Effective Communication In Writing: A Challenge Among Student Teachers In Universities In Kenya

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Abstract
The purpose of the study was to establish English student teachers' knowledge of writing strategies to facilitate instruction of writing skills. The specific objectives were: to find out introduction strategies used by participants when writing essays, to establish strategies used by participants to ensure coherence of the written essay and to examine conclusion strategies used by the participants in essay writing. A total of 37 fourth year English student teachers' were used in the study. The instrument used for data generation was document analysis of written essays. The study revealed that the student teachers lack sufficient knowledge of writing strategies. The study recommends that: English Language Teacher Educators should design a course about communication strategies for effective essay writing to be taught to student teachers specializing in English to equip them with both content and pedagogical knowledge for effective teaching.

Introduction

The government of Kenya recognizes that teachers are an important entity in the pedagogical process and in achieving Kenya vision 2030. Teacher Education requires serious attention because knowledgeable teachers are needed to produce competent students who can meet the needs of the job market and a cohesive society (Republic of Kenya, 2004). The objectives of Teacher Education in Kenya are to ensure that the graduates acquire knowledge of relevant content, methodology, professionalism, appropriate attitudes and deep understanding of teaching, which will enable them to diagnose and develop the educational competencies required by their learners (Republic of Kenya. 2004). However, supervision of student teachers during teaching practice or the practicum has revealed that some of the student teachers specializing in English and literature could not instruct learners on how to write different types of essays. They hurried through the writing lessons whenever the instruction of essay writing was needed and gave learners a take away assignment. Teaching Practice evaluation reports have confirmed the teacher educators' dissatisfaction with the way writing skills were taught. The researcher sought to find out whether the problem could be student teachers' lack of knowledge about writing strategies.

Objectives of the study

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Literature Review

English Language Teaching in Kenyan Secondary Schools

According to the Kenya Institute of Education, which is responsible for designing the curriculum in Kenya, the main goal of English Language Teaching (ELT) at the secondary school level is to enable school leavers to be competent communicators in the English language (KIE, 2002). Emphasis is on communication because "English is the official language of communication in Kenya. It is also the pre-eminent language of international communication; consequently, those who master English have many academic, social and professional benefits" (KIE, 2002, p.6). The emphasis is on both spoken and written communication as reflected in the objectives of English Language Teaching at secondary school level written in *The Secondary English Syllabus* (KIE, 2002, p.viii). It says that by the end of the course, the learners are expected to be able to:

- Listen attentively for comprehension and respond appropriately
- Speak accurately, fluently, confidently and appropriately in a variety of contexts
- Read fluently and efficiently and appreciate the importance of reading for a variety of   purposes
- Make an efficient use of a range of sources of information including libraries, dictionaries and internet
- Use a variety of sentence structures and vocabulary correctly
- Communicate appropriately in functional and creative writing

▪   Think creatively and critically

In Kenya, the Ministry of Education stipulates that English language must be taught using the *Integrated Approach;* hence, the subject is called Integrated English. This involves teaching English language and Literature in English as one subject in the school curriculum. The *Kenya Secondary School Syllabus* explains the issue of integration as follows:

This, syllabus adopts an *integrated approach* to the teaching of English language. Integration means merging two autonomous but related entities in order to strengthen and enrich both. Through exposure to literature the learner will improve their language skills. They will not only enrich their vocabulary but also learn to use language in a variety of ways. Similarly, an improved knowledge of the language will enhance the 'learner's appreciation of literary material. On yet another scale, integration means that no language skill should be taught in isolation. Listening, speaking, reading and writing skills should complement each other... "It has been established that teaching language structures in isolation is not only boring, but it also tends to produce learners who lack communicative competence" (KIE. 2002, p.3). *Secondary English Teachers Handbook* gives examples of how the *integrated approach* could be implemented in practice. It says: "while teaching reading, the teacher may reinforce the mastery of grammar by pointing out instances of effective use of grammatical items already taught. "The teacher may also generate writing tasks and debates from the reading material" (KIE, 2006, p.3). Eventually, the learners are simultaneously tested in both English language and Literature; for instance, a question testing writing skills may require that candidates refer to material in a set literature text. The *Integrated approach* has similarities with what Richards and Rodgers (2001:109) call the *Whole Language Approach. All the skills of language:* writing, reading, listening and speaking should be integrated in learning and teaching.

