

ERROR ANALYSIS OF HANDWRITTEN SHORTHAND TRANSCRIPTION OF BUSINESS EDUCATION STUDENTS IN DELTA STATE UNIVERSITY, ABRAKA AGBOR NIGERIA.

BY

CYPRIAN AKHERE OKODUWA

Department of Business Education, College of Education, Agbor.

Abstract

The purpose of the study was to analyse errors committed in shorthand handwritten transcription of 200 level undergraduate business education students in Delta State University, Abraka, Agbor campus. The research method used was quasi-experimental design. The population of the study comprised thirty (30) direct entry undergraduate Business Education students. The instrument for data collection was a shorthand passage performance test dictated to the students. The data obtained were analysed using frequency count, percentages and chi-square. The study revealed that the most frequently errors committed by the students were omissions, spelling, punctuation, tenses, wrong words, phonological, and additions. Errors of omissions have a total of 91 which ranked first, wrong spellings ranked second with 89 errors and punctuations ranked third with 77 errors. On strength of the findings, appropriate recommendations were made in order to drastically reduce errors in student's handwritten shorthand transcription.

Keywords: Shorthand, errors, error analysis, dictation, transcription, syllabic intensity, error tolerance.

Introduction

Handwritten shorthand, particularly, Pitman's system of shorthand is an important time-skill subject in secondary schools, Federal and State Civil Service Training Centre, College of Education, Polytechnics and some Universities where business education and secretarial administration programmes are offered. At the junior secondary, shorthand forms part of the business studies offered as a pre-vocational subject. At senior secondary, it stands out as one of the vocational subject. In Colleges of Education, Polytechnics and Universities, shorthand is one of the core courses in disciplines like business education, secretarial studies (OTME) and secretarial administration (FRN, 2007, NCCE, 2012, NBTE, 2008, DELSU, 2014). It is generally acclaimed that accurate and correct transcription of shorthand outlines are the goals of shorthand transcription. The major objectives of shorthand transcription session for office education students of business education should aim at training students to

produce copies that are free from errors, be it spelling, grammar, omission, wrong word, etc. Osuala (2003) agreed when he stated that the primary purpose of shorthand is to enable training secretaries take dictation with sufficient speed and accuracy so as to produce mailable documents as required by the supervisor.

Shorthand is a phonetic language where sounds are represented by signs such as strokes, dots and dashes. A learner is expected to transcribe his work into longhand and present it in English Language. This simply becomes an uphill task for the students especially where poor mastery of English language makes the learner unable to identify the correct spelling, pronunciation, use of tenses and diverse vocabulary. Although emphasis is generally on preventing errors from occurring in shorthand transcript, errors are bound to occur in one form and to a varying degree of frequency.

Barr cited in Ulinfun (1992) said that transcription accuracy requirements range from 70 to 100 percent with 95 percent or higher being required most frequently. Although there is hardly any such studies in Nigeria on this, it is a common knowledge that a similar situation prevails here. A 5% error tolerance is the standard recommended for all tertiary institutions (Barr, 1970, NBTE, 1989, Ulinfun, 1992, NBTE, 2008). NBTE, (1989) have a 5% “error tolerance” for 60 and 80 words per minute and this considerably influence our attitude towards the answer scripts of students.

In shorthand transcription, the examiner finds out all the errors. Each error spotted reduces the total score by some point until a zero score is made. If no error is spotted, the student will have all the marks allocated. Error penalized includes omissions, importation of words not in the passage, wrong words, homophones/homonyms, wrong spellings, tenses and other points of grammar. Ocholi (2018) observed that irregular drilling, poor English language background, weak typewriting proficiency coupled with the harsh marking scheme are strong factors responsible for low performance in shorthand. In typewritten transcription, all typing mistakes were counted as errors and penalized.

With the treatment of error in written form, accuracy should be the strict criteria to adhere to, due to the demands of written examinations (Choon, 1992). Error analysis investigates all possible sources of errors. It is a type of linguistic analysis that focuses on the errors learners make. So long as the curriculum continues to emphasize the teaching of shorthand to prospective secretaries, it is imperative to ensure that the products of the process are well-qualified to pursue their career path in order to avoid wastage in manpower training.

