DISPARITIES IN TONAL AND VOWEL REPRESENTATION: SOME PRACTICAL PROBLEMS IN YORUBA ORTHOGRAPHY

J. Gbenga Fagbọrnun
Obafoemi Awolowo University, Ile-Ife, Nigeria

This paper outlines some irregularities in the Yoruba writing system from the perspective of practical usage. Only some problems concerned with the spelling of vowels and tonal marks are investigated. For experimental purposes, some passages were dictated to some newly-admitted students in colleges of education and universities. Out of the scripts collected twenty-six were randomly sampled.

The presentation involves error analysis, sub-classification of disparities and a set of prescriptions based on linguistic facts. Some statistical data (in tables and curves) are used to show clearly the number of students who committed a given error. A critical appraisal of the Yoruba orthography is recommended to make the writing system consistent. This is because disparities and errors abound where orthography recommendations are incoherent or totally absent. As concluding remarks, the implication of the author's findings for language standardization is discussed.

La présente étude fait état de certaines irrégularités dans l'orthographe Yoruba à partir de la perspective de l'usage pratique. Seulement quelques problèmes ayant trait à l'orthographe des voyelles et marques tonales ont fait l'objet de la présente investigation. Pour des raisons expérimentales, quelques passages ont été imposés aux nouveaux étudiants des instituts de sciences de l'Education et Universités. De textes recueillis vingt et six seulement ont été comme par hasard des échantillons.

La représentation implique l'analyse des erreurs, la sous-classification de disparités et un tableau de prescription basé sur des faits linguistiques. Quelques données statistiques (dans des tables et déviation) sont utilisées pour montrer clairement le nombre des étudiants qui ont commis une erreur donnée. Une perspective critique de l'orthographe de Yoruba est recommandée en vue de rendre le système écrit (orthographe) consistant. Ceci puisque les disparités et erreur abondent là où des recommandations orthographiques sont incohérentes et totalement absentes (inexistantes). L'implication des résultats de la standardisation de la langue fait l'objet de la conclusion de l'auteur.

1. BACKGROUND

1.0 INTRODUCTION

Yoruba is one of the three Joint National Languages in Nigeria. The Oxford African Encyclopedia (1974:549) puts the number of people who speak the language at well over ten million. It started to be recognized as a medium of expression both in the State and National Assemblies in 1979⁴. This new language policy has required the language to be taught to non-native speakers at the secondary school level. A stable written form is now necessary.

Yoruba became a written language in the early 1840s when S.A. Crowther started to translate the Bible into Yoruba (Ajayi, 1960) and simultaneously wrote his Vocabulary of the Yoruba Language (London, 1843). Since then there have been various attempts to standardize the writing system of the language².

---

¹ The 1979 Nigerian Constitution states that: 'The business of the National Assembly shall be conducted in English, and in Hausa, Ibo and Yoruba when adequate arrangements have been made therefor[e].' (Anon, 1979:22)

²In 1875, under the Chairmanship of Bishop Samuel Ajayi Crowther, a meeting was held for two days in the CMS Mission House at St. Peter's Iba Faji, Lagos to resolve some problems of Yoruba orthography (see CMS Archives File No. CA2/96/113). Following this was the 1966 Yoruba Orthography Reformation Committee Meeting under the Chairmanship of Archdeacon S. A. Banjo of St. Peter's Vicarage, Ibadan (published as Ministry of Education, 1969). The latest talk on the Yoruba orthography was that of 1974 by the Joint Consultative Committee on Education (referenced as JCECE, 1974).
Until now, the efforts made by Yorùbá orthographic reformers have not removed all the discrepancies and grammatical errors from the orthography. There are many ways of assessing orthographic usage. This paper uses one by considering how students of Yorùbá performed in a dictation exercise.

The 1974 JCCE report on the Yorùbá orthography (otherwise known as Yorùbá orthography recommendation, henceforth YOR, see footnote 2) is conventionally looked at as a model. The report is in four parts, viz. the spelling of vowels, the spelling of tones, the spelling of consonants and word division. Fagbọrun (1986) attempts to measure the performance of a random sample of fifty-five students (out of 605) in the use of word division.

The present paper\(^3\) considers two other aspects of the orthography—spelling of vowels and tones—using the same passage (in Appendix A) from Fagbọrun (ibid). The analysis is limited to the writing of twenty-six students sampled at random. All the students had just started advanced studies of the Yorùbá language and literature in College or University\(^4\). None of them were from our University. I did this so that the method of teaching in our institution might not influence the work of my subjects, and indeed my research findings.

The research was carried out as follows: Appendix A, containing five passages, was sent out to teachers of Yorùbá in some Colleges and Universities to be dictated to their students\(^5\). This paper sub-classifies and analyzes some orthographic errors in the students' writing. This is followed by a set of prescriptions based on practical usage.

Some errors are inherent in orthographic recommendations, while others arise from inadequate knowledge of the writing system. I attempt to distinguish between real and pseudo problems. It is a quasi-problem when the approved convention is ignored intentionally or through ignorance of the norm. Genuine problems manifest themselves in two ways. The first is where orthographic recommendations are inconsistent, e.g. the use of an/qn and q/p for one and the same sound. There is also a true problem where no recommendation is made, e.g. the writing of yi/yi 'this' or bi/bi 'like/as', which most writers differentiate by using them in different contexts.

1.1 PLAN OF PRESENTATION

Firstly, the relevant conventions in the 1974 YOR being violated are reviewed. Secondly, attention is drawn to some areas where recommendations have never been made. Then the way in which the existing rules of the Yorùbá writing system are being violated is analysed using the work of twenty-six students under the following headings:

---

\(^3\) Special thanks go to Dr. Abiola Akintona, Mr. John Kelly, Abedi (My French translator), and Mr. and Mrs. Keith Mellard for their meticulous attention to the paper, though I admit to any mistakes. I have also benefited from the comments of the anonymous referee. I am obliged to Dr. Abiodun Adediran for his kind gesture in sponsoring the typing of the first draft of the paper in 1986.

