



The Use of Crossword Puzzles as a Vocabulary Learning Strategy: A Case of English as a Second Language in Kenyan Secondary Schools

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ABSTRACT

This paper focuses on the application of crossword puzzles in the teaching of vocabulary in English a Second Language (ESL) classrooms. A pretest was used to measure the learners' previous knowledge of English vocabulary in a Form 2 class. The pre- test was marked and recorded. A comprehension passage was composed by the researchers and read by both the control and experimental classes. While the control class was exposed to the Traditional Lexical Pedagogy in the teaching of vocabulary, the experimental cohort was exposed to a crossword puzzle. A post-test was administered at the end of the study to measure whether there was a significant difference in scores between the experimental and control groups. The scores were tabulated and analyzed quantitatively using the Statistical Package for Social Sciences and emerging patterns discussed. Levene's Test for Equality of Variances was then employed. The general finding is that the use of crossword puzzles in the teaching of English a Second Language is an effective strategy of vocabulary instruction. The study concludes that the use of crossword puzzles is of pedagogical significance as it helps learners enlarge vocabulary and deepen their mastery of the English lexis.

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INTRODUCTION

Vocabulary is of primary importance to language teaching and learning because it plays a pivotal role in moulding the four language skills: reading, writing, speaking and listening (Widaningsih, 2009). Unfortunately, vocabulary is often neglected in most second and foreign language classes (Fernández *et al.*, 2009). Widaningsih (2009), nevertheless, points out that vocabulary mastery should be the first priority in English language teaching and learning. In the same vein, McCarthy (1990) emphasizes that one of the most important skills that teachers of English can give to learners is a wide range of rich vocabulary. Stanovich (1981), however, believes that it is impossible for learners to perform well in English if their vocabulary is very poor. Thornbury (2002, p.13) puts it succinctly "If you spend most of your time studying grammar, your English will not improve very much. You will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost anything with words!"

Learning vocabulary is a complex process (Nagy and Scott, 2000) and most teachers normally ignore vocabulary teaching and focus on phonics, phonemic awareness, fluency and comprehension (Berne *et al.*, 2008). In the United States of America, for example, the National Reading Panel in 2000 did not even categorize vocabulary as an integral area in reading acquisition, arguing that it fell directly under comprehension skills (NICHD, 2000). Unlike the learning of grammar and phonetics, vocabulary learning is an incremental and unending task for any language learner and it needs to be taken seriously (Changhong, 2010). For example, Stahl and Nagy (2006) concur that a person's vocabulary level "opens or closes access to sources of information that will affect our future." (p. 3). Mukoroli (2011) also argues that vocabulary learning is an important and indispensable part of any language learning process.

In Kenya, learners of English as a second language display difficulties in the acquisition and use of vocabulary (Njoroge and Ndung'u, 2009; and Nyamasyo, 1992). Widaningsih (2009) claims that one of the possible causes of poor performance in English as a second language is that the teacher still uses the conventional method in teaching. Thus, approaches or vocabulary learning strategies that help learners in the acquisition of vocabulary should be identified. For example, literature on second language acquisition posits that the teaching of vocabulary should be done through exposure of learners to various vocabulary enhancing activities (Coady and Huckin, 1997). The use of crossword puzzles is one of the strategies that a teacher can employ. The purpose of this study, therefore, was to analyze the effectiveness of the crossword approach and the Traditional Lexical Pedagogy as instructional approaches in the teaching of vocabulary in Kenyan secondary schools.

Statement of the Issue

Vocabulary acquisition is the most important task facing the language learner (Swan and Walter, 1984). Unfortunately, there is often little emphasis on vocabulary development in the school curricula. In the Kenyan Secondary school curriculum, for example, due to the large amount of materials presented in a year in the Kenyan English Syllabus, vocabulary teaching is often either neglected by teachers or taught on a limited basis. Njoroge and Ndung'u (2009) point out learners' inadequacy in both the range and lexical knowledge of the vocabulary that they are exposed to in the Kenyan education system. Vocabulary acquisition is a complex process and a challenge for teachers as well as students especially because it is not an easy subject to learn (Changhong, 2010). By analysing both the Traditional Lexical Pedagogy and the use of crossword puzzles approach, this paper establishes that the use of crossword puzzles in the Kenyan ESL classrooms would improve the vocabulary of the learners. This is a lacuna that this paper attempts to fill since, according to Njoroge and Ndung'u (2009), there is little emphasis on

vocabulary development instruction during content instruction in the Kenyan education system. As Stahl and Fairbanks (1986) note, a successful curricula that employs successful strategies increases children's vocabulary by approximately 300 words a year.

