A COMPARATIVE STUDY OF NUMERIC SYSTEMS OF ENGLISH AND HAUSA LANGUAGES

BY

HAFSAT BALA SOKOTO

0911110083

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Approval Page

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Malam Abdullahi Muhammad   Date

(Project Supervisor)

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Dr. Muhammad Aminu Mode   Date

(Head of Department)

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External Examiner   Date

Dedication

This work is dedicated to my family.

Acknowledgements

Al praise is to Allah, creator of all and on whose command and permission all things are done.

I must first thank my supervisor, Malam Abdullahi Muhammad for his patience, constant guidance and constructive criticisms. I also acknowledge the support and understanding of Malam Mansur Isah Buhari of the English unit. May Allah reward you.

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CHAPTER ONE

1.1 Introduction

This work is a comparative study of the numeric system of two of the most widely spoken languages not only in Nigeria but Africa and the world as a whole. It is to explain the styles adopted by the speakers of both languages in expressing numeral situations.

In the early days of some comparison between languages, some scholars had argued that there was such a strong linguistic affinity between Hausa and English numerals so much that the two languages could have common meaning and non- instinctive way of communicating ideas, emotion and desires by means of voluntarily produced symbols. This is because any language is fundamentally a series of sounds which become meaningful only when those sounds are grouped together in certain definite arrangements (Olaye, 1982). Besides, just as languages must name things and talk about them, virtually all human languages (English and Hausa inclusive) count things. By this token, numeration is somewhat a universal phenomenon.

Both English and Hausa languages may need little or no introduction because they are both languages of wider communication.

1.2   Statement of the Problem

Given the nature of their numeral comparison, it is good to look at their linguistic affiliation. Hausa is a Chadic language of the Afro-Asiatic language family. The Bole-Tongale Angas and Ron groups of the west Chadic languages represent the closest relative of Hausa. While English language really started with arrival of three German languages. In that numbers and counting have become an integral part of English and Hausa everyday life especially when we take into account, in the modern computer. These words you are reading have been recorded on a computer using a code of ones and zeros.

It is an interesting story how those digits have come to dominate our word. Presently, the earliest known archeological evidence of any form of writing or counting are scratch marks on a bone from 150,000 years ago. But the first really evidence of counting in the first form of the numbers from twenty thousand years ago. An Ishango bone was found in the Congo with two identical marking of sixty scratches each an equally numbered group on the back. These Markings are certain education of counting and they mark defining moment in a western civilization. In present day, counting we learn about cardinal and ordinal numbers followed by grammar rules and animal names and that of conversation in Hausa.

Learners of English as second language have many difficulties in counting or position due to (LI) interference

The product of two consecutive positive integers was taken and converted into some numeral base -n system

In the base- n system it's written as a double digit number with consecutive position integers digits, each at most case.

Both languages need challenges due to their huge influence in society.

Hausa has what is probably the most unusual and complicated of any of the world's natural languages numeral systems.

In summary and conclusion numerable, it should be noted, it is a very important aspect of any linguistic system, and numbering is an integral and inseparable part of the grammar of any language because there is hardly any meaningful linguistic discourse in a language that does not make reference to quantity, size, time, distance and position.

1.3 Objectives of the Study

The objectives of this study are to:

- examine the numeral system of English and Hausa with a view to identifying their similarities and differences.

- establish whether or not the numeral grammar rule determines difficulties in counting.

1.4 Significance of the Study

The research project will enable students concerned to identify the weakness and possible correction to their counting of numbers; particularly with regards to the problems of translation difficulties among users of English language as a second language or lingua franca. Also, the findings of this study are expected

to serve as a store of knowledge for further researches and a literature to be reviewed by researchers in related field.

1.5   Scope and Limitation

This study is primarily limited to the counting grammar rule in English and Hausa languages. The research area also covers such aspects like rules governing the languages as well as the similarities and differences that exist in cardinal numeral system. These among others are some areas that this research work limits itself to in an effort to see that all the relevant as well as related areas of the topic are covered by the work.

CHAPTER TWO

LITERATURE REVIEW

2.1.1 History of the English Language

English is a West Germanic language that originated from the Anglo-Frisian dialects and was brought to Britain by Germanic invaders (or settlers) from what is now called north west Germany and the Netherlands. It uses a vocabulary unlike other European languages of the same era. A large portion of the modern English vocabulary comes from the Anglo-Norman languages. English frequently makes use of loanwords originating from other languages.

Middle English differed from Old English because of two invasions, which occurred during the Middle Ages. The first invasion was by people who spoke North Germanic languages. They conquered and colonised parts of Britain during the 8th and 9th centuries AD. The second invasion was by the Normans of the 11th century, who spoke Old Norman and eventually developed an English form of this, called Anglo-Norman. A new vocabulary introduced at this time heavily influenced many organizations, including the church, the court system and the government. European languages, including German, Dutch,

Latin and Ancient Greek influenced the English vocabulary during the Renaissance.

Old English initially was a diverse group of dialects, reflecting the varied origins of the Anglo-Saxon kingdoms of Britain. The Late West Saxon dialect eventually became dominant. Written Old English of 1000 AD was similar to Old Frisian and, to a lesser extent, other Germanic languages such as Old Saxon, Old High German and Old Norse in terms of vocabulary and grammar. Written Old English is relatively unintelligible today, in contrast to written Modern English and written Middle English. Close contact with the Scandinavians resulted in much grammatical simplification and lexical enrichment of the English language, which had been based on Anglo-Frisian. These changes did not reach South West England until the Norman invasion in 1066. Old English developed into a full-fledged literary language, based on the most common manner of speaking in London during the 13th century.

English is divided into several historical forms. Each historical form of English had certain characteristics that distinguish it from the forms of English that came before and after it. The Old English period was from the mid-5th century to the mid-11th century, the Middle English period from the late 11th century to the late 15th century, the Early Modern English period from the late 15th century to the late 17th century, and the Modern English period from the late 17th century to the present.

2.1.2 Proto-English

The languages of Germanic peoples gave rise to the English language. The best known are the Angles, Saxons, Frisii, Jutes and possibly some people such as Franks, who traded, fought with and lived alongside the Latin-speaking peoples of the Roman Empire in the centuries-long process of the Germanic peoples' expansion into Western Europe during the Migration Period. Latin loan words such as *wine*, *cup*, and *bishop* entered the vocabulary of these Germanic peoples before their arrival in Britain and the subsequent formation of England.

Tacitus' *Germania*, written around 100 AD, is a primary source of information for the culture of the Germanic peoples in ancient times. Germanics were in contact with Roman civilization and its economy, including residing within the Roman borders in large numbers in the province of Germania and others and serving in the Roman military, while many more retained political independence outside of Roman territories. Germanic troops such as the Tungri, Batavi and Frisii served in Britannia under Roman command. Except for the Frisians, Germanic settlement in Britain, according to Bede, occurred largely after the arrival of mercenaries in the 5th century. Most Angles, Saxons and Jutes arrived in Britain in the 6th century as Germanic pagans, independent of Roman control, again, according to Bede who wrote his Ecclesiastical History in 731 AD. Although Bede mentions invasion by Angles, Saxons and Jutes, the precise nature of the invasion is now disputed by some historians, and the exact

contributions made by these groups to the early stages of the development of the English Language, are contested.