English Language Teacher Education in Kenya

English Language Teacher Education (ELTE) attracts one of the highest numbers of students in the Kenyan universities. English language teachers are more likely to get employed faster than teachers of other arts based subjects because English is a compulsory subject in schools, hence more teachers are required for it. All public universities in Kenya have very high numbers of English language student teachers and the Bachelor of Education curriculum in ELTE is generally the same. English Language Teacher Education students are offered coursework by the departments of Linguistics, Literature, Education Psychology, Education Foundations, Education Communication and Technology and Education Administration, Planning and Curriculum Development.

They are offered content courses (by the school of Arts and Social Sciences), pedagogical courses (by the school of Education) and common courses offered by the School of Human Resource Development such as Communication Skills, Quantitative Skills etcetera. These courses arc taken by the entire students al the university regardless of their specializations and are intended to broaden the student teachers' understanding of general developmental issues beyond their professional leanings, and to improve their communication skills in English language. In third year, student teachers are taught the pedagogical courses; special methods in teaching English and special methods in teaching Literature. They deal with how to integrate content and methodology.

There is more emphasis on general procedures of teaching than on subject specific content. Each of the pedagogical courses lasts for only one semester of about twelve weeks. It is clear that the time is not enough to cover the topics satisfactorily. The aspects of ELT that are meant to be covered in these courses are: objectives of teaching English/literature; theories of teaching English/literature ; teaching and learning activities in English/ literature; teaching listening and speaking skills/teaching poetry; teaching reading and writing skills/ teaching oral literature; teaching grammar/ teaching the novel, short stories and drama ; assessment in English/ literature ;integration of English and literature ; teaching resources in English/literature; lesson planning and writing the scheme of work for English/ literature.

During third year second semester, ELTE students take a course called *Educational Media Practical and Micro-Teaching* which generally starts with the students designing teaching aids in groups to be assessed by teacher educators. They are then expected to practice teaching in class before their peers. They teach small groups of peers as they are observed by their educators

Teaching Practice in Kenya

The Initial Teacher Education program in Kenya (for secondary school teachers takes four years with a teaching practice or practicum component which usually lasts for one school term of between twelve to fourteen weeks. Currently, most universities in Kenya post their students on Teaching Practice after the completion of their third year coursework. By this time, student teachers will have covered the expected content and pedagogical knowledge to teach. The content knowledge for English language covers the four language skills: listening, speaking, reading and writing. This paper focused on student teachers' knowledge of writing skills, specifically, writing strategies. As discussed earlier, one of thee objectives of teaching English is to enable learners to

communicate appropriately in functional and creative writing; therefore, teachers knowledge of writing strategies is crucial to facilitate them to instruct learners to master writing strategies for effective communication.

Writing as Effective Communication

Writing is an act of communication (Kell & Corts, 2007). Several important elements affect the way that a reader experiences something written. The elements are the message, mood style and tone besides considering the target reader. The subject is what the writer chooses to write about. It has an effect on whether the reader will be interested. Style deals with the language choices the writer makes such as the length they choose to make their sentences, the choice of diction and appropriate use of language strategies in writing, strategies for achieving coherence and cohesion , use of appropriate elements of paragraphing and the way they organize and arrange their information. The *choices* the writer makes have a powerful effect on the message the writer sends the reader (Lesikar and Pettit, 2003).

 Tone refers to the attitude the writer has towards the subject. It should be appropriate to the subject and to the writing situation. The tone could be humorous, angry, ironic, serious etc. Mood is the effect a piece of writing has on the reader. Mood in the written text could make the reader become angry, laugh, cry, shout or want to take action. The Sender, who is the writer, *initiates* the *act of communication* by writing. (Lesikar & Pettit, 2003).

