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Summary of Student Learning Assessment in
Mizoram
Research Brief

November 2017

TISS/CEI&AR/CLIX/RB1(MZ)/13November'17

www.clix.tiss.edu

The Connected Learning Initiative (CLIX) is a technology enabled initiative at scale for high school students. The initiative was seeded by Tata Trusts, Mumbai with Tata Institute of Social Sciences, Mumbai and Massachusetts Institute of Technology, Cambridge, as founding partners.

Collaborators: Centre for Education Research & Practice - Jaipur, Mizoram University - Aizawl, Eklavya - Madhya Pradesh, Homi Bhabha Centre for Science Education - Mumbai, National Institute of Advanced Studies - Bengaluru, State Council of Educational Research and Training (SCERT) of Telangana - Hyderabad, Tata Class Edge - Mumbai, Govt. of Rajasthan, Govt. of Mizoram, Govt. of Chhattisgarh and Govt. of Telangana.

Centre for Education, Innovation & Action Research, Tata Institute of Social
Sciences V.N. Purav Marg, Deonar, Mumbai - 400088. India
Ph: +91 022 25525003 • clix.tiss.edu

Student Learning Assessment in Mizoram Research Brief

The Connected Learning Initiative (CLIX) is a technology enabled initiative at scale for high school students. The initiative is seeded by Tata Trusts with Tata Institute of Social Sciences, Mumbai and Massachusetts Institute of Technology, Cambridge, USA, as founding partners. It aims to provide opportunities for participation in quality education through meaningful integration of technology to high school students from underserved regions. CLIX student modules provide engaging, hands-on learning experiences in Mathematics, Science, Communicative English and Digital Literacy, integrated with value education and skills relevant to the 21st century.

As part of the baseline study, a learning assessment tool was administered to Grade 9 students to assess their understanding and knowledge about Communicative English, Maths and Science. The tool consisted of 9 questions in English, 10 questions in Maths, and 15 questions in Science that were pitched at Grades 6, 8 and 9 levels. Data was collected from four states, Chhattisgarh, Mizoram, Rajasthan and Telangana at the beginning of the academic year 2016-17. This summary presents data collected from a sample of 30 government high schools in Aizawl, Mizoram. In each of the schools, a sample of 40 students was selected by stratified random sampling method as respondents. A total of 930 students took the learning assessment test on a digital tool called Open Data Kit (ODK) which was administered via Android phones, tablets and on school computers installed with an Android emulator.

1] English

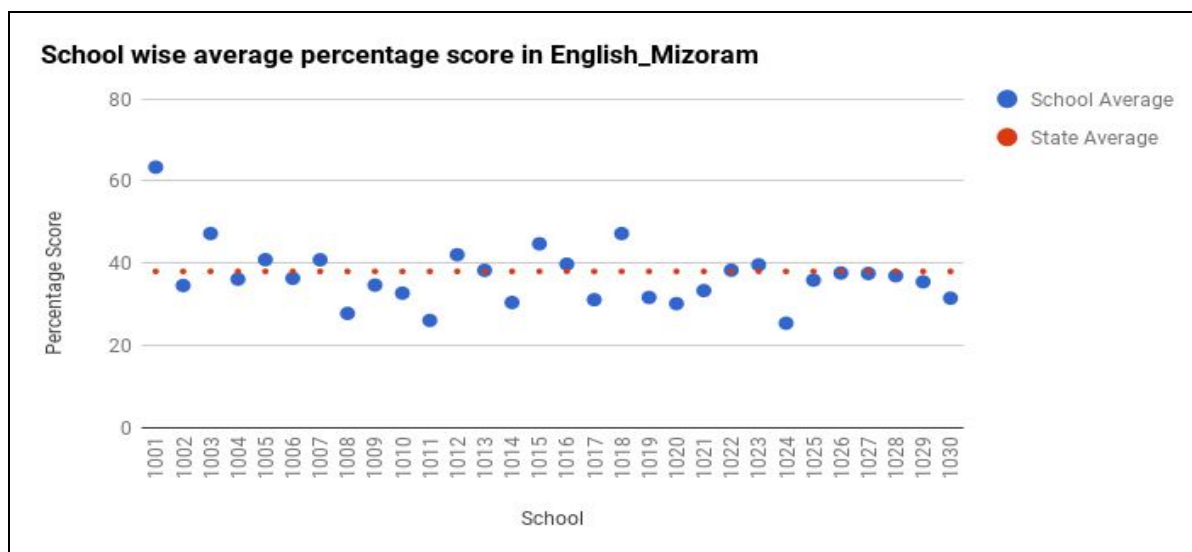
Nine questions on communicative English were asked to the students. The performance on these questions is given below.