The *Anglo-Saxon Chronicle* relates that around the year 449 Vortigern, King of the Britons, invited the "Angle kin" (Angles allegedly led by the Germanic brothers Hengist and Horsa) to help repel invading Picts. In return, the Anglo-Saxons received lands in the southeast of Britain. In response "came men of Ald Seaxum of Anglum of Iotum" (Saxons, Angles and Jutes). The *Chronicle* refers to waves of settlers who eventually established seven kingdoms, known as the heptarchy. Modern scholars view Hengist and Horsa as euhemerised deities from Anglo-Saxon paganism, who ultimately stem from the religion of the Proto-Indo-Europeans.

However it is important to remember that the *Anglo-Saxon Chronicle* was not a contemporaneous record of these assumed folk-movements. It was first written around 850 AD, up to four hundred years after the events it is describing. Therefore, we cannot assume that the *Chronicle* is an accurate record for the fifth and sixth centuries, or that the events referred to actually took place.

2.1.3 Old English

After the Anglo-Saxon settlement, the Germanic language displaced the indigenous Brythonic languages and Latin in most of the areas of Britain that later became England[citation needed]. The original Celtic languages remained in

parts of Scotland, Wales and Cornwall (where Cornish was spoken into the 18th century), although large numbers of compound Celtic-Germanic place names survive, hinting at early language mixing. Latin also remained in these areas as the language of the Celtic Church and of higher education for the nobility. Latin was later to be reintroduced to England by missionaries from both the Celtic and Roman churches, and it would, in time, have a major impact on English. What is now called Old English emerged over time out of the many dialects and languages of the colonizing tribes. Even then, Old English continued to exhibit local variation, the remnants of which continue to be found in dialects of Modern English. The most famous surviving work from the Old English period is the epic poem *Beowulf*, composed by an unknown poet.

Old English varied widely from modern Standard English, and most native English speakers today find Old English unintelligible. Nevertheless, English remains a Germanic language, and approximately half of the most commonly used words in Modern English have Old English roots. The words *be*, *strong* and *water*, for example, derive from Old English. Many non-standard dialects such as Scottish English (with its heavy Scots influence) and Northumbrian English have retained features of Old English in vocabulary and pronunciation. Old English was spoken until sometime in the 12th or 13th century. In the 10th and 11th centuries, Old English was strongly influenced by the North Germanic language Old Norse, spoken by the Norsemen who invaded and settled mainly

in the North East of England. The Anglo-Saxons and the Scandinavians spoke related languages from different branches of the Germanic family; many of their lexical roots were the same or similar, although their grammar was more divergent.

The Germanic language of the Old English-speaking inhabitants was influenced by extensive contact with Norse colonizers, resulting perhaps in cases of morphological simplification of Old English, including the loss of grammatical gender and explicitly marked case (with the notable exception of the pronouns). The Vikings had a very significant effect on English culture and language by interacting with ordinary people, which was further encouraged by the Christianization of the Danes. Converting the Danes allowed intermarriage, further forcing the two groups to mingle and encouraging language cohabitation. While the heightened level of mingling indicates large amounts of lexical borrowing, it is difficult to define how and when those borrowings occurred. That being said, English borrowed approximately two thousand words from Old Norse, including *anger*, *bag*, *both*, *hit*, *law*, *leg*, *same*, *skill*, *sky*, *take*, *window*, and many others, possibly even including the pronoun *they*.

The introduction of Christianity from around 600 encouraged the addition of over 400 Latin loan words into Old English, such as *priest*, *paper*, and *school*, and fewer Greek loan words. The Old English period formally ended some time after the Norman conquest of 1066, when the language was influenced to an

even greater extent by the Normans, who spoke a French dialect called Old Norman.

2.1.4 Middle English

For centuries following the Norman Conquest in 1066, the Norman kings and high-ranking nobles in England and to some extent elsewhere in the British Isles spoke Anglo-Norman, a variety of Old Norman, originating from a northern langue d'oïl dialect. Merchants and lower-ranked nobles were often bilingual in Anglo-Norman and English, whilst English continued to be the language of the common people. Middle English was influenced by both Anglo-Norman and, later, Anglo-French.

The more idiomatic, concrete and descriptive a style of English is, the more it tends to be from Anglo-Saxon origins. The more intellectual and abstract English is, the more it tends to contain Latin and French influences.

Until the 14th century, Anglo-Norman and then French was the language of the courts and government, but for example the Pleading in English Act 1362 made English the only language in which court proceedings could be held, though the official record remained in Latin.

 Even after the decline of Norman French, standard French retained the status of a formal or prestige language—as in most of Europe during the period—and had a significant influence on the vernacular English, which is visible in

Modern English today (see English language word origins and List of English words of French origin). A tendency for French-derived words to have more formal connotations has continued to the present day. For example, most modern English speakers consider a "cordial reception" (from French) to be more formal than a "hearty welcome" (from Germanic). Another example is the unusual circumstance of the words for animals being separate from the words for their meat, e.g. beef and pork (from the French *bœuf* and *porc*) are the products of "cows" and "pigs"—animals with Germanic names.

English was also influenced by the Celtic languages it was displacing, especially the Brittonic substrate, most notably with the introduction of the continuous aspect (to be doing or to have been doing), which is a feature found in many modern languages but developed earlier and more thoroughly in English. Brittonic influence on English grammar spread from the north and west toward the south and south-east of England.

While the *Anglo-Saxon Chronicle* continued until 1154, most other literature from this period was in Old Norman or Latin. A large number of Norman words were taken into Old English, with many doubling for Old English words. The Norman influence is the hallmark of the linguistic shifts in English over the period of time following the invasion, producing what is now referred to as Middle English.

English literature reappeared after 1200, when a changing political climate and the decline in Anglo-Norman made it more respectable. The Provisions of Oxford, released in 1258, was the first English government document to be published in the English language after the Norman Conquest. In 1362, Edward III became the first king to address Parliament in English. By the end of the century, even the royal court had switched to English. Anglo-Norman remained in use in limited circles somewhat longer, but it had ceased to be a living language.

Geoffrey Chaucer is the most famous writer from the Middle English period, and *The Canterbury Tales* is his best-known work. Although the spelling of Chaucer's English varies from that of Modern English, his works can be read with minimal assistance.

The English language changed enormously during the Middle English period, both in grammar and in vocabulary. While Old English is a heavily inflected language (synthetic), an overall diminishing of grammatical endings occurred in Middle English (analytic). Grammar distinctions were lost as many noun and adjective endings were leveled to -e. The older plural noun marker -en largely gave way to -s, and grammatical gender was discarded. Approximately 10,000 French (and Norman) loan words entered Middle English, particularly terms associated with government, church, law, the military, fashion, and food.

English spelling was also influenced by Norman in this period, with the /θ/ and /ð/ sounds being spelled *th* rather than with the Old English letters þ (thorn) and ð (eth), which did not exist in Norman. These letters remain in the modern Icelandic alphabet, having been borrowed from Old English via Old West Norse.

2.1.5 Early Modern English

English underwent extensive sound changes during the 1400s, while its spelling conventions remained largely constant. Modern English is often dated from the Great Vowel Shift, which took place mainly during the 15th century. The language was further transformed by the spread of a standardised London-based dialect in government and administration and by the standardising effect of printing. As a result, the language acquired self-conscious terms such as "accent" and "dialect". By the time of William Shakespeare (mid 16th - early 17th century),[1] the language had become clearly recognisable as Modern English. In 1604, the first English dictionary was published, the *Table Alphabeticall*.