 The receiver, the reader, is the person who *receives* the *act of communication,* in this case a piece of writing. If this person doesn't *understand, no communication takes place.* The reader is the person the writer must *always* think about as he/she writes (Rothwell, 2000). Essays are the primary means by which students communicate their thoughts and analyses to professors and other lecturers. In a university setting, students are supposed to be thinking about making choices of all communication strategies that can improve their written essays before they present them to the target reader, the lecturers, for evaluation.

Writing the Introduction

When writing an introductory paragraph, the writer should begin with attention grabbers such as: startling information, an anecdote, dialogue, summary information or definition of key terms. Startling information should be true and verifiable. It doesn't need to be totally new to the readers. It could simply be a pertinent fact that explicitly illustrates the point the writer wish to make. It should be followed with a sentence or two of elaboration. An anecdote is a story that illustrates a point (Payne, 2001). It should be short, to the point, and relevant to the topic. This can be a very effective opener for ther essay. An appropriate dialogue does not have to identify the speakers, but the reader must understand the point you are trying to convey. The writter can use only two or three exchanges between speakers to make the point. It shoud be followed with a sentence or two of elaboration. Summary information or a few sentences explaining the topic in general terms can lead the reader gently to the thesis. Each sentence should become gradually more specific, until the writer reaches the thesis statement. If the attention grabber was only a sentence or two, add one or two more sentences that will lead the reader from the opening to the thesis statement. The first goal in introduction is to grab the reader's attention (Almond, 2011). As explained, a writer can do that by using an interesting fact, a surprising piece of information, an exciting quotation, an intriguing paradox, and an explanation of an odd term, a short narrative or anecdote which is not fiction or a provocative question.

Coherence as a Strategy in Writing

Coherence is a product of many different factors, which combine to make every paragraph, every sentence, and every phrase contribute to the meaning of the whole piece (Kell & Corts, 2007).   Coherence in writing is much more difficult to sustain than coherent speech simply because writers have no nonverbal clues to inform them if their message is clear or not. Therefore, writers must make their patterns of coherence much more explicit and much more carefully planned. Coherence is achieved by the writer focusing on two factors: paragraph unity and sentence cohesion.

To achieve paragraph unity in essay writing, a writer must ensure two things. First, the paragraph must have a single generalization that serves as the focus of attention, that is, a topic sentence. Secondly, a writer must control the content of every other sentence in the paragraph's body such that it contains more specific information than the topic sentence and it maintains the same focus of attention as the topic sentence (Langan, 2003).

To achieve sentence cohesion; the links of one sentence to the next, the techniques used are: repetition, the writer repeats a word from a previous sentence. *Synonymy* can also be used by a writer. This strategy is called 'elegant variation.' Using the 'opposite' word, an antonym, can also create sentence cohesion, since in language antonyms actually share more elements of meaning than one might imagine. A writer could use a pronoun, pro-verb, or another pro-form to make explicit reference back to a form mentioned earlier. The writer can use *collocation* where a commonly paired or expected or highly probable word to connect one sentence to another is

used. The other strategy is *enumeration.* The writer may use overt markers of sequence to highlight the connection between ideas. This system has many advantages: it can link ideas that are otherwise completely unconnected, it looks formal and distinctive. *Parallelism* is another option available to the writer. A sentence structure can be repeated. This technique is the oldest, most overlooked, but probably the most elegant method of creating cohesion (Almond, 2011). A *transition*, where a writer may use a conjunction to link sentences with particular logical relationships is another strategy that can be used. *Opposition,* which indicates contrast using words such as but, yet, however, nevertheless, still, though, although, whereas, in contrast, rather among others could also be used. Words that show addition establish continuation in essays. Such words are: and, too, also, furthermore, moreover, in addition, besides, in the same way, again, another and similarly. Words that indicate cause and effect effectively create cohesion in writing (Ndirangu, 2010). Some of the words that a writer could use are: therefore, so, consequently, as a consequence, thus, as a result, hence, it follows that, because, since, for, among others. Words that indicate a willingness to consider the other side of an issue can be used to create coherence in writing such as: admittedly, I admit, true, I grant, of course, naturally, some believe, some people believe, it has been claimed that, once it was believed, there are those who would say. Such words are called *concession* (Johnson, 2011).