Editor's note: For typographical reasons, the lower diacritic has been replaced by throughout the paper.

\(^4\) Only the scripts of 26 Part One students who had just been admitted for advanced studies of Yorùbá in a College or University were selected for this so that it may be possible to predict what is likely to be the problem of beginners and how to tackle it. I perceive no significant difference in the scripts of undergraduates and college students and so they are classified together.

\(^5\) I started to identify some disparities in the Yorùbá orthography during a one-year National Service at the College of Education, Lagos in 1982/83. The help received from friends (Shade Olanipekun, by then at Oyo State College of Education, Ibadan branch; Debo Awe, by then at Kwara State School of Basic Studies, Ilorin and a lot of others) in collecting data in 1983/84 is gratefully acknowledged.
(a) Problems of vowel representation  
(b) Miscellaneous problems of vowel representation  
(c) Problems of tone-making and other diacritics

Finally, as concluding remarks, the implication of the findings for language standardisation is discussed.

1.2 YORUBA VOWEL SOUNDS

The tone and vowel are taken together in this analysis because there is no vowel sound without an accompanying tone. There are three tones, high (˚), low (˚), or mid (unmarked)6, occurring on both oral and nasalised vowels as shown below:

(1)  
ré ‘to drop’  
ràn ‘to spread’  
rọ ‘to wither’

As in any other tone language, the syllable is the tone-bearing unit. Syllables are open because there is no ‘arresting consonant’ in the language (Abercrombie, 1967:40f). A consonant does not carry a tone except /n/ which functions as a syllabic nasal in some contexts (2.3 and 4.1).

Tones mark a contrast between words with the same spelling. This functional load can be illustrated with the following five words:

(2)  
ígba ‘calabash’  
ígba ‘time’  
ígba ‘two hundred’  
ígba ‘garden egg’  
ígba ‘a sort of climbing rope’

Thus, we can see the necessity of paying attention to the issue of tone-marking.

1.3 YORUBA ORTHOGRAPHY

Attention will be drawn to the area of Yorùbá orthographic convention that is problematic. There are some differences between the report of YOR 1969 and that of 1974 regarding the spelling of vowels. However, no changes in the spelling of tones can be detected (see Ministry of Education 1969 and JCCE 1974 for detail). The argument will be based on both of these reports.

1.3.1 Recommendations on the Spelling of Vowels

It is specifically stated in Point 4 under the spelling of vowels in the 1974 YOR that on ‘he, she, it’ be spelt as òun. Today, this spelling is sometimes confused with òbun ‘thing’.

Point 6 of the 1974 YOR suggests that òbìrìn ‘woman’ (used in the Yorùbá Bible) be replaced with òbìrin. Some students still use the old spelling.

Words such as ìn-àn and màràn-ìn, where nasalised vowels are lengthened, are recommended to be written as we have them here, with a hyphen. The 1974 YOR

---

6 In the YOR 1974, it is recommended that ‘where a writer is obliged to mark all tones, the mid-tone should be indicated by the absence of a tone’ (i.e. tone-mark, see Point 4)
states that: '. . . a lengthened nasal should be represented by reduplication, with the hyphen suitably inserted'.

Points 2 and 7 of the 1974 YOR are two cases of dual spellings. Point 2 recommends the use of both Ọn and Ọm for one sound pronounced as [ŋ]. Point 7, on the other hand, suggests that:

the diacritic marks indicating open vowels should be a vertical bar (a tail) or a dot, but not a dash (i.e. ọ/ọ, ẹ/ẹ, not ọ/ẹ).

Following these suggestions, some writers use both signs (e.g. e and ẹ; Ọn and Ọm) in one and the same work.

Although the YOR considers the lower diacritic under the spelling of vowels, its usage is discussed along with tone-marking (4.2) because both the lower mark and tone-mark (or 'upper mark') constitute almost the same problem as we can see in (4.2).

The last item under the spelling of vowels is yọ which is considered together with aiyẹ 'earth' and ẹiyẹ 'bird' in the 1974 YOR. They are, by convention, written without i, because i is redundant in those words. Although that superfluous letter 'is no longer' written with the word (yọ), most users of Yorùbá have allowed their regional dialects to affect the way in which the word is written. For instance, we can point to the following possibilities: yó, yóó, yóó and yóó.

1.3.2 Recommendations on the Spelling of Tones

The cause of disparities in the spelling of tones in the Yorùbá language can be traced to the inconsistencies in the recommendations of the Yorùbá Orthography Committees (YOC). In the 1969 YOR, extensive tone-marking is recommended only in writing poetry, dialectal transcriptions and other technical writings to facilitate comprehension. Before arriving at this point, there were arguments on whether:

(a) to mark any tones
(b) to mark all tones and
(c) to mark tones only on difficult words likely to be confused with other words.

The third point was agreed upon. The 1974 YOR stresses (Point 13) that:

. . . it is not essential for an author to mark the tone on every syllable. . . Yorùbá being a tone language, there is need for every writer to employ tone mark in a way that will facilitate comprehension (my underlining).

The use of tones is delineated (Point 14) with this statement:

. . . where the author decides to mark the tone on a given word the high and low tones should be marked; any syllable not marked can be assumed to have mid-tones (my underlining).

---

7 If the argument is based on the process of regressive assimilation, the nasality in the second syllable of gaan can be assimilated to the first syllable - ga and thus, pronounced as /gù/. For this, the spelling gaan /gàan/ could be accepted as some people often write. Other words in this category include ìrìṣìn / i ìw/ and ìnríííàn /ìmì ìw/. 
The underlined portion of the second quotation above has made it necessary to use extensive tone-marking in the language. It is not easy to identify any item that a reader may find difficult to comprehend, so most teachers have outwitted the first quotation by compelling their students to use extensive tone-marking. An author who fails to tone-mark every word may hide behind the 1974 YOR to justify his deed. But I doubt if a student has the audacity to refer his teacher (who probably tone-marks every word in his work) to that portion of the convention. This inconsistency in the use of tone-marks is discussed later (4.3 and Table 1).