Statement of the Problem

Shorthand teaching is a vital and major part of business education in Nigeria tertiary institutions. Its main objective is to equip students with the necessary skills, knowledge and attitude for gainful secretarial job. However, it is unfortunate that for some time now, in Delta State University, Abraka, Agbor campus, where shorthand is being offered as a major course in business education, the rate of failure is alarming. From the preliminary investigation by the researcher, an average of 60 percent of business education students who wrote shorthand examination at various levels during their course programme have consistently failed for the past three years. Ekpeyong (2005) agreed when he stated that shorthand is one of the oldest subjects but most complex time- skill which registers overwhelming failure rate in higher institution of learning where the course is offered. Various researchers have advanced reasons for the negative development among which are grammatical errors and language inadequacies of students as one of the important reasons for poor performance in shorthand. Some of the teachers interviewed were of the opinion that the rate of failure had been due to students’ hesitation in deciphering their shorthand outlines and eventually ended up in transcribing something different from what was dictated to them. From the researcher’s teaching experience, students complained of their inability to meet up with the dictation in shorthand speed and inability to correctly transcribe written shorthand outlines.

There is no known research conducted in Nigeria on error analysis on handwritten shorthand dictation transcription of undergraduate business education students. This area holds significant importance to shorthand teachers and students. This study was carried out to find out empirically errors

committed by business education students in handwritten shorthand transcription with a view to making appropriate recommendations to minimize errors in transcription.

Purpose of the Study

The purpose of this experiment was to find out errors committed in handwritten shorthand transcription by second-year business education students in Delta state University, Abraka, Agbor. The specific objectives were to identify and classify errors committed in dictation transcription of second year business education students;

Research Question

Do errors committed in Shorthand transcription at 60 words per minute more than those committed at 80 words per minute?

Hypothesis

There is no significant different between frequencies of errors committed in Shorthand transcription at 80 words per minute and 60 words per minute. Significance of the Study
The findings of this study will go a long way in assisting shorthand teachers in teaching transcription which is the most important phase of shorthand learning. The study will be of benefit to the students as they will learn on the various errors committed in shorthand transcription in order to improve their performance.

The findings of the study would be useful to bodies like National Business and Technical Examination Board (NABTEB), National Commission for Colleges of Education (NCCE), National Board for Technical Education (NBTE) and National Universities Commission (NUC) in recommending appropriate marking scheme on shorthand courses with emphasis on shorthand dictation and transcription. The study will help to trigger off further attempts by other people to research into other aspects of shorthand that

will eventually be of immense benefits to the generality of shorthand teachers and students in educational institutions in Nigeria.

Finally, the study will also be important in the sense that the findings will add to the existing literature in the area of Business education office educating option in the area of teaching and learning.

Scope of the Study

The study was delimited to errors analysis in the handwritten shorthand dictation transcription of second year business education students. It was also delimited to identification and classification of errors in shorthand transcription at the degree level.

Methodology

The study was quasi-experimental design. The population used for the study was 30 (thirty) 200 level business education degree students of Delta State University Abraka, Agbor. The entire population was used due to the manageable size for the experiment.

Two teacher-made tests were used by the researchers as instruments for data collections:

- a. A speed test of a general commercial nature, having a syllabic intensity of 1.4 containing 180 words and dictated at the rate of 60 words per minute for three minutes.
- b. A short form speed test passage of 1.3 syllabic intensity containing 240 words and read at the rate of 80 words per minutes for three minutes. Each passage was read only once. The subjects were given 30 minutes each to transcribe from their shorthand notes.
- c. The negative objective marking scheme modified from NBTE marking Scheme for Shorthand Examinations (NBTE, 1989) for evaluating students' output was used.

To test the validation of the instrument used for the study, the test papers for 60 and 80 words per minute was cross-checked for syllabic intensity by two business education external moderators of a professorial cadre from Delta State University, Abraka and Ambrose Ali University, Ekpoma to ensure reliability. At 1.3 and 1.4 syllabic intensity, the external moderators were satisfied that the passages of 60 and 80 words per minute respectively met the national and international reliability standards set by the Royal Society of Arts London (1981) and adopted by the National Board for Technical Education (NBTE, 1989).

The data collected from the study were assembled and marked in order to reduce it to unit of analysis. The researcher examined the students' transcript and their shorthand outline to find out whether or not the treatment given to the students had improved their performance at transcription and legibility of their shorthand outline. To confirm this, the posttest transcription scripts were marked by underlining the incorrect transcription and shorthand outline.