Exemplification can be used to indicate a shift from a more general or abstract idea to a more specific or concrete idea. Some of the options a writer can draw from is the use of words and phrases such as: for example, for instance, after all, an illustration of, even, indeed, in fact, it is true, of course, specifically, to be specific, that is, to illustrate and truly (Ndirangu, 2010).

Conclusion Strategies

The conclusion brings closure to the reader, summing up the writer's points or providing a final perspective on the topic (Kell & Corts, 2007).

All the conclusion needs is three or four strong sentences which do not need to follow any set formula. The writer needs to review the main points but not restating them exactly or briefly describe his or her feelings about the topic. However, it is not enough just to restate the main ideas as it makes the conclusion flat and boring. The writer should make a *graceful* exit from the essay by leaving a memorable impression on the reader. There is need for the essay writer to write something that will continue to simmer in the reader's mind long after reading the essay. Some of the conclusion strategies used to leave a memorable impression in the reader's mind are: giving a thought-provoking quotation, describing a powerful image, talking about consequences or implications, stating what action needs to be done, ending on an interesting twist of thought or explaining why the topic is important.

Appropriate Language Strategies

The writer should use language that fits the target audience or reader and matches purpose. Otherwise, inappropriate language can damage the written work's credibility, undermine the argument, or alienate the reader (Johnson, 2011).

There are different aspects of using appropriate language such as**:** levels of formality, in-group jargon or register, slang**,** idiomatic expressions, use of euphemisms, biased language, redundancies, fillers and clichés**.** Levels of Formality in writing deal with a style that fits the audience and the purpose of writing. It is essential to successful writing. *Jargon* refers to specialized language used by groups of like-minded individuals. A writer should only use in-group jargon when writing for members of that group or occupation. If used for the general public, such words or expressions should be well explained. Slang or idiomatic expressions should not be used in general academic writing. The writer should not use any biased language or language with a racial, ethnic, group, or gender bias. Similarly, language that is stereotypical should not be used in writing academic essays. In addition*,* writing about something repeatedly, confuses the reader. Using expressions that contain the same idea such as: *each and every, first and foremost, and so on and so forth, deeds and actions, final outcome, terrible tragedy, all and sundry, period of time, can be able etc.* are referred to as redundancies and should not be used when writing (Sillar, 1988).

Fillers, which are used as a way of thinking of what to say next, can be used by a writer when dialogue is included in the piece of writing. However, the writer ought to avoid overusing them in writing. They are usually vague. They are words such as: generally, kind of, particularly, basically, for all intents and purposes, virtually, certainly, actually etc. *Clichés,* expressions that have been overused and lost freshness, have become outdated or 'stale' not be used at university level. Writers ought to compose their own expressions on the spur of the moment.

Methodology

The study used qualitative research methodology. It is used in education to gather in-depth understanding of issues that concern education such as content, knowledge, pedagogy and the goals the education system should

serve (Cohen et. al, 2007). The paradigm was appropriate for the study because the researcher could gather in-depth understanding of writing strategies used by student teachers when writing essays.

The study used a descriptive research design. Descriptive studies describe the characteristics of participants in a given setting. They deal with predictions or with narration of facts, participants or setting (Mugenda, 2008). The design was appropriate for the study because it enabled the researcher to gather information about writing strategies used by university students when writing essays. For ethical considerations, the name of the university was withheld to observe anonymity. The target population of the study was 98, consisting of student teachers specializing in English and Literature, who had completed teaching practice. The researcher purposively selected the participants based on the teaching practice report. Those whose teacher educators' reports indicated that teaching how to write essays was a challenge for them. They were selected because their career demands mastery of writing skills for them to be able to instruct learners about the same. I selected 37 fourth year students who had completed practicum to form the sample size of the study.