Increased literacy and travel facilitated the adoption of many foreign words, especially borrowings from Latin and Greek from the time of the Renaissance. In the 17th century, Latin words were often used with their original inflections, but these eventually disappeared. As there are many words from different

languages and English spelling is variable, the risk of mispronunciation is high, but remnants of the older forms remain in a few regional dialects, most notably in the West Country. During the period, loan words were borrowed from Italian, German, and Yiddish. British acceptance of and resistance to Americanisms began during this period.

2.1.6 Modern English

Early Modern English and Late Modern English vary essentially in vocabulary. Late Modern English has many more words, arising from the Industrial Revolution and the technology that created a need for new words as well as international development of the language. The British Empire at its height covered one quarter of the Earth's surface, and the English language adopted foreign words from many countries. British English and American English, the two major varieties of the language, are spoken by 400 million people. Received Pronunciation of British English is considered the traditional standard. The total number of English speakers worldwide may exceed one billion.

2.2.0 English numerals

2.2.1 Cardinal numbers

Cardinal numbers refer to the size of a group. In English, these words are numerals.

0 zero (nought) 10 ten

1 one   11 eleven

2 two   12 twelve (a dozen)   20 twenty (a score)

3 three   13 thirteen   30 thirty

4 four   14 fourteen   40 forty *(no "u")*

5 five   15 fifteen *(note "f", not "v")* 50 fifty *(note "f", not "v")*

6 six   16 sixteen   60 sixty

7 seven   17 seventeen   70 seventy

8 eight   18 eighteen *(only one "t")* 80 eighty *(only one "t")*

9 nine   19 nineteen   90 ninety *(note the "e")*

If a number is in the range 21 to 99, and the second digit is not zero, one typically writes the number as two words separated by a hyphen.

21 twenty-one

25 twenty-five

32 thirty-two

58 fifty-eight

64 sixty-four

79 seventy-nine

83 eighty-three

99 ninety-nine

In English, the hundreds are perfectly regular, except that the word *hundred* remains in its singular form regardless of the number preceding it.

100 one hundred

200 two hundred

… …

900 nine hundred

So too are the thousands, with the number of thousands followed by the word "thousand"

1,000	one thousand
2,000	two thousand
…	…
10,000	ten thousand or (rarely used) a myriad
11,000	eleven thousand
…	…
20,000	twenty thousand
21,000	twenty-one thousand
30,000	thirty thousand

85,000   eighty-five thousand

100,000   one hundred thousand or one lakh *(Indian English)*

              nine hundred and ninety-nine thousand *(inclusively British English,*

999,000   *Irish English, Australian English, and New Zealand English)*

              nine hundred ninety-nine thousand *(American English)*

1,000,000   one million

10,000,000 ten million or one crore *(Indian English)*

In American usage, four-digit numbers with non-zero hundreds are often named using multiples of "hundred" and combined with tens and ones: "One thousand one", "Eleven hundred three", "Twelve hundred twenty-five", "Four thousand forty-two", or "Ninety-nine hundred ninety-nine." In British usage, this style is common for multiples of 100 between 1,000 and 2,000 (e.g. 1,500 as "fifteen hundred") but not for higher numbers.

Americans may pronounce four-digit numbers with non-zero tens and ones as pairs of two-digit numbers without saying "hundred" and inserting "oh" for zero tens: "twenty-six fifty-nine" or "forty-one oh five". This usage probably evolved from the distinctive usage for years; "nineteen-eighty-one", or from four-digit numbers used in the American telephone numbering system which were originally two letters followed by a number followed by a four-digit number, later by a three-digit number followed by the four-digit number. It is avoided for

numbers less than 2500 if the context may mean confusion with time of day: "ten ten" or "twelve oh four".

Intermediate numbers are read differently depending on their use. Their typical naming occurs when the numbers are used for counting. Another way is for when they are used as labels. The second column method is used much more often in American English than British English. The third column is used in British English but rarely in American English (although the use of the second and third columns is not necessarily directly interchangeable between the two regional variants). In other words, British English and American English can seemingly agree, but it depends on a specific situation (in this example, bus numbers).

	Common British vernacular	Common American vernacular	Common British vernacular
	"How many marbles do you have?"	*"What is your house number?"*	*"Which bus goes to the high street?"*
		"One-oh-one."	
101	"A hundred and one."	*Here, "oh" is used for the digit zero.*	"One-oh-one."
109	"A hundred and nine."	"One-oh-nine."	"One-oh-nine."
110	"A hundred and ten."	"One-ten."	"One-one-oh."

117	"A hundred and seventeen."	"One-seventeen."	"One-one-seven."
120	"A hundred and twenty."	"One-twenty."	"One-two-oh", "One-two-zero."
152	"A hundred and fifty-two."	"One-fifty-two."	"One-five-two."
208	"Two hundred and eight."	"Two-oh-eight."	"Two-oh-eight."
334	"Three hundred and thirty-four."	"Three-thirty-four."	"Three-three-four."

Note: When writing a cheque (or *check*), the number 100 is always written "one hundred". It is never "a hundred".

In American English, many students are taught not to use the word **and** anywhere in the whole part of a number, so it is not used before the tens and ones. It is instead used as a verbal delimiter when dealing with compound numbers. Thus, instead of "three hundred and seventy-three", one would say "three hundred seventy-three".

For numbers above a million, there are two different systems for naming numbers in English (for the use of prefixes such as kilo- for a thousand, mega- for a million, milli- for a thousandth, etc. see SI units):

- the long scale (decreasingly used in British English) designates a system of numeric names in which a thousand million is called a ''milliard'' (but the latter usage is now rare), and ''billion'' is used for a million million.

- the short scale (always used in American English and increasingly in British English) designates a system of numeric names in which a thousand million is called a ''billion'', and the word ''milliard'' is not used.

Number notation	Power notation	Short scale	Long scale	Indian (or South Asian) English
1,000,000	10^6	one million	one million	ten lakh
1,000,000,000	10^9	one billion *a thousand million*	one milliard *a thousand million*	one hundred crore (one *arab*)
1,000,000,000,000	10^{12}	one trillion *a thousand billion*	one billion *a million million*	one lakh crore (ten *kharab*)

Number	Power			
1,000,000,000,000,000	10^{15}	one quadrillion / *a thousand trillion*	one billiard / *a thousand billion*	ten crore crore (one *padm*)
1,000,000,000,000,000,000	10^{18}	one quintillion / *a thousand quadrillion*	one trillion / *a million billion*	ten thousand crore crore (ten *shankh*)
1,000,000,000,000,000,000,000	10^{21}	one sextillion / *a thousand quintillion*	one trilliard / *a thousand trillion*	one crore crore crore trillion

The numbers past a trillion in short scale system, in ascending powers of ten, are as follows: quadrillion, quintillion, sextillion, septillion, octillion, nonillion, decillion, undecillion, duodecillion, tredecillion, quattuordecillion, and quindecillion (that's 10 to the 48th, or a one followed by 48 zeros). The highest number listed on Robert Munafo's table,[1] is a milli-millillion. That's 10 to the 3000003rd.

The googolplex has often been nominated as the largest named number in the world. If a googol is ten to the one hundredth, then a googolplex is one followed by a googol of zeroes.

Although British English has traditionally followed the long-scale numbering system, the short-scale usage has become increasingly common in recent years. For example, the UK Government and BBC websites use the newer short-scale values exclusively.

