

Technology Enhanced Education in Tanzania

TEE – TZ

Form 1 Language Orientation Course, Mafia District

Pilot Trial: January – March, 2012

Report of the main findings

by

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Picture: Baleni Form 1 Students showing off their skills in a Genki English class, led by their teacher Mukebezi and aided by multi-media computer graphics.



1. SUMMARY

Key Findings

1.1 *“Based on a variety of analyses, it has been confirmed that the TEE intervention had a significant, positive and robust impact on students’ learning outcomes”, (Schlemmer, Harvard University, 2012).*

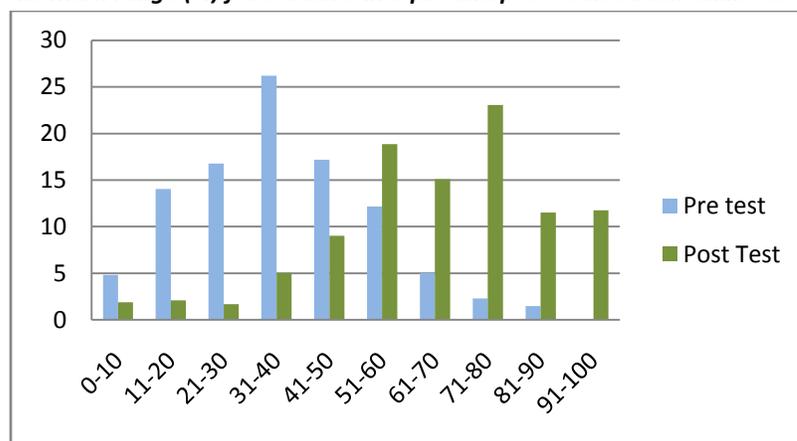
1.2 Average student improvement shown on post course tests compared with the pre course tests was 60% over all eight tests; and in specific tests - writing (123%) and English comprehension (75%).

“At the beginning of the course they couldn’t read a single sentence, but now they can read a book”
Tanzanian volunteer teacher (2012).

“I have been helped to talk in English and this course has helped me to read hard words which previously I did not know and could not translate, thank you” Form 1 student (2012).

- This intervention has addressed a gap in the current education system, - the language transition.
- There is much optimism that this course will provide a platform for students to continue learning and achieve better learning outcomes in national exams.
- The course gives students a foundation in English and gives them the confidence to believe in the possibility that they can learn in English, and gives them more independence to do so.
- The improved English and exposure to ICT improves the skills base of school leavers better equipping them for the contemporary job market.
- The teaching methodologies used in this course can also be a platform for introducing ICT and e-content in all subject areas. Teachers acknowledge that when using the e-content there is no need to write on the blackboard which has allowed them more time to interact with and observe their students.
- There is a cascade effect from continued teaching of this course - the teachers and pupils become more confident, resulting in greater improvement since the pre-pilot, and additionally the Tanzania graduates (volunteer teachers) have shown that they extend their experience beyond the implementation area.

Graph showing the mark range (%) for students in a pre and post course basic-skills test in English



Course Overview

- 1.3 The Technology Enhanced Education Project in Tanzania (TEE-TZ), initiated and primarily funded through the Quadra Foundation, has demonstrated that an intensive six week course at the beginning of secondary school using ICT and contemporary teaching methods can assist Form 1 students with the language transition from lessons taught in Swahili at primary school to English that is used as the medium of instruction in secondary school.
- 1.4 Students in rural Tanzania leave primary school with almost no English competency, struggle to read and write in English and currently achieve very low pass rates. They are challenged to progress in formal education or compete in the regional labour market. Form 4 (O-Level) pass rates (for students that have not received this course) in Mafia, a typically neglected rural district and site of the pilot trials were 3% in 2010 and 1.24% in 2011.
- 1.5 This pilot project, language orientation course, has been implemented for two cycles, 2011 and 2012. The course is based on the Ministry of Education and Vocational Training (MoEVT) text book 'Baseline', with updated content and delivery methods, using the six week curriculum slot that was allocated for this in the late 1980's but today is poorly utilized.
- 1.6 The basic components of the intervention include:
- **Use of the allocated curriculum slot for this course** with commitment from the District Education Office and local school administrators for this intensive course to be taught by dedicated teachers (two from the participating school and two volunteer teachers), to all Form 1 students, for a six week duration (150 hours) at the beginning of their secondary school career.
 - **Structured course with ICT component:** Core concepts taught through structured lesson plans complimented with a multimedia teaching resource. Genki English. Genki is a teaching program that uses songs and games and exciting lessons to boost energy levels in classrooms in a way that builds confidence and helps students learn fast. In each school a media room was set up (solar power, one computer and projector) and the students were rotated through the media room for two hours of Genki English daily to introduce or review different lesson topics.
 - **Phonics and reading programs** integrated into the course structure.
 - **Training of local teachers** to use ICT and interactive teaching methods.
 - **Recruitment of Tanzania graduate and International native English speaking volunteers** (two per school) to supplement and support the local teachers in the delivery of this program

Future Developments

- 1.7 Phase 3 of this program (2013) should address the two major issues, namely sustainability (continued progress of students) and scalability (rolling out to more schools and Districts). It is important to assess whether the improvements measured in the pilots can be sustained so as to affect long term learning outcomes that impact upon national Form 2 and 4 exams. There is a need for mainstreaming of the course, phasing over from project driven to more local teacher and

student-driven implementation with continued monitoring of progress (ideally building on the previous work done in Mafia District). It is equally important to also determine how to replicate the same intervention in other Districts on a wider scale and at an affordable cost (ideally in one or more new Districts).

- 1.8 The main expense for implementation of this project is teacher training prior to the course, recruitment of volunteers, installation of ICT and set up of the media room that will need to include solar power if the school is not on a local or national grid.
- 1.9 The 2012 pilot implementation budget was USD 85,000 (\$14,000 per school) and in 2011 USD 50,000 (\$17,000 per school). These costs for implementation of the pilots are necessarily higher than if the project were to be mainstreamed because of startup research and development costs, feasibility studies and extensive baseline data collection and testing.
- 1.10 Core investment costs include the teaching resources and the media rooms for purchase of equipment, installation and basic training, estimated at approx USD 10,000 per school: ICT – USD \$3,000, Teaching resources - \$2,000, solar power \$5,000. Once this first phase investment has been made recurrent costs of the program should be within the means of the participating Districts. The long term role and cost of volunteers (a significant recurrent cost) needs to be further considered and it may be that they are only needed to introduce the course into the schools and to help train the local teachers. There after fewer volunteers can be recruited to support the programme at district level instead of at school level.
- 1.11 Financial packages need to be developed for expanding the project into new districts and protocols described for phased implementation so that District administrators and sponsors can consider how to progressively introduce the program into more schools in Districts that are currently challenged by language transition.

Stakeholder visitors to the program assessing progress in the field



2. BACKGROUND TO PROJECT – LOW PASS RATES IN SECONDARY EDUCATION

This project was initiated in response to the very poor learning outcomes that are seen in secondary schools in Tanzania, especially in the rural areas (see Table 1).

Table 1: Summary of FORM 4 (O-level), National Exams, Mafia District 2010 & 2011

	2010 (% of students)	2011 (% of students)
Div 1	0	0
Div. 2	0.19	0
Div. 3	2.9	1.24
Pass	3.09	1.24
Div 4	31.66	33.42
Fail	65.25	65.34

(Div 1, 2 and 3 are considered a pass. These students are eligible for further studies in formal education. A Division 4 only qualifies the student for a school leaving certificate and armed with this a student can access vocational training institutions).

There are many different compounding reasons for this high failure including the rapid expansion of school infrastructure with many new schools being built; the shortage of trained quality teachers; shortage of text books and the changeover in language of instruction from Swahili to English in secondary school. The HakiElimu working paper - *Secondary Education in Tanzania: Key Policy Changes* (Sumra and Rajani, 2006) gives a good summary of the situation.

The TEE project sets out to tackle the language challenge where students leave primary school, taught in Swahili to continue studies in Secondary, taught in English. Many students leaving primary have very limited English, few are even able to respond to basic greetings. The leap to secondary where text books and exam questions are in English is too great for many. Students are totally dependent on the teachers for subject interpretation and they are unable to progress their own learning.

The TEE-TZ project has been piloted in Mafia in 2011 (three schools) and again in all six District schools in 2012. Mafia was chosen as the pilot district because of its isolation, small size and commitment by district officials. It is administrated by the Ministry of Education and Vocational Training (MoEVT) and results in Mafia are therefore relevant to other districts on mainland Tanzania.

3. THE INTERVENTION, TEE-TZ, 2012

This intervention is based on a model developed by the Tanzanian Ministry of Education and the British Council in the 1980's, then known as the English Language Support project / ELTSP (Simmonds et al, 1991). As a remnant from this program there is still provision for teaching this course in a six week

curriculum slot at the start of the first year of Secondary (Form 1). The ELTSP course however is not being taught and had not pervaded the teaching colleges, new teachers posted to the schools did not know what or how to teach the course and schools had stopped giving emphasis to the initiative.

This project takes the good aspects of the ELTSP and has updated the model to deliver an intensive English course with technology enhanced elements and participatory teaching methods.

4. COMPONENTS OF THE TEE LANGUAGE ORIENTATION COURSE:

4.1 Duration - The course is six weeks, 30 days X 5 hours a day, giving 150 hours of intensive teaching with the objective of helping the students express what they know in Kiswahili, in English. In the ELTSP model teachers of each subject taught a component of the course. In this intervention the course is taught intensively by the same teachers throughout the six weeks.

