is located in the southwestern part of Bangladesh, bordering India to the West. Jhenaidah has a total area of 1,949 km² and a population of 1.77 million (approximately 1% of the total population of Bangladesh). Economic activity is predominantly agricultural with 67% land holdings registered as farms. The farms produce a variety of crops including paddy, jute, wheat, sugarcane, mustard seed, onion and garlic, as well as pulses and vegetables. The literacy rate for the subdivision is 62%, compared to the national average of 73%.

Household characteristics

Households with:

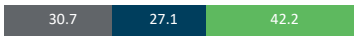
Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
87.2%	97.1%	99.2%	2.1%	17.9%	76.6%	96.5%	62.4%	2.0%	2.8%	14.0%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling



ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

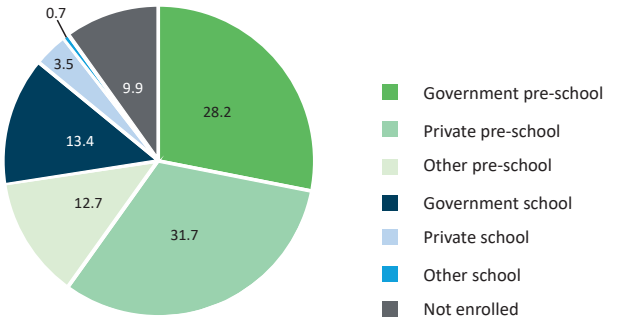


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	53.0	40.7	2.1	4.2	100
Age 6-16: Girls	50.1	45.8	1.8	2.3	100
Age 6-16: Boys	56.4	34.9	2.4	6.4	100
Age 6-10: All	78.2	18.4	1.5	2.0	100
Age 6-10: Girls	74.9	21.6	1.5	2.0	100
Age 6-10: Boys	81.4	15.2	1.5	2.0	100
Age 11-16: All	35.2	56.5	2.5	5.8	100
Age 11-16: Girls	34.5	61.1	1.9	2.5	100
Age 11-16: Boys	36.1	50.8	3.2	9.9	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

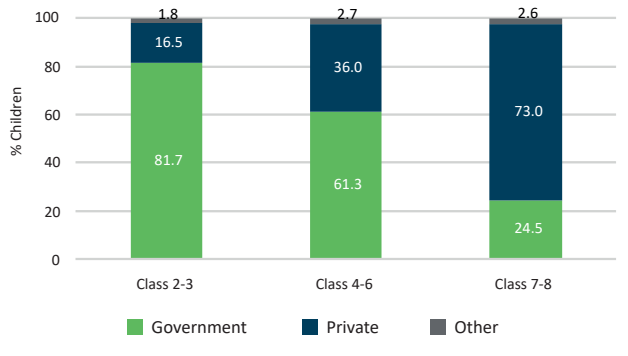
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	0.9	17.0	49.1	23.2	6.3	3.6							100
Class 2	1.7		22.7	39.5	23.5	7.6	5.0						100
Class 3	2.0			22.8	40.6	26.7	5.9	2.0					100
Class 4	5.0				13.9	37.6	24.8	12.9	5.9				100
Class 5	Insufficient sample size												
Class 6													
Class 7													
Class 8	5.9								21.6	39.2	25.5	7.8	100

This table shows the age distribution for each class. For example, of all children in class 3, 40.6% children are 9 years old but there are also 22.8% who are 8 years old, 26.7% who are 10 years old and 7.9% who are 11 years or older.

Chart 2: % Children enrolled in different types of schools, by class



Jhenaidah (Bangladesh)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

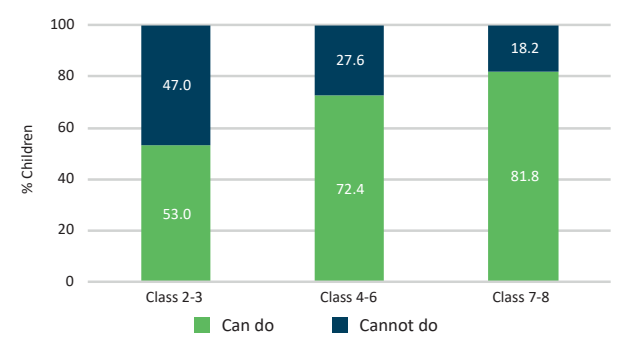
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	0.6	96.7	92.8	89.5
Shape recognition	3.3	89.0	89.5	81.8
Measurement	0.0	99.4	96.1	95.6