Table 1: Performance in English

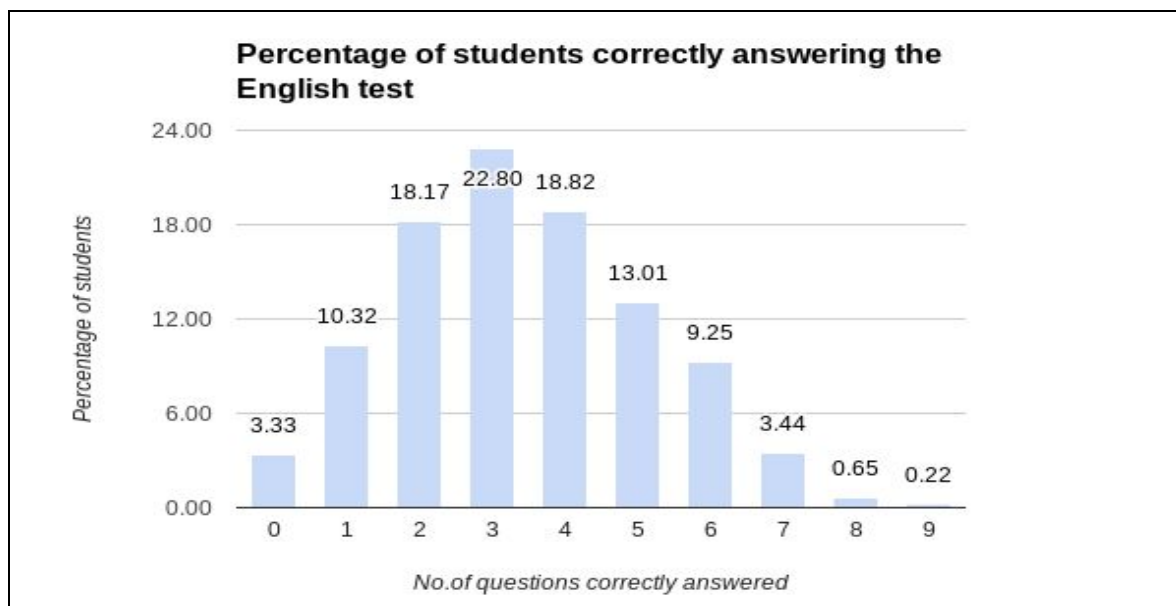
Percentage score in English						
Total no. of schools	No. of students	Lowest Percentage Score	Highest Percentage Score	Mean	Standard Deviation	No. of schools where school average > state average
30	930	0	100	38	19.4	11

The average percentage score among students in Mizoram on the English assessment is 38% with a standard deviation of 19.4. The lowest score obtained was 0 and the highest score obtained was 100%. In 11 schools out of the total 30 schools surveyed, the average score for English was more than the average score achieved by the sampled students in Aizawl.

Graph 1: School-wise average percentage score in English for Aizawl, Mizoram



Graph 2: Percentage of students correctly answering the English test



Nine questions were asked to the students as part of the learning assessment test to gauge the reading and writing levels of the students before the CLIX intervention. A majority of the

students (86%) were not able to answer more than 5 questions correctly with 3.33% of the students being unable to answer even one question correctly. About 4% of the students were able to answer between 7 to 9 questions correctly.

The question which was answered correctly by most students was “You are in a park. You need to get to the toilet. How would you ask the park attendant for help?” This was correctly answered by 54% of the students surveyed by choosing Option 2. Among the incorrect responses, 19.35% of the students chose Option 1.

Box 1: The question with highest percentage of students giving correct answer (English Test)

You are in a park. You need to get to the toilet. How would you ask the park attendant for help?