Rationale

The choice of vocabulary instruction and acquisition as a topic of study is based on a number of reasons. First, vocabulary is an important factor in the comprehension of language and the number of words acquired by a learner is related to competent language use (Nation, 1990). Students who have a limited vocabulary are at risk of not becoming proficient in reading (Beck and McKeown, 2005; Blachowicz and Fisher, 2000). This may explain why Kenya Secondary School English syllabus states in its objectives that learners should be able to build a wide range of vocabulary (K.I.E., 2002) by the end of secondary school learning. In addition, vocabulary is a major factor of poor reading comprehension, and students' word knowledge is strongly linked to success in academics (NRP, 2000 and Nagy, 1998). Stahl and Nagy (2006) add that the more words we have, the more complex ways we can think about the world.

Secondly, Read (2004) has revealed a lack of research on issues concerning classroom-teaching of vocabulary. Although, studies on vocabulary acquisition done in Kenya have underscored the effectiveness of vocabulary teaching and learning through various activities or tasks (Njoroge and Ndung'u, 2009; Nyamasyo, 1992; Ngumo, 2007 and Orwenjo, 2009), we do not have a framework that employs crossword puzzles in the teaching and acquisition of vocabulary. This research will, therefore, add to the existing scholarship on vocabulary learning and acquisition as it uniquely looks at the role of crossword puzzles in the teaching and acquisition of vocabulary.

Our choice of crossword puzzles is based on Widaningsih (2009) view that a good solution to poor performance in English as a Second Language is by teaching vocabulary using crossword puzzles (Widaningsih, 2009). The crossword puzzle is a game that makes the teaching-learning process attractive. Not only does the crossword puzzle offer a challenge that will motivate the students to try to solve the puzzle by making learning fun and relaxed (Bressan (1970), it also gives much opportunity for students to practise and repeat the sentence pattern and vocabulary (Widaningsih, 2009). Widaningsih (2009) argues that vocabulary knowledge can only be possible when teachers employ such effective vocabulary teaching and learning strategies.

The Form 2 class was sampled because it is at this level that vocabulary should be enhanced in learners before they start learning and making critical appreciation of the literary set texts in Form three as per the English syllabus for Kenyan schools.

The Concept of Vocabulary

There is no unanimity as to the precise definition of the term vocabulary. For example, Graves (2000) defines vocabulary as the entire stock of words belonging to a branch of knowledge or known by an individual. Harmer (1993) claims that at the basic level, knowing a word involves knowing its form and its meaning while at a deeper level, it means the abilities to know its meaning, usage, word formation, and grammar. Vocabulary is not only confined to the meaning of words, but it also includes how vocabulary in a language is structured, how people use and store words and how they learn words and the relationship between words, phrases, categories of words and phrases (Harmer, 1993). Nation (2001), on the other hand, argues that acquiring a word means knowing its *form* (spoken, written and word parts); *meaning* (concepts and associations); and *use* in terms of grammatical functions, collocations and constraints.

Types of Vocabulary Acquisition

Incidental vocabulary acquisition is the learning of new words in different contexts as a by-product of a meaning-focused communicative activity, such as extensive reading, listening and communicative interactions and exposure to natural input such as movies, listening to stories and radio and television (Nation, 2001). Laufer (1997) also simply defines incidental vocabulary acquisition as the acquisition of vocabulary through any activity not clearly geared towards lexical acquisition. Read (2004) notes that students can learn vocabulary items incidentally while engaging in other language-learning activities. Intentional vocabulary acquisition, on the other hand, is defined as the activity aimed at committing the lexical information into the memory. Intentional vocabulary acquisition involves a deliberate way of directing learners' consciousness to learning a word (Laufer and Hulstijn, 2001). Graves (1986) argues that direct instruction produces better methods and better word acquisition than no instruction at all. The use of crossword puzzles in the teaching of vocabulary is part of intentional vocabulary acquisition especially when the teacher intends that the learners acquire specific lexical items through this strategy.