During the marking process, errors like wrong word, wrong spellings, omission, addition, punctuation marks, substitution of another word wrong tense, were underlined and penalized. Also typewritten errors, such as bad erasure, wrong margin, irregular spacing and other similar errors were observed and penalized. The mean performances of students for the past test were computed.

What is Error?

Simply put, an error is any deviation from a word as written in passages 1 and 2. Any additional word, omission or substitution of one word for another, spelling, dropping of an „s" as in export(s) or happen(s), tense mix-

ups, taken (taking), abbreviations or failure to abbreviate –

You've (you have) – will all count as errors. Punctuation errors will also be taken into consideration (Adenubi, 1992). After an extensive literature search and a study of the marking scheme of eight institutions in the United States of America four professional examining bodies in U.S.A. and United Kingdom, Osemeta in Ulinfun (1992) outlined the following 16 categories of errors omitted words or figures, Added words or figures, Misspelled words or figures, substituted words or figures, transposed words or figure, omitted punctuations, wrongly inserted punctuation, capitalization errors, failure to erase (strike overs), poor erasure, raised capitals, syllabication errors, uneven left or right hand margin, failure to space between words, paragraphing errors, longhand in shorthand notes.

Classification of Errors

By applying this definition, a list of errors was compiled. The instant one attempts to classify these errors of subject written directly from shorthand notes to longhand. Oliver and Streiff, in Adenubi (1991) in a similar experiment, classify errors in the following categories

- a. spelling
- b. phonology
- c. grammar
- d. extra word
- e. choice of words

NBTE (1989) classified errors into two viz: major and minor errors.

Major errors: These are: wrong word, omission of word, substitution of another words, addition of word "has" for "have" wrong tense of strong verb "is" for "was", "can" for "could", vice versa, "may" for "might" "do" for "did" and vice versa, "speak" for "spoke".

Minor errors: These are: omission of “a” for “the” addition of “a” or “the”, insertion of “a” and “the”, omission or addition of –s (singular for plural) and vice versa, omission or addition of ing (-ing), incorrect splitting of a word e.g whatever instead of whoever, shall for should and vice versa wrong tense of weak verb by omission or addition of final and or ed eg “laugh” for laughed vice versa.

Results

Table 1 showing transcription errors of our subjects at 80 wpm

Types of errors	Frequency	Percentages	Rank
Omissions	91	20.75	1
Wrong spelling	89	20.27	2
Punctuations	77	17.54	3
Tense mix-ups	67	15.26	4
Wrong word	51	11.62	5
Phonological	41	9.34	6
Substitutions	23	5.23	7
Total	439	100	

As shown in table 1 above, there were 439 transcription errors in the handwritten transcript of the subjects. Out of these errors, 91 (20.73) arise from omissions, 89 (20.27) wrong spelling 77 (17.54) punctuations, 67 (15.26%) tenses, 51 (11.62%) wrong word, 41 (9.34%) phonological and 23 (5.23%) substitutions.

Table 2 showing types of errors, frequency, percentages and rank of errors found in shorthand transcription at 60 wpm

Types of errors	Frequency	Percentages	Rank
Wrong spelling	42	27.1	1
Additional words/substitution	39	25.16	2
Punctuations	35	22.58	3
Wrong words	12	7.74	4
Tense mix-ups	12	7.74	4
Omissions	10	6.45	5
Phonological	5	3.22	6
Total	155	100	

Table 2 shows that there were 155 transcription errors in shorthand diction, wrong spelling was the most frequently made error type (27.1%) additional words/substitution (25.16%), punctuations (22.58%) wrong words (7.74%), tense mix-ups (7.75%), omissions (6.45%) and phonological (3.22%).

A further analysis of the errors revealed that the six type of errors found to be greatest difficulties of the participants were spelling, longhand in shorthand notes, omitted punctuations, submitted words, capitalization errors, tenses, uneven left and right hand margin respectively.

Table 3 showing types of errors committed at 60 wpm and 80wpm

Types of errors															
Words per minutes	Omission		Wrong spelling		Punctuations		Wrong words		Tense mix-ups		Additional words		Phonological		Total
60 wpm	10	A	42	B	35	C	12	D	12	E	39	F	5	G	155
80 wpm	91	H	89	I	77	J	67	K	67	L	41	M	23	N	439
Total	101		131		112		79		79		80		28		594

Note: that the expected frequency for cell in Table 3 above now reflected in Table 4 is arrived at using the following formular.