1. I am looking for the toilet. Can you find it for me?
2. Could you please show me the way to the toilet?
3. I want a toilet. Help please.
4. Tell me where is the toilet.

The question which was answered correctly by the least number of students required them to refer to a bill and answer the product that a customer could buy from the shop. Only 17.85% of the students could answer it correctly by picking Option 3. Among the incorrect responses, 40.54% of the students had selected Option 2. About 37% of the students had selected the incorrect answer Option 1.

Box 2: The question with lowest percentage of students giving correct answer (English Test)

Which of the following is true?

1. The customer bought an AC and a stabiliser.
2. The company does not provide customer service.
3. Warranty is not given by the shop.
4. The customer bought these products in June.

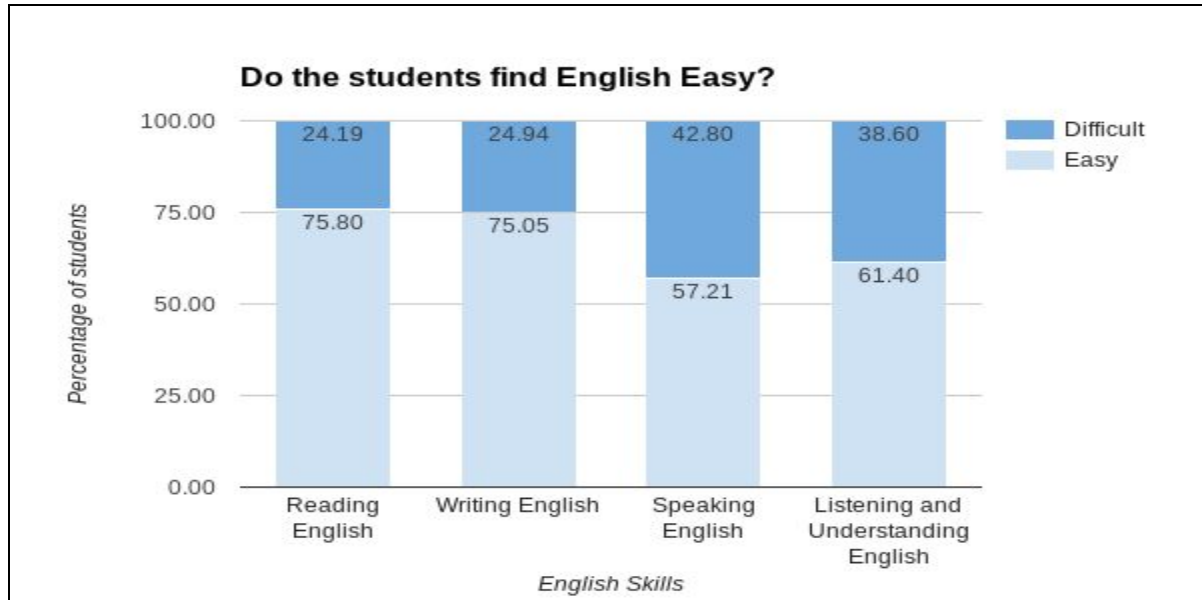
No	Description of Goods	Model Code	Quantity	Rate	VAT%	VAT Amt.	Amount (Rs.)
1	AC KELVINATOR-LES 52 CDE1 Sr. No.	AC LES52CDE1	2	15,022.22	12.5	3,755.56	33,800.00
2	STABILISER – KS40A13L Sr.No.	KS40A13L	2	2,800.00	12.5	700.00	6,300.00
In Words: Rs. Forty Thousand One Hundred Only						4,455.56	40,100.00

All products are serviced by the company service centre.
Goods once sold will not be taken back or exchanged.
Warranty, etc. are given by the company only.
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Graph 3: Do the students find English easy?



We asked what students find easy in English - reading, writing, speaking or listening and understanding. Most of the students (75%) find writing and reading in English to be easy. Among the students surveyed, 61.40% find listening and understanding English to be easy. Half of students (57.21%) said they found speaking in English to be easy.

2] Maths

Ten questions on Maths were asked to the students. The performance on these questions is given below.