The terms *arab*, *kharab*, *padm* and *shankh* are more commonly found in old sections of Indian Mathematics.

Here are some approximate composite large numbers in American English:

Quantity	Written	Pronounced
1,200,000	1.2 million	one point two million
3,000,000	3 million	three million
250,000,000	250 million	two hundred fifty million
6,400,000,000	6.4 billion	six point four billion
23,380,000,000	23.38 billion	twenty-three point three eight billion

Often, large numbers are written with (preferably non-breaking) half-spaces or thin spaces separating the thousands (and, sometimes, with normal spaces or apostrophes) instead of commas—to ensure that confusion is not caused in countries where a decimal comma is used. Thus, a million is often written 1 000 000.

In some areas, a point (. or ·) may also be used as a thousands' separator, but then, the decimal separator must be a comma.

2.2.2 Specialized numbers

A few numbers have special names (in addition to their regular names):

- 0: has several other names, depending on context:
  - *zero:* formal scientific usage
  - *naught / nought:* mostly British usage
  - *aught:* Mostly archaic but still occasionally used when a digit in mid-number is 0 (as in "thirty-aught-six", the .30-06 Springfield rifle cartridge and by association guns that fire it)
  - *oh:* used when spelling numbers (like telephone, bank account, bus line [British: bus route])
  - *nil:* in general sport scores, British usage (*"The score is two–nil."*)
  - *nothing:* in general sport scores, American usage (*"The score is two–nothing."*)
  - *null:* used technically to refer to an object or idea related to nothingness. The 0th aleph number ($\aleph_0$) is pronounced "aleph-null".
  - *love:* in tennis, badminton, squash and similar sports (origin disputed, often said to come from French *l'œuf*, "egg"; but the

Oxford English Dictionary mentions the phrase *for love*, meaning nothing is at risk)

- *zilch, nada* (from Spanish)*, zip:* used informally when stressing nothingness; this is true especially in combination with one another (*"You know nothing—zero, zip, nada, zilch!"*); American usage

- *nix:* also used as a verb; mostly American usage

- *cypher / cipher:* archaic, from French *chiffre*, in turn from Arabic *sifr*, meaning zero

- *goose egg* (informal)

- *duck* (used in cricket when a batsman is dismissed without scoring)

- *blank* the half of a domino tile with no pips

- 1:

  - *ace* in certain sports and games, as in tennis or golf, indicating success with one stroke, and the face of a die, playing card or domino half with one pip

  - *birdie* in golf denotes one stroke less than par, and *bogey*, one stroke more than par

  - *solo*

  - *unit*

  - *linear* the degree of a polynomial is 1; also for explicitly denoting the first power of a unit: *linear meter*

- *unity* in mathematics

- 2:
    - *couple*
    - *brace*, from Old French "arms" (the plural of arm), as in "what can be held in two arms".
    - *pair*
    - *deuce* the face of a die, playing card or domino half with two pips
    - *eagle* in golf denotes two strokes less than par
    - *duo*
    - *quadratic* the degree of a polynomial is 2
        - also *square* or *squared* for denoting the second power of a unit: *square meter* or *meter squared*
    - *penutimate*, second from the end

- 3:
    - *trey* the face of a die or playing card with three pips, a three-point field goal in basketball, nickname for the third carrier of the same personal name in a family
    - *trio*
    - *trips:* three-of-a-kind in a poker hand. a player has three cards with the same numerical value
    - *cubic* the degree of a polynomial is 3

- - - also *cube* or *cubed* for denoting the third power of a unit: *cubic meter* or *meter cubed*
  - *albatross* in golf denotes three strokes less than par. Sometimes called *double eagle*
  - *hat-trick* or *hat trick*: achievement of three feats in sport or other contexts[3]
  - *antepenultimate* third from the end
- 4:
  - *cater:* (rare) the face of a die or playing card with four pips
  - *quartet*
  - *quartic* or *biquadratic* the degree of a polynomial is 4
  - *quad* (short for *quadruple* or the like) several specialized sets of four, such as four of a kind in poker, a carburetor with four inputs, etc.,
  - *condor* in golf denotes four strokes less than par
  - *preantepenultimate* fourth from the end
- 5:
  - *cinque:* (rare) the face of a die or playing card with five pips
  - *quintet*
  - *nickel* (informal American, from the value of the five-cent US nickel, but applied in non-monetary references)
  - *quintic* the degree of a polynomial is 5

- *quint* (short for *quintuplet* or the like) several specialized sets of five, such as quintuplets, etc.

- 6:
  - *half a dozen*
  - *sice:* (rare) the face of a die or playing card with six pips
  - *sextet*
  - *sextic* or *hectic* the degree of a polynomial is 6

- 7:
  - *septet*
  - *septic* or *heptic* the degree of a polynomial is 7

- 8:
  - *octet*

- 9:
  - *nonet*

- 10:
  - a metric dozen
  - *dime* (informal American, from the value of the ten-cent US dime, but applied in non-monetary references)
  - *decet*
  - decade, used for years but also other groups of 10 as in rosary prayers or Braille symbols

- 11: a banker's dozen

- 12: a dozen (first power of the duodecimal base), used mostly in commerce

- 13: a baker's dozen

- 20: a score (first power of the vigesimal base), nowadays archaic; famously used in the opening of the Gettysburg Address: *"Four score and seven years ago..."* The Number of the Beast in the King James Bible is rendered "Six hundred threescore and six".

- 50: half a century, literally half of a hundred, usually used in cricket scores.

- 60: a *shock*: historical commercial count, described as "three scores".[4]

- 100:

  - A century, also used in cricket scores and in cycling for 100 miles.

  - A ton, in Commonwealth English, the speed of 100 mph[5] or 100 km/h.

  - A *small hundred* or *short hundred* (for which see 120 below)

  - Teenty (as 10×10)

- 110: eleventy (as 11×10)

- 120:

  - A great hundred or long hundred (twelve tens; as opposed to the *small hundred*, i.e. 100 or ten tens), also called small gross (ten dozens), both archaic

- Also sometimes referred to as *duodecimal hundred*, although that could literally also mean 144, which is twelve squared

    o Twelfty or twelvety (as 12×10)

- 144: a gross (a dozen dozens, second power of the duodecimal base), used mostly in commerce

- 1000:

    o a grand, colloquially used especially when referring to money, also in fractions and multiples, e.g. half a grand, two grand, etc. Grand can also be shortened to "G" in many cases.

    o K, originally from the abbreviation of kilo-, e.g. "He only makes $20K a year."

- 1728: a great gross (a dozen gross, third power of the duodecimal base), used mostly in commerce

- 10,000: a myriad (a hundred hundred), commonly used in the sense of an indefinite very high number

- 100,000: a lakh (a hundred thousand), loanword used mainly in Indian English

- 10,000,000: a crore (a hundred lakh), loanword used mainly in Indian English

- 10^{100}: googol (1 followed by 100 zeros), used in mathematics; not to be confused with the name of the company Google (which was originally a misspelling of *googol*)

- 10^{googol}: googolplex (1 followed by a googol of zeros)

- $10^{googolplex}$: googolplexplex (1 followed by a googolplex of zeros)

Combinations of numbers in most sports scores are read as in the following examples:

- 1–0   British English: *one-nil*; American English: *one-nothing*, *one-zip*, or *one-zero*

- 0–0   British English: *nil-nil*, or more rarely *nil all*; American English: *zero-zero* or *nothing-nothing*, (occasionally *scoreless* or *no score*)

- 2–2   *two-two* or *two all*; American English also *twos*, *two to two*, *even at two*, or *two up*.