4.2 Teachers – The course is taught by three/four dedicated teachers in each school. Participating schools commit two of their own teachers (of any subject) and two volunteers recruited by the project, in partnership with WorldTeach, team- teach for the duration. The volunteers are graduates recruited from both the International circuit and Tanzania institutes of higher learning. One international and one Tanzanian graduate were placed in each school

4.3 Course content - The core text for this course is taken from the Ministry of Education and vocational Training (MoEVT) text – BASELINE (revision 2005). The number of Baseline topics in this book was found to be too extensive to be taught in the six weeks allocated. In this intervention priority topics were selected from the Baseline and then developed and structured into predefined lesson plans that combined Genki English with a phonics and reader program for delivery in the six week TEE – Language Orientation course.

4.4 GENKI English - is an English multimedia resource that has been modeled on the curriculum for teaching English as a second Language (ESL). Genki was used to compliment the basic course structure either to introduce a topic or to review a topic. Genki is a teaching program that uses songs and games and exciting lessons to boost energy levels in classrooms in a way that develops student confidence with practical activities and helps them to learn the basics quickly. In each school a media room was set up (solar power, one computer and projector) and the students were rotated through the media room for two hours of Genki English daily.

4.5 Phonics – Each day teachers began class with a 10 minute phonics session to progressively introduce the students to all the phonic sounds of English words (42 regular sounds and additional ‘tricky’ words including the magic ‘e’).

4.6 Readers – The program was supplemented with a range of class readers (typically from the JAWS , Young African Reader series, readily available in Tanzania) that was introduced and integrated into the lesson plans during week three of the program.

5. THE PARTNERSHIPS THAT HAVE PIONEERED THIS INTERVENTION

The pre-pilot was pioneered by Quadra Foundation in partnership with the Mafia District Council. Radar Education (for teaching resources) and READ International (for volunteer recruitment and management) also participated in developing the initial concept. The pre pilot was implemented in Feb/April 2011. Positive results from the pre-pilot (detailed in the report - Quadra, 2011) encouraged continued implementation with modifications in the 2012 Pilot. The main findings of the 2012 program are reported in this document.

Quadra Foundation has led on project management and sourcing project funding. Mafia District council hosted the project, participated in all aspects of design and implementation and allocated significant District resources for implementation (further details can be found on Page 9.)

In the Pilot project (2012) WorldTeach Inc took over the recruitment of volunteers from READ International. WorldTeach is an international organization that has been invited by MoEVT to support them in recruiting volunteers to work with local teachers country-wide to help address the national shortage of teachers, especially in math, science and English. Radar Education were unable to continue to develop the course content and the English Language Teaching (ELT) aspect has been picked up by Richard Graham of Genki English, Ashley Crawford of World Teach and Janet Townend of VSO.

These parties have worked together with the Quadra and District teams to develop teaching resources that were then tested in the 2012 intervention in Mafia District with the long term objective that they would be relevant for all secondary schools in Tanzania where the student intake is struggling with the language transition.

6. INTERVENTION METHODOLOGY AND TESTING PROCEDURES

There are various aspects to the set up of the program that has helped to make it successful. The basic methodology used is detailed below.

Cycle of implementation - The language orientation course is delivered in January-March at the start of the school year. This dictates that preparation for the course has to take place in the preceding year.

6.1 Memorandum of understanding and agreements for participation were developed and agreed with the District Council and the participating schools. These were discussed through a steering committee that embraced all the participants starting in August and finalized in November.

Key personal at District level were defined and included:

- The Steering committee that included District leaders, ICT officers, Education Officers, teachers and head masters.
- District Liaison officer to coordinate all the activities and ensure effective communication between all the parties. This person also took on the responsibility of volunteer coordinator in the 2012 Pilot.

- ICT and Solar Power technical officers appointed at each school
- Participating teachers recruited through an application process to the program and approved by the head masters at each school.

Key areas of commitment required from the District:

- Form 1 students and participating local teachers freed from all other activities for full participation, for the duration of the course.
- One class room dedicated for use as a media room.
- Housing provided for two volunteer teachers in the participating schools.

6.2 Installation of solar power and ICT for the program and training of local teachers so that they know how to use and maintain the equipment. In the 2011 pre-pilot the local teachers were less ICT literate than the incoming volunteers and this resulted in very low uptake of the technology by the local teachers. A pre-course training was one of the aspects that enabled them to participate fully in the 2012 course.

6.3 Teacher training – the Regional English Language Office (RELO) of the US State department ran a one week training course in “Teaching skills in English and professional development training” for all the secondary school teachers. This course took place in December 2011 and served to create a positive environment for implementation of the language orientation course in January 2012 and to empower teachers to create a class room environment that supports teaching in English (de Villiers, 2011).

6.4 Recruitment of volunteers. WorldTeach started recruitment of volunteers in the second half of the year. All participating volunteers were committed by December 15th 2011.

6.5 Training and pre-course briefing. All the volunteers were given a briefing pack to familiarize them with the country and the program. All volunteers arrived in Mafia one week before the program. The orientation program for all the teachers (local and volunteer teachers) included:

- Introduction to the course materials
- Introduction to the Genki English Materials and how to teach using the computer and projector
- Lesson plans, the lesson manual and course delivery
- The reading program and readers available to the program
- Diversity, religion and culture . How to live, teach and learn together.
- The Tanzanian education system and the school environment
- Managing large class rooms and students of mixed ability
- Phonics training and delivery of teaching materials
- Baseline testing and the importance of robust testing methodologies

6.6 Baseline Testing. Rigorous testing was designed for this program so that we could measure outcomes and make recommendations for future interventions.

The range of testing included 'one on one' reading tests and number recognition tests, class testing in spelling and dictation, written tests and also audio listening and comprehension tests as detailed below. The tests were conducted pre and post course. In addition the Unit Test (B) that was used for the Form 1 post test was also given to the Form 2's to allow for a comparison of progress.

Tests conducted "one on one" / enumerator & student

- a. **Burt Reading Test** - is a 1974 revised and standardized word reading test for testing the reading age, grade, and percentile ranking of children. Within the Burt test, there are a total of 110 words that are graded in approximate order of difficulty. A child is asked to read as many words as he or she can, and stop when he or she has failed to read 10 consecutive words. At the completion of the test, the total number of correct words the child has read is counted, and this number is then matched with an estimated reading age.
- b. **NFER C – phonics test;** this is a cognitive ability tests that has been designed and tested by the National Foundation for Educational Research (NFER) UK, for assessing the students ability to understand the phonics configuration of English words.
- c. **Numbers test** – to assess student's ability to read numbers in English, and to count in series.

Written Tests

Pearson Tests (d & e) – these are from the test packages in the Pearson ELT series – LOOK!, There are two tests (A&B) at the same level which can be used for pre and post course testing.

- d. **Unit StarterTest A&B.** This test has a range of sub components including multiple choice comprehension, vocabulary recognition, inserting the correct words in a paragraph, inserting the correct pronouns, verbs and contractions in different sentences. Using vocabulary to complete a sentence. This test - Unit Test (B) was also used to test the Form 2's at the same schools.
- e. **Skills Test A&B.** This test has three components – reading, writing and listening (the listening test/ audio component requires the student to listen to an audio clip and answer questions written on their own papers).
- f. **Vocabulary Test** . This test had two components with the same number of words in each component - Swahili/English; English/Swahili.

Spoken tests to the class: The same teacher ran the test pre and post course reading the words or the sentences to the students for them to write on their own test papers:

- g. **NFER Spelling test**
- h. **NFER Dictation test**

6.1 School Food. The Language Orientation course is an intensive course that is actively taught five hours per day. This pace of teaching is unfamiliar for both students and teachers. For the students to get the full benefit of the course their attention and participation is required throughout. Though the District has requested all of the schools to provide a midday meal to their students, few do. It was decided that students needed to be fed since many arrive from home without having had breakfast and others have to scavenge from surrounding farms and fruit trees for their lunch. Porridge was therefore provided by the project for all the students in the school. Post course testing to compare performance of the Form 1's with that of the Form 2's (page 23) eliminates the possibility that the improvement seen in the Form 1's learning outcomes was a porridge effect.

Pic 1: An active GENKI ENGLISH class



7. MAIN FINDINGS AND ANALYSIS OF THE PRE AND POST COURSE TEST RESULTS

“At the beginning of the course it was difficult for the children to pronounce words like up, sun, sum, jug and others but at the end almost all students could pronounce many words. In reading, at the beginning they couldn’t read a single sentence, but now they can read a book. They couldn’t count 1-20 in English, now they can count past 1000” Tanzanian volunteer teacher (2012)

The data set has been sorted to remove all students that did not sit both the pre and post tests. Those remaining in the data set were analyzed for differences in their pre and post test scores. The data was further analyzed to assess the effect of gender, school, primary school and the primary school leaving marks (TSM9) on the performance of the students. The results are discussed in detail below.

The data has been subject to statistical analysis and pre and post test data compared to test the hypothesis that the six week intervention has improved learning outcomes. The significance level was set at 0.1% ($p= 0.001$) that is it can be postulated that there is less than one case in 1000 that this result could have happened by chance. In all the tests the mean difference between the pre and post course was found to be significant at this level.