A = $\frac{RTXCT}{GT} = \frac{155 \times 101}{594}$	B = $\frac{155 \times 131}{594}$
= 26.4	= 34.2
C = $\frac{155 \times 112}{594}$	D = $\frac{155 \times 79}{594}$
= 29.2	= 20.6
E = $\frac{155 \times 63}{594}$	F = $\frac{155 \times 80}{594}$
= 16.4	= 20.9
G = $\frac{155 \times 28}{594}$	H = $\frac{439 \times 101}{594}$
= 7.3	= 34.2
I = $\frac{493 \times 131}{594}$	J = $\frac{439 \times 112}{594}$
= 96.8	= 82.8
K = $\frac{439 \times 79}{594}$	L = $\frac{439 \times 63}{594}$
= 58.4	= 46.6
M = $\frac{439 \times 80}{594}$	N = $\frac{439 \times 28}{594}$
= 59.1	= 20.7

Table 4: Analysis of Result in Table 3 using chi-space statistics

Types of Errors committed at 60wpm	O	E	O - E	(O - E) ²	$\frac{(O - E)^2}{E}$
Omission	10	26.4	-16.4	268.96	10.2
Wrong spelling	42	34.2	7.8	60.84	1.8
Punctuation	35	29.2	5.8	33.64	1.2
Wrong words	12	20.6	-8.6	73.96	3.6
Tense mixed up	12	16.4	-4.4	19.36	1.2
Additional words	39	20.9	18.1	327.61	15.7
Phonological	5	7.3	-2.3	5.29	0.7
Types of Errors committed at 80wpm					
Omissions	91	74	17	289	3.9
Wrong spelling	89	96.8	-7.8	60.84	0.6
Punctuation	77	82.8	-5.8	33.64	0.4
Wrong words	67	58.4	8.6	73.96	1.3
Tense mixed up	51	46.6	4.4	19.36	0.4
Additional words	41	59.1	-18.1	327.61	5.5
Phonological	23	20.7	2.3	5.29	0.3

$$X^2 = \frac{\sum (O - E)^2}{E} = 46.8 \text{ calculated value}$$

$$=df = (c - 1)(r - 1) = (2 - 1)(7 - 1) = 6$$

Testing the hypothesis at 0.05 level of significance, = 12.5916

Since the critical value is less than the calculated value, we reject the hypotheses i.e. there is a significant difference between the frequency of errors committed in shorthand transcription at 60 words per minute and 80 words per minute.

Pedagogical Implication

The findings from this study provide some pedagogical implications. Students of shorthand commit more errors when they are subjected to higher speed than lower speed as shown in table 1 passages 1 and 2. Experience has shown that the concept of errors in shorthand transcription cannot be overlooked in secretarial education. Examiners and shorthand teachers are particularly disturbed by the poor performance of students in shorthand examination due to errors.

Errors committed by students in shorthand transcription are valuable because they reveal real problem students have in their transcription. Business education teachers can utilize these errors to improve students transcription performance. The findings imply that a sound knowledge of English language particularly phonetics, phonology, grammar and vocabulary is needed to minimize pronunciation, spelling errors and faulty transcription. Based on this research, student's deficiency in English language seems to be the major source of errors in transcribing error-free English sentences. This is because the teaching of shorthand is intertwined with teaching English language as „McNicol" cited in Vundi (2011) asserts that

“.....teaching of shorthand cannot be separated from the teaching of English. This is because shorthand is a linguistic skill and words are the very stuff of which it is made. A well-developed skill in English is a contributory factor to success in the total shorthand skill (both writing and transcribing). The extent to which a shorthand teacher can help students to improve their skill in English depends on the type of students”.

Conclusion

The study analyzed errors committed in shorthand transcription by 200 level business education students of Delta State University, Abraka, Agbor Nigeria. The findings showed that students made different types of errors - shorthand and non-shorthand transcription errors. Business Education students commit more errors when they are subjected to higher speed in shorthand dictation than when they are subjected to lower speed in shorthand dictation. There was a significant difference between the frequency of error committed in shorthand transcription at 60 wpm and 80 wpm. The shorthand transcription errors - errors due to spelling, punctuations, wrong

words, tenses, etc are due to student's deficiency in English language may be a major source leading to other sources of errors in shorthand transcription. The analysis of errors in shorthand dictation transcription has provided the shorthand teachers, researchers and the learners with valuable information in the area of difficulties that students encounter in the course of transcribing their shorthand notes.