Studies on Vocabulary

Vocabulary instruction and acquisition is a study area that has elicited a lot of research. For example, Stoffer (1995), Gu (2003), Sanaoui (1995) have looked at vocabulary learning strategies while Cross (1991) and Nation (1990) have described the techniques of vocabulary teaching. Scarborough (1998) has shown that vocabulary knowledge in the primary grades is a predictor of reading comprehension in the middle and secondary grades. Anderson and Freebody (1981) noted that there is a strong relationship between the extent of students' vocabulary knowledge and their ability to understand a text. Chen (2003, p. 8) analyses the traditional vocabulary teaching approaches in his survey and notes that "vocabulary instruction remains the major headache for English teachers and researchers in China". Biemiller (2001, p.26), on the other hand, suggests that in order to compensate for the differences in word knowledge between high and low-performing students, "vocabulary-disadvantaged children have to acquire vocabulary at above-average rates." Readers, therefore, acquiring vocabulary primarily through reading is "not efficient enough to produce the desired rates of learning" (Nagy and Scott, 2000, p.280). That implies that learners need to be exposed to a variety of other activities.

William (2007) argues that the use of educational games such as crossword puzzles, word search puzzles, modified television game shows, or commercial board and card games make learning fun and motivational. Weisskireh (2006), for example, noted that the use of crossword puzzles as exam review tools garnered very favorable responses from students. Hsu (2010) investigates the effects of direct collocation instruction on Taiwanese college English majors' reading comprehension and vocabulary learning and concluded that direct collocation instruction improved the subjects' vocabulary learning and improved retention. Wu (2009), on the other hand, expounds the necessity and significance of the Communicative Language Teaching CLT application in College English Vocabulary Teaching in China.

The Traditional Lexical Pedagogy

In the Traditional Lexical Pedagogy, or in other words, the Presentation, Practice and Performance (PPP) model, the teacher normally presents the topic as the learners listen. This stage is assumed to develop an understanding of the language point in the learner. Presentation is followed by practice, which is presumed to help learners to use and automatize the newly grasped rule or pattern (Skehan, 1998). At the production stage, often called the 'free stage', the learner is expected to reproduce the target language spontaneously and flexibly (Skehan, 1998). Skehan (1998) claims

that the PPP maintains teacher's feeling of professionalism as it places the teacher firmly in charge of the teaching context. This approach was applied in the teaching of vocabulary in the control class.

The Crossword Puzzle Approach

A crossword puzzle, according to Wahyuningsih (2009) is a game in which words guessed from their definitions are fitted into a diagram of white and black squares. The crossword has words written horizontally (across clues) and words written vertically (down clues). The pattern of black squares usually serves to separate each word from adjacent words (Wahyuningsih, 2009). Correctly deciphering a crossword requires correct spelling, which for students means practising dictionary skills. Making inferences, evaluating choices, and drawing conclusions are important skills required for completing crossword puzzles (Wahyuningsih, 2009).

Bressan (1970) and Wolfe (1972) have attempted to classify the kinds of crossword puzzles according to the clues used. Bressan discusses two main categories: *direct-definition clues* and *cryptic clues*. Direct-definition clues include generic, synonymic, antonymic, definitory, and descriptive clues. Cryptic clues include anagrams, word inversions, double meanings and so on. Most second language puzzles use clues from the direct-definition clues, although cryptic clues in the form of anagrams occasionally appear. Bressan (1970, p. 94) argues that crossword puzzles, among other things, enhance vocabulary building, orthography and develop and test the student's knowledge of morphology, hence the need to focus on the effectiveness of crossword puzzles in the research that informed our paper.

Research Design

This is a research study in which two approaches, the Traditional Lexical Pedagogy and the Crossword Puzzle Approach, are applied to an existing classroom system in a Form 2 Kenyan secondary school. This research was conducted using a pretest/post-test paradigm to test the best approach in the teaching of English vocabulary. While the experimental group receives treatment, the control group does not (Schlosser, 2003). The study adopted a quantitative research design. Specifically, the research examined the relationship between an independent variable (the acquisition of vocabulary) vis-à-vis the linguistic dependent variable (the performance of Form 2 class learners in the acquisition of vocabulary in English).