“Based on a variety of analyses, it has been confirmed that the TEE intervention had a significant, positive and robust impact on students’ learning outcomes” (Schlemmer, Harvard University, 2012).

Fig 1 : Average student performance (% marks) over all the schools, in all the tests applied.

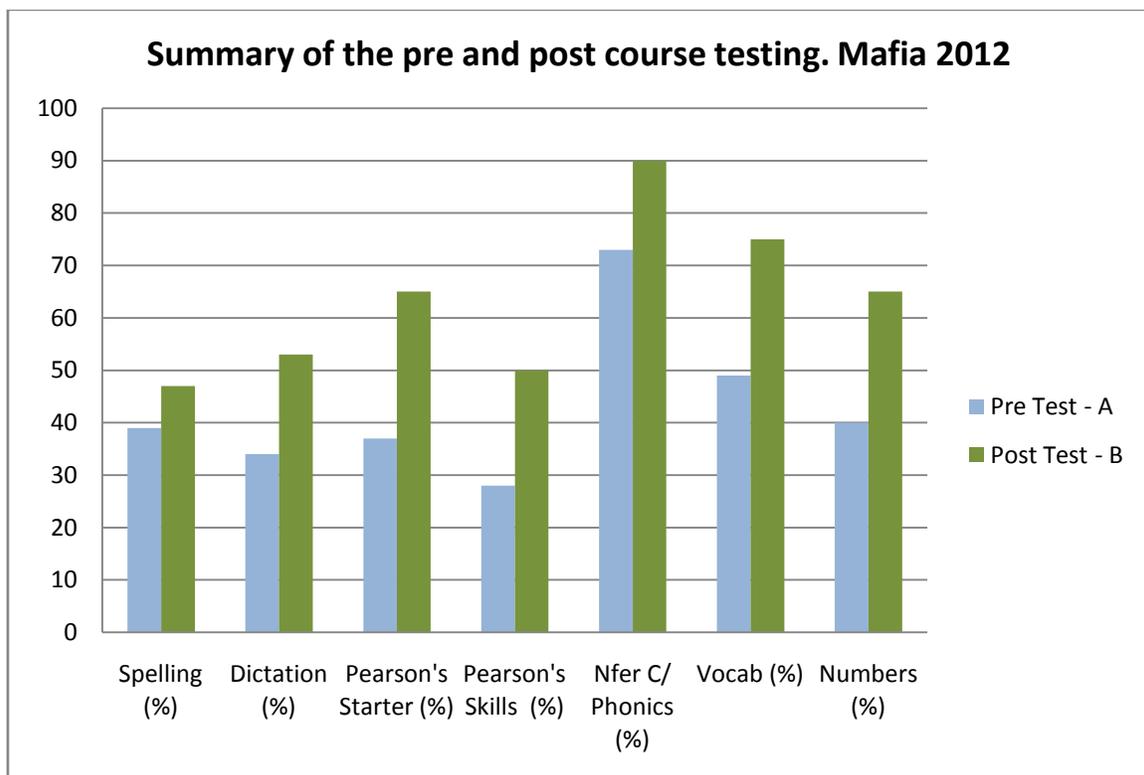


Table 2: Summary of the marks pre and post test for all the tests applied.

Test	Total marks for test	Number of students sitting test	Mean Pre test mark (A)	Mean Post Test mark (B)	Significance level (0.1%)
Burt Raw Score	110	415	33.83	43.6	0.001
Reading Age (yrs/months)	14/3	415	7/1	7/11	0.001
NFER C	34	417	24.95	30.49	0.001
Numbers	30	414	11.89	19.63	0.001
Dictation	56	425	18.96	29.67	0.001
Spelling	34	418	13.1	15.93	0.001
Vocabulary	30	473	14.62	22.31	0.001
Unit Test	55	477	20.27	35.9	0.001
Skills Test	80	478	22.63	40.33	0.001
<i>SK – reading</i>	25		11.58	17.79	0.001
<i>SK – writing</i>	30		6.67	14.74	0.001
<i>SK - listening</i>	25		4.38	7.89	0.001

Table 3: Percentage marks and Growth in performance achieved, on average, in each of the tests

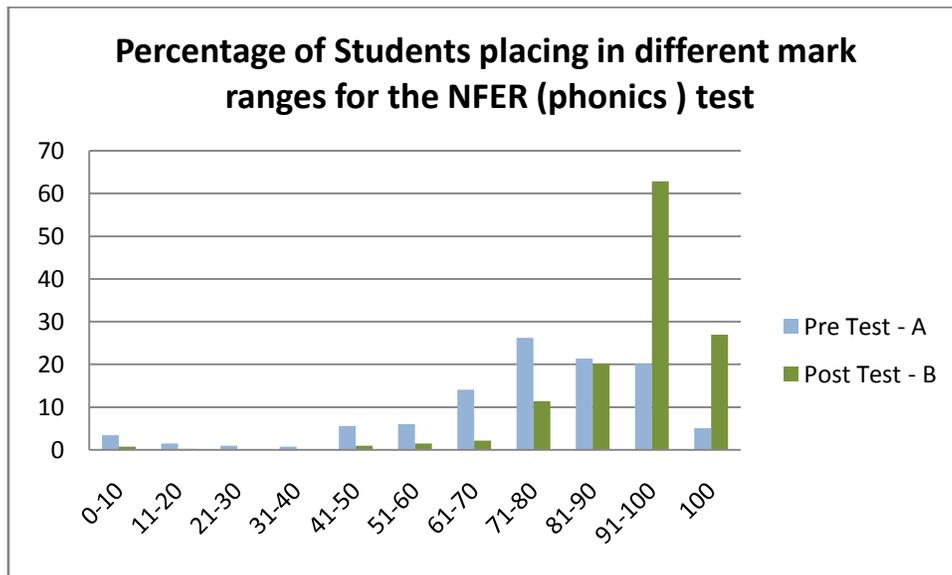
Test	Total marks for test	Number of students sitting test	Mean Pre test mark (%) (A)	Mean Post Test mark (%) (B)	% Growth in performance
Burt Raw Score	110	415	31	40	29 %
Reading Age (yrs/months)	14/3	415	7/1	7/11	(10 months)
NFER C	34	417	73	90	23 %
Numbers	30	414	40	65	63%
Dictation	56	425	34	53	56%
Spelling	34	418	39	47	21%
Vocabulary	30	473	49	75	53%
Unit Test	55	477	37	65	76%
Skills Test	80	478	28	50	79%
<i>SK – reading</i>	25		46	71	54%
<i>SK – writing</i>	30		22	49	123%
<i>SK - listening</i>	25		17	31	82%

Average 60% growth in performance

7.1 Burt Reading Test : The Burt reading test is used as an indicator of how well the student is able to decode a word. Other tests used in this pilot assessed the student’s ability to comprehend meaning. The Burt test is useful for tracking changes in student reading ability. The results shown in this project show that after the six week language orientation course the students had increased their reading age, in English, on average by 10 months. The mean reading age, pre test was 7 yrs and one month. After the intervention the students were retested. On the post test the reading age increased to a mean of 7 years and 11 months. This kind of improvement would normally be expected over the period of one year. The improvement in reading is seen again in that component of the Skills test-Reading, detailed below in Section 7.5. and is an important aspect in improving learning outcomes in general. The District Executive Director’s biggest hope from this intervention was that the students would be better able to read their examination questions thereby giving them a better chance to formulate their answers.

7.2 NFER C/ Phonics: This test was used to assess the student’s ability to read phonetically and to assess if the course was able to improve their phonetic ability. The graph below (Fig. 2.) shows the improvement in the students with many more of them achieving 100% full marks in the post test (Pre test = 5% ; post test 27%).

Fig 2: Comparison of the pre and post course marks (%) for the NFER Phonics test



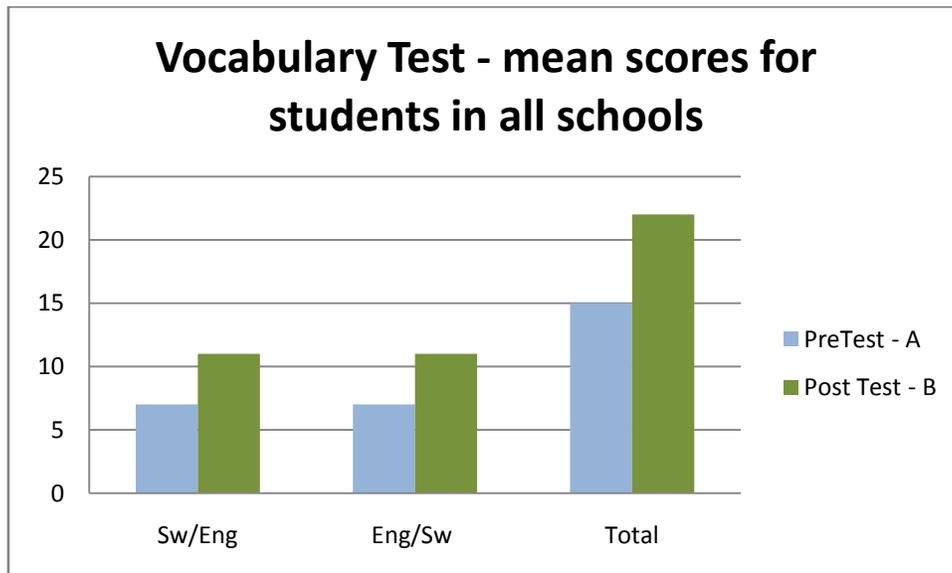
Pic 2 : Teaching the magic 'e' in a phonics lesson



