

Impact of "Creative Learning and Teaching" Techniques on Academic Performance in Grades 3, 4 and 5 in Pali and Jalore Districts



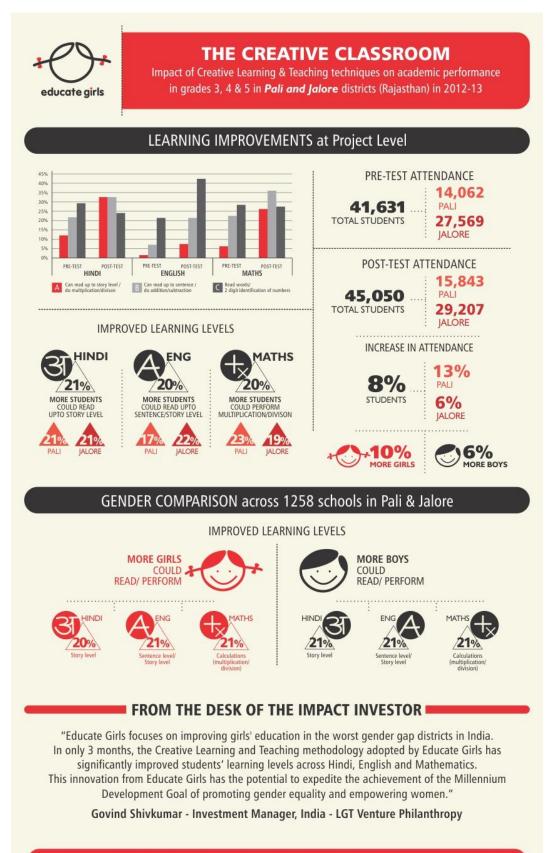


# **ABBREVIATIONS**

CLT	Creative Learning and Teaching
DISE	District Information System for Education
EG	Educate Girls
Gol	Government of India
IEC	Information, Education and Communication
M&E	Monitoring and Evaluation
RCT	Randomized Control Trial
SC	Scheduled Caste
ST	Scheduled Tribe



### **EXECUTIVE SUMMARY**





Educate Girls addresses issues of gender inequality at grassroot level while striving to achieve behavioral, social and economic transformation. The intervention focuses on two rural districts – Pali & Jalore which have a low literacy rate and a high gender gap in education.

A total of 45,050 students (15,843 in Pali & 29,207 in Jalore) had undertaken the post-test while the pre-test was undertaken by 41,631 students (14,062 in Pali and 27,569 in Jalore) implying an increase of 8% in the number of students who appeared for pre-test. The increase in the number of students who appeared for post-test in Pali and Jalore were 13% and 6% while an increase of 6% and 10% was recorded in boys and girls, respectively. This increase in the number of students in post-test is attributed to an increase in enrollments by EG and less absenteeism recorded amongst enrolled students.

Project evaluations conducted in Pali and Jalore for the 2012-13 session indicate positive impact of EG's intervention and suggests that CLT techniques are effective in improving learning level of students in all 3 subjects - Hindi, English & Math. Improvements recorded in Hindi included a 21% increase in the proportion of students who could read up to story level. In case of English, there was a 20% increase in the proportion of students who could read up to story level / sentence level and 20% increase was recorded in the proportion of students who could do multiplication and division in Math.

District specific evaluations indicate a 21% increase in proportion of students who could read up to story level in Hindi across both Pali & Jalore. In case of English, a 17% increase in the proportion of students who could read up to story level / sentence level was recorded in Pali compared to 22% increase in Jalore. In Math, a 23% increase in the proportion of students who could do multiplication / division in Pali were recorded compared to 19% increase in Jalore.

A similar increase was observed across gender with boys scoring 21% increase across Hindi reading till story level, English reading till story / sentence level and Math (division / multiplication) as compared to girls who recorded 20% increase in Hindi and 21% increase across English and Math for the same indicators.

The intervention serves approximately 7,00,000 children in two districts of Rajasthan and has been able to help get more girls to school which is a project deliverable.