Population and Sample Size

Ngorano Secondary School, an institution, in Nyeri County, Kenya, was purposively sampled. The researchers visited the school and sought permission from the head teacher to undertake the research. The researchers obtained information on the class composition and the learners' characteristics from the school's records. The Form 2 stream comprised 2 classes of 35 learners each. Judging from their performance in the previous end of term examination, the two cohorts, each with a research sample of 35 learners were nearly at the same level of English proficiency.

Predictor Variable: the Use of Crossword Puzzles Vis a Vis the Traditional Lexical Pedagogy

The acquisition of vocabulary was the independent variable of this research while the use of crossword puzzles and the Traditional Lexical Pedagogy were the dependent linguistic variables. The learners were exposed to the same comprehension passage and the same vocabulary. The same marking scheme was used to mark the test. The two cohorts of learners were both taught by one of the researchers in their respective classrooms, with the same teaching facilities and instruction time of 40 minutes. The only difference was in the methodology of vocabulary instruction. The control group was

instructed in the traditional lexical method, while the experimental group was instructed using the crossword puzzle.

Data Collection

In the first day, the learners were given a pretest (cf. Appendix A). The test contained twenty five questions. The test was developed based on the revised English syllabus (Kenya Institute of Education, 2002). The researchers made sure that the test was intellectually challenging enough to maintain the learners' interest. The pretest marks were recorded. The learners were exposed to the passage (cf. Appendix C) and were required to comprehend the words that were underlined. The two presentation strategies, the Traditional Lexical Pedagogy and the use of crossword puzzle were adopted in this research. In the third day, a post test was administered. The researchers scored the test and generated quantitative data which have been analyzed.

The Experimental Cohort

The experimental cohort of 35 learners was exposed to the crossword puzzle as a methodology of teaching for a period of 40 minutes. Learners read the comprehension passage. The researchers wrote the underlined words on the blackboard (cf. Appendix C). Learners were asked to get familiar with the pronunciation and spelling of the new words because many errors seem to come from confusing words similar in pronunciation and form. The researchers used the underlined words in the comprehension passage to design a crossword puzzle. The crossword puzzle was then given to the students to help solve the puzzle (cf. Appendix D). So, the learners were active participants.

The Control Cohort

The control group was exposed to the Traditional Lexical Pedagogy for 40 minutes. First, the teacher read the comprehension passage to the learners. The underlined words were written by the teacher on the blackboard. The teacher read aloud the meaning of the underlined words as the learners listened and took notes. The teacher explained the words and offered the dictionary meanings and sentence examples.

Data Analysis and Presentation

Methods for Quantifying the Linguistic Dependent Variables and Data Analysis

A pretest was used to measure the students' previous knowledge of vocabulary. A post - test was also used at the end of the study to measure whether there was a significant change on the learners' vocabulary mastery after using the Crossword Puzzle Approach and the Traditional Lexical Pedagogy Approach. All the learners of the Form 2 class were exposed to the same comprehension passage (cf. Appendix C.). The underlined words were based on the vocabulary in the comprehension. On the third day, a filling in exercise containing twenty five questions, was administered to both the experimental group and the control group. The researchers scored the test and generated quantitative data which were analyzed using the Statistical Package for Social Sciences (SPSS) to establish whether there was any correlation between the use of crossword puzzles and Traditional Lexical Pedagogy approaches as methods of teaching vocabulary in English. The Levene's Test for Equality of Variances was employed. The data were thus further analysed for means, standard deviations and *t*-test for significance.

Research Findings

The Tables below present the results of data analysis. The interpretation and the discussion of the emerging patterns are based on these results.