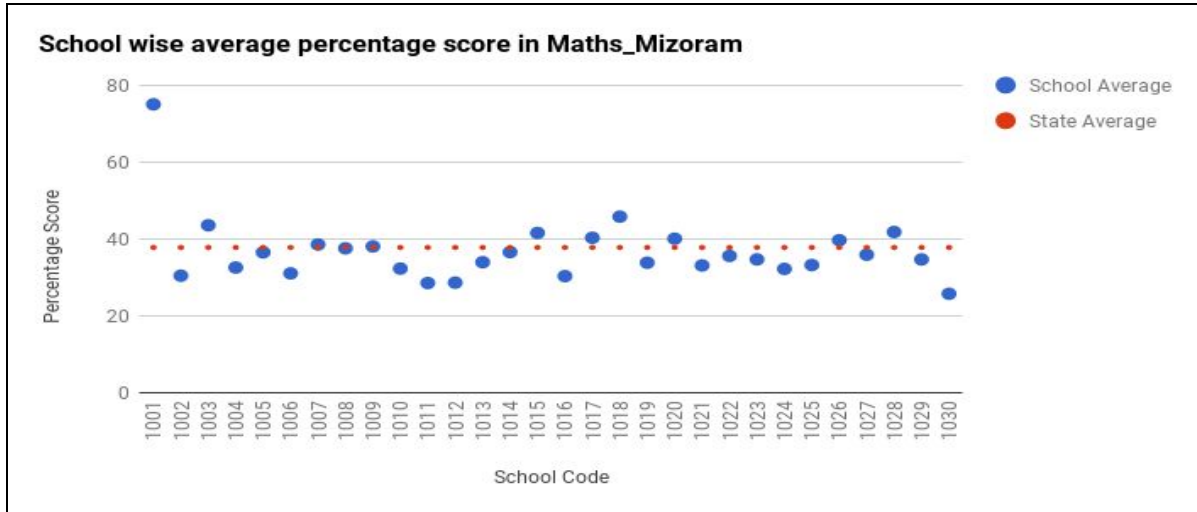
Table 2: Performance in Maths

Percentage score in Maths						
Total no. of schools	No. of students	Lowest Percentage Score	Highest Percentage Score	Mean	Standard Deviation	No. of schools where school average > state average
30	930	0	100	37.72	19.21	10

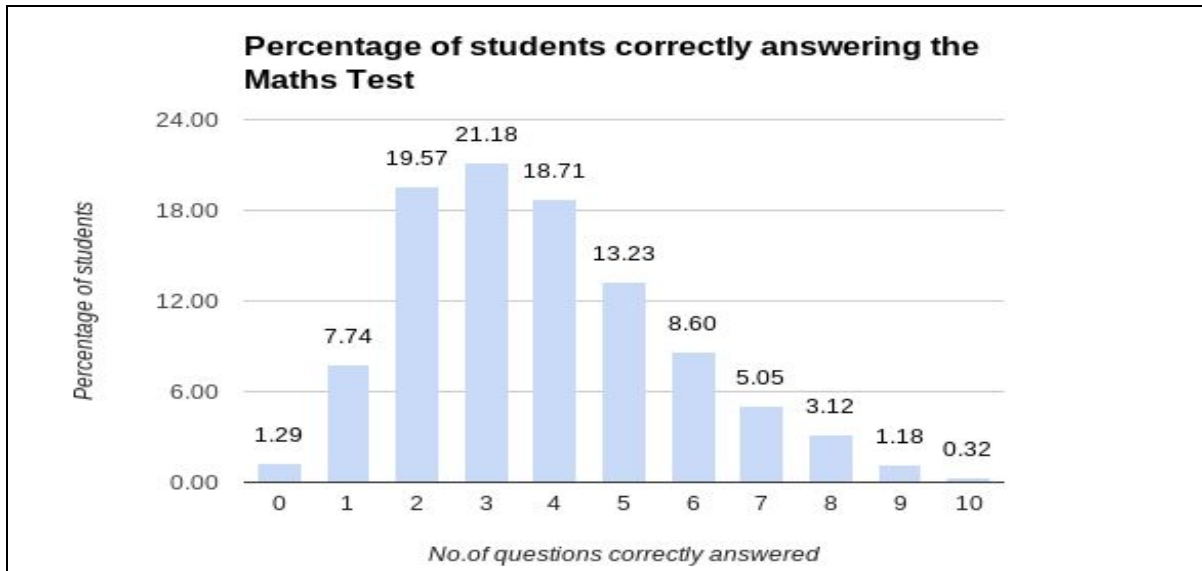
The average percentage score among students in Mizoram on the Maths assessment is 37.72% with a standard deviation of 19.21. The lowest score obtained was 0 and the highest score obtained was 100%. In 10 schools out of the total 30 schools surveyed, the average score for

Maths was more than the average score achieved in the subject by the sampled students in Aizawl.

