Xhora Mouth mid-year 2017 Review

We started implementing this project in a remote Xhosa-speaking rural area where almost no children speak English and where the children have had virtually no exposure to any forms of technology (e.g. TVs, smartphones, tablets, internet or computers). They have taken to the English programme and to the use of tablets with remarkable ease, exceeding our expectations.

By July, 2017, we completed the diagnostic tests for Grades 1 – 4 (we have almost completed Grade 5). We have been working with Grades 1 since the beginning of the year, the Grade 2s since last year and with Grades 3, 4 and 5 since around May. It takes about a month to complete the diagnostic tests so we are still relatively new with the latter grades. We do, however, have more comprehensive assessments to make about the progress of Grades 1 and 2.

Diagnostic tests – introductory comments

We used a series of diagnostic tests produced by NumberSense (based on the EGMA).

- Grade 1s and 2s write the same test;
- Grade 3 and 4 write the same test and
- Grades 5, 6 and 7 write the same test.

Although more than one Grade writes the same assessment, how we assess the results differs according to the Grade. For example, our Grade 1s and 2s are assessed on oral counting, rational counting, number recognition, number comparison, pattern completion, word problems and addition and subtraction. The CAPS Curriculum and Assessment Policy Statement indicates that a Grade 1 should be able to orally and rationally count to 50 but a Grade 2 should be able to go up to 200. We also don’t expect our Grade 1 learners to get 5/5 for subtraction but we do expect them to get 3-4/5. So although the children have participated in the same assessment, we keep different outcomes/ goals in mind when evaluating those assessments. All our goals are informed by the CAPS Curriculum Assessment Policy Statement.

Diagnostic tests don’t produce a test mark or a score in a neat way this is necessarily easy for non-educators to understand. There is no overall mark for “Maths” at the end. The assessments repeatedly assess a progression of skills in a range of areas that, according to experts, cannot be combined to produce one mark. Below we have collated the data for each topic which allows us to locate areas of strength and weakness. We think the way we have presented the diagnostic data can meaningfully demonstrate progress.

Graphical representation of diagnostic test data

What follows are a series of graphs for Grades 1 – 4. You should see a visual representation of the percentage of learners in four different developmental levels for each topic that was assessed.
Level 1: 0 - 40%
Level 2: 41 - 50%
Level 3: 50 - 74%
Level 4: 75 - 100%

Level 4, purple being the most advanced and blue being the least.

**Grade 1**

We completed our diagnostic tests with our Grade 1s at the beginning of the year (i.e. in the first month of Grade 1). This means that 1) it was the beginning of the year so we did not expect them to perform so well and 2) the test is the same as the Grade 2s so we typically, at the end of the year, expect our Grade 1s to mostly be around level 3.

Average attendance until June: 74%
Grade 2

We completed our diagnostic tests with our Grade 2s at the beginning of the year. Again we did not expect them to perform excellently on all the tasks, as it was the beginning of the year. Generally, our Grade 2s are performing excellently i.e. at the highest developmental level. This could very well be due to our intervention (since we’ve been working with the Grade 2s since last year). Although it's not possible to completely isolate our impact, this is very very positive.

Average attendance until June: 60.5%
Grade 3

We completed the Grade 3 diagnostic tests at the end of May this year. This test also includes Grade 4 level work so we did not expect level 4 outcomes. From this diagnostic test it became very apparent to us that there are severe areas of weakness in division, multiplication, subtraction and addition. This is very helpful as we will proceed with more targeted interventions as a result.

- Over 90% of learners have little to no understanding of division
- 50% of learners have little to no understanding of multiplication
- 40% of learners have little to no understanding of subtraction

Average attendance until June: 73%
**Grade 4**

We completed the Grade 4 diagnostic tests at the end of May this year. Although it was around term 2, we did expect better results from our Grade 4s. They performed a bit better than our Grade 3s but the weakness in division, multiplication, subtraction and addition worryingly persists.

- Almost 60% of our learners have no understanding of division
- Almost 20% have no understanding of multiplication
- Over 30% have a very poor understanding of multiplication.

This is very helpful as we will proceed with more targeted interventions as a result.

Average attendance until June: 69.5%