Data was generated using document analysis. Participants were given a task to write an essay, worth publishing, on a topical issue of their choice. The essay was to be two pages at most (on an A4 size paper). I then analyzed the written essays to establish the choices made by the participants with regard to introduction strategies used when writing essays, strategies used to ensure coherence of the written essay and conclusion strategies used by the student teachers in essay writing. Data was analyzed qualitatively using content analysis method. I determined the presence of writing strategies used as explained above. The presence of the words was established then inferences were drawn.

Findings and Discussion

Topical Issues

Some of the selected topical issues participants wrote about in their essays were:

- The ICC Cases and Kenya politics
- Husband Battering in Central Kenya
- The Ugly Face of Corruption in Kenya
- Promiscuity or Exploration: University Students Relationships
- Challenges of Free Primary Education in Kenya
- Indiscipline in Secondary Schools: The Experience of Student Teachers During the Practicum
- Housing Crisis for University Students in Kenya
- The Pedagogical challenges of Student Teachers During the Practicum

The participants chose contemporary issues in Kenya to write about.

Strategies Used by Participants to Write Introduction Paragraphs

Data from document analysis; the written essays, revealed that the introduction strategies used by the participants when writing essays were:

- Giving an overview of the content of the essay.
- Definition of key terms in the topic.

A writer is supposed to use attention grabbers when writing an introductory paragraph of an essay (Kell and Corts, 2007). It enables the writer to capture the interest of the readers which is an important strategy in writing introductory paragraphs. There are a lot more attention grabbers which would be used as introductory strategies but none of the participants used them according to the analyzed information summarized in table 1 below.

Table 1: Strategies Used by Participants to write Introduction Paragraphs

Strategies Used by Participants	Strategies Not Used by Participants
Giving an overview of the content of the essay in summary form. Definition of main terms in the topic	Use of anecdotes A relevant Dialogue An Intriguing paradox Startling Information An exciting quotation

The fact that out of the 37 participants, none of them used the five identified introduction attention grabbers means that the participants were not well grounded with knowledge about which communication strategies should be used in writing introduction paragraphs. They lacked knowledge about attention grabbers.

Strategies Used by participants to Establish Coherence of the Written Essay

Ndirangu (2010) says that coherence as a strategy in writing is achieved through paragraph unity and sentence cohesion. The researcher found out that the strategies used by participants to achieve paragraph unity was, the use of topic sentences. The participants began each paragraph with a topic sentence. However, the other sentences were mixed up. Most of them did not contain more specific information relevant to the topic sentence, hence; lacking coherence or a smooth flow of the content of most of the paragraphs.

Writing Strategies for Achieving Sentence Cohesion in Paragraphs

Analysis of the written essays established that the techniques participants used to link one sentence to another were four out of the nine options available for use as summarized in table 2 below.

Table 2: Writing Strategies for achieving sentence cohesion

Strategies Used by Participants	Strategies Not Used by Participants
❈ Repetition	❈ Elegant Variation
❈ Enumeration	❈ Antonyms
❈ Words showing Addition	❈ Opposition
❈ Exemplification	❈ Concession

The student teachers used repetition of a word from a previous sentence to achieve sentence cohesion. They also used enumeration, the use of overt markers of sequence to highlight the connection between ideas using words such as: first, second, third and firstly, secondly and thirdly. Although participants used words showing addition to create coherence in writing, they specifically used the words: *and, also.* The other words that are used to indicate addition in the reviewed literature were not used, an indication of their limited knowledge about writing strategies for achieving coherence in writing. None of the participants used *concession* or words that indicate a willingness to consider the other side of the issue being discussed to create cohesion in writing as reported by (Theodor & Adorno, 2000). Such words are: I admit, naturally, it has been claimed, some would say that…Similarly, markers of *opposition* which indicate contrast such as: nevertheless, still, though, whereas, and in contrast were not applied.