7.3 The Vocabulary Tests

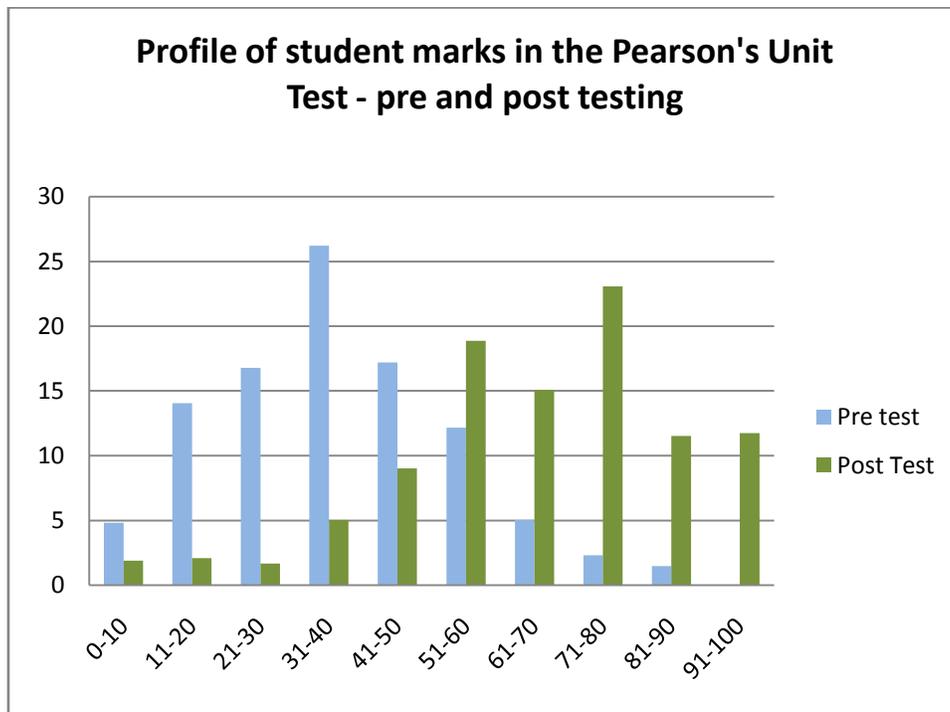
Fig 3. below shows that there was no significant difference in student's ability to translate from English to Swahili or vice versa Swahili to English. The improvement between the pre and post tests was significant with a percentage increase of 54% on the total mean score.

Fig 3 : Graph showing the mean marks for Vocabulary test (scored out of 30), and its components Kiswahili to English (scored out of 15) and English to Kiswahili (scored out of 15)



7.4 Unit Test: Figure 4. shows the profile of student marks pre and post test (the percentage of students in the test that achieved a mark in a particular mark range). The unit test assesses vocabulary, reading and comprehension skills and in this test the average mark (as a percent of the total marks available) for the pretest was 37% and the average mark for the Unit post test was 65%, the profile of the marks shows a dramatic shift upward. This profile pattern/shift between the pre and post test results is similar for all of the tests

Fig 4 : Shows the comparison of the profile of student marks (the percentage of the class that achieves a mark in the ranges 0-100%) in the pre and post course Pearson Unit Test (A/B) .



7.5 Skills Test: Figure 5. below shows the improvement in student marks in the skills test. The skills test had three components reading, writing and listening. The biggest improvement in this test is seen in writing in English with a huge percentage improvement of 123% on the average class mark.

Many of the students struggled to write much in the pre test with 66% of the students scoring a mark of less than 20%, (compared with 19% of the students in this mark range in the post test) see the profile of mark ranges in Figure 6.

The listening component of this test showed that students struggle to hear words in English and comprehend their meaning. This remained the case in the post test and may account for the increased

variability seen in the tests that had an aural component (spelling, dictation etc.). Listening also requires confidence and it is only in this test that a significant gender effect was observed. In this test the marks of the boy students improved significantly more than that of the girl students (see page 21).

Fig 5: Graph showing the average marks (%) for the different components of the skills test.

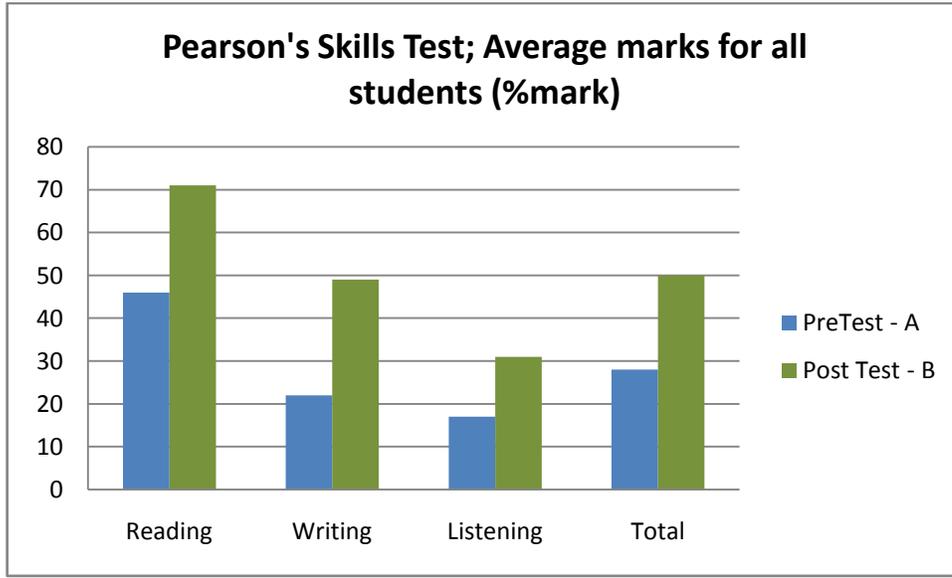
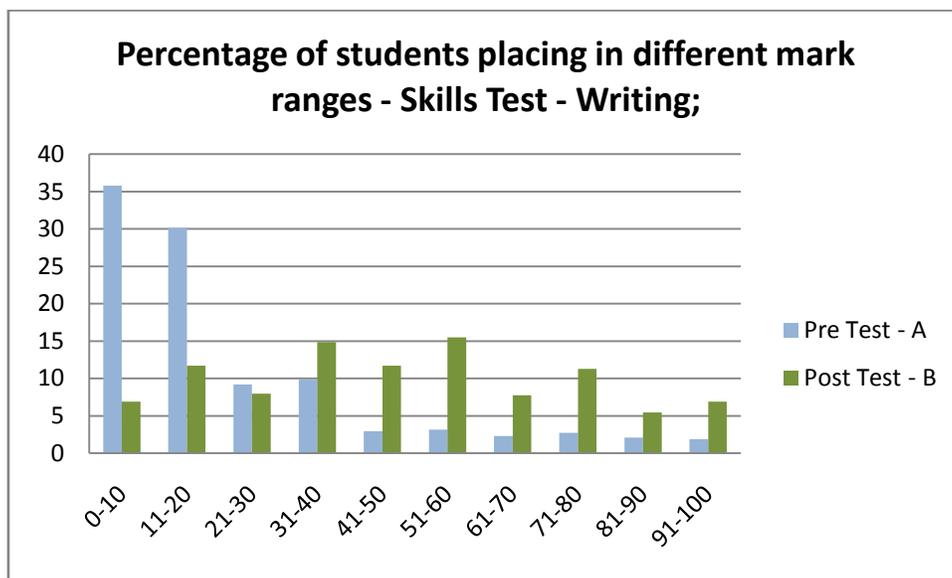


Fig 6: Profile of the student marks in the Skills test – writing component



8. DISCUSSION OF THE TESTS USED IN THE 2012 PILOT.

8.1 Comparison of the different tests

Table 4 below shows data for those students that scored negative scores, that is attained less marks in the pre test compared with the post course test. This has been used to try and assess in which tests the students are struggling most.

On average more students attained a negative mark in tests with a component that involved a teacher (dictation and spelling) or enumerator (Burt/Phonics/Numbers) 17% and 14 % respectively. In the written tests relatively few students got less in the post test compared to the pre test (5%). The Burt test and the spelling test seem to be the most problematic perhaps for different reasons. The Burt test allows more scope for enumerator interpretation as to whether the student has pronounced the word correctly. In this sense it is the most subjective of our tests (many of the negative scores were seen in the upper end of the data suggesting that some enumerators are more forgiving than others). The spelling test is highly confounded by the accent of the person reading the words, this may be less problematic in dictation where the sentence gives more context and therefore more chances to accommodate accent.