It is recommended that the use of the tilde (—) (indicating a lengthened vowel and a multiple tone) be discontinued. Instead, the committee wants all pronounced vowels to be marked with the correct tones. Another item—yīf ‘this’, formerly written with a tilde (yī) will be treated along with some neglected items (see 1.3.3 and 3.1) on which the YOR is silent. Both yī and yīf are now at variance, but so far nothing has been said to warrant either use.

Point 16 of the 1974 YOR (under the spelling of tones) makes allowance for the use of a mid-tone on a syllabic nasal where necessary. The recommendation goes thus:

... the tone on a syllabic nasal should be indicated especially where it is likely to be confused with a n indicating nasality.

This can be illustrated with the following words:

(3) (a) wōn ‘to be dear’
(b) kōnkō ‘frog’

The ōn in wōn is regarded as one syllable together with w, while ŏn in kōnkō constitutes two syllables. The n in (3a) is an orthographic mark of nasality, while ā in (3b) is a syllable. To distinguish between n used syllabically and one used to mark a nasalised vowel, it is recommended that a syllabic nasal that carries a mid-tone be written with a macron, thus: pānla ‘stock fish’. It could as well be hyphenated as in pā-n-la. The analysis of my respondents’ performance on this sign can be seen in 4.1, and 2.3.

1.3.3 Some Neglected Areas

The degree of discrepancy in areas where the 1974 YOR is silent is tremendous. Some examples are bī/bīl ‘as/like’ and yī/yīf ‘this’. Some authors use one instead of the other according to personal pronunciation in a given context. For instance, Olabimtan (1967:2) uses bī before every item beginning with a vowel and bīl elsewhere, e.g.

(4) bī āgbèdè ‘such as blacksmithing’
bīl tālākā ‘like a pauper’

There has never been a statement to this effect in any YOR, but some authors follow the division consistently.

The same type of division is observed in the application of yū/yī. It may be recalled that yīf is recommended (1.3.2), but some writers use yī after a word that ends with a low-tone, as in nígà bī ‘this time’, while they use yīf elsewhere. For instance, bābā yīf ‘this father’. What we see in practice is that most amateur writers tend to use both spellings interchangeably (see 3.1 for the analysis of the usage).
1.4 DATA FOR THE ANALYSIS

The passages used for dictation are shown in Appendix A. The method adopted to extract the errors and disparities is shown in Appendix B.

All the experimental items--liable to perversion--are underlined in Appendix B. An omitted lower diacritic is shown by a mark (of x) under the letter involved. Only the words properly tone-marked were counted, while untone-marked/wrongly tone-marked ones were left out in the calculation. The summary of our subjects' performance on the use of tone-marks is in (4.3), while their score percentages are in Tables 1 and 2.

The script of student 26 is selected for practical illustration (Appendix B) of the way in which all the 605 scripts returned to me were examined. This was chosen because of its peculiarities. It contained all sorts of errors and deviations from the norm.

2. PROBLEMS OF VOWEL REPRESENTATION

Three items are discussed here, the lengthening of oral vowels, the lengthening of nasalised vowels and misrepresentation of a syllabic nasal. The 1974 YOR recommends that the number of vowels pronounced must be properly represented in writing. Yoruba spelling reformers since 1875 have been working towards the principle of autonomous phoneme with a condition corresponding to 'biuniqueness' (King, 1969:213) whereby no sound will have more than one letter and no letter may represent more than one sound (King, 1967:371). Because of this, some redundant letters were removed from the Yoruba orthography. Thus the tilde (~) which used to represent more than one vowel/tone had been eliminated. A word such as Òrùn may refer to:

\[(5) \quad Òrùn \quad 'sun' \]
\[\quad Òrùn \quad 'odour' \]

Bamgbose (1965) also advocates the use of autonomous phonemic writing when he suggests that all significant sounds be represented in writing. Although most of the redundant symbols are no longer used, an attempt to write as pronounced has led to disparities in the orthography because of the assumption that two speakers may not pronounce a word the same way.

2.1 LENGTHENING OF ORAL VOWELS

Most of the cases of vowel lengthening have not been mastered as is evident in the scripts where either students (30.8%) wrote Òewa as against Òewà; two wrote wàdà as against wàdí; another two wrote Òólòpà as against Òólòpà.

All the above items have a common structure. They are a combination of a high tone and a low-rising (low-high) tone which can be explained with this formula:

\[(6) \quad X--CV\#VCV--Y > X--CVCVV--Y \]

X and Y are used here as variables, indicating that any item whatsoever can be written before CV and after VCV as we can exemplify in the writing and formation of Òólòpà Ìnu 'detective policeman', thus:

\[(7) \quad Ònì Ì # Òpà Ìnú > Òlòpà Ìnú \quad X \quad Y \quad X \quad Y \]
(8) ní # ìpá > lápáá
CV # VCV > CVCCV

The above structure is not peculiar to oral vowels alone, as it can be demonstrated with rérin-in which was written as rérin by twelve (46.2%) students. The lengthening is sometimes misplaced as evident in the scripts of four students who wrote méwá for méwáá 'ten'.

2.2 LENGTHENING OF NASALISED VOWELS

What we refer to as a lengthened nasalised vowel is simply a vowel segmented (or hyphenated) from the syllable preceding it. Because it looks like the extension of the nasalised syllable written before it, it is often referred to as a 'lengthened nasal' (YOR 1974). This convention was violated by most of our subjects. The hyphen is easy to forget. Only 53.8% (14 of 26) of our subjects wrote gan-an. Three students (11.5%) wrote rérin-in, while only one student (3.8%) wrote márún-ún as recommended.