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	95.6	73.0	80.6	64.6	64.6	31.5	52.0	23.3	17.1	6.7	23.4	6.3
Class 4-6	97.8	90.6	90.2	73.8	79.6	51.1	68.9	36.6	51.3	23.1	38.5	21.3
Class 7-8	97.9	95.1	87.4	79.0	84.6	59.9	69.2	42.7	54.2	27.3	47.1	28.1

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	4.9	90.7	73.3	68.9
Telling time	53.3	38.6	30.8	22.2
Telling day and date	32.9	61.6	39.1	33.3

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	2.8	93.0	83.2	79.0
Telling time	36.4	55.9	47.6	39.9
Telling day and date	13.3	81.8	55.6	50.4

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Makwanpur (Nepal)

In Nepal, ICAN 2019 was conducted in Makwanpur district, in Bagmati province. The survey reached a total of 60 randomly selected rural communities, 1200 households and assessed 1023 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT MAKWANPUR

Nepal is divided into 7 provinces and 77 districts, which are further subdivided into 753 rural and urban municipalities. The municipalities are further subdivided into wards, which are the smallest administrative units.

Makwanpur district is located in Bagmati province, which is in the central southern part of Nepal, and is comprised of 10 municipalities. The district is located 76 km from the capital city of Kathmandu. According to the 2011 Census, Makwanpur district has a total area of 2,426 km² and a population of 420,477. The major economic activity is agriculture, with some small family-owned businesses. According to the National Assessment of Student Achievement (NASA) 2012, children in class 3 in Makwanpur scored an average of 63% in various content areas of mathematics compared to the national average of 60%. Makwanpur district is located in a mountainous region, bordered by the Mahabharat and Shivalik mountain ranges.

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
71.4%	95.0%	85.3%	6.1%	21.3%	11.9%	94.2%	62.8%	26.1%	6.5%	12.3%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

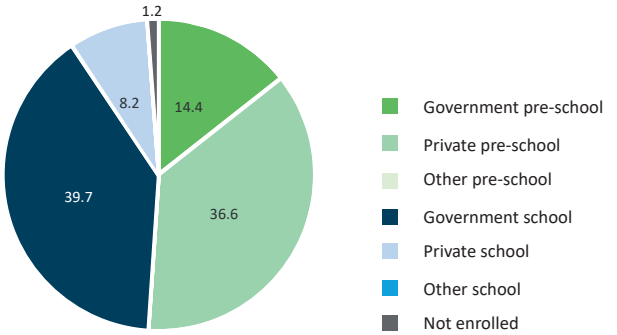


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	77.6	19.0	0.0	3.4	100
Age 6-16: Girls	79.5	18.0	0.0	2.5	100
Age 6-16: Boys	75.2	20.2	0.0	4.6	100
Age 6-10: All	70.3	29.2	0.0	0.5	100
Age 6-10: Girls	74.1	25.9	0.0	0.0	100
Age 6-10: Boys	66.2	32.8	0.0	1.1	100
Age 11-16: All	82.7	11.8	0.0	5.5	100
Age 11-16: Girls	83.2	12.7	0.0	4.1	100
Age 11-16: Boys	82.2	10.5	0.0	7.3	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

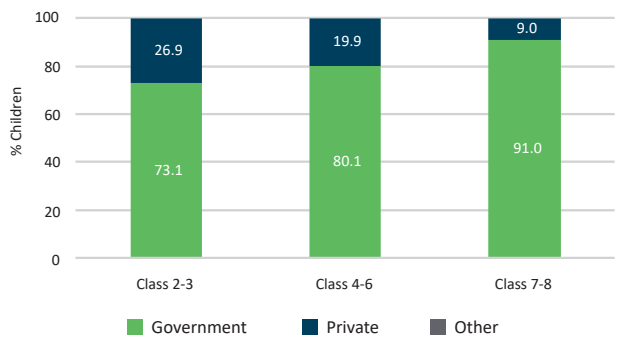
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	18.2	38.2	20.6	13.9	6.1	3.0							100
Class 2	1.4	15.3	25.0	29.2	16.7	6.3	6.3						100
Class 3	2.0		8.5	30.1	31.4	15.7	3.9	6.5	2.0				100
Class 4	1.3			7.7	23.7	36.5	16.0	10.3	4.5				100
Class 5	2.5				7.4	25.2	27.0	22.1	8.6	7.4			100
Class 6	0.7				2.7	8.7	16.0	35.3	18.7	8.0	8.0	2.0	100
Class 7	4.1						10.2	19.7	28.6	21.1	8.8	7.5	100
Class 8	1.5							8.3	17.4	37.9	24.2	10.6	100