Naming conventions of Tennis scores (and related sports) are different from other sports.

2.2.3 Multiplicative adverbs

A few numbers have specialised **multiplicative numbers** expresses how many times some event happens (adverbs):

one time   once

two times   twice

three times thrice

Compare these specialist **multiplicative numbers** to express how many times something exists (adjectives):

× 1   solitary   singular   one-off

× 2   double   twofold   duplicate

× 3   Triple   threefold   triplicate

× 4   quadruple fourfold

× 5   quintuple fivefold

× 6   sextuple   sixfold

× 7   septuple   sevenfold

×100 .....   hundredfold

English also has some multipliers and distributive numbers, such as *singly*.

Other examples are given in the Specialist Numbers.

2.2.4 Negative numbers

The name of a negative number is the name of the corresponding positive number preceded by "minus" or (American English) "negative". Thus −5.2 is "minus five point two" or "negative five point two". For temperatures, Americans colloquially say "below" — short for "below zero" — so a temperature of −5° is "five below" (in contrast, for example, to "two above" for

2°, occasionally used for emphasis when referring to several temperatures or ranges both positive and negative).

2.2.5 Ordinal numbers

Ordinal numbers refer to a position in a series. Common ordinals include:

0th zeroth or noughth *(see below)*	10th tenth	
1st first	11th eleventh	
2nd second	12th twelfth *(note "f", not "v")*	20th twentieth
3rd third	13th thirteenth	30th thirtieth
4th fourth	14th fourteenth	40th fortieth
5th fifth	15th fifteenth	50th fiftieth
6th sixth	16th sixteenth	60th sixtieth
7th seventh	17th seventeenth	70th seventieth
8th eighth *(only one "t")*	18th eighteenth	80th eightieth
9th ninth *(no "e")*	19th nineteenth	90th ninetieth

Zeroth only has a meaning when counting starts with zero, which happens in a mathematical or computer science context.

Ordinal numbers such as 21st, 33rd, etc., are formed by combining a *cardinal* ten with an *ordinal* unit.

21st twenty-first

25th twenty-fifth

32nd thirty-second

58th fifty-eighth

64th sixty-fourth

79th seventy-ninth

83rd eighty-third

99th ninety-ninth

Higher ordinals are not often written in words, unless they are round numbers (thousandth, millionth, billionth). They are written using digits and letters as described below. Here are some rules that should be borne in mind.

- The suffixes *-th*, *-st*, *-nd* and *-rd* are occasionally written superscript above the number itself.
- If the tens digit of a number is 1, then write "th" after the number. For example: 13th, 19th, 112th, 9,311th.
- If the tens digit is *not* equal to 1, then use the following table:

If the units digit is: 0 1 2 3 4 5 6 7 8 9

write this after the number th st nd rd th th Th th th th

- For example: 2nd, 7th, 20th, 23rd, 52nd, 135th, 301st.

These ordinal abbreviations are actually hybrid contractions of a numeral and a word. 1st is "1" + "st" from "fir**st**". Similarly, "nd" is used for "seco**nd**" and "rd" for "thi**rd**". In the legal field and in some older publications, the ordinal abbreviation for "second" and "third" is simply "d".

- For example: 42d, 33d, 23d.

NB: The practice of using "d" to denote "second" and "third" is still often followed in the numeric designations of units in the US armed forces, for example, 533d Squadron.

Any ordinal name that doesn't end in "first", "second", or "third", ends in "th".

2.2.6 Dates

There are a number of ways to read years. The following table offers a list of valid pronunciations and alternate pronunciations for any given year of the Gregorian calendar.

Year	Most common pronunciation method	Alternative methods
1 BC	(The year) One Before Christ (BC)	1 before the Common era (BCE)
1	(The year) One Anno Domini	of the Common era (CE)

(AD)	In the year of Our Lord 1
235 Two thirty-five	Two-three-five Two hundred (and) thirty-five
911 Nine eleven	Nine-one-one Nine hundred (and) eleven
999 Nine ninety-nine	Nine-nine-nine Nine hundred (and) ninety-nine
1000 One thousand	Ten hundred 1K
1004 One thousand (and) four	Ten oh-four
1010 Ten ten	One thousand (and) ten
1050 Ten fifty	One thousand (and) fifty
1225 Twelve twenty-five	One-two-two-five One thousand, two hundred (and) twenty-five Twelve-two-five
1900 Nineteen hundred	One thousand, nine hundred Nineteen aught
1901 Nineteen oh-one	Nineteen hundred (and) one One thousand, nine hundred (and) one Nineteen aught one
1919 Nineteen nineteen	Nineteen hundred (and) nineteen One thousand, nine hundred (and) nineteen
1999 Nineteen ninety-nine	Nineteen hundred (and) ninety-nine One thousand, nine hundred (and) ninety-nine
2000 Two thousand	Twenty hundred Two triple-oh

		Y2K
		Twenty oh-one
2001	Two thousand (and) one	Twenty hundred (and) one
		Two double-oh-one
		Two oh-oh-one
		Twenty oh-nine
2009	Two thousand (and) nine	Twenty hundred (and) nine
		Two double-oh-nine
		Two oh-oh-nine
2010	Two thousand (and) ten	Twenty hundred (and) ten
	Twenty ten [6]	two-oh-one-oh

2.2.7 Fractions and decimals

In spoken English, ordinal numbers are also used to quantify the denominator of a fraction. Thus "fifth" can mean the element between fourth and sixth, or the fraction created by dividing the unit into five pieces. In this usage, the ordinal numbers can be pluralized: one seventh, two *sevenths*. The sole exception to this rule is division by two. The ordinal term "second" can only refer to location in a series; for fractions English speakers use the term 'half' (plural "halves").

Here are some common English fractions (known linguistically as "partitive numerals"):

1/16   one sixteenth

1/10 or 0.1 one tenth

1/8   one eighth

2/10 or 0.2 two tenths

¼   one quarter *or* (mainly American English) one fourth

3/10 or 0.3 three tenths

1/3   one third

3/8   three eighths

4/10 or 0.4 four tenths

½   one half

6/10 or 0.6 six tenths

5/8   five eighths

2/3   two thirds

7/10 or 0.7 seven tenths

¾   three quarters *or* three fourths

8/10 or 0.8 eight tenths

7/8   seven eighths

9/10 or 0.9 nine tenths

15/16   fifteen sixteenths

Alternatively, and for greater numbers, one may say for 1/2 "one over two", for 5/8 "five over eight", and so on. This "over" form is also widely used in mathematics.

Numbers with a decimal point may be read as a cardinal number, then "and", then another cardinal number followed by an indication of the significance of the second cardinal number (mainly U.S.); or as a cardinal number, followed by "point", and then by the digits of the fractional part. The indication of significance takes the form of the denominator of the fraction indicating division by the smallest power of ten larger than the second cardinal. This is modified when the first cardinal is zero, in which case neither the zero nor the "and" is pronounced, but the zero is optional in the "point" form of the fraction.

For example:

- 0.002 is "two thousandths" (mainly U.S.); or "point zero zero two", "point oh oh two", "nought point zero zero two", etc.
- 3.1416 is "three point one four one six"
- 99.3 is "ninety-nine and three tenths" (mainly U.S.); or "ninety-nine point three".