In the near future, the project would be extended to 3 gender-gap districts in Rajasthan having poor literacy rates.

### BACKGROUND

Educate Girls (EG) is a leading Non-Governmental Organization founded in 2007 to holistically tackle issues at the root of gender inequality in India's educational system. The comprehensive model adopted by EG reforms government schools through community ownership and ensures 100% enrollment, higher attendance and improved learning outcomes for all girls. Child-centric learning and teaching techniques are an important part of the project to improve the quality of education imparted.

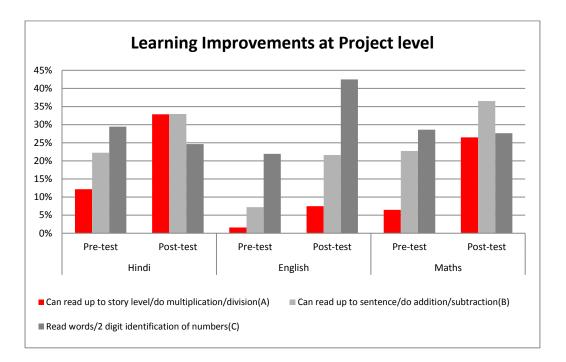
EG's educational intervention is being implemented in adjoining districts of Pali & Jalore, in Rajasthan. Both these districts have lower literacy rate compared to the state average. To improve learning levels for children and the quality of educational instruction, EG employs Creative Learning and Teaching (CLT) techniques. School teachers are trained in CLT techniques that are activity-based and centered on playful learning. CLT techniques are used in the 3rd, 4th and 5th grades for Hindi, English and Math.



### **COMPARISON OF RESULTS**

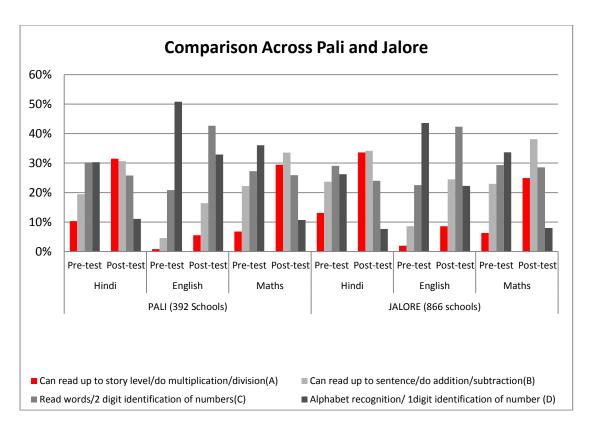
The project implemented by EG was measured across 1258 schools in Pali & Jalore.

A total of 41,631 & 45,050 students appeared for pre-test & post-test implying that there was an increased attendance of 8% across the districts and 13% & 6% increased attendance was recorded during post-test in Pali & Jalore respectively. The evaluation of results indicates positive impact of EG's project across these districts.



- Increase in number of students who could read up to story level (A) in Hindi was 21%
- The combined increase in number of students who could read up to story level (A) & sentence level (B) in English was 20% and increase in the number of students who could read words was 21%
- Increase in number of students who could do multiplication and division (A) in Math was 20%