The three students who wrote gan for gan-an were wrong as were the either who wrote gan an. The second spelling (written as two words) is not morphologically explicable. According to the syntax of word division (Faghórún, 1986), the an in gan an has no syntactic value. Other items misspelt as if they were two words are márún ún and rérin in written by four students.

Notice also that some students did not lengthen the vowel as in gan, written by three students; rérin, twelve students, nani and marun by one and nine students respectively. The usage is not in any way regular.

The lengthening of nasalised vowels was indicated in other ways by some students. Instead of a hyphen, two students wrote rérin. One wrote gaan, while eight wrote márùn. Although not recommended in the YOR 1974, the spelling may be possibly suggested (see footnote 7).

2.3 PROBLEMS OF REPRESENTING A SYLLABIC NASAL

Some of the students used un to represent a syllabic nasal for which n is recommended. That was why one student wrote pàunla for pànla. Two students wrote un kònl for ì kònl, while one wrote un gbé for ì gbé. This was extended to the spelling of ng which is recommended in the 1974 YOR—to be written for the first person singular pronoun— to distinguish it from the verbal particle ì. Student No. 8 wrote bi un ba for bi ng bà. This ng is one of the items recommended by the YOC which many people do not care to use. Most people prefer to use n as in bi n bà, written by twenty-two (84.6%) students. None of the students wrote bi ng bà which is recommended. This seems to be a deliberate deviation from the YOR.

My own submission is that a macron (discussed in 4.2) would not be necessary in the language if un is acceptable as used by student No. 88. This student was marked wrong because the authorities may not like to see students pioneering the use of un for n. Most people have ignored the use of ng because a tone-mark has rendered redundant the use of g which used to differentiate ì (a verbal particle) from a pronoun. With this new spelling, dénde will be written as déunde and ì ìp as ìnim. The problem of using a mid-tone (macron) on a syllabic nasal is discussed in 4.1.
3. MISCELLANEOUS PROBLEMS OF VOWEL REPRESENTATION

The various items to be discussed include some neglected areas of the Yorùbá writing system, dialectal effects which nobody cares to standardise, some unnecessary complications and the use of old spellings in Yorùbá writing.

3.1 SOME NEGLECTED AREAS

Two items (bǐ/bì and yì/yì)---in which two spellings are used in some contemporary writings---are briefly examined here. As said in 1.3, no compromise has ever been reached on this dual representation of one item. If it is to be retained, it must be used consistently. It would be wrong for an author to write bǐ igí and bì asónà or nígba yì and bábá yì, as done by student 23 who wrote bǐ igí and bì asónà or student 26 who wrote bì igí and bì asónà. Student 5 wrote nígba yì and bábá yì. On the whole, 23 (88.5%) students wrote bì igí while 3 (11.5%) wrote bǐ igí. 19 wrote bì asónà, while 6 students wrote bì asónà. There is another interesting spelling of bì which may need attention. That is bì i, written as two items by student 1. This is now becoming much more common in published works.

Some authors who take to the system, and follow it rigidly, confine the use of bì to vowel initial words, while bǐ is used elsewhere. Yì is likewise restricted to the position after a low tone, while yì is used elsewhere. It seems that this is the way in which those items are pronounced in a discourse. It could be argued that this phonetic distinction is rather too technical for the use of laymen who may be unable to differentiate a vowel from a consonant sound. Given that, the principle of simplicity---advocated for a good orthography---will be defeated (see Williamson, 1984; Wolf, 1954). The differentiation could be left for those who care to analyse the phonetics of the Yorùbá language. The experimental and research findings indicate that bì and yì are more acceptable to most writers.

3.2 DIALECTAL EFFECTS ON THE SPELLING OF VOWELS

Two items prominently affected by dialectal influences are studied here. They are lè and yó. Until now, no decision has been taken by scholars or orthography reformers to choose one and only one of the spellings available to a writer. People are so free that the same author who writes lè may use lɛ/leɛ in one and the same work. The same thing applies to yó/yóo/yóo/yóó. Following the 1974 YOR, yó---which is the outcome of a removal of i from yio---is recommended. It is common in the literature to see ọ and not òù/òó (as in a ó lò 'we shall go') when the consonant is elided. This indicates that yó seems to be what is acceptable to the YOC. But many of our subjects wrote yóó (46.2%) for yóó dà bí and 11 students (42.3%) for yóó si tè lè which is often used in the literature. This is why no item is selected as normative.

Examples of these aberrations were found in the scripts of our students. For instance, in scripts 13 and 18, we found lè rin/leɛ mu and le mu/le rin respectively. 24 and 25 used le/lɛ, while 26 wrote le/leɛ. Although yoo (with mid-tone) has never been recommended, twenty-one students wrote it--nine for yoo dà bí and twelve for yoo si tè lè. This may be due to carelessness or lack of expertise. It may also be because yó is not a difficult word requiring tone-marking (see point 13 YOR 1974 quoted in 1.3 above).

There are some other words such as álẹ/amọ 'riddles' whose spelling can be greatly affected by the regional accent of a writer, for example bẹrẹ/bẹrẹ/bẹrẹ 'question' (contained in the present analysis).
3.3 UNNECESSARY COMPLICATIONS AND THE USE OF OLD SPELLINGS

There are some cases of two different signs for one sound in the 1974 YOR. Besides the use of ṣ/ọ, marked with a dot or a tail, it is also suggested that authors can use either on or an for the sound [5] in their writings. As a result, ãwọn ‘them’ could be written as ãwan. Kan /kà ‘one’ could be written as kọn. It is generally acknowledged that [5] and [ã] can be used interchangeably in the language.

The outcome of this double spelling for one sound is that some students mix the two. In the passages dictated to some students (Appendix A), ãwọn is used five times, while kan features six times.