In English the decimal point was originally printed in the center of the line (0·002), but with the advent of the typewriter it was placed at the bottom of the line, so that a single key could be used as a full stop/period and as a decimal

point. In many non-English languages a full-stop/period at the bottom of the line is used as a thousands separator with a comma being used as the decimal point.

Fractions together with an integer are read as follows:

- 1 1/2 is "one and a half"

- 6 1/4 is "six and a quarter"

- 7 5/8 is "seven and five eighths"

A space is required between the whole number and the fraction; however, if a special fraction character is used like "½", then the space can be done without, e.g.

- 9 1/2

- 9½

2.2.8 Whether to use digits or words

With very little deviation, most grammatical texts rule that the numbers zero to nine inclusive should be "written out" – meaning instead of "1" and "2", one would write "one" and "two".

Example: "I have two apples." (Preferred)

Example: "I have 2 apples."

After "nine", one can head straight back into the 10, 11, 12, etc., although some write out the numbers until "twelve".

Example: "I have 28 grapes." (Preferred)

Example: "I have twenty-eight grapes."

Another common usage is to write out any number that can be expressed as one or two words, and use figures otherwise.

Examples:

"There are six million dogs." (Preferred)

"There are 6,000,000 dogs."

"That is one hundred and twenty-five oranges." (British English)

"That is one hundred twenty-five oranges." (US-American English)

"That is 125 oranges." (Preferred)

Numbers at the beginning of a sentence should also be written out.

The above rules are not always used. In literature, larger numbers might be spelled out. On the other hand, digits might be more commonly used in technical or financial articles, where many figures are discussed. In particular, the two different forms should not be used for figures that serve the same purpose; for example, it is inelegant to write, *"Between day twelve and day 15 of the study, the population doubled."*

2.2.9 Empty numbers

Colloquial English has a small vocabulary of empty numbers that can be employed when there is uncertainty as to the precise number to use, but it is desirable to define a general range: specifically, the terms "umpteen", "umpty", and "zillion". These are derived etymologically from the range affixes:

- "-teen" (designating the range as being between 10 and 20)
- "-ty" (designating the range as being in one of the decades between 20 and 100)
- "-illion" (designating the range as being above 1,000,000; or, more generally, as being extremely large).

The prefix "ump-" is added to the first two suffixes to produce the empty numbers "umpteen" and "umpty": it is of uncertain origin. There is a noticeable absence of an empty number in the hundreds range.

Usage of empty numbers:

- The word "umpteen" may be used as an adjective, as in "I had to go to umpteen stores to find shoes that fit." It can also be used to modify a larger number, usually "million", as in "Umpteen million people watched the show; but they still cancelled it."
- "Umpty" is not in common usage. It can appear in the form "umpty-one" (parallelling the usage in such numbers as "twenty-one"), as in "There are

umpty-one ways to do it wrong." "Umpty-ump" is also heard, though "ump" is never used by itself.

- The word "zillion" may be used as an adjective, modifying a noun. The noun phrase normally contains the indefinite article "a", as in "There must be a zillion sites on the World Wide Web."

- The plural "zillions" designates a number indefinitely larger than "millions" or "billions". In this case, the construction is parallel to the one for "millions" or "billions", with the number used as a plural count noun, followed by a prepositional phrase with "of", as in "Out in the countryside, the night sky is filled with zillions of stars."

- Empty numbers are sometimes made up, with obvious meaning: "squillions" is obviously an empty, but very large, number; a "squintillionth" would be a very small number.

- Some empty numbers may be modified by actual numbers, such as "four zillion", and are used for jest, exaggeration, or to relate abstractly to actual numbers.

- Empty numbers are colloquial, and primarily used in oral speech or informal contexts. They are inappropriate in formal or scholarly usage.

3.1.1 Hausa language

Hausa belongs to the West Chadic languages subgroup of the Chadic languages group, which in turn is part of the Afroasiatic language family.

Native speakers of Hausa, the Hausa people, are mostly to be found in Niger, in the north of Nigeria and Chad. Furthermore, the language is used as a trade language across a much larger swathe of West Africa (Benin, Ghana, Cameroon, Togo, Côte d'Ivoire etc.), Central Africa (Chad, Central African Republic, Equatorial Guinea) and northwestern Sudan, particularly amongst Muslims.

It is taught at universities in Africa and around the world. The language is the most commonly spoken language in Nigeria, but unlike Yoruba and Igbo, it is also widely spoken outside Nigeria, especially in Niger, Ghana, Cameroon and Sudan. Hausa language is in the culture of the United States, with Hausa words used in popular music like the jazz tune, "Frim Fram Sauce". Radio stations like BBC, Radio France Internationale, China Radio International, Voice of Russia, Voice of America, Deutsche Welle, and IRIB broadcast in Hausa.

3.1.2 Dialects

i- Traditional dialects

Eastern Hausa dialects include *Dauranchi* in Daura, *Kananci* which is spoken in Kano, *Bausanchi* in Bauchi, *Gudduranci* in Katagum Misau and part of Borno, *Kutebanci* in Taraba, and *Hadejanci* in Hadejiya.

Western Hausa dialects include *Sakkwatanci* in Sokoto, *Katsinanci* in Katsina, *Arewanci* in Gobir, Adar, Kebbi, and Zamfara, and *Kurhwayanci* in Kurfey in Niger. Katsina is transitional between Eastern and Western dialects.

Northern Hausa dialects include *Arewa* and *Arawci*.

Zazzaganci in Zaria is the major Southern dialect.

The Daura (*Dauranchi*) and Kano (*Kananci*) dialect are the standard. The BBC, Deutsche Welle, Radio France Internationale and Voice of America offer Hausa services on their international news web sites using Dauranci and Kananci.

ii-Northernmost dialects and loss of tonality

The western to eastern Hausa dialects of *Kurhwayanci*, *Daragaram* and *Aderawa*, represent the traditional northernmost limit of native Hausa communities. These are spoken in the northernmost sahel and mid-Saharan regions in west and central Niger in the Tillaberi, Tahoua, Dosso, Maradi, Agadez and Zinder regions. While mutually comprehensible with other dialects (especially *Sakkwatanci*, and to a lesser extent *Gaananci*), the northernmost dialects have slight grammatical and lexical differences owing to frequent contact with the Zarma and Tuareg groups and cultural changes owing to the geographical differences between the grassland and desert zones. These dialects also have the quality of being non-tonal or pitch accent dialects.

This link between non-tonality and geographic location is not limited to Hausa alone, but is exhibited in other northern dialects of neighbouring languages; such as the difference within Songhay language (between the non-tonal northernmost dialects of Koyra Chiini in Timbuktu and Koyraboro Senni in Gao; and the tonal southern Zarma dialect, spoken from western Niger to northern Ghana), and within the Soninke language (between the non-tonal northernmost dialects of Imraguen and Nemadi spoken in east-central Mauritania; and the tonal southern dialects of Senegal, Mali and the sahel).

iii- Ghanaian Hausa dialect

The Zaria Hausa dialect (*Gaananci*), spoken in Ghana, Togo, and western Ivory Coast, is a distinct western native Hausa dialect-bloc with adequate linguistic and media resources available. Separate smaller Hausa dialects are spoken by an unknown number of Hausa further west in parts of Burkina Faso, and in the Haoussa Foulane, Badji Haoussa, Guezou Haoussa, and Ansongo districts of northeastern Mali (where it is designated as a minority language by the Malian government), but there are very little linguistic resources and research done on these particular dialects at this time.