These factors need to be considered for future design in testing should there be another phase of implementation

Pic. 3. 'One on One' testing for Burt's reading test and Nfer Phonics Tests



Table 4: Percentage of students whose marks declined in the post course test (showed negative growth)

	Burt	NFER C	Numbers	Dict.	Spell.	Vocab	Skills	Unit Test	Average % of students with –ve marks by school
	<i>Tests with enumerators (one on one)</i>			<i>Aural Tests</i>		<i>Written Tests</i>			
# of students in data set	415	417	414	425	418	473	477	478	
Baleni	30	13	6	9	32	3	3	4	13
Bweni	2	0	9	0	0	14	0	0	3
Kilindoni	17	15	20	16	71	5	4	3	19
Kirongwe	32	10	17	17	16	2	8	3	13
Kitomondo	21	13	9	11	23	11	11	0	12
Micheni	26	11	5	2	7	3	7	7	9
Avg % of students with –ve marks by test	22	10	11	10	25	6	6	3	11
	14			17		5			

8.2 Comparative Student Performance in the Different Schools

“There were differences between test scores and student growth (the amount scores increased between pre- and post-test) from school to school. These differences are detailed in Table 5. below, but none of them were systematic. That is, one school did not consistently outperform others, nor did one school or a group of schools perform better on a certain kind of test (math or reading, etc.). This suggests that students, or their teachers from each school, simply have their own strengths and weaknesses that are in no way a result of the TEE learning intervention. All students showed growth on all these tests from pre- to post-test and though, on some tests, certain schools did better than others, for the most part it is not of great concern” (Schlemmer, Harvard University, 2012)

Table 5: Placement/ Ranking of schools based on the average mark of their students (1 = higher marks, better student average in the test) . Rankings are assumed to be equal where there is no significant difference (nsd).

	Burt			Phonics			Numbers			Dictation			Spelling			Vocab			Skills test			Unit Test		
	A	B	G	A	B	G	A	B	G	A	B	G	A	B	G	A	B	G	A	B	G	A	B	G
Baleni	1	1	<i>n</i>	1	1		3	<i>n</i>	Y	1	1	Y	1	1		3	<i>n</i>	Y	2	2		1	<i>n</i>	<i>n</i>
Bweni	3	3	<i>s</i>	6	2	Y	3	<i>s</i>	Y	2	1	Y	6	1	Y	3	<i>s</i>	Y	2	1	Y	6	<i>s</i>	<i>s</i>
Kilindoni	2	2	<i>d</i>	4	3		1	<i>d</i>		1	2		5	2		1	<i>d</i>		1	2		2	<i>d</i>	<i>d</i>
Kirongwe	3	3		3	3		2			1	1	Y	3	1		2			2	2		4		
Kitomondo	3	3		5	3		3			1	1	Y	2	1		1			2	2		3		
Micheni	3	3		2	3		4			2	1	Y	4	1		2			2	2		5		

KEY: A = Pre test; B = Post Test; G = Growth (improvement); Y(es) = significant growth; nsd = no sig diff.

Bweni School should be congratulated for showing the greatest improvement over most of the tests compared to all the other schools. Referring back to Table 4. detailing negative growth in the various tests it can be seen that Bweni again shows fewer students with negative growth, a decline in marks between post and pre test (5% only) . Bweni was the smallest school with about fifty students in the class. The teacher to pupil ratio was therefore high and the teaching was also dominated by the volunteer teachers. This familiarity with the Bweni students may also have helped the students with overcoming / becoming used to teacher’s accents in the tests and reduced the ‘fear factor’.

In the numbers test, the vocabulary test and the Unit test the variation in student performance between schools at the start of the program was eliminated by the end of the program . This is indicated by the post test scores which show that all the schools reached a similar level in these tests by the end of the course.

8.3 Gender disaggregation of the test data

Table 6. below shows that the male student has generally performed better in the tests applied in the TEE-Tz; 2012 program. In general, compared to the female student, he was found to have started at a higher level (pre –test scores) and sustained the improvement to end also at a higher level (post test scores). In Phonics and dictation there was a significant gender difference in the pre tests scores. The post test scores showed no significant gender difference suggesting that some of the girls were able to catch up. This trend however is not substantiated in the growth statistics. The level of improvement in these tests, comparing males and females, is not significant – that is they both showed similar levels of improvement. The analysis of growth data (no significant difference) holds true for all the tests except in the Skills test (listening component) where the male students out-perform the female students showing a greater increase in marks compared with the females in the same test (males = 85% growth, female 76% growth ($p=0.001$)). Table 6 also shows the negative scores disaggregated for gender and it is seen here that more of the girl students got lower scores in their post tests compared to their pre-tests and compared to their male peers. The spelling test also requires good listening skills. In Tanzania culture girls in general have not been encouraged to participate in the community and they lack

confidence to communicate in public. Many of the teachers in this program observed that the students became much more confident even ‘*changing their perspective on life*’, it was even postulated that ‘*the Form one student’s confidence improves, especially the girls*’, and that the girl students were much more *Genki than expected*’, (International volunteer, 2012). Gender aspects need to be monitored carefully and consideration given how to support equal opportunities for learning in future phases of this program.

Table 6: Test results disaggregated for gender and compared. Where there is a significant difference the gender initial (M = Male) is shown for the gender with the better mark. No significant difference (nsd) means that there was no difference in their group performance/ average test mark

	Pre Test	Post test	Growth	% of students with negative growth (gender disaggregated by test)	
				Male (average = 5.6%)	Female (average = 6.9%)
Burt	M	M	nsd	11	12
Phonics (NFER)	M	Nsd	nsd	4	7
Numbers	M	M	nsd	7	4
Dictation	M	Nsd	nsd	5	5
Spelling	nsd	Nsd	nsd	11	18
Vocab	M	M	nsd	3	3
Unit Test	nsd	Nsd	nsd	2	2
Skills Test	nsd	Nsd	nsd	2	4
Skills - reading	nsd	Nsd	nsd	5	5
Skills - writing	nsd	Nsd	nsd	4	6
Skills - listening	nsd	M	M	4	6

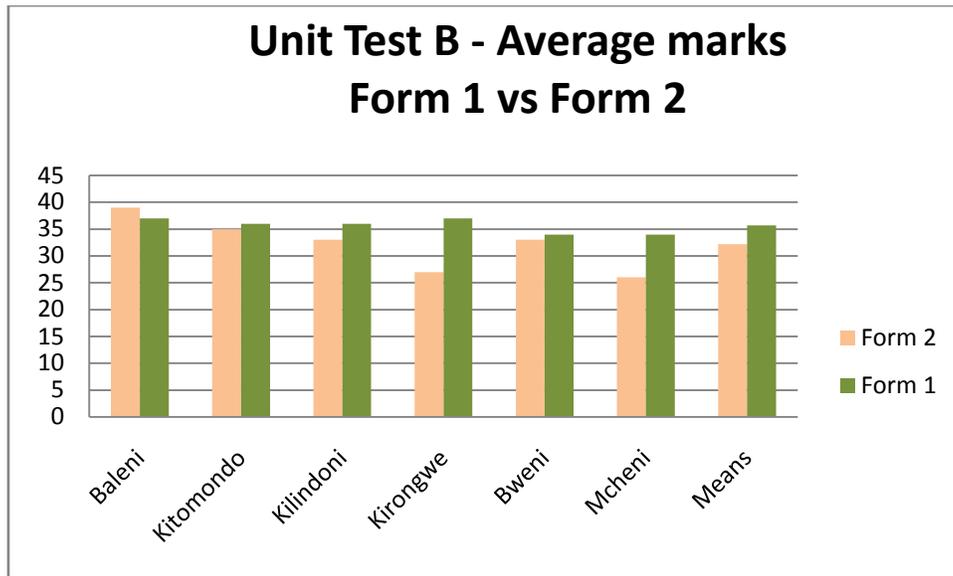
Pic 4& 5: Team Reading at Baleni : Notice the girl’s posture when she is reading in Pic 4.



8.4 Unit Test (B) – comparison of Form 1’s post test (B) performance with that of the Form 2’s

On the Unit B test Form I students scored an average of 35.90 marks, whereas Form II students scored an average of 31.77 marks in this test (statistically different at $P=0.01$). The TEE course has helped the Form I students not only catch their Form II peers, but actually surpass them in the basics of English, tested in the Unit test. (Schlemmer, Harvard University, 2012)

Fig 7. Student performance in the Unit Test(B) post –course. Form 1 vs. Form 2 students compared

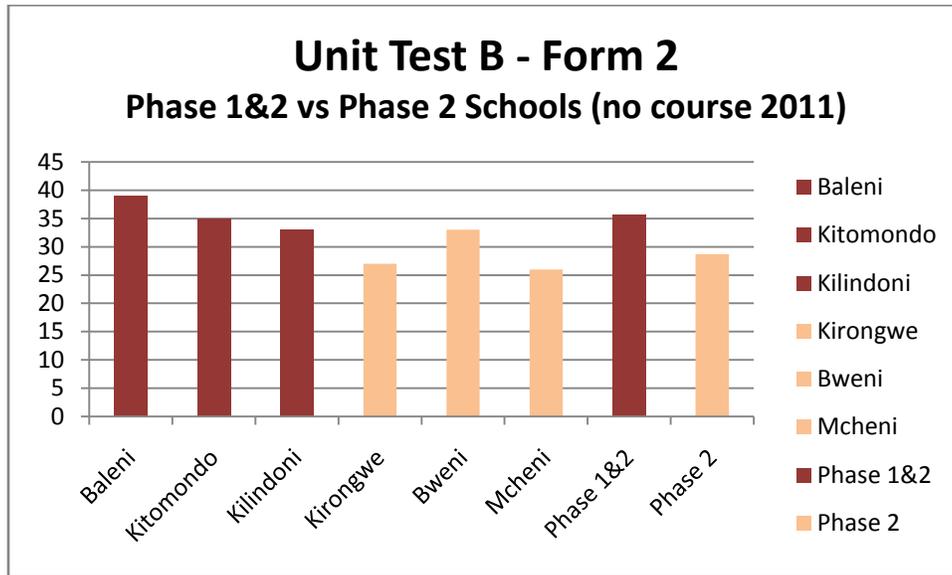


8.5 Phase 1 & 2 schools

The Unit Test B data was analyzed to determine if there was a residual effect on the Form 2 students from the pre pilot. The pre-pilot was conducted in three schools (Baleni, Kilindoni and Kitomondo).