Most of the students consistently used one type of spelling for each item. For instance, ãwọn and kan were used by a majority, but only 13 (50%) used the items consistently. Some students used both ãwọn and ãwan, the same thing for kan and kọn. Only 5 (19.2%) used ãwan and kan, while only 2 (7.7%) used the pair ãwọn and kọn constantly. This is where the problem lies. We can see that only twenty students did not deviate from the spelling they chose. Those who mixed spellings included student 4 who wrote ãwọn four times, ãwan once and kan six times.

In order to guard against irregularities, it is high time the authorities agreed to choose one of the two spellings. A suggestion of this kind is made by Bamgbose (1965) who proposes on as used by Abraham (1958).

The use of ìn ‘himself’ and obùn ‘thing’ may constitute a problem for a student who has been told to write the way he speaks. Both ìn and obùn are recommended, probably for easy recognition. But since tone-marking can serve that purpose, I consider this to be part of the complexity evident in the writing system. That might be why four students wrote ìn for obùn. This was counted as an error because they failed to follow the convention. It is also wrong to use obùn for ìn as done by student 6. The accuracy of usage of both items is not less than 84%.

It is no surprise to find only one student who wrote obùrin ‘woman’ for obìnrin because it is clearly stated in the 1974 YOR—under the spelling of vowels—that the spelling obùrin which is comparatively less prevalent should be abandoned for obìnrin (Point 6). The near-perfection of the writing of the item indicates that if more work is done on the orthography, the writing system will become much more regular.

4. PROBLEMS OF TONE-MARKING AND OTHER DIACRITICS

The use of tone-marks and lower diacritics in Yorùbá was generally adopted in 1875 during the first general meeting on the standardisation of the orthography. The use of a lower diacritic replaced the eb, formerly used by Crowther, to reduce the average length of a word. For example reh which Crowther wrote during his first sermon of 1844 later became re (see Ajayi, 1960). This was the beginning of a major problem in the Yorùbá spelling system. A word such as gbẹrhẹ̀gbẹ̀hẹ̀ ‘very large’, became gbẹrhẹ̀gbẹ̀hẹ̀gbẹ̀hẹ̀. A diacritic was devised to differentiate between the half-open vowels (e and o) and half-close ones (e and o) thus:

---

6 The lower diacritical mark was not employed in Crowther's first drafts of the Bible translation. He introduced it later. Since then it has come to stay. See Golmer's paper of January 1848 (CMS CA/2/043/94) which includes a scheme of orthography for the Yorùbá language and examples of Crowther's translation of St. Luke i:1-10, written in the file as St. Luke vv:1-10.
(9)  rè  ‘to cut’
    re  ‘to fall’
    ro  ‘to be tight’
    rọ  ‘to wither’

The pairs of words differ from each other because of that small diacritic which establishes them as minimal pairs, and this makes the use of the diacritic significant.

The reason for employing the mark is not far to seek; a diacritic is cheap to introduce because only a small modification is needed to identify it. But until now writers often leave out the mark below ọ, ẹ and s in writing as we shall see later. That is why people are kicking against the use of diacritics of various sorts. Nwachukwu (1983:17) laments that it is a mistake to have introduced one into Igbo orthography. David Dalby [personal communication] has suggested IPA symbols to replace the ‘lower’ diacritic in Yorùbá, and indeed, some other African languages.

We shall now examine, in this section, some problems associated with the use of various diacritics in the Yorùbá language. This will include tones on a syllabic nasal and the use of the lower diacritic. The performance of our students is computed using simple statistics.

4.1 TONES ON A SYLLABIC NASAL

Not many users of the orthography have mastered or even know about the use of a mid-tone (a) on a syllabic nasal (2.3), although the sign was designed in the 1969 YOR. Not one student indicated the mid-tone on pànlà. Instead, twenty-one (80.8%) wrote pànlà. This can be mistakenly interpreted and read as pànlà. Two students wrote pànlà for pànlà while only two wrote pànlÀ which is equally correct inasmuch as it can help to disambiguate the word. Notice also the writing of pànlà by student 26. Although not conventional, what he wrote looks more like what is pronounced (see 2.3).

One other item affected is gèndé which the students wrote in four different ways. Some of them must have taken n to be a consonant—no matter how it is used within a word—and hence did not place a tone-mark on it. That was why seven students wrote gèndé, while eight wrote gèndé. Gè-n-de, written by student 20, is also wrong because the syllabic nasal carries a high tone which does not call for the use of a hyphen. Besides, è is not nasalisable in literary Yorùbá or what some people call ‘standard Yorùbá’. It is only when an n carries a mid-tone that it is necessary to use a macron. Only ten (38.5%) students wrote the conventional gèndé. This problem of using a mid-tone or hyphen—which is often omitted—can be resolved if un is introduced to replace n, ñ, à.

4.2 THE LOWER DIACRITICS

Many of the 26 students participating in our studies did not indicate the lower diacritic in the 75 items that require it (in Appendix A). These include the following: se, asònà ye mìtètì bèẹ̀ gèé. Out of these 75 items, 11 are palato-alveolar fricative marked as s/s to distinguish it from the alveolar fricative. But most of the students did not mark this sign. For example, student 26 (in Appendix B) did not put a diacritic under any one of the eleven s [s] that feature in items such as se, sèlè and asònmè. Elsewhere, he used the mark under 39 (52%) of the items.

Failure to indicate a diacritic under s may be due to a dialectal influence. In Oyó dialect, for instance, there is no difference between [s] and [ʃ] and students from
this area may write /se/ for /se/ because that is how most Oyo people tend to articulate the sound. However, there is no excuse for this mistake because the Yoruba koiné is not "co-extensive" with any dialect of the Yoruba language (Bambose, 1966:22; see also Fagborun in preparation). The most plausible reason for leaving out the marks (including tonal marks) is that diacritics are not easy to maintain (Ray, 1963:93).

As we can see in Table 2, only 8 (30.7%) of the students scored up to 60% in the use of the lower diacritic. Another 9 (34.6%) were on the average scoring between 50.7% and 58.7%. The remaining 9 students scored below 47%. Nobody scored more than 86.7% which covered a maximum of 65 items.

