## [Taleemabad Evaluation by CERP Analytics](#taleemabad-evaluation-by-cerp-analytics)

### [Table of contents](#table-of-contents)

1. Introduction
2. Taleemabad’s Evaluation  
   2.1. Instrument and Data Collection  
   2.2. Sampling and Measurement  
   2.3. Summary of Results  
   2.3.1. ASER Grades 1 - 3  
   2.3.2. ASER Grades 4 - 5  
   2.3.3. MELQO
3. Analytics by CERP  
   3.1. School level Master Dataset and Variables (Cleaning raw datasets, Raw datasets to one master dataset at School level, Treatment Variable, Matching variable)  
   3.2. Balance Test  
   3.3. Results (with graphs)  
   3.3.1. ASER Grades 1 - 3  
   3.3.2. ASER Grades 4 - 5  
   3.3.3. MELQO
4. Conclusion

**1. Introduction**

Taleemabad, an EdTech learning platform, is dedicated to creating educational content aligned with national standards to enhance student outcomes. The platform caters to both students and teachers through a proprietary learning platform that integrates content delivery, student assessment, and engagement with parents and school administration. The Learning Management System (LMS) is offered for licensing to small-scale entrepreneurs who facilitate the enhancement of existing school operations with effective pedagogical methods and administrative tools. The platform’s content is accessible through a standalone Android app and is also broadcasted on TV and radio.

**2. Taleemabad’s Evaluation**

The primary objective of Taleemabad evaluation was to evaluate the effectiveness of its offerings. The evaluation was conducted through third-party standardized assessments of student learning outcomes and class observations. The assessment and observation processes extended to both Taleemabad schools and comparable “control” schools. Currently encompassing 140 schools, Taleemabad employs a random sampling method to randomly select schools for these assessments and observations. In contrast, the control schools are deliberately chosen based on their close geographical proximity to the treatment schools.

**2.1. Instrument and Data Collection**

Taleemabad utilized established assessment instruments to evaluate learning outcomes across different grade levels. For grades 1-3 and 4-5, the ASER (“Annual Status of Education Report”) instrument was employed, which rigorously tests foundational skills in English, local languages (Urdu), and Mathematics. These instruments are widely recognized and validated for their application in low and middle-income countries.

In the pre-primary grades, Taleemabad employed MELQO, a UNESCO-led global initiative aimed at measuring pupils’ development and learning at the commencement of primary school, along with assessing the quality of pre-primary learning environments. MELQO assesses pre-numeracy, pre-literacy (English), and motor skills. Pre-numeracy evaluates a child’s understanding of basic mathematical concepts such as counting and number recognition. Pre-literacy (English) assesses foundational reading and writing skills, including letter recognition and sounds. Additionally, fine motor skills are observed through pupils’ ability to replicate shapes presented on paper, indicating promising levels of skill development.

**2.2. Sampling and Measurement**

**2.3. Summary of Results**

**2.3.1. Grades 1-3:**

50.7% of all Taleemabad students meet the criteria for all 3 subjects compared to 29.4% of control students at endline. This represents a difference of 0.46 standard deviations compared to the control group (1.58 LAYS). During baseline, the difference between Taleemabad and control students is statistically insignificant from zero for English and Mathematics. For Urdu, however, the difference was -13.6% between Taleemabad and control. At the endline, the difference between Taleemabad and control schools rises to 22.9% for English and 14.6% for Urdu (both significant at 5% level). For Mathematics, however, the difference is -2.9% (i.e. in favor of control schools, significant at 5% level).

**2.3.2. Grades 4-5:**

7.2% of all Taleemabad students meet the criteria for all 3 subjects compared to 6.2% of control students at endline. This represents a difference of 0.05 standard deviations compared to the control group (0.4 LAYS). During baseline, the difference between Taleemabad and control students is statistically insignificant from zero for English and Mathematics. For Urdu, however, the difference was -8.7% between Taleemabad and control, meaning that control schools were at a higher level than intervention schools. At the endline, the difference between Taleemabad and control schools rises to 3.6% for English, 1.5% for Mathematics and 2.2% for Urdu (all significant at 5% level).