Form II students who were in phase 1 & 2 schools (A- Baleni, Kilindoni & Kitomondo) scored significantly higher at the $p=0.01$ level (pooled mean = 36 marks; 65%) than Form II students in phase 2 schools (B- Kirongwe, Bweni and Mcheni, pooled mean = 29 marks; 52%) on the Unit Starter B test. This supports the hypothesis that the effects of the language orientation course are sustained and support student progress as they continue with their education.

Fig. 8: Unit Test (B) results for the Form 2 Students, comparing those students that received the language orientation course in 2011, with those in schools that only participated in 2012 and so did not receive the language Orientation course.



Another comparison was conducted to see if Form 1 students in these same school groupings performed better on the Unit Starter A test, to determine if differences might be due to primary school education, and differing school intakes. There was a significant difference between schools. This difference showed that Form 1 students (2012) from Baleni, Kilindoni and Kitomondo (Phase 1 & 2 schools) performed significantly better on the Unit Starter A test (M = 21.5 marks, 39%) than students from Phase 2 schools: Kirongwe, Bweni and Micheni (M = 18.6 marks, 34%). This suggests that *some* of the differences in the Form II Unit Starter B test scores may be due to the better performance of the students from the primary schools feeding into specific secondary schools (Schlemmer, 2011).

The TEE intervention has been shown to have direct positive effects on learning outcomes. These students need to continue to be monitored to assess whether the hypotheses: “that this intensive course is a platform for further learning and that improvement in English proficiency will lead to improved grades in national exams”, will hold true. Key monitoring points for this assessment are the national examinations at the end of the Form 2 (2014) and Form 4 (2016). Care should be taken to monitor only those students that received the language orientation course and separate them from students that joined the class later, who would not have received the full course (see page 30 for further discussion of this point).

8.6 TSM 9

“The TSM 9 is the primary school leaving certificate and is the total marks gained by a student for all the subjects at primary, taught and examined in Kiswahili (with the exception of English)

There is a significant, positive correlation between TSM-9 scores and pre-test marks in vocabulary, numbers, and the Unit Starter English tests.

The Pearson’s ‘r’ correlation test gives a result between ‘-1’ (a significant, negative correlation, such that as one variable increases, the other decreases) to ‘+1’ (a significant, positive correlation, such that as one variable increases, the other increases). A ‘0’ on the Pearson’s scale means there is no linear correlation whatsoever.

There were several students for whom we did not have a TSM-9 score, their data has been omitted from the data set.

With 371 students after omitting blank TSM scores, the correlation between TSM scores and Number pre-test scores was .412 (significant at $p = .01$). There is a significant correlation that shows that as TSM scores increase, so do Number pre-test scores.

With 418 students after omitting blank TSM scores, the correlation between TSM scores and Vocabulary pre-test scores was also .412. (also significant at $p = 0.01$). This is a significant correlation that shows that as TSM scores increase, so do Vocabulary pre-test scores.

With 430 students after omitting blank TSM scores, the correlation between TSM scores and Unit Starter A tests was .290, and this was significant at the .01 level. This is significant correlation that shows that as TSM scores increase, so do Unit Starter A tests.

On average, students who score lower on their TSM also score lower in school, and students who score higher on their TSM score higher in school. The correlations held from pre- to post-test. Students with higher TSM scores also scored higher on post-tests for the Number test, Vocabulary, and Unit post-tests. This result is not surprising considering all students showed growth on these tests over the course of the year, so the scores they all moved roughly the same amount in the same direction leaving students who started higher finishing higher and students who started at lower scores finishing with slightly lower scores. All students showed growth, however, which is promising.

Generally students were pretty clustered around a set of TSM scores or test scores, which may account for the slightly smaller correlation number” (Schlemmer, 2012).

The TSM9 score has been considered as a tool for normalizing the data so that schools and Districts can be more easily compared, or as a mechanism for streaming the students according to their ability. The weak positive correlation suggests that it could be used for this purpose and may be useful in new Districts to compare students in control groups (no course, only the usual School orientation process) compared with intervention groups who receive the TEE Form 1 course.

9. BROADER ASPECTS OF THE PROJECT

In addition to the direct effects of the course the intervention has other positive impacts that contribute to the overall goal of improving the quality of education in Tanzania.

9.1 TEE (Technology Enhanced Education)

The Technology component of the course, setting up media rooms in each of the schools with a computer and projector (using solar power for off-grid schools) has introduced a new dimension to teaching and learning.

“We were very much impressed to see students enjoying learning English by using modern, participatory and practical methods. The programme really makes language and learning visible as it includes the use of media with a variety of practical activities for the learners. The techniques that are employed incorporate all sense organs such as eyes, ears, etc. Interaction between teachers and students is effective and breaks the communication barrier between them” (Kajisi, 2012).

The e-content is designed to interpret the curriculum through the delivery of a quality lesson. This makes these lessons easy for the teacher’s to prepare and to deliver. The GENKI technique breaks the barrier of using ICT and promotes a positive process of interacting with the students that they enjoy.

One of the local teachers observed *“ that the computer lesson relieved him from always having to write on the board, and allowed him more time to observe what was going on in the class”* (Local Teacher, 2012)

The students also expressed their appreciation of the Genki lessons and how it gave them confidence to participate in class *“Nilipenda tutumie Genki English kwa sababu inatupa uchangamfu, furaha, amani na upendo/ I liked using the Genki English because it gives energy, happiness, peace and love”* (Form 1 Student , 2012).

“Ningependa mafunzo ya Genki English yatumike zaidi kwa sababu ninajifunza kuongea, kusikliza na kutumia kiingereza/ I would have liked more Genki English to have been used because I learnt how to talk, listen and use English” (Form 1 Student, 2012).

The TEE program has introduced to the teachers the potential of using ICT and e-content and raises the possibility for expanding this skill for use in other subject areas. If more e-content is made available to teachers and they are taught how to access it, use YouTube video, make power point presentations etc they could use the media rooms for delivering many other subjects.

Pic 6. Using the computer* and projector for teaching in the class room



* Note the low powered ‘inveneo design’ computer that is being because of its better performance in solar powered systems.

9.2 Volunteer work experience

“I think the model in which foreign volunteers work with mainland volunteers and local teachers is GREAT! It helps to have another volunteer who is also a stranger to the community but is Tanzanian – it helps with logistics, language, cultural adjustment, etc. AND it also broadens the impact of the program, to positively influence mainland volunteers as well as Mafians and Americans. This is hugely important in addition to our work improving English and pedagogy on Mafia” (International volunteer, 2012).

The combination of teachers in this program is very powerful. It provides work experience and improves the English of the Tanzanian volunteers. The local teachers cannot dismiss the program as something that they cannot implement since their fellow Tanzanian’s are there implementing it as well. The International Volunteers/native English speakers help with pronunciation and set the scene for using English. Everybody copes with the intensity of the program and rises to the challenge in its delivery.

Some of the aspects that the volunteers have acknowledge they have earned from this program are detailed in the Table 7. below:

Table 7: Table detailing benefits gained from their volunteering experience, as described by the volunteers on their evaluation of the program.

International Volunteers	Tanzanian volunteers
<ul style="list-style-type: none"> • Cross cultural understanding and cooperation • This project took teamwork to a whole new level - it was a huge challenge but I definitely learned a lot about culture, leadership and interpersonal skills from it • Working in a team, handling conflicts, adapting to situations (in classroom, at home) • I learned how to manage a classroom of 60 students (at times). • Learned about working as a team more. • Classroom management • I have learned so much and am a stronger, better and more compassionate person now. 	<ul style="list-style-type: none"> • Improvement in teaching techniques like KWL (strategies for reading – Know/Want/Learn) • Techniques for better classroom management • Team work, time management and living among others • Teaching using media - it is so exciting. • Using Genki English program in teaching; phonics lessons- knowledge of how to teach phonics • Working in a group especially with people from different cultures and different teaching techniques • Language skills, especially phonics. Teaching skills in multi-level classes. Time keeping • Teaching skills and methods, life skills (living with diverse people), English speaking skills

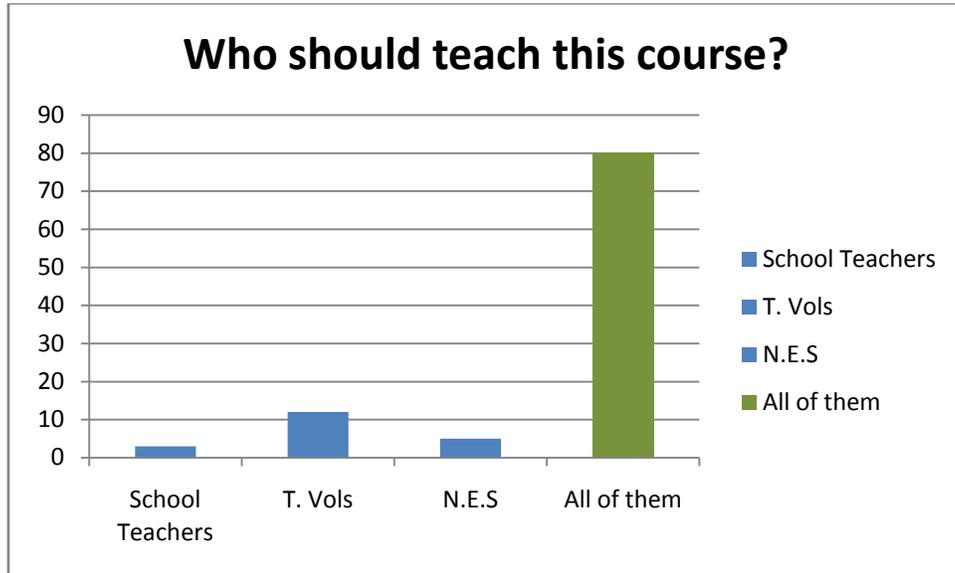
“It was lots of fun, a life experience, with such emotional moments when you know you're building your fellow children's futures”, (Tanzanian Volunteer, 2012).