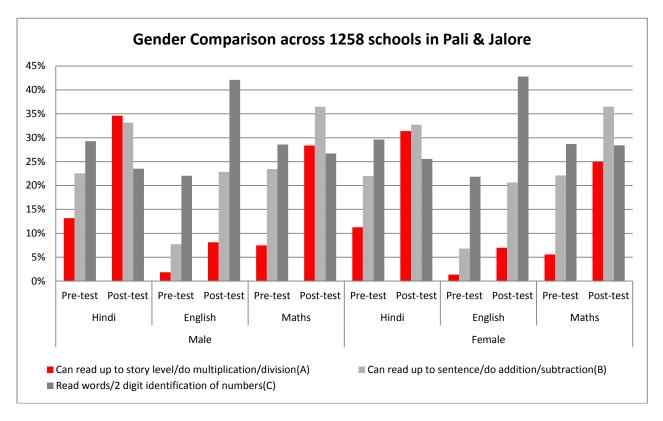


- An 13% increase was recorded in the number of students who appeared for post-test in Pali compared to 6% increase recorded in Jalore
- Increase in number of students who could read up to story level (A) in Hindi was 21% across both Pali & Jalore
- The combined increase in number of students who could read up to story level (A) & sentence level (B) in English was 17% for Pali compared to 22% for Jalore
- Increase in number of students who could do multiplication and division (A) in Math was 23% for Pali compared to 19% for Jalore.

Skills in Hindi language and Math showed higher percentage of increase as compared to increase in English which is a non-native language and not spoken commonly amongst the masses.



# **GENDER SPECIFIC RESULTS**



To assess the impact of the project on boys and girls gender specific data from 1258 school was analyzed.

The data reveals:

- Increase in attendance between pre-test and post-test was 6% for males and 10% for female students
- Increase in number of students who could read up to story level (A) in Hindi was 21% for males and 20% for females
- Joint increase in number of students who could read up to story level (A) & sentence level (B) in English was 21% for males and 19% for females
- Increase in number of students who could do multiplication and division (A) in Math was 21% for males and 19% for females

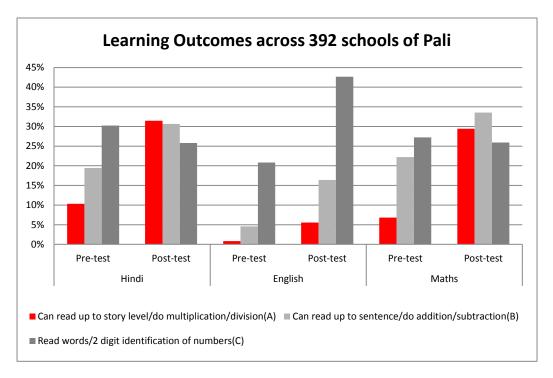
Overall similar scores and patterns of improvements are observed across both genders thereby reflecting successful implementation of EG's intervention.



### **IMPACT IN PALI DISTRICT**

Scope: The evaluations covered a sample of 392 schools in Pali district in which both pre & post-tests have been completed in academic year 2012-13.

The assessment reveals positive impact of EG's intervention and suggests that CLT techniques are effective in improving learning level of students in all 3 subjects - Hindi, English & Math.



Improvements observed during post-test in Pali are:

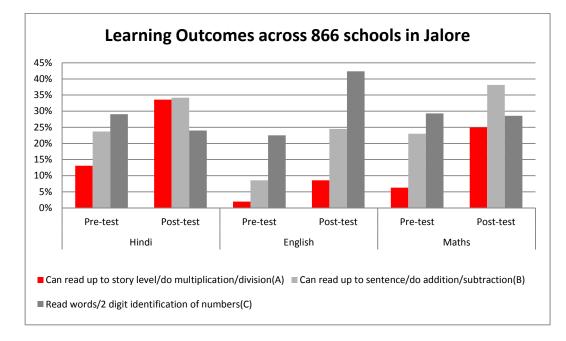
- Hindi: There were substantial improvements in reading abilities with indicators can read up to story level (A) & can read up to sentence level (B) showing an improvement of 21% & 11% respectively.
- English: There were improvements in reading abilities as reflected by indicator A & B can read story /sentence & indicator C - can read up to word level showing an improvement of 17% and 22% respectively.
- Math: Large gains in the ability to perform multiplication and division (A), and additions & subtraction (B) are observed. Improvement of 23% and 11% in indicator A & B were observed.

Overall, improvements were noticed across treatment and general schools and similar improvements were noticed amongst both boys and girls though the number of girls enrolled was much higher.