**2.3.3. MELQO:**

At baseline, Taleemabad schools outperformed control schools by ~6 percent of overall score in pre-numeracy but lagged behind control schools in pre-literacy and motor skills by 0.35% and 1.58% respectively. At the endline, the difference between Taleemabad and control schools reduced to ~4% in pre-numeracy whereas Taleemabad schools performed better than control schools in pre-literacy and motor skills by 1.6% and 3.4% respectively. These results are statistically significant at the 5% level.

**3. Analytics by CERP:**

**3.1. School level Master Dataset and Variables (Cleaning raw datasets, Raw datasets to one master dataset at School level, Treatment Variable, Matching variable)**

| treatment

matching | 0 1 | Total

------------+----------------------+----------

Attrition | 5 6 | 11

Replacement | 33 5 | 38

Consistent | 21 21 | 42

------------+----------------------+----------

Total | 59 32 | 91

**3.2. Balance Test (Orth\_out at baseline and Control) - Results and Graphs**Treatment and Control Mean at baseline and endline

0: 1:

\_ \_

aser\_b\_english\_Sentence:mean 20.628 48.278

aser\_e\_english\_Sentence:mean 12.875 27.381

aser\_b\_math\_Subtract:mean 29.217 28.237

aser\_e\_math\_Subtract:mean 27.125 26.009

aser\_b\_urdu\_Story:mean 6.610 23.937

aser\_e\_urdu\_Story:mean 14.226 22.512

0: 1:

\_ \_

aser\_b\_eng\_4\_5\_G5Sentence:mean 8.184 4.623

aser\_e\_eng\_4\_5\_G5Sentence:mean 9.085 14.871

aser\_b\_maths\_4\_5\_Division:mean 28.821 55.910

aser\_e\_maths\_4\_5\_Division:mean 59.868 62.129

aser\_b\_urdu\_4\_5\_G5Story:mean 60.370 71.126

aser\_e\_urdu\_4\_5\_G5Story:mean 57.726 68.574

**3.3. Results (with graphs)**difference in treatment and control at baseline and endline, and testing whether diff is statistically significant

**3.3.1. ASER Grades 1 - 3**

At baseline, the percentage difference between treatment and control schools for English is 27.65% which is statistically significant at the 5% level. At endline, the percentage difference between treatment and control schools for English is 14.51% which is statistically significant at 5%. Expressed in standard deviations, treatment schools are .87 standard deviations above control schools for English at endline.

At baseline, the percentage difference between treatment and control schools for Maths is -.98% which is statistically insignificant from zero. At endline, the percentage difference between treatment and control schools for Maths is -1.12% which is statistically insignificant from zero. Expressed in standard deviations, treatment schools are .057 standard deviations below control schools for Maths at endline.

At baseline, the percentage difference between treatment and control schools for Urdu is 17.33% which is statistically significant at the 5% level. At endline, the percentage difference between treatment and control schools for Urdu is 8.300000000000001% which is statistically insignificant from zero. Expressed in standard deviations, treatment schools are .366 standard deviations above control schools for Urdu at endline.

**3.3.2. ASER Grades 4 - 5**

At baseline, the percentage difference between treatment and control schools for English is -3.56% which is statistically insignificant from zero. At endline, the percentage difference between treatment and control schools for English is 5.79% which is statistically insignificant from zero. Expressed in standard deviations, treatment schools are .41 standard deviations above control schools for English at endline.

At baseline, the percentage difference between treatment and control schools for Maths is 27.09% which is statistically significant at the 5% level. At endline, the percentage difference between treatment and control schools for Maths is 2.26% which is statistically insignificant from zero. Expressed in standard deviations, treatment schools are .088 standard deviations above control schools for Maths at endline.

At baseline, the percentage difference between treatment and control schools for Urdu is 10.76% which is statistically significant at the 5% level. At endline, the percentage difference between treatment and control schools for Urdu is 10.85% which is statistically insignificant from zero. Expressed in standard deviations, treatment schools are .3 standard deviations above control schools for Urdu at endline.

**3.3.3. MELQO**

**4. Conclusion**