Recommendations

On the basis of the findings and conclusions relating thereto, the following recommendations are made:

1. As production of mailable (error free) transcript is a major goal of shorthand, 60 words per minute should be the maximum speed test for 200 level degree students. This is predicted on the fact that students commit fewer errors when they are subjected to lower speed of 60 wpm than when they are subject to higher speed 80 wpm at 200 level.
2. Conferences, workshops and seminars should be organized at regular intervals by Association of Business Educators of Nigeria in (ABEN) in collaboration with English language Department in order to frontally deal with the transcription errors of wrong spelling, punctuation, vocabulary and other point of grammar found in students transcripts. This is so because majority of the errors made by students can be classified as English errors as a well developed skill in English language is a contributory factor to the success in the total shorthand skill (both writing and transcribing).

References

- Adenubi, A. (1979), Dictation as a testing instrument on secretarial studies English class, The teaching of English studies: Readings for colleges and Universities. Ibadan, University Press.

- An Action Agenda for Business Education (2005). A report of the proceedings and recommendation from the National conference of Business Education, August, Cincinnati, Ohio, pp. 30-48.
- Azuka, E.B. (1999) Relevance, suitability and Adequacy of shorthand in the 21st century, *Business Education Journal* (1), 18-22.
- Barr, J.E. (1971) An analysis, classification and synthesis of Research findings in shorthand and transcriptions, unpublished doctoral dissertation, University of Oklahoma.
- Crank, D.H, Aderson, R.T, and Peterson, J.C (1982) *Methods of Teaching shorthand and Transcription*, New York: Gregg Division McGraw-Hill Book Company.
- Cranke, D.H, (1962), standards, Grading and Testing, *The American Business Education year book*, P. 164
- Ekpeyong, M. (2005) The negative impact of harsh marking scheme on the overall performance of students in Shorthand, Auchi: Unpublished seminar paper.
- Ezenwafor, J.I (2009) Civil service perception of the Relevance of shorthand to the electiveness of confident secretaries in the Era of office automation, *Business Education Journal* (1) 106 -113.
- Federal Republic of Nigeria (2007) *National Policy on Education* (5th Edition) Abuja. NERDC, Press.
- Htwe, S.M, Higgins, C. Leadham, G and Yang, M. (2007) knowledge based Transcription of Handwritten Pitman's shorthand using word frequency and content, 7th Internal Conference on Development an Application System.508-572.
- Igwe, A.O. (1991), A study of the Relationship between proficiency in English language and shorthand course in Business studies students in institution of higher learning in Imo State, *Business Education Journal*, 11 (3) September Nigeria Association of Business Educators, 112-136
- McNicol, G. (1967), *Teaching shorthand and typewriting* Pitman Publishing (2nd Edition), p. 184
- NBTE (1989) Curriculum and Course specifications for national diploma and the higher national diploma in secretarial studies. Kaduna: National Board for Technical Education, pp 124 – 128.
- NCCE (2012) *Minimum standards for Nigeria Certificate in Education Vocational and technical Education*. 5th Edition, Abuja.
- Nwosu, B.O and Okafor, A.O. (1997) *Introduction to shorthand* New Era Onisha: African Feb Publishers
- Ocholi, J.M. (2018) Issues in Office Technology and Management (OTM) and national Development: *Delta Business Education Journal*, 8 91), 121-128
- Omojuwa, R.A. (1977) Marking and the use of errors in learners writing, Institute of Education, ABU, Zaria.
- Osemota, S.U (1978) *Guidance for the Development and Evaluation of shorthand speed Dictation Tests*, Master's Thesis, The University of Tennessees, Knoxville Tennessee.
- Unlinfo, F.E. (1992) Related Issues in the Teaching and Evaluation of business Education courses focus on shorthand skills development in tertiary institutions *Journal of Technical Teacher Education* 1 (1) 11-
- Vundi, S.K, Nasongo, J.W. and Majanga, E. (2011) influence of Teachers and students attitude towards performance in shorthand in technical training, current research *Journal of Social Sciences* 3 (2) 59-65.