If the IPA symbols (alluded to in 4.0) are adopted in the orthography to replace ë, ø, words such as ëk Ñ "blood" and øw Ñ "hand" will be written as ëk and øw respectively. But for the palato-alveolar fricative, it may be reasonable to recommend sh [the old spelling of 1875 contained in the CMS Archives (A2/096/113)] which we believe will be simpler to write and to remember than either the existing one (s) or the IPA symbols /s/ or /ʃ/. The Republic of Benin has adopted the new model (suggested by the Cultural Studies Department of UNESCO) and thereby drops all diacritics (Nwachukwu, 1983:17).

4.3 SPELLING OF TONES AND PERCENTAGE RANGES

Recommendations on the Yoruba orthography have gone a long way to mystify and mislead writers. This has been a major cause of a number of disparities in the writing of our subjects. There is no doubt, as can be deduced from Appendix B and Tables 1 and 2, that many of the users of the orthography do not take note of the tone-mark. Tones were not used extensively as recommended.

152 words (in Appendix A) were expected to be tone-marked by our students. But from the data available to us, no student tone-marked up to 3/4 of the items. In Table 1, we can see that student 24, who obtained the highest score, did not go beyond 110 words (72.4%). Student 26, whose work is used in Appendix B, tone-marked only 62 words (40.8%). Ten of the items he wrote were wrongly tone-marked, and thus discarded from our computation.

The teachers who dictated the passages in Appendix A reported that no student asked for extra time for tone-marking despite the fact that some words were left untoned-marked by all the participants. It seems that either the students did not realise the importance of tone-marking in the language, or that they found it difficult to manipulate.

Student 1 indicated tone-marks on the items in the first passage alone, which covers 20 words (13.2%). No. 4 did not tone-mark more than five words in the last passage. Nos. 17 and 18 did not tone-mark any word in the last passage. Both of them recorded 43.4% and 46.7% respectively. Only 20 students tried to tone-mark accurately some words (at least 10) in each of the 5 passages. All the wrongly tone-marked words were not counted.

The score ranges (in Table 2) are used to construct a frequency distribution which shows the number of students who fall within the same score ranges. The cumulative frequency function (CF) is calculated for the score ranges, thus:

\[
(10) \quad \text{CF}(x) = \text{number of scores less than or equal } x.
\]
For example, CF (60) = 21 or 1+1+5+6+8. To arrive at this, the raw data in Table 2 are grouped into score ranges to determine the number of students (frequencies) who fall within each range.

It is these score ranges that have been used to plot a normal curve (otherwise known as Gaussian distribution) shown in figure 1 to explain the distribution of errors and the degree of usage of tone-marking (see Parsons, 1974:264, Wood, Fletcher, Hughes, 1986:18ff).

It has been shown from our analysis that although a teacher may assume that a newly-admitted student of Yoruba studies (in the University or College of Education) is required to record 60% in tone-marking, half of our students could not go beyond 50%; CF (50) = 13 or 1+1+5+6. If 60% of tone-marking is taken to be the standard, as it should be (see Table 2), we can then conclude that not many students had passed the test. This is further illustrated with the curve in Figure 1 which is negatively skewed. See Downie, Heath (1959:24f) for the interpretation of various kinds of skewness.

This performance shows that some writers have formed the habit of writing before tone-marking. Otherwise our subjects would not have left some passages (most especially towards the end) without tone-marking. The normal thing is to write and tone-mark simultaneously, since tone is an integral part of vowel sounds in a tone language. Teachers should encourage their students to tone-mark as they write, as this will save them time. This research has shown that they could not expect much from new students on tone-marking.

5. GENERAL REMARKS AND CONCLUSIONS

We have shown that many writers tend to pervert the recommended Yoruba orthography in various ways. For instance, the use of ng has been naturally dropped for n without any statement from the authority. If oṣujẹ ‘food’ is preferred to oṣẹ, we see no reason why we should continue to write ọdẹ ‘stamp’ and ọdẹkọ ‘writer’. Words having the same structure are supposed to be written the same way. If the sound /u/ is to be rendered as n in the orthography, there is no reason why we should not write ọṣujẹ, ọdẹ, ọdẹkọ consistently. Or if un is to be preferred, they should all be written in the same way as oṣujẹ, ọdẹ... To overcome the likelihood of omitting the mid-tone on a syllabic nasal, un may be recommended, thus gbuaun gbọ ‘open space’ and pana lọ ‘stock fish’ for gbua and pana respectively.

It is rather disheartening to have to say that orthographic problems are the most serious set-back African languages face. For instance, a language with an unstable orthography will be difficult to teach to foreign language students. It will not be easy to program on computer, and therefore machine translation will be impracticable. It is highly necessary for scholars and researchers to fight for only one acceptable spelling for each word in the language. They should note that ‘to be modern, powerful, stable and useful for technical records, a language must be morphonemic, pan-dialectal and consistent with itself’, as suggested by Capo (1980:28).

Remedial action becomes necessary when disparities of this kind are detected in a skill. It is my belief that if all the items likely to be misconstrued are catalogued, the use of the orthography will tend to be much more regular.
THE SCORE RANGE DISTRIBUTUION FOR TONE-MARKING

<table>
<thead>
<tr>
<th>SCORES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-20</td>
<td>1</td>
</tr>
<tr>
<td>21-30</td>
<td>1</td>
</tr>
<tr>
<td>31-40</td>
<td>5</td>
</tr>
<tr>
<td>41-50</td>
<td>6</td>
</tr>
<tr>
<td>51-60</td>
<td>8</td>
</tr>
<tr>
<td>61-70</td>
<td>3</td>
</tr>
<tr>
<td>71-80</td>
<td>2</td>
</tr>
<tr>
<td>81-90</td>
<td></td>
</tr>
<tr>
<td>91-100</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1
This is evident from the data collected where it is shown that writers have mastered the spelling of words such as Òun, obinrin, àànnú and wàdíí where recommendations were made. In addition, if a good dictionary is written on Yorùbá, it will go a long way in standardising the written form of the language. This has become indispensable in this searching period when a Yorùbá metalanguage is introduced to teach all aspects of Yorùbá studies using exclusively Yorùbá terms.