Gaananci forms a separate group from other Western Hausa dialects, as it now falls outside the contiguous Hausa-dominant area, and is usually identified by the use of *c* for *ky*, and *j* for *gy*. This is attributed to the fact that Ghana's Hausa

population descend from Hausa-Fulani traders settled in the zongo districts of major trade-towns up and down the previous Asante, Gonja and Dagomba kingdoms stretching from the sahel to coastal regions, in particular the cities of Tamale, Salaga, Bawku, Bolgatanga, Achimota, Nima and Kumasi.

Gaananci exhibits noted inflected influences from Zarma, Gur, Dyula and Soninke, as Ghana is the westernmost area in which the Hausa language is a major lingua-franca; as well as it being the westernmost area both the Hausa and Djerma ethnic groups inhabit in large numbers. Immediately west from Ghana (in Ivory Coast, Togo, and Burkina Faso), Hausa is abruptly replaced with Dioula–Bambara as the main lingua-franca of what become predominantly Mandinka areas, and native Hausa populations plummet to a very small urban minority.

Because of this, and the presence of surrounding Akan, Gur and Mande languages, Gaananci was historically isolated from the other Hausa dialects.[6] Despite this difference, grammatical similarities between *Sakkwatanci* and Ghanaian Hausa determine that the dialect, and the origin of the Ghanaian Hausa people themselves, are derived from the northwestern Hausa area surrounding Sokoto.

Hausa is also widely spoken by non-native Gur and Mande Ghanaian Muslims, but differs from Gaananci, and rather has features consistent with non-native Hausa dialects.

iv- Other native dialects

Hausa is also spoken various parts of Cameroon and Chad, which combined the mixed dialects of northern Nigeria and Niger. In addition, Arabic has had a great influence in the way Hausa is spoken by the native Hausa speakers in these areas.

3. 2 Numbers in Hausa

Hausa is a Chadic language spoken mainly in northern Nigeria and Niger.

Numeral	Cardinal numbers	Ordinal numbers
0	Sifiri	
1	ɗaya	na fari (m), na farko (pl) ta fari (f), ta farko (pl)
2	Biyu	na biyu (m), ta biyu (f)
3	Uku	na uku (m), ta uku (f)

4	huɗu, fuɗu	na huɗu (m), ta huɗu (f)
5	Biyar	na biyar (m), ta (f) biyar
6	shida, shidda	na shida (m), ta shida (f)
7	bakwai, bokoi	na bakwai (m), ta bakwai (f)
8	takwas, tokwas, tokos	na takwas (m), ta takwas (f)
9	Tara	na tara (m), ta tara (f)
10	goma, gomiya (pl) is sometimes used to express multiples of ten, e.g. gomiya uku (30)	na goma (m), ta goma (f)
11	(goma) sha ɗaya *)	na (goma) sha ɗaya
12	(goma) sha biyu	na (goma) sha biyu
13	(goma) sha uku	na (goma) sha uku
14	(goma) sha huɗu	na (goma) sha

		hudu
15	(goma) sha biyar	na (goma) sha biyar
16	(goma) sha shida	na (goma) sha shida
17	(goma) sha bakwai	na (goma) sha bakwai
18	(goma) sha takwas, (goma) sha tokwas, ashirin biyu [gaira] babu **) (lit. 20-2)	na (goma) sha takwas
19	(goma) sha tara, ashirin ɗaya babu (lit. 20-1; babu = minus)	na (goma) sha tara, na ashirin ɗaya babu
20	ashirin, ishirin Note: in counting by twenties hauya and laso (= a score) are especially employed, e.g. hauya uku = sittin (60)	na ashirin

ashirin, ishirin Note: in counting by twenties hauya and laso (= a score) are especially employed, e.g. hauya uku = sittin (60)

na ashirin

ashirin da ɗaya   na ashirin da ɗaya

ashirin da biyu	na ashirin da biyu
ashirin da uku	na ashirin da uku
ashirin da huɗu	na ashirin da huɗu
ashirin da biyar	na ashirin da biyar
ashirin da shida	na ashirin da shida
ashirin da bakwai	na ashirin da bakwai
ashirin da takwas	na ashirin da takwas
ashirin da tara	na ashirin da tara
gomiya uku, talatin (Ar),	na talatin
gomiya huɗu, arba'in (Ar)	na arba'in
gomiya biyar, hamsin (Ar)	na hamsin
gomiya shida, sittin (Ar), hauya uku (lit. 20 x 3)	na sittin
gomiya bakwai, saba'in (Ar)	na saba'in
gomiya takwas, tamanin (Ar)	na tamanin
gomiya tara, tis'in (Ar), tisa'in, casa'in; ɗari goma bus, ɗari gaira goma (lit. 100 – 10)	na tisa'in
ɗari gaira biyu (lit. 100 – 2)	na ɗari gaira biyu
ɗari gaira ɗaya (lit. 100 – 1) etc.	na ɗari gaira ɗaya

ɗari, miya, minya, zangu, ɗarur(r)uwa

(pl) (e.g. daruruwan manoma = na ɗari

hundreds of farmers)

ɗari biyu, metan, metin	na ɗari biyu
ɗari uku	na ɗari uku
arbaminya gaira ashirin (lit. 400-20)	na arbaminya gaira ashirin
ɗari huɗu, arbaminya (Ar)	na ɗari huɗu, na arbaminya
ɗari biyar, hamsamiya, hamsaminya (Ar)	na ɗari biyar, na hamsamiya
ɗari shida	na ɗari shida
ɗari bakwai	na ɗari bakwai
ɗari takwas, ɗari tokwas	na ɗari takwas
ɗari tara	na ɗari tara
dubu, alif (Ar), zambar	na dubu, na kashi ɗaya daga dubu
alif wa metan	na alif wa metan
alif wa hamsaminya	na alif wa hamsaminya
dubu (alif, zambar) [ɗaya] da ɗari takwas da ashirin	na dubu (alif, zambar) [ɗaya] da ɗari takwas da ashirin
dubu [ɗaya] da ɗari tara da sittin da uku	na dubu [ɗaya] da ɗari tara

		da sittin da uku
	alif da ɗari tara da saba'in da tara	na alif da ɗari tara da saba'in da tara
2,000	dubu biyu, alfin, alfyan (Ar)	na dubu biyu, alfin, alfyan
3,000	dubu uku, talata (Ar)	na dubu uku, na talata
4,000	dubu huɗu, dubu fuɗu, arba (Ar)	na dubu huɗu, na dubu fuɗu, na arba
5,000	dubu biyar, hamsa (Ar)	na dubu biyar, na hamsa
6,000	dubu shida, sitta (Ar)	na dubu shida, na sitta
7,000	dubu bakwai, saba'a (Ar)	na dubu bakwai, na saba'a
8,000	dubu takwas, tamani'a, tamaniya (Ar)	na dubu takwas, na tamani'a, na tamaniya
9,000	dubu tara, zambar tara, tisi'a	na dubu tara, na zambar tara, na tisi'a
10,000	dubu goma, zambar goma	na dubu goma, na zambar goma
40,000	dubu arba'in	na dubu arba'in
100,000	zambar ɗari	na zambar ɗari
999,999	dubu dari tara da gomiya tara da tara, da dari tara da gomiya da tara, na da dari tara da	na dubu dari tara da gomiya tara da tara, na da dari tara da

	tara da tara	gomiya tara da tara
	miliyan, miliyoyi (pl), zambar	
1,000,000	alif, zambar dubu, dubu ɗari na miliyan goma, alif alif	
1,000,000,000	miliyan dubu ɗaya, biliyan	na miliyan dubu ɗaya
½	Rabi	
1/3	Sulusi	
¼	rubu'i	
¾	rubu'i uku	
1/5	Humusi	
2/5	biyu cikin biyar, biyu bisa biyar	
1/6	Sudusi	
1/7	subu'i	
1/8	sumuni, tumuni	
5/8	biyar bisa takwas	
1/9	tusu'i	
1/10	ushuri, ushiri	
1/11	ɗaya cikin goma sha ɗaya	
1/20	ɗaya bisa ashirin	