Strategies used in Writing Concluding Paragraphs

The researcher analyzed the written essays by the trainee teachers to find out the conclusion strategies they used. All the student teachers concluded their essays by summing up the discussed issues, restating the main points in the order in which they were discussed in the essay. According to (Johnson, 2012), it is not enough to conclude by giving the main points discussed in the essay or piece of writing. It makes the conclusion flat and boring. It does not facilitate the writer to make a *graceful exit* from the essay, which is most needed to leave a memorable impression in the reader's mind. Besides restating the main points, there are other conclusion strategies that could be used in writing. The trainee teachers used in the study did not use most of the strategies as summarized in table 3 below.

Table 3: Strategies used in writing Concluding Paragraphs

Strategies Used by Participants	Strategies Not Used by Participants
❈ Restating the main points in the order in which they were discussed in the essay	❈ Giving a thought provoking quotation
	❈ Describing a powerful image
	❈ Talking about Consequences or Implications
	❈ Stating What Action Needs to be Done
	❈ Ending on an Interesting Twist of Thought
	❈ Explaining Why the Topic is Important

Only one strategy, out of the seven was used by all the participants. They did not even express their feelings in the essay even when writing about sensitive issues.

Conclusion

The study revealed that the student teachers did not use varied communication strategies when writing the essays. There were indications that they lacked sufficient knowledge about writing strategies. The career needs of the participants in the study, who were student teachers, training to teach integrated English in secondary schools in Kenya had not been met. They are expected to instruct secondary school students about all the skills of English: Listening, speaking, reading and writing. When teaching writing skills, they are supposed to instruct learners about writing strategies for effective communication. If they do not know how to use the strategies to achieve coherence in sentences and for writing introductory and conclusion paragraphs then their competence to teach secondary school students about the same is questionable. Language teacher educators need to address the problem.

Recommendations

Based on the findings, the study recommends that:

- English Language Teacher Educators should design a course about communication strategies for effective essay writing to be taught to student teachers specializing in English to equip them with both content and pedagogical knowledge for effective teaching.   .
- Examining of the course should include writing essays to motivate students to practice and master writing strategies for effective communication.
- The University management should reduce the lecturer student ratio in the classes to facilitate better instruction of student teachers.
- English language teacher educators should coordinate and ensure that the content courses taught by other schools apart from the school of education are relevant and meet the needs of English Language Teaching in Kenya.

References

Almond, T. (2011). *Creative Writing.*Retrieved from www.thecreativewriter.edu.com. Retrieved
          on 25-5-2012

Blundell, R. (2004). *Effective Organizational Communication: Prspectives, Principle and
          Practices.* New York: Prenticeship.

Cohen, L., Manion, L. & Morrison, K. (2007). *Research Methods in Education.* London.
          Routledge Falmer.

Jwan, J. O. & Ong'ondo, C. O. (2010). *Qualitative Research: An I ntroduction to Principles
          and Techniques.* Eldoret: Moi University Press.

Kell, C. K. & Corts, P. R. (2007). *Fundamentals of Communication*. London. Sage.

Kenya Institite of Education (2002). *Secondary Education Syllabus*. Nairobi: Kenya Literature   Bureau.

 Kenya Institite of Education (2006). *Secondary Education Teachers' Handbook*. Nairobi: Kenya Literature
Bureau.

Leskar, R.V. &d Pettit, J. D. (2003). *Business Communication: Theory and Applicaation*. Delhi:
          AITBS.

Ndirangu, J. (2010). *Skills in Composition Writing*. Nairobi: Mcmillan.

Payne, J. (2001). *Appliation Communication: For Personal and Professional contexts*. Kansa:
Clerk Publishing

Republic of Kenya (2004). *A Policy Framework of Education Training and Research*. Nairobi:
          MOEST

Richards, J.C. & Rodgers, T. (2001). *Approaches and Methods in Language Teaching.*
          Cambridge: Cambridge University Press.

Rothwell, J.D. (2000). *Into the Copmany of Others: An Introduction to Communication.* New
          York: -Hill. McGraw. Inc.

 Sillar, S. (1998). *Success in Communication.* London: John Mirray.

Theodor, W. Adorno, (2000). "The Essay as Form" in: Theodor W. Adorno, *The Adorno Reader*,
          Blackwell Publishers.

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