This table shows the age distribution for each class. For example, of all children in class 3, 31.4% children are 9 years old but there are also 30.1% who are 8 years old, 15.7% who are 10 years old and 12.5% who are 11 years or older.

Chart 2: % Children enrolled in different types of schools, by class



LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

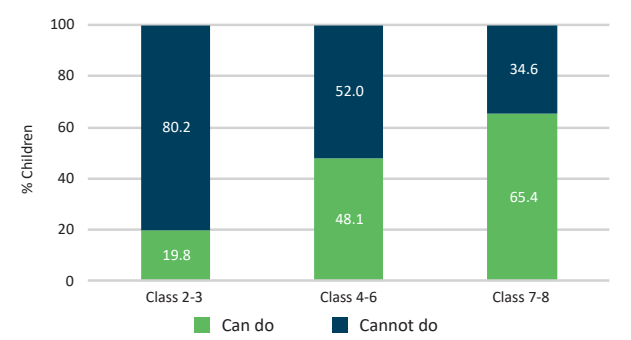
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	1.6	96.4	85.4	83.3
Shape recognition	5.7	88.0	77.6	71.4
Measurement	1.0	97.9	84.4	83.3

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	88.0	48.4	41.9	28.1	38.5	7.3	13.0	4.7	11.1	1.1	4.8	1.1
Class 4-6	96.7	73.8	69.7	56.0	62.9	27.0	35.2	22.1	28.2	6.8	17.5	6.2
Class 7-8	98.3	90.1	81.9	74.2	77.3	42.9	46.2	25.0	32.4	7.7	25.7	7.2

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	8.1	85.3	53.6	46.9
Telling time	27.7	65.2	40.4	33.2
Telling day and date	28.7	67.0	37.1	32.6

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	4.4	87.9	76.4	68.1
Telling time	13.2	81.3	63.7	58.2
Telling day and date	9.9	86.8	63.2	59.9

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.

Toba Tek Singh (Pakistan)

In Pakistan, ICAN 2019 was conducted in Toba Tek Singh district, in the province of Punjab. The survey reached a total of 60 randomly selected rural communities, 1198 households and assessed 1616 children in the age group of 5 to 16 years. The sample is representative only of this district.

Children were asked to do a variety of numeracy tasks. All tasks were done one-on-one with children in their homes.

The data is presented in three sections:

- **About the district:** Provides brief details about the surveyed district and summarises selected characteristics of sampled households.
- **Enrolment:** Presents data on children's pre-school and school enrolment and the types of schools children are enrolled in, by age and class.
- **Learning:** Presents data in three sub-sections:
  1) Performance of children in class 2-3 on selected numeracy tasks which can be mapped to the minimum proficiency level requirements for SDG 4.1.1 (a). Children's ability to do these tasks in higher classes is also shown.
  2) Performance of children in class 2-3, class 4-6 and class 7-8 on number recognition, number operation and word problem tasks.
  3) Performance of children in class 4-6 and class 7-8 on selected tasks that assess the ability to apply numeracy concepts.

ABOUT TOBA TEK SINGH

Pakistan consists of 4 provinces, 2 autonomous territories and 1 federal territory. The provinces and territories are further subdivided into 154 districts and sub districts, known as tehsils/taluka. The smallest administrative units are villages (in rural areas) and blocks (in urban areas).

Toba Tek Singh District is located in the province of Punjab, with a total area of 3,259 km² and a population of over 2.1 million. The major economic activities include agriculture and the textile industry. The region produces dairy, cotton, maize, fruits and vegetables. According to 2018 Annual Status of Education Report (ASER) Pakistan, 42% of children in classes 1 to 5 can do subtraction sums, which is close to the national average of 41%. The district was named after Tek Singh who was a kind Sikh religious figure who provided shelter and water to travelers passing by a small pond ("toba" in Punjabi). The district is famous for its production of handloom fabric known as "Khaddar".