1,2	ɗaya da ɗigo biyu
2 x 3 = 6	biyu sau uku shida ne
10 x 5 = 50	goma sau biyar daidai da hamsin
Once	sau ɗaya
Twice	har sau biyu
Thrice	sau uku, guda uku
the first time	sau na farko

Note: goma" may be omitted when counting from 11 – 19.

**) "gaira" and "babu" = less, without, minus

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter deals with the research, design, population of the study sample and sampling techniques, instruments used for the study, validity of the instrument, administration of the instrument and methods of data analysis.

3.2 SOURCES OF DATA

The data for this research are mainly were sourced from the textbooks, journals, the internet and other documented evidence of the numeric systems of both English and Hausa languages. The secondary data source was from 20 sets of students of the department of Modern European languages of the Usmanu Dan Fodiyo University, Sokoto.

3.3 POPULATION OF THE STUDY

The target population for this study comprises two mainly spoken languages in Nigeria namely English, a foreign language; and Hausa, an indigenous language.

3.4 SAMPLE AND SAMPLE TECHNIQUE

There are hundreds, if not thousands of languages used and/ spoken on the shores of Africa and Nigeria in particular. It is therefore impossible to study the numeric systems of all these languages. This is why the researcher decided to select two of the widely used or spoken languages in the country viz: English and Hausa. These languages were selected via a stratified random technique. All

the languages used in Nigeria were stratified by the researcher in accordance to their role, function, number and spread of users/speakers. English and Hausa languages emerged top and they were selected for this study.

3.5 INSTRUMENTATION

The nature of this research favours the use of content analysis as the best instrument for the research. The content of the numeric system of both languages was studied and analyzed based on the literatures available. Also, the Simple Statistical Table was used in analyzing the responses of the twenty (20) sampled university students.

3.6 METHOD OF DATA ANALYSIS

The data in this research were collected and analyzed using the descriptive method, in which a tabular arrangement is used in percentages. The data presentation is in such a way as to enable the researcher to get a quick understanding of collected and interpreted data, so as to arrive at a tangible conclusion based on the analyzed data.

3.7 CONCLUSION

This chapter presents a coherent and coordinated picture research work, as it explains the general methodology employed in going about collection of relevant data. In relation to the "Comparative Analysis of English and Hausa Numeral Systems". The next chapter presents, interprets and analyses the collected data.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.0 INTRODUCTION

This chapter deals with the presentation of data collected and then subsequent analysis and interpretation. However, the analyses are made through juxtaposition process from which the findings are drawn. This process enhances the presentation of unbiased information for a positive conclusion to be reached. Therefore, the data analyzed and interpreted are based on the responses by the selected respondents on the raised questions in the interview schedule.

4.1 DATA PRESENTATION AND ANALYSIS

As stated in the previous chapter, the data collected were analyzed using the descriptive method in which a tabular arrangement is used in percentages as below

Table 1:

Question: which of the numeral systems is more complex between English and Hausa numeral system?

Response	Frequency	Percentage
English numeral systems is more complex than that of Hausa	26	100
Total	26	100

The above table indicates that twenty six (26) respondents (total number of the respondents) representing one hundred percent (100%) are of the view that English numeral system is more difficult than that of Hausa.

The above presentation reveals that all lit e respondents held similar view that English numeral systems is more complex in nature than that of Hausa language.

Table 2:

Question: What makes English numeral system more complex than that of Hausa'.'

Response	Frequency	Percentage
English numeral has all the numeral in differences in specific counting which are absent inn Hausa	18	69

The above table displays that eighteen (18) respondents representing sixh-nine percent (69%) of the total respondent are the view that English numeral has all the specific country numbers found in Hausa numeral system.

English has specific indication in numeral systems which Hausa Systems dos not permit.

Table 3:

Question: Are there similarities between English and 1 lausa numeral system '

Response	Frequency	Percentage
Yes	26	92
No	2	8
Total	26	100

The above table shows that the frequency of the responses for twenty-four (24), which represents ninety-two (92) while the frequency of the responses 'NO' is two (2) representing eight (8) percent (8%) of the total respondents.

The explanation above indicates that there are similarities between English and Hausa numeral systems as majority of the respondents hold that view.

Table 4:

Question: Are there differences between English and Hausa numeral system

Response	Frequency	Percentage
Yes	20	77
No	6	23
Total	26	100

The above table shows that the frequency of the response for "YKS" is twenty (20) representing seventy-seven percent (77%) of the total response, and the frequency of the responses for 'No' is six (6) while represents twenty-three percent (23%) of the total response.

Table 5:

Question: Do you think that knowing numeral systems of both English and Hausa helps the learner to overcome the problems of dwiding numeral in counting'.'

Responses	Frequency	percentage
Yes	26	100
No	0	0
Total	26	100

Table: 7

Question: What in your view should be done to remedy such detrimental effect which consequently affects the learner of English as a second language (12) bv Hausa speakers?

Responses	Frequency	percentage
Good teaching with practice in language laboratories especially concerning numeral system.	26	100

The above table indicates massively that 26% of the respondents representing the total responses agree that good teaching with practice in language and exposure will go alone way in solving the above mentioned problem.

4.2 SUMMARY AND CONCLUSION

Chapters one deals with statement of the problem purpose of the study scope and limitation of the study as well as definitions of some important terms used n writing this project. In chapter two it reveals the related literature of variou- scholars and authors who worked on differences, similarities and other related materials. Similarly, the research used chapter three to describe the research design, research instrument, population and sampling techniques, data collection and designed a well structure questionnaire chapter reveals data presentation and analysis, discussion of findings summary and conclusion, reference and appendix.

From the foregoing, this research has come to conclude that numeral systems plays an important part in the counting of numbers of any language. And knowing the numeral systems of both languages English and Hausa helps the learners to overcome the problems of using numbers in system analysis.

Appendix

Dear Sir/ Madam

I am an undergraduate student of the usmanu dan fodiyo university, sokoto. I am conducting a research on the numeric systems of English and Hausa languages. Kindly respond to these questions as honestly as possible. Your responses will be used for the purpose of this research only and will be treated with confidentiality.

Thank you.

1. Which of the numeral systems is more complex between that of English and Hausa?

2. What makes English numeral system more complex than that of Hausa'?

3. Are there similarities between English and Hausa numeral system?

4. Are there differences between English and Hausa numeral systems?

5. Do you think that knowing numeral systems of both English and Hausa helps the learner to overcome the problems of using numerals in counting?

6. Does numeral system of Hausa affect speakers of English in counting certain English numbers?

7. What in your view should be done to remedy such detrimental effect which consequently affects the learner of English as a second language

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