One reason Johnson (1818) compiled his Dictionary of the English Language was to correct some anomalies in the spelling of English and to stop what he regarded as wrong innovations or ‘neologism’ (he does not use that term) and thereby ‘fix’ or ‘standardise’ English. As with Yorùbá koine, some of the irregularities which Johnson noted in English are inherent in the language whilst others are due to lack of knowledge of the spelling system.

A practical text on Yorùbá orthography can be written which will be comprehensive enough to embrace all items likely to confuse writers. Intensive research will undoubtedly reveal many more of these. If linguistic explanations are given for writing an item the way it is recommended to be written, disparities will be minimised.

The use of tone-marks and a number of other diacritics is causing much trouble. If diacritical marks could be curtailed and IPA symbols adopted (as suggested by the UNESCO), the problem may be reduced. This would also unify the orthographies of Nigerian languages, especially at this crucial period when three of them (Hausa, Igbo and Yorùbá) have become Joint National Languages. Although some attempts (of 1875, 1969 and one of 1974, see footnote 2) had helped to standardise Yorùbá orthography, more efforts are still needed to make it more uniform and easy to use, at least to improve 'readability' (Hair, 1967:16f).

Unstable orthography will not aid production of pedagogical texts as observed by Awobuluju (1983) who says:

...an impractical orthography in which the various symbols used are heavily studded with diacritics will almost surely turn book-writing into self torture, printing into a veritable ordeal.

The rise in a standard language usually presupposes the existence of a standardised literary norm (Ndukwe, 1984:10). For this reason, it may be relevant to consider how a recommended orthography is being used over a period of time because it is one thing to propose, it is another thing to adhere to the norm. When we talk of ‘standard Yorùbá’ it will be appropriate to look at the writing system along with it. When Crowther was koinésing the language about one hundred and fifty years ago, both ‘translation and the search for a simpler, more correct orthography went on side by side’ (Ajayi, 1960:49).

Both the process of mixing, levelling and simplification of linguistic items to standardise a language (koinéisation—see Trudgill, 1986:127) and orthographic representation are still in progress in Yorùbá. None of them are yet stable 9. Other scholars who have integrated a writing system with language standardisation in our time include Laird (1959), Nwachukwu (1983) and Ray (1963). All of them stipulate

---

9 Research is in progress by J. G. Fagbórun to ascertain the incorporation of English Loan-translations (ELT) in the Yorùbá koine. This includes how ELT has affected the Yorùbá orthography from the earliest periods. Most of the items discussed (as performance data) are yet to be standardised or accepted in the pedagogical grammar (Fagbórun in Preparation).
that for a language to be fully standard, its orthography must be regular to a certain extent. Evidence of disparities in the use of the orthography, as discussed in this work, need proper attention because 'uniformity of usage has not been achieved' (Banjo, 1983).

A larger research should be carried out to incorporate more items. This would enable language reformers and planners to know what is acceptable to most Yorùbá users. Following is the claim made by Wardhaugh (1986:137):

The least preferred variety is the most non-standard, while the most preferred variety is the most standard.

It has been shown, for example, that n is now valued more highly than ng. Bì is preferred to bú/bú dichotomy, while yì tends to be more favoured than yì/yì division. A norm can be determined through this type of usage (see Bartsch 1987 for the way in which a linguistic norm is mostly arrived at).

This write-up will hopefully enable a new student to know the task ahead, especially on tone-marking where only half of our students scored up to 50%.

6. SUMMARY

The Yorùbá writing system is not yet consistent; there are various spellings for one word. Some complications in the orthography could be eliminated through a coordinated effort of practising scholars. It is argued that without a stable orthography, we cannot talk of a full 'standard Yorùbá'. Some practical aspects of the Yorùbá orthography need a grammatical reappraisal to bring unification in the writing system. With a good dictionary and a spelling book (not a mere listing of items) there will be a uniform orthography. All complicated uses may be reserved for technical or formal analysis by experts. Approved conventions, which are sometimes disregarded, must be taken seriously to reduce disparities.

APPENDIX A

PASSAGES FOR DICTATION

i. Nìgbà yìf ní bàbá yìf bẹrẹ sì i wádìí èni tó rí i pé ó sì è jáándú dùn nìgbà tí ãwọn kan jí eja panla ní pé jí ní le rin láóló ẹpá.

ii. Nìwön ègbà tí ãwọn náà tí mò wí pé kò yè kí a máá jálè ãwọn ìlò tó n kòni kí a má jálè lò yè kí a máá sàbà pa ń fun ãwọn è̀nìyàn wá.

iii. Bí ná puró mà a rèrìn-un, è má sì rò pé ènì kan le mún ènikéni se ohun tí kò fẹ́ se. Wọn ní bí ẹlééyí mà tìí ìṣè a ní àfírò pé ńgbà lágíbèrù.

iv. Ómọ náà bà jè tó bèè gèè tí àṣọùnósí tí fí sì bàbá rè tó rán an níse àtìjálà lèjìmo tì bà a já gan-an. Bákan náà ní ón áti obiírin rè n ńwá ìlójútí.

v. Ìdí rèé tó kí fí fí fí sì mìkan kan bí òwò pá tí tè é. Sé ni yó dâ bí igi ẹdú tí ènì kan kò náàní lèjè kan náà tó yó sì tè lè ãwọn ẹ̀gèndé márín-un tó dúró bí asònà ãwọn mèwèè wà tó n gbè ìle ìlójútí mèwèè tí bàbá rè kò fún un.