Table 1. Group Statistics (pretest)

		Group Statistics			
	Type	N	Mean	Std. Deviation	Std. Error Mean
pretest	Control	35	16.54	2.187	.370
	Experimental	35	16.91	1.991	.336

Table 2. Independent Samples Test for Pretest

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
pretest	Equal variances assumed	.285	.595	-.743	68	.460	-.371	.500	-1.369	.626
	Equal variances not assumed			-.743	67.405	.460	-.371	.500	-1.369	.626

Tables 1 and 2 above show the descriptive statistics for the pre test scores of the control class and the experimental class. There are no significant differences in standard deviations and means. The *t* test, therefore, fails to reveal a statistically reliable difference between mean pretest scores. The control class has ($M = 16.54$, $s = 2.187$) and experimental ($M = 16.91$, $s = 1.991$), $t(68) = -.743$, $p = .595$, $\alpha = .05$

Table 3. Group Statistics (Post test)

		Group Statistics			
	Type	N	Mean	Std. Deviation	Std. Error Mean
posttest	Control	35	19.60	2.303	.389
	Experimental	35	20.89	2.026	.342

Table 3 above shows the group statistics for the post test variable for the control and Experimental group.

Table 4. Independent Samples Test for Post test

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
posttest	Equal variances assumed	.370	.545	-2.480	68	.016	-1.286	.519	-2.320	-.251
	Equal variances not assumed			-2.480	66.909	.016	-1.286	.519	-2.321	-.251

Like the pretest the results of the inference statistic on the posttest scores as shown in the table above does not reveal a statistically reliable difference between the mean score of the control group, c (Mean=19.60, $s = 2.303$) and the experimental group e (Mean = 20.89, $s = 2.026$), $t(68) = -2.480$, $p = .545$, $\alpha = .05$. However, the mean score for the experimental group is higher at 20.89 than the Control group (19.60).

Table 5. Group Statistics on the Differences between Pre test and Post test Scores

		Group Statistics			
	Type	N	Mean	Std. Deviation	Std. Error Mean
diff	Control	35	3.06	.968	.164
	Experimental	35	3.97	1.175	.199

From the Table 5 above, the mean of the experimental group and the control group are 3.06 and 3.97 respectively, whereas their respective standard deviations are 0.968 and 1.175.

DISCUSSION OF FINDINGS

The general finding of the study indicates that the use of crossword puzzles in the teaching of vocabulary in English as a Second Language classrooms is effective and subsequently influences performance. The statistics show that the learners who were exposed to the crossword puzzles approach did much better in the post test than their colleagues who went through the Traditional Lexical Pedagogy Approach (cf. Table 3). This finding suggests that the use of crossword puzzles may have contributed to the improvement of performance since at the pretest stage; both groups' scores were similar (see Table 1).

The finding points to the many advantages of the crossword puzzle as a method of vocabulary instruction. First, learners get to enjoy learning the target language because they are involved in their own learning. Crossword puzzles can also help learners gain interest and reduce boredom in learning by giving an alternative of varying teaching techniques and by helping learners see English as a learnable instead of a difficult subject (Wahyuningsih, 2009).

Second, the crossword puzzle offers a challenge that will motivate the students to try to fill in the puzzle. It gives much opportunity to the students to practice and repeat the sentence pattern and vocabulary (Wahyuningsih, 2009). The students find it fun, feel relaxed and enjoy participating in the learning activity; they memorize the vocabulary in different ways, that is by rewriting them (Wahyuningsih, 2009). Crossword puzzles are associated with recreation, and can be less intimidating for students as review tools (Bressan, 1970). Crossword puzzles can, therefore, be given at any point of time during a lesson, as a warmer, filler, or even end-of-lesson assessment (Wahyuningsih, 2009).

Table 6. Independent Samples Test showing the Differences between Pre test and Post test Scores

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
diff	Equal variances assumed	.49	.486	-3.552	68	.001	-.914	.257	-1.428	-.401
	Equal variances not assumed			-3.552	65.599	.001	-.914	.257	-1.428	-.400

The p value is .491 which is greater than $\alpha = .05$, hence we reject the null hypothesis that there is a statistically significant difference between the variances of the control group, c ($M = 3.06$, $s = .968$) and the experimental group e ($M = 3.97$, $s = 1.175$). Assuming the equal variance we therefore take the values on the top row giving us $t = -3.552$, $df = 68$ and $\text{sig. (2-tailed)} = .001$. Since the significance level is less than .05 we conclude that the difference between the means could not have occurred by chance.

Table 7. Score differences between pretest and post-test for the control and experimental groups

Increment	Control	Experiment
Below 0	1	1
Between 1-3	24	8
Above 3	10	26

In the experimental class, majority of the pupils showed remarkable improvement in the post test scores with 26 out of 35 pupils (74.29%) improving by over 3 scores. Only 10 pupils (28.57%) in the control class were in the above 3 category. The graph below gives a pictorial representation of the pattern.