“I have gained a lot of skills. I now believe that teaching students without corporal punishment is the best way and I realize that it's possible”, (Tanzania volunteer/teacher 2012).

It is a myth that Tanzanians won't volunteer.

A sample of students from each of the six schools were asked to complete an evaluation form after the course. They were in favour of the existing mix of teachers (see Fig 8. below) because the Native English Speakers (NES) gave the imperative to speak English and helped with pronunciation however without Kiswahili it was not possible to understand them all of the time. The Tanzanian volunteers were able to teach as well as assist the NES in classroom management, interpretation etc. Also as part of the volunteer program they were committed to teaching the course full time. The Local teachers are considered important for the long term sustainability of the course and would be the ones to continue teaching it through the school.

Fig. 8: Student evaluation Percent of student answers as to who they thought should teach this course in the future (N.E.S – Native English Speaker; T.Vols – Tanzanian Volunteer Teachers)



Pic 8 : Kitomondo school Teaching team with their students on competition day.



9.3 A Good start to Secondary School

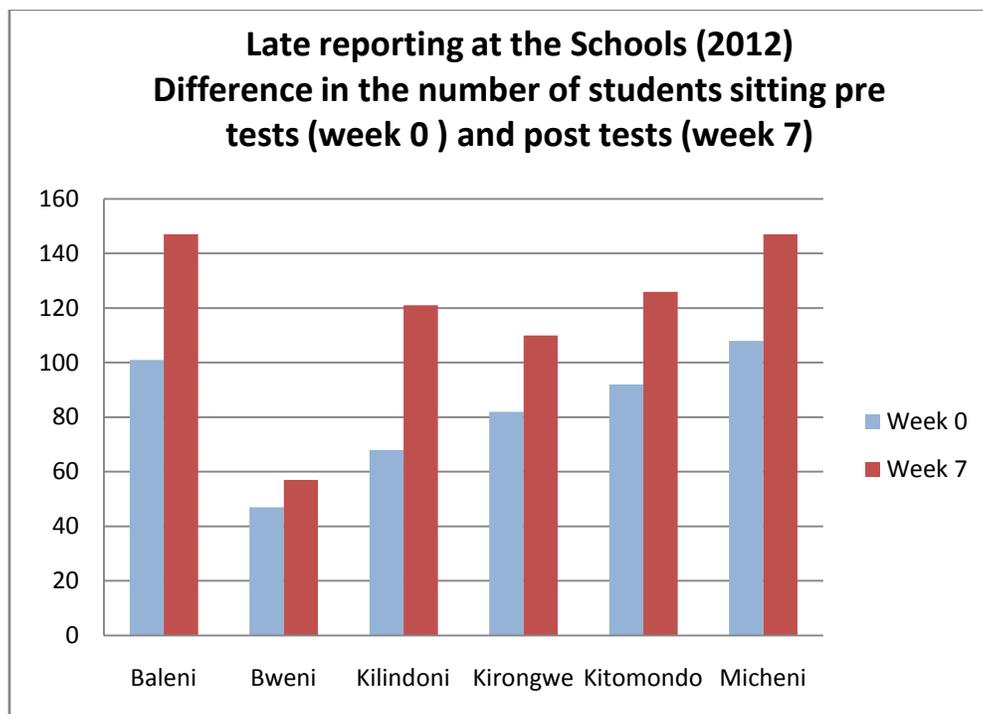
This program is scheduled at the beginning of Form 1, the start of secondary school. In Tanzania the secondary schools are not in the village environs and parents and students have to organize themselves to register for the schools, buy uniforms, pay school fees and organize boarding facilities for their children.

The headmaster of one of the schools was optimistic that promotion of this course would bring students into school to report on time.

The District Commissioner in Mafia sent an announcement through the ward councilors to encourage all parents to get the students to school for the start of this course. He requested that headmasters waived the need for uniforms and school fees until after this course so that students would not miss it. Despite this, there were still many students that did not get the full six weeks of this course see Figure 9.

NOTE: In the future monitoring of students (in Form 2 and above) account must be taken of those students that reported late so as to disaggregate the data for those students that have had the full six week course in Form 1. from those that have not.

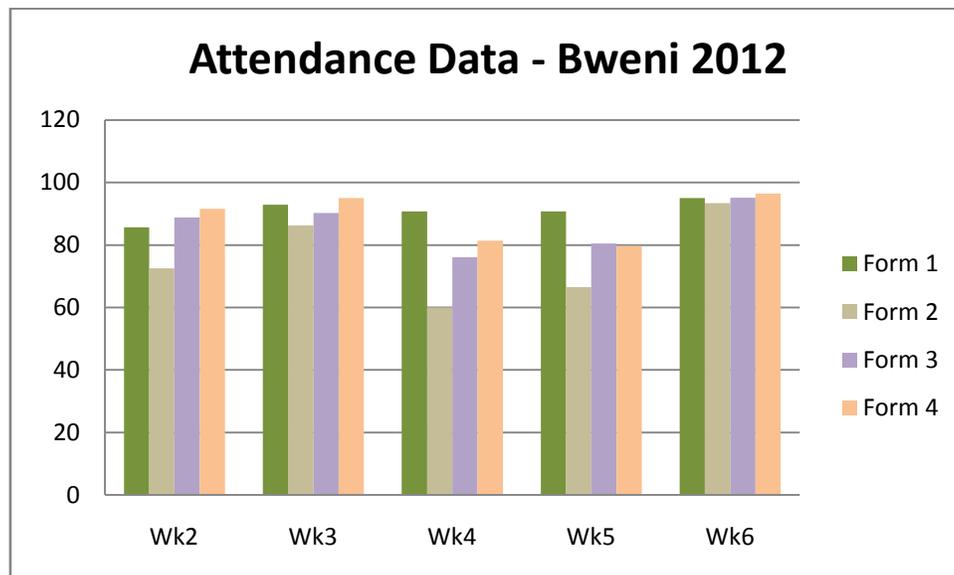
Fig 9 : Graph showing the number of students that registered for the pre test compared with the post course test; the difference being those that reported late and did not therefore receive the full six week course.



Once the students have registered for school the attendance levels in the class room are very high (Figure 10.) The language orientation course sets good standards for punctuality and teacher presence in the classroom.

This discipline, time management and expectation of learning establishes good principles at the start of secondary school. In addition it sets the expectation for studying in English and diminishes the challenge and disappointment where students arrive in secondary and cannot understand their teachers “*I don’t know what they learned in primary school but not much English it seems!*” (International Volunteer, 2012).

Fig 10: Graphs showing the percentage of the class (Forms 1-4) attending lessons over the period of the Language Orientation class (weeks 2 – 6).

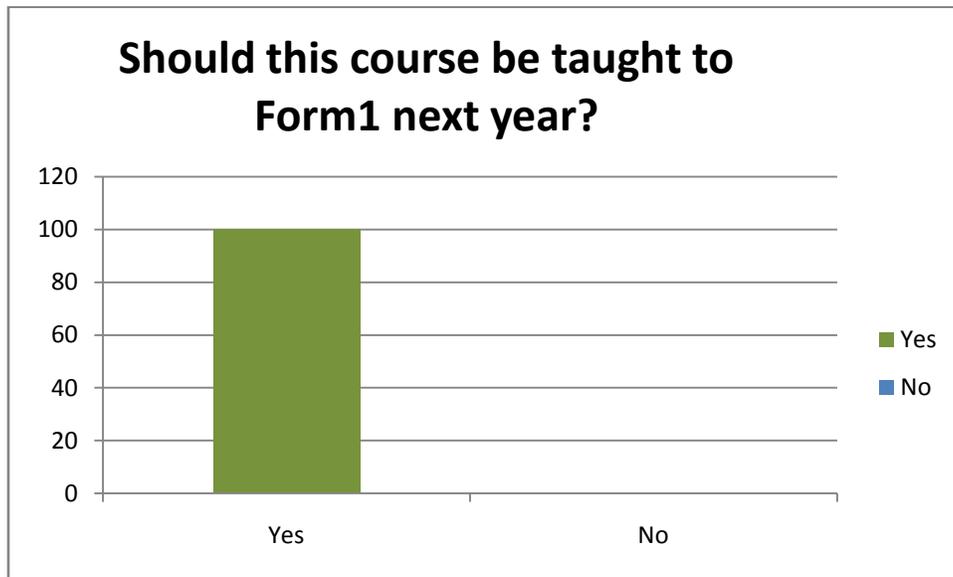


10. FUTURE DEVELOPMENTS

"The importance of this program for secondary school entrants is overwhelming. As the programme progressed, the Form 1 students’ confidence improved and they were able to converse among themselves in English, something that they could not dare at the beginning" (Tanzanian Teacher, 2012).