N.B. You must know that the above may not be error-free!
FOR YOUR OBSERVATION

<table>
<thead>
<tr>
<th># of Students</th>
<th># of Students</th>
<th>Those Who Asked for</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Degree of</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td># of</td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX B

THE WORK OF STUDENT NO. 26*

Nigbà yiì ni bábá yiì bërè sì wàtí eni tí rii, pe o se ìjàànu oun. Nigbàtí àwọn kan jì eran pàunlà rè, je ti ko si le rìn lái lo opin.

Ní wọn igbà tí àwa náa tí mò wí pé kò yè ká móó jàlè àwọn ààlà tó unko ni kí mò jàlè lo ye ka móó sa ba pà fun àwọn èniyàn wa.

Bí ń bá kuró màá rerin ìn mó se enikan leè mu eníkení se oun ti kò fèe sì. Wọn ni bi elevi ba tile sèçé a ni lati pe olopa lai bèrù.

Omo náà bájẹ to bèègè tí a sòrùn-sòsì tí se bábà rè tó rán-an níse àti jàlè leèémeta fi bi já gàan. Bakan nàa ni oun ati obinrin re n hùwà ai loju ti.

Idi nìyì ti kìi fa sọ ohun kan-kan tí òwọ ba ti ìe, ń se ni yo dabi iji gedú ti enikan ko nààní lèsè kan nàà ti yo si tèlè àwọn gendé marun tí o duro biì aṣọna fun àwọn ìmẹ̀wà ti n gbele olojule ìmẹ̀wà ti bàbá rè kò fun un.

*We are concerned with only the vowel and tonal errors. The experimental items are underlined. Only the words properly tone-marked were counted for the analysis of tonal scores. For instance, no mark was awarded for a wrongly tone-marked (WT) word. Omitted lower diacritics were indicated by x.
# APPENDIX C: SCORE TABLES

## TABLE 1: THE USE OF TONAL AND OTHER DIACRITICAL MARKS

<table>
<thead>
<tr>
<th># of Subjects</th>
<th># of Passages</th>
<th># of Words</th>
<th>% of Words</th>
<th># Marked</th>
<th>% of Words Covered</th>
<th>% Marked of Words Covered</th>
<th>% of Words Marked of Words Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>20</td>
<td>13.2</td>
<td>24</td>
<td>32.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>80</td>
<td>52.6</td>
<td>35</td>
<td>46.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>85</td>
<td>55.9</td>
<td>40</td>
<td>53.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>65</td>
<td>42.8</td>
<td>27</td>
<td>36.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>90</td>
<td>59.2</td>
<td>49</td>
<td>65.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>100</td>
<td>65.8</td>
<td>51</td>
<td>68.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>45</td>
<td>29.7</td>
<td>27</td>
<td>36.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>70</td>
<td>46.1</td>
<td>41</td>
<td>54.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>68</td>
<td>44.7</td>
<td>18</td>
<td>24.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>60</td>
<td>39.5</td>
<td>30</td>
<td>40.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>79</td>
<td>51.8</td>
<td>48</td>
<td>64.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>48</td>
<td>31.6</td>
<td>33</td>
<td>44.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>84</td>
<td>55.3</td>
<td>45</td>
<td>60.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>55</td>
<td>36.2</td>
<td>40</td>
<td>53.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>102</td>
<td>67.1</td>
<td>60</td>
<td>80.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>5</td>
<td>77</td>
<td>50.7</td>
<td>33</td>
<td>44.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>66</td>
<td>43.4</td>
<td>40</td>
<td>53.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>71</td>
<td>46.7</td>
<td>31</td>
<td>41.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>78</td>
<td>51.3</td>
<td>38</td>
<td>50.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>93</td>
<td>61.2</td>
<td>51</td>
<td>68.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>5</td>
<td>56</td>
<td>36.8</td>
<td>40</td>
<td>53.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>88</td>
<td>57.9</td>
<td>44</td>
<td>58.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>5</td>
<td>71</td>
<td>46.7</td>
<td>40</td>
<td>53.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>5</td>
<td>110</td>
<td>72.4</td>
<td>59</td>
<td>78.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>5</td>
<td>109</td>
<td>71.7</td>
<td>65</td>
<td>86.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>5</td>
<td>62</td>
<td>40.8</td>
<td>39</td>
<td>52.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Score for Tone-Marking</td>
<td></td>
<td>The Score for the Lower Diacritic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------</td>
<td>---</td>
<td>----------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>72.4</td>
<td></td>
<td>86.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>71.7</td>
<td></td>
<td>80.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>67.1 STANDARD</td>
<td></td>
<td>79.7 STANDARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>65.8 (19%)</td>
<td></td>
<td>68.0 (30.7%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>61.2</td>
<td></td>
<td>68.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>59.2</td>
<td></td>
<td>65.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>57.9</td>
<td></td>
<td>64.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>55.9</td>
<td></td>
<td>60.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>55.3</td>
<td></td>
<td>58.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>52.6 AVERAGE</td>
<td></td>
<td>54.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>51.8 (31%)</td>
<td></td>
<td>53.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>51.3</td>
<td></td>
<td>53.3 AVERAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>50.7</td>
<td></td>
<td>53.3 (34.6%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>47.7</td>
<td></td>
<td>53.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>46.7</td>
<td></td>
<td>53.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>46.1</td>
<td></td>
<td>52.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>44.7</td>
<td></td>
<td>50.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>43.4</td>
<td></td>
<td>46.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>42.8 BELOW</td>
<td></td>
<td>44.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>40.8 AVERAGE</td>
<td></td>
<td>44.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>39.5 (50%)</td>
<td></td>
<td>41.3 BELOW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>36.8</td>
<td></td>
<td>40.0 AVERAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>36.2</td>
<td></td>
<td>36.0 (34.6%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>31.6</td>
<td></td>
<td>36.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>29.6</td>
<td></td>
<td>32.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>13.2</td>
<td></td>
<td>24.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES

Banjo, A. 1983. Linguistics at the National Language Centre, A keynote address, 4th LAN Conference.

Revision received October 14, 1988.