Third, students who might normally balk at practice tests, flashcards, or review sessions with the teacher find puzzle solving to be much less threatening and more like game play. Puzzle solving is a much more active type of learning, and will engage students with the material more than passive types of review techniques do. More and more language learners, practitioners and researchers are considering vocabulary as being a vitally important, if not the most important,

element in language learning (Nation, 1990, p. 2), and consequently vocabulary instruction has been regarded as a significant segment in language teaching and learning. Beck and McKeown (2002) explicitly state that, "Vocabulary is the hallmark of an educated individual." (p.1). In summary, as pointed out by Bressan (1970, p. 94), crossword puzzles, among other things, therefore, enhance vocabulary building, orthography and develop and test the student's knowledge of morphology.

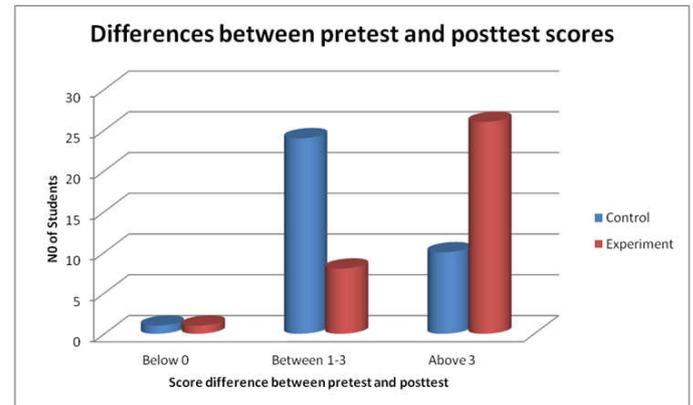


Fig. 1. Score difference between pretest and post-test

Conclusion

The findings have shown that the class that used crossword puzzles as a method of vocabulary instruction did better in the post test than the one exposed to the traditional lexical pedagogy. This calls for the teachers of languages to apply this method of teaching vocabulary.

As McKeown and Beck (2004) note, students can no longer be just passive listeners if educators have the goal of increasing students' vocabulary knowledge. The paper has also highlighted the benefits of crossword puzzles as a method of vocabulary instruction. Despite the fact that crossword puzzles require a lot of time to prepare, the benefits accrued from the method are profound. The findings of this study imply that teachers of languages should utilize crossword puzzles in their language classrooms for maximum fun and effective acquisition of vocabulary. Use of crossword puzzles will create a good learning atmosphere for learners and this in turn will help in the improvement of learners' performance in English.

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14. To be active or in motion.
16. A play on words.
18. Ecstatic joy or delight.
20. A retinue or company of attendants.
21. To make the edge of a knife etc, more keen and suitable for cutting.

DOWN

1. A course file.
2. To request or ask earnestly for.

APPENDIX A: PRACTICE EXERCISE

Instructions: Match the words in column A with their meanings in column B.

NO	A	B
1	Neon	A quick clever reply in speech or action.
2	Pea	To speech pompously and lengthy and lightly.
3	Wrath	To break into very many pieces.
4	Haft	To settle as a debt.
5	Earn	The gaming stake put up in poker by players.
6	Pulp	A roll of bank notes.
7	Suite	To be active or in motion.
8	Tour	A play on words.
9	Riposte	Ecstatic joy or delight.
10	Iris	A retinue or company of attendants.
11	Ante	To make the edge of a knife etc, more keen and suitable for cutting.
12	Sash	A course file
13	Orate	To request or ask earnestly for.
14	Shatter	A habitual drunkard.
15	Pun	To crush under the feet.
16	Rapture	To get for labour or services rendered.
17	Pay	A lake or pond.
18	Tread	The handle or a hilt of a sword, etc.
19	Rasp	A long journey especially one covering the chief sights of a region.
20	Pray	Anger.
21	Wad	A window frame made to hold panes of glass.
22	Mere	The rainbow.
23	Sot	The soft plant tissue as part of a fleshy fruit.
24	Stir	Gas used in display signs.
25	Sharpen	A leguminous plant.