Of the students interviewed 100% of them answered that they thought this program should continue next year see Figure 11.below.

Fig 11 : Response from a sample of Form 1 students (% of respondents, total respondents 82)



The volunteer teachers were also asked SHOULD THIS PROGRAM CONTINUE? There was a 96% support for the program. (12.5/13 – All of them said yes; one person said yes – but in Primary).

Should this course be delivered at primary school level? Given the positive outcomes that we are seeing in the students it is tempting to also target primary schools where language acquisition may theoretically be more effective. This has been considered however it would be more difficult to achieve. English is only taught a few hours a week in primary and there is no curriculum slot for the language orientation course. There are many more primary schools and so the course would be difficult to deliver as a 'dose'. There is less of an enabling environment in the primary schools since fewer of the primary school teachers know enough English to carry on teaching the course and less English is heard in schools and the home environment. There is less of an incentive for students to learn English. Consideration does however have to be given as to how to improve English proficiency for the primary school leavers.

Some of the reasons given by the teachers in support of this course for Form 1's are shown below:

- It works, especially as a method for teaching ESL (English as a second language). It is a 'dose' and helps the students learn the basics very quickly. They become comfortable with English and it will help them with a better understanding of their other subjects.
- It fills the gap in the TZ education system. It is the link between primary and secondary school
- The variety of resources leads to the success of the program (Genki, phonics, good structure – lesson plans, baseline topics, reading program and intensive teaching from volunteers and local teachers).

- It builds on different methods of learning and teaching and builds the ability of students in - singing, reading, playing games, listening, writing and speaking
- Introduces new methods that challenge the traditional method of working by rote.
- It leads to growth of the students:
- It gives them a world vision
- It brings confidence to both student and teacher in the classroom
- Exposure to ICT
- Builds an English foundation for students and helps them to believe in the possibility that they can learn in English
- Exposes them to new teachers and methods of teaching.
- They become eager to learn.
- Builds altruism and cooperation and better communication between students and teachers
- Students become more interested in school. Increases attendance and it is a good start to secondary.
- The pilot program has been research-based with on-going evaluation and team-building as a process. This has resulted in progressive learning that has led to full participation of many stakeholders.
- It must keep going. From the pre-pilot through to the pilot this year, we can already see that it builds on itself year after year and there is a cascade effect.
- Raises the profile of English for the teachers, students and community.
- The goal is attainable. We have met our goal this year , 2012.
- The good structure has helped master the scope of the project: for volunteers, teachers and students

Though there is much that is optimistic about the Mafia TEE-TZ pilot there are aspects, highlighted from the extensive stakeholder workshops and evaluation of the pre and post course testing data, that we can continue to consider, to improve and integrate into planning the next phase. These include: -

- Continued editing and upgrading of the lesson manual and Genki English to make it more culturally appropriate and easy to use in the six week intensive course.
- Review the dictionaries, type (English/Swahili and vice versa) and numbers needed in schools
- Review the readers supplied, reading levels and allocation per school
- Continue to discuss ways to magnify the effects of the course, for students to continue to progress their English proficiency in subsequent years of study, Form 2-4.
- Gender awareness and strategies to help both the girl and boy student with their studies
- Continue to discuss ways that the lessons learned in teaching style and student centered learning approaches can be integrated into the school more widely.
- Consider the option of volunteers extending for longer to help the students and teachers sustain the momentum as they progress with the normal curriculum activities
- Consider how to improve the use of ICT in the class rooms for teachers and students and how to help both access more e-content (consider a computer and projector for each class room).

10.1 Future phases of the project need to consider two main issues sustainability and scalability

10.1.1 Sustainability – how to sustain the learning outcomes achieved in this course so as to make a contribution to the attainment of appropriate life-skills and improve learning outcomes in national exams.

The positive outcomes seen in this six week language orientation course have prompted requests that it should be extended up to the other classes in the school and down to primary. Consideration needs to be given as to how this could be achieved.

The media rooms should become a permanent feature in the schools so that all classes can use the facilities (at the moment it is installed in one of the Form 1 class rooms so not easily accessed by the rest of the school) and the Form 1's can continue learning and reinforcing their learning through the media room.

A 'booster' could be considered either mid-year for the Form 1's or at the beginning of Form 2.

English clubs (ICT, access to DVD and library)/school competitions and other student led learning opportunities need to be encouraged to keep English alive and contemporary for the students.

Teacher's need to be trained to develop more teaching materials for use with the computer and projector. Perhaps participating teachers could be rewarded for participation in the program with a lap top that allows them more time to interface with educational e-content.

10.1.2 Scalability – how to expand the project into other Districts and Secondary schools

"Experience gained in Mafia regarding ELT calls for urgent and immediate action for the programme to be established in other Districts. This may be one of the key solutions for arresting the problem of mass failure in National Form two and Form four examinations" (Kajisi, 2012).

Pilot trials are inherently more likely to succeed because of all the training, attention to detail and internal evaluation that is built into the implementation process. This intervention has now been run over two cycles in one District in Tanzania and there is enough data to suggest that it may fill an important gap in the Tanzanian education system. It now needs to be tested in other Districts and mechanisms developed for introducing the course into new Districts whilst progressively 'letting go' of the intervention so that it is led and owned at District level for their own implementation. This process needs to be monitored to determine if the quality of delivery and student learning outcomes achieved in the pilots can be replicated on a wider scale at affordable cost.

Significant District commitment is required and roll out to Districts should be District led with comprehensive ideas about how to dedicate the human resources and raise funding for the capital investment that is required to initiate the program. Quadra Foundation is able to mentor this process and District Councils that are interested in implementing the program should contact Quadra Foundation; c/o PanAfrican Energy Tanzania, Barclays Building, 4th Floor, Ohio Street, PO Box 80139, Dar es Salaam, Tanzania. Or directly by email to anne.k.dev@gmail.com

Appendix 1: Details of the primary implementation partners.



Mafia District Council (MDC): Contact - District ICT Officer - ketty_tarimo@yahoo.co.uk;

Chairman, Mafia Steering Committee - maswi2005@yahoo.com

The Mafia District Council has been pioneering this program through their District Education Office.

The MDC is responsible for local government, management, recurrent and development spending in the Mafia archipelago. Mafia, one of the poorest districts in Tanzania, has historically been one of the last to receive public funds. The first secondary school on Mafia was opened in 1994. The local economy has traditionally been built on agriculture and fishing. The youth need alternatives for economic survival. The growing tourism industry offers employment potential to those that have basic skills in English and computer literacy. Quality skills based education, with increases in Form 4 pass rate, is a major priority for MDC and local residents if their youth are to have a chance in engaging in the National economy, and of reaching University and professional employment opportunities

Quadra Foundation: <http://www.quadragroup.vg/focusareas.html>

Contact: Tanzania Project Manager – anne.k.dev@gmail.com

(The Quadra Foundation initiated and funded the Mafia TEE pilots and were also responsible for project management together with the MDC).

With interests spanning the energy, media and venture philanthropy sectors, the Quadra Group's goal is to use entrepreneurship to bring together the right people, capital and ideas to create value. The Quadra Foundation which is associated with the Quadra Group identifies and invests in venture philanthropy projects. The Quadra Foundation is a not-for-profit entity. The Quadra Foundation believes in helping communities to build self-sufficiency through entrepreneurship. It sees the potential to link local entrepreneurs with strategic capital for the purpose of improving living conditions and strengthening local communities. The foundation's current focus is East Africa.

WorldTeach Inc; <http://www.worldteach.org>

Contact: WorldTeach Field Director, Tanzania - tanzania@worldteach.org

WorldTeach partners with governments and other organizations in developing countries to provide volunteer teachers to meet local needs and promote responsible global citizenship.

WorldTeach is a non-profit, non-governmental organization founded by a group of Harvard students in 1986 in response to the need for educational assistance in developing countries. It also addressed a growing interest among people in the U.S. and elsewhere to serve, teach and learn as volunteers overseas. Since its inception, WorldTeach has placed thousands of volunteer educators in communities throughout Asia, Latin America, Africa, Eastern Europe and the Pacific.

WorldTeach offers the benefits of a well-established volunteer organization, while also providing more comprehensive, personalized support and training as a small NGO. In each of our programs, volunteers are placed in schools and host communities in developing countries that specifically request WorldTeach volunteers and would otherwise be unable to afford or locate qualified teachers. Volunteers receive training, language preparation, and field support, empowering them to make an impact that will last long after they leave. WorldTeach is an independent NGO registered in the Commonwealth of Massachusetts.

Genki English: <http://genkienglish.net>

Richard Graham has developed this innovative teaching style and resource and it has been widely adopted in Thailand, Japan and India. Richard Graham, CEO – GenkiEnglish.com. is working with us to modify his materials for Tanzania for use and testing in this intervention alongside the MoEVT curriculum texts.

US Department of State Regional English Language Office (RELO); <http://tanzania.usembassy.gov>

The RELO office lead a primer workshop in the District for all the secondary school teachers "TEACHING SKILLS IN ENGLISH AND PROFESSIONAL DEVELOPMENT TRAINING, MAFIA ISLAND". December 2011".

This course is important in helping prepare for the Form 1 language orientation course

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