The number of students who could read up to story level in Hindi has gone up to 22% and 21% for males and females respectively while the combined number of students who could read story and sentence level in English was 17% and 16% for males and females respectively. In case of Math, the number of students who could do multiplication and division went up by 23% and 22% respectively for males and females. The Pali results thus reflect the overall progress made due to EG's intervention in 2012-13.



## **IMPACT IN JALORE**



Scope: In Jalore, the evaluations covered a sample of 866 schools out of which 749 are general schools and 117 are treatment schools in which both pre-test & post-test have been completed in academic year 2012-13.

The improvement over pre-test is shared here under:

- Hindi: 34% children could read a story (level A) showing an improvement of 21% while a 10% increase was noticed among students who were able to read a sentence (level b) in post-test.
- English: The overall improvement in indicator A & B (story level + sentence level), and indicator C (word level) was 23% and 20% respectively. It is important to note that English is a non-native language in this region and hence the progress is commendable.
- Math: The improvement at indicator A in which a student can do simple Multiplication / division was recorded as 19% and at indicator B with ability to do simple addition / subtraction was 15%.

Overall improvements were noticed across treatment and general schools and similar improvements were noticed among both boys and girls though the number of girls enrolled was higher.

The number of students who could read up to story level (level A) in Hindi has gone up to 21% and 20% for males and females respectively while the combined number of students who could read story and sentence (level A+B) in English was 23% and 22% for males and females respectively. In case of Math, the number of students who could do multiplication and division (level A) went up by 20% and 18% respectively for males and females. The results reflect the overall progress made due to EG's intervention in 2012-13.

Research Methodology: The research methodology followed in Jalore included an experimental design known as randomized control trial (RCT). Villages in selected blocks were randomly selected as 'treatment' and 'control'. Eligible villages were determined from the India District Information System for Education (DISE) data. Eligible villages had at least one primary school, were rural, and under the management of either: Department of Education, Local Body, Recognized Madarsas, ShikshaKarmi Schools or Sanskrit schools.



EG has partnered with Dr. Rebecca Thornton from University of Michigan who has designed & supervised a randomized gold standard control trial of EG's impact in Jalore. The study comprises 230 schools, covering over 22,000 children across 98 villages. After two years of the program, the study found the following results in terms of learning outcomes, enrollment, and retention:

- There were large gains in learning in year two of the evaluation in 2012/13 with an effective treatment effect of 0.25 in Hindi, 0.20 in English, and 0.32 in Math learning level.
- The proportion of new girls enrolled was significantly higher in treatment schools.
- EG had a significant effect on retention after one year. Treatment students were 4.2 percentage points (5.5 percent) more likely to be retained than the control.

# **ACKNOWLEDGEMENT / VOTE OF THANKS / THANK YOU**

Educate Girls would like to thank all the people involved for their support and contribution to the project. The efforts of the teams working endlessly are duly appreciated.

Special thanks goes to Ms. Safeena Husain (Founder and CEO, EG) and Dr. Rebecca Thornton (University of Michigan) for their determination, guidance and supervision of the project.

## **CONCLUSIONS/ NEXT STEPS**

EG's project is currently implemented in three districts of Rajasthan, covering 5,700 schools.

To date, EG has brought over 52,000 girls back to school and improved school quality for approximately 500,000 children. Community-driven improvements in girls' enrollment, attendance, learning outcomes, and school facilities have led to the elimination of the gender gap in Pali & Jalore districts.

Project evaluations conducted in Pali and Jalore for the 2012-13 session indicate positive impact of EG's intervention and suggests that CLT techniques are effective in improving learning level of students in all 3 subjects - Hindi, English & Math.

In 2014, EG is expanding to three new districts and over the next five years, EG aims to scale to 15 gender gap districts in India, reaching over four million children.

### **CONTACT US:**

Head Office: EDUCATE GIRLS, 411, 4<sup>th</sup> Floor, Reliable Business Centre, Oshiwara, Andheri West, Mumbai 400053, India

T: +91-22-2630 3555 | E: info.in@educategirls.ngo | www.educategirls.ngo