APPENDIX B: MARKING SCHEME

NO	A	B
1	Riposte	A quick clever reply in speech or action.
2	orate	To speech pompously and lengthy and lightly.
3	Shatter	To break into very many pieces.
4	Pay	To settle as a debt.
5	Ante	The gaming stake put up in poker by players.
6	Wad	A roll of bank notes.
7	Stir	To be active or in motion.
8	Pun	A play on words.
9	Rapture	Ecstatic joy or delight.
10	Suite	A retinue or company of attendants.
11	Sharpen	To make the edge of a knife etc, more keen and suitable for cutting.
12	Rasp	A course file
13	Pray	To request or ask earnestly for.
14	Sot	A habitual drunkard.
15	Tread	To crush under the feet.
16	Earn	To get for labour or services rendered.
17	Mere	A lake or pond.
18	Haft	The handle or a hilt of a sword, etc.
19	Tour	A long journey especially one covering the chief sights of a region.
20	Wrath	Anger.
21	Sash	A window frame made to hold panes of glass.
22	Iris	The rainbow.
23	Pulp	The soft plant tissue as part of a fleshy fruit.
24	Neon	Gas used in display signs.
25	Pea	A leguminous plant.

ACROSS

1. A quick clever reply in speech or action.
7. To speech pompously and lengthy and lightly.
8. To break into very many pieces.
10. To settle as a debt.
11. The gaming stake put up in poker by players.
13. A roll of bank notes.

3. A habitual drunkard.
4. To crush under the feet.
5. To get for labour or services rendered.
6. A lake or pond.
9. The handle or a hilt of a sword, etc.
12. A long journey especially one covering the chief sights of a region.
13. Anger.
14. A window frame made to hold panes of glass.

15. The rainbow.
16. The soft plant tissue as part of a fleshy fruit.

17. Gas used in display signs.
19. A leguminous plant.

(Adopted from the Daily Nation, dated Monday, July 16th 2012, page 30)

APPENDIX D: A CROSSWORD PUZZLE

1		2		3	4	5		6
				7				
8	9							
10					11		12	
14		15				16		17
		18		19				
20								
		21						

APPENDIX E: EXPECTED ANSWERS FOR CROSSWORD PUZZLE

1	R	I	2	P	O	3	S	4	T	5	E		6	M		
	A			R		7	O		R		A		T	E		
8	S	9	H	A	T		T		E		R			R		
10	P	A	Y						11	A	N	12	T	E		
		F			W		A		D				O			
14	S		T		I		R					16	P	U	17	N
	A				18	R	A		19	P	T		U		R	E
20	S		U			I	T		E				L			O
	H				21	S	H		A		R		P		E	N

APPENDIX F: CONTROL GROUP

Test 1			
NAME	pretest	posttest	diff
Learner 1	16	18	2
Learner 2	17	20	3
Learner 3	18	20	2
Learner 4	16	19	3
Learner 5	15	18	3
Learner 6	16	20	4
Learner 7	17	19	2
Learner 8	14	17	3
Learner 9	15	19	4
Learner 10	17	19	2
Learner 11	18	22	4
Learner 12	13	16	3
Learner 13	17	19	2
Learner 14	14	17	3
Learner 15	16	18	2
Learner 16	17	20	3
Learner 17	15	18	3
Learner 18	13	15	2
Learner 19	18	23	5
Learner 20	19	23	4
Learner 21	21	24	3
Learner 22	15	18	3
Learner 23	17	20	3
Learner 24	16	19	3
Learner 25	20	23	3
Learner 26	21	21	0
Learner 27	20	23	3
Learner 28	19	21	2
Learner 29	18	21	3
Learner 30	16	19	3
Learner 31	14	16	2
Learner 32	16	18	2
Learner 33	12	14	2
Learner 34	17	19	2
Learner 35	16	18	2