Household characteristics

Households with:

Walls of permanent material	Toilet	Electricity	Motorised 4-wheeler	Motorised 2-wheeler	Bicycle	Mobile phone	Television	Radio	Computer	Extra reading material
88.1%	91.7%	99.2%	9.1%	65.5%	40.1%	86.1%	70.5%	7.3%	18.3%	24.4%

Parents' education

No schooling | 1 to 5 years of schooling | More than 5 years of schooling

% Mothers by number of years of schooling

% Fathers by number of years of schooling

ENROLMENT

Chart 1: % Children age 5-6 enrolled in different types of pre-schools and schools

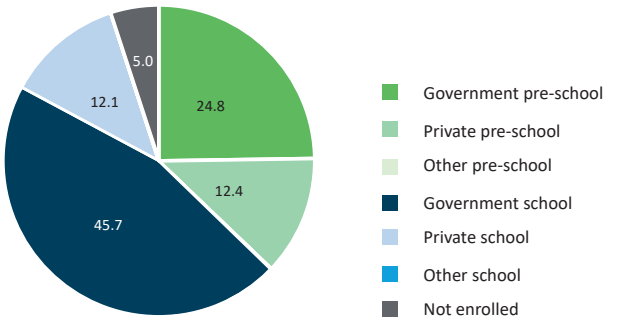


Table 1: % Children enrolled in different types of schools, by age group and sex

Age group	Government	Private	Other	Not in school	Total
Age 6-16: All	80.7	16.0	0.2	3.0	100
Age 6-16: Girls	80.6	15.6	0.4	3.4	100
Age 6-16: Boys	80.9	16.4	0.1	2.6	100
Age 6-10: All	78.6	19.4	0.1	1.9	100
Age 6-10: Girls	77.9	19.7	0.2	2.2	100
Age 6-10: Boys	79.3	19.1	0.0	1.7	100
Age 11-16: All	82.8	12.8	0.4	4.0	100
Age 11-16: Girls	83.3	11.3	0.6	4.7	100
Age 11-16: Boys	82.4	14.0	0.2	3.5	100

'Other' includes children going to religious or community schools.
'Not in school' includes children who never enrolled or have dropped out.

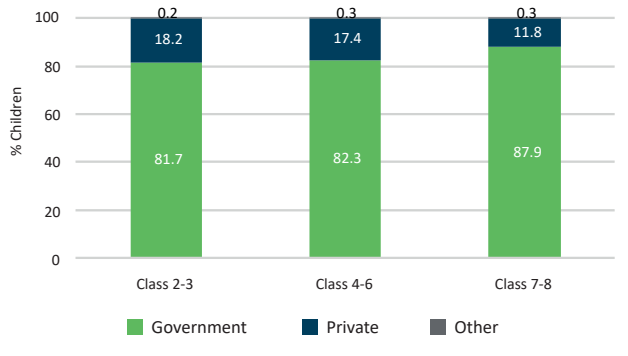
Table 2: Age-class distribution

% Children in each class, by age

Class \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Class 1	30.6	30.3	19.2	11.7	8.2								100
Class 2	1.8	13.1	41.6	23.7	10.2	5.1	4.4						100
Class 3	1.7		8.8	37.1	30.6	12.9	8.8						100
Class 4	5.2			7.6	30.0	37.6	9.6	7.6	2.4				100
Class 5	3.8				9.8	29.3	20.2	19.5	8.4	5.9	3.1		100
Class 6	2.2					9.6	18.0	41.6	15.7	7.3	5.1	0.6	100
Class 7	3.3						5.0	33.5	30.8	16.5	6.0	5.0	100
Class 8	1.1							7.6	23.4	44.6	18.5	4.9	100

This table shows the age distribution for each class. For example, of all children in class 3, 37.1% children are 8 years old but there are also 8.8% who are 7 years old, 30.6% who are 9 years old and 21.7% who are 10 years or older.

Chart 2: % Children enrolled in different types of schools, by class



Toba Tek Singh (Pakistan)

LEARNING

See pages 9-11 for a complete set of ICAN assessment tasks.