Graph 4: School-wise average percentage score in Maths for Aizawl, Mizoram



Graph 5: Percentage of students correctly answering the Maths test



Ten questions were asked to the students as part of the learning assessment test to gauge their understanding of Maths. A majority of the students (82%) were not able to answer more than 5 questions correctly with 1.29% of the students being unable to answer even one question correctly. About 4% of the students were able to answer between 8 to 10 questions correctly.

The question that was answered correctly by the highest number of students asked them to measure the angle marked. About 57.53% of the students answered it correctly (Option 4). Among the incorrect responses, Option 3 was selected by 26.24% students.

Box 3: The question with highest percentage of students giving correct answer (Maths Test)

A hnuaiia figure ah, angle "?" hi engzat nge ?



1. 30°
2. 80°
3. 70°
4. 110°

The question that was correctly answered by the least number of students required them to calculate maximum and minimum number that the given expression can take. About 17.31% of the students answered it correctly (Option 3) and 41.40% of the students had incorrectly answered the question by picking Option 1.

Box 4: The question with lowest percentage of students giving correct answer (Maths Test)

"t" hi number 6 leh 9 inkar a nih chuan, $(t+5)$ hi eng number pahnih inkar nge ni ang?

1. 1 leh 4
2. 10 leh 13
3. 11 leh 14
4. 30 leh 45

3] Science

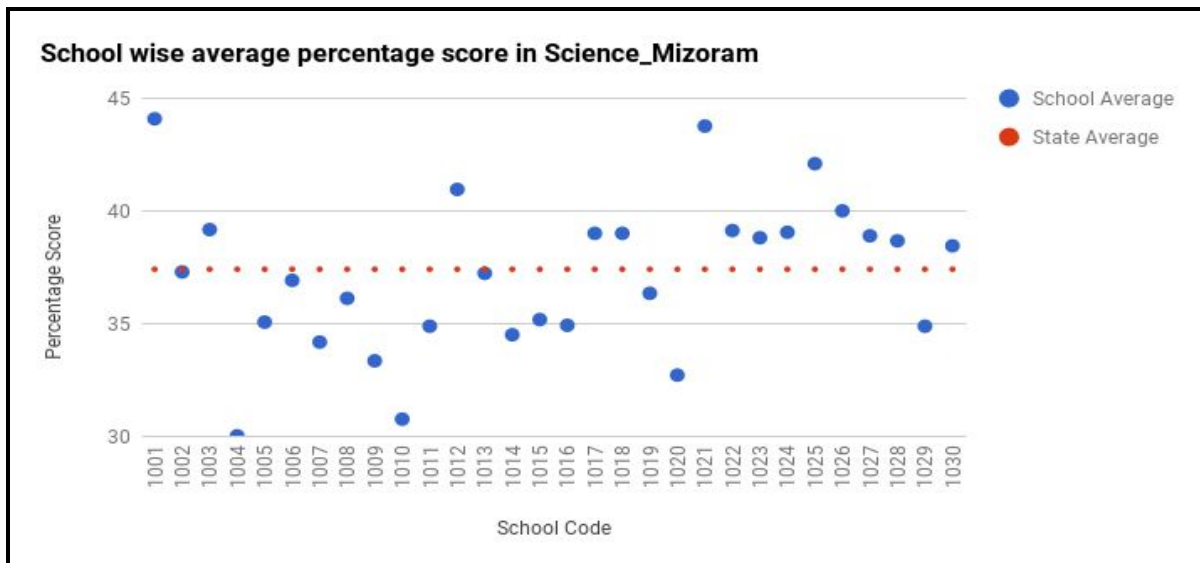
Fifteen questions on Science were asked to the students. The performance on these questions is given below.