APPENDIX G: EXPERIMENTAL GROUP

Test 1			
NAME	pretest	posttest	diff
Learner 1	20	23	3
Learner 2	21	25	4
Learner 3	20	23	3
Learner 4	19	22	3
Learner 5	18	23	5
Learner 6	17	21	4
Learner 7	14	18	4
Learner 8	17	21	4
Learner 9	14	19	5
Learner 10	17	22	5
Learner 11	16	20	4
Learner 12	17	22	5
Learner 13	18	22	4
Learner 14	16	21	5
Learner 15	18	21	3
Learner 16	17	21	4
Learner 17	17	23	6
Learner 18	14	19	5
Learner 19	15	20	5
Learner 20	17	21	4
Learner 21	18	23	5
Learner 22	14	21	7
Learner 23	17	17	0
Learner 24	15	20	5
Learner 25	16	19	3
Learner 26	17	19	2
Learner 27	15	19	4
Learner 28	13	17	4
Learner 29	19	23	4
Learner 30	19	23	4
Learner 31	20	24	4
Learner 32	15	19	4
Learner 33	17	20	3
Learner 34	16	18	2
Learner 35	19	23	4

APPENDIX C: COMPREHENSION PASSAGE

A visit to the Coast

Jane sat on the couch and remembered with nostalgia how beautiful life would still be if John were alive. She was now 70 years old and almost a decade had passed since John, her husband and an advocate of the High Court had succumbed to the cancer of the ¹iris. In particular, she recalled how they had travelled to Diani Beach in Mombasa for their Silver Jubilee. Jane had ²earned this ³tour after she had bought John a watch for his birthday. Jane had been excited as this was her first time to go to Mombasa. After two decades of marriage, the couple had been blessed with four children, two boys and two girls. As fate would have it, they had lost one of the boys, Peter, a brilliant boy of fifteen years of age, in an accident five years ago immediately after they had attended a game of ⁴ante in school. This had almost ⁵shattered their hopes and dreams of a happy marriage as John had sunk into depression. Luckily, he was able to pull through after many a session of counselling. John and Joan had decided to travel by road to Mombasa and return by air. They had booked a Matatu the previous day for Mombasa, but had unfortunately overslept; waking up late. They had ⁶prayed, taken their breakfast in a hurry and literally ran towards the booking office. Joan also recalled how beautiful she looked in a ⁷sash that John had bought for her to complement what he referred to as her ⁸pea-shaped figure. Sometimes, he would advise her to ⁹tread carefully lest she lost more weight. On this morning, John had jokingly said that she looked like a Christmas tree. As usual, the bus crew lacked politeness. A tout with a big scar on his cheek had made no effort to control his ¹⁰wrath. He looked like a typical ¹¹sot. He started

insulting us for reporting to the bus station late. John, a good ¹²orator who enjoyed ¹³punning and was blessed with a ¹⁴sharp sense of humour, had just looked at the tout and responded with a witty ¹⁵riposte coupled with his usual ¹⁶rasping voice, "we have erred. Period. But let us not cry over split milk. Take my wife and I to Nairobi. I will ¹⁷pay for you coffee so that the lines on your forehead can disappear." Then, all the passengers had burst into ¹⁸raptures. Despite his characteristic calmness, I could detect anger in his eyes. Initially, I had said nothing, but ¹⁹merely smiled and watched him. When I noticed that he was still angry, I had told him to control himself. After being commanded to belt up, the matatu ²⁰stirred to life when the ²¹neon lights were switched off. The matatu purred away towards Mombasa. The journey to Mombasa was long and tiresome. Although we enjoyed watching the unraveling scene as the bus sped towards the coast, we could not resist falling into sleep as we got soothed by different types of music. We arrived safely at the coast and we immediately checked into a luxurious hotel ²²suite that John had booked for us. The building that housed the hotel looked beautiful; John even remarked that it had an odd resemblance to the Garden of Aden. The flower garden was well done, different flowers donned the scenery. A few nettles made the site attractive. After a cold shower, John told me that he wanted to give me a unique Silver Jubilee as he wanted to prepare lunch for me. He called the receptionist and requested for an errand boy. When he finally came, he pulled a thick ²³wad of £10 notes out of his pocket and ordered for a smoked salmon. He held the ²⁴haft of the knife, cut the salmon into sizeable portions, put the onions and the coriander to the base of the blender and made a ²⁵pulp of them and prepared a stew as I relaxed on the couch and watched him. After our lunch, we went to the beach and sat near a mangrove tree and John sang a few ballads for me. One of the ballads I found beautiful was a Taraab song that underscored the value of good morals in marriage. Yes, I enjoyed a lot!