Performance on tasks mapped to the minimum proficiency level requirements for SDG 4.1.1 (a)

The minimum proficiency level descriptor for numeracy under SDG 4.1.1 (a) for class 2 or 3 requires students to demonstrate skills in number sense and computation, shape recognition and spatial orientation.

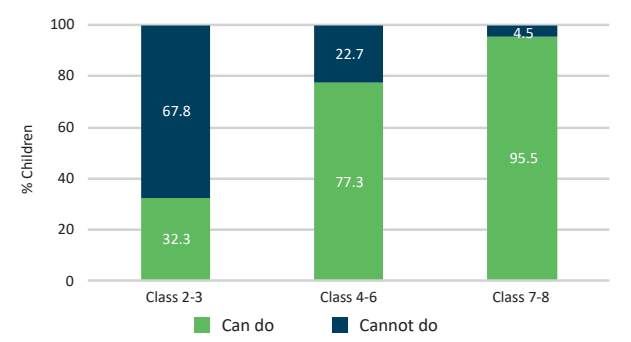
Table 3: % Children in class 2-3 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Spatial orientation	2.2	97.0	97.3	95.9
Shape recognition	13.5	80.4	74.3	67.4
Measurement	3.0	94.9	83.4	81.0

Table 3 shows how children in class 2-3 perform on spatial orientation, shape recognition and measurement tasks. In each of these task categories, children were given two tasks; Task 1 was usually easier than Task 2. The table shows the proportion of children who could not do either task correctly; those who could do the easier task; those who could do the more difficult task; and those who could do both tasks correctly.

Chart 3 shows how foundational numeracy skills progress with class level. It shows the proportion of children in class 2-3, class 4-6 and class 7-8 who can do a set of foundational numeracy tasks that proxy the minimum proficiency level requirements for SDG 4.1.1 (a).

Chart 3: % Children who can do a set of foundational numeracy tasks aligned to SDG 4.1.1 (a), by class



- At least 1 task each on spatial orientation, shape recognition, measurement, and number recognition; as well as
- At least 3 simple number operations.

Performance on number recognition, number operation and word problem tasks

Table 4: % Children who can do number recognition, number operation and word problem tasks, by class

Class	Number recognition		Simple number operations				Advanced number operations				Word problems	
	1-9	10-99	Addition without carry-over	Subtraction without borrow	Single digit multiplication	Single digit division	Addition with carry-over	Subtraction with borrow	Two-digit by one-digit multiplication	Two-digit by one-digit division with remainder	Subtraction	Division
Class 2-3	71.3	55.3	54.4	39.8	47.5	30.7	43.1	31.9	32.3	24.2	27.7	24.1
Class 4-6	93.2	89.8	88.9	80.1	86.4	76.3	83.4	74.5	76.8	67.8	74.4	68.3
Class 7-8	98.5	97.3	98.1	97.0	98.1	94.3	97.0	95.8	95.4	92.0	95.0	92.7

ICAN includes tasks on number recognition at two levels: 1) Identifying numbers from 1-9; and 2) identifying numbers from 10-99. Similarly, it includes tasks on all four number operations (addition, subtraction, multiplication and division) at two levels: 1) Simple number operations without carry-over, borrow and remainder; and 2) Advanced number operations with carry-over, borrow and remainder. Word problems on subtraction and division are also included. Table 4 shows how the performance of children progresses with class level on these number knowledge tasks.

Performance on selected tasks that assess the ability to apply numeracy concepts

Table 5: % Children in class 4-6 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	1.6	97.1	95.7	94.2
Telling time	8.0	90.3	89.7	87.8
Telling day and date	7.2	90.1	89.9	86.6

Table 6: % Children in class 7-8 who can do selected numeracy tasks

Task category	Cannot do either task	Can do Task 1	Can do Task 2	Can do both tasks
Simple data display	0.8	98.9	98.9	98.1
Telling time	1.9	97.4	96.6	95.9
Telling day and date	1.1	97.7	98.5	97.4

For class 4-6 and class 7-8, children's ability to do tasks requiring application of numeracy concepts is shown in Tables 5 and 6, respectively. This includes two tasks each on reading a simple data display, telling time and telling day and date from a calendar. Task 1 was usually easier than Task 2.