Table 3: Performance in Science

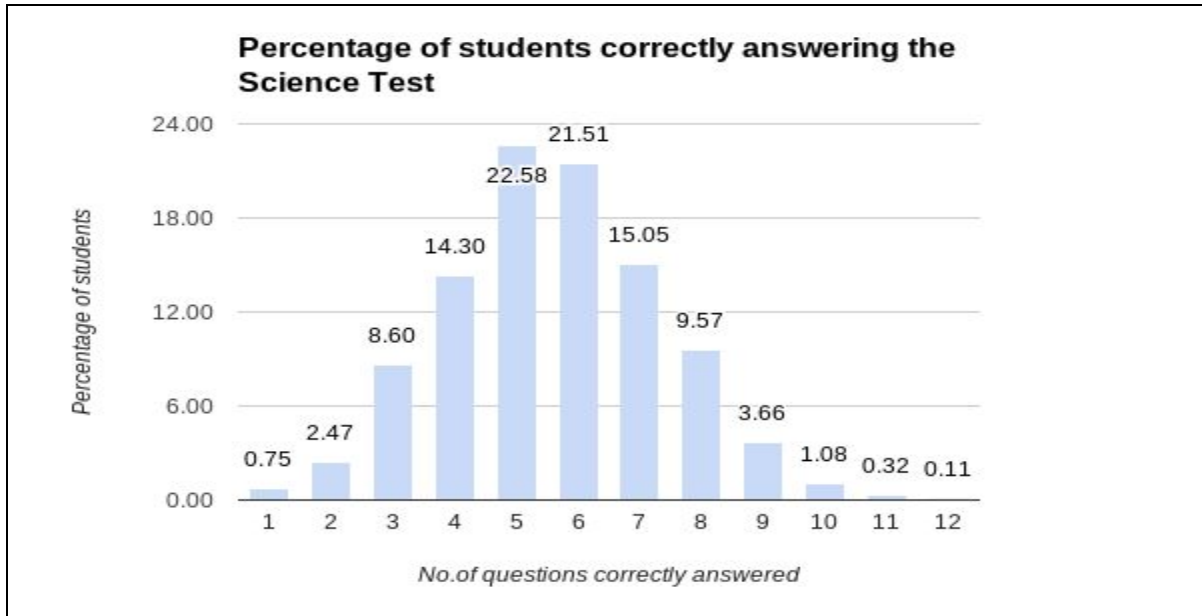
Percentage score in Science						
Total no. of schools	No. of students	Lowest Percentage Score	Highest Percentage Score	Mean	Standard Deviation	No. of schools where school average > state average
30	930	6.66	80	37.40	11.85	14

The average percentage score among students in Mizoram on the Science assessment is 37.40% with a standard deviation of 11.85%. The lowest score obtained was 6.66% and the highest score obtained was 80%. In 14 schools out of the total 30 schools surveyed, the average score for Science was more than the average score achieved in the subject by the sampled students in Aizawl.

Graph 6: School-wise average percentage score in Science for Aizawl, Mizoram



Graph 7: Percentage of students correctly answering the Science test



Fifteen questions were asked to the students as part of the learning assessment test to gauge their understanding of science (including physics, chemistry and biology). A majority of the students (85%) were not able to answer more than 7 questions correctly with small percentage of 0.75% of the students being unable to answer even one question correctly. About 2% of the students were able to answer between 10 to 12 questions correctly. None of the students were able to answer more than 12 questions correctly.

The question which was correctly answered by most of the students asked them to select the feet of aquatic birds. The correct Option 4 was selected by 82.69% of the students.

Box 5: The question with highest percentage of students giving correct answer (Science Test)

A hnuai mite hi sava ke a ni a. Heng zinga mi ah hian khawiber hi nge tui sava nih hmel ber?

The question which was answered by the lowest percentage of students was about light. Only 12.37% of the students answered it correctly (Option 4). A majority of the students (35.27%) had selected Option 3 and 31.61% had selected Option 1 which were incorrect responses.

Box 6: The question with lowest percentage of students giving correct answer (Science Test)

Light is reflected.....

1. from all bright surfaces
2. from all smooth surfaces
3. only from mirrors
4. from all surfaces

