

ENG956: LANGUAGE THERAPY AND NATIONAL DEVELOPMENT

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ENG956 - LANGUAGE AND LANGUAGE ACQUISITION

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Main Content
- 2.0 Module 1: Psycholinguistics
 - 2.1 Unit 1: Language and the Brain
 - 2.2 Unit 2: Development Sequence of Language in Children
 - 2.3 Unit 3: Language Development
 - 2.4 Unit 4: Language Acquisition
 - 2.5 Unit 5: Language Problems
- 3.0 Module 2: Language Therapy
 - 3.1 Unit 1: Language Disorder
 - 3.2 Unit 2: Causes of Language Disorder
 - 3.3 Unit 3: Understanding Language Disorder
 - 3.4 Unit 4: Major Characteristics of Aphasia
- 4.0 Module 3: Language and National Development
 - 4.1 Unit 1: Language Therapy and National Development
 - 4.2 Unit 2: Strengths and Weaknesses of Language Diversity
 - 4.3 Unit 3: Language and the Nation
- 5.0 Conclusion

1.0 Introduction

There are three modules in this book. The three modules have been subdivided into units. The first module introduces you to Language Disorder, while the second introduces you to Language Therapy. In the third module, Language and National Development is discussed. In that module, you will be exposed to the important role of language in national development. You will understand how language possesses the potential to enhance the wellbeing of a nation. You will be exposed to such concepts as individual and societal development; language and the economy, language and national mobilization, language and national unity and integration; language and national ideology; language and patriotic culture, and language and nationalism. The course will also expose you to language and infrastructural facilities, language and social

attitudes, language and social culture in order to place issues of language and national development in proper perspective.

In exploring the relationship between language and national development, it is necessary to investigate the concept of language therapy first as a psycholinguistic phenomenon and then more importantly as a sociolinguistic phenomenon. As a psycholinguistic phenomenon language therapy, also known as speech therapy, is an interventionist aspect of applied linguistics that sets out to investigate and provide solution to speech and language disorders among children and other areas of nationality between language and national health, language and economic wellbeing,

Objectives

At the end of the three modules, you should be able to:

1. Define the concept of language therapy as a psycholinguistic phenomenon
2. Explain the notion of language therapy as a sociolinguistic phenomenon
3. Explain the relationship between language and national development.

MAIN CONTENTS

There are about twelve units in this course, as follows:

Module 1 Psycholinguistics

- Unit 1 Language and the Brain
- Unit 2 Development Sequence of Language in Children
- Unit 3 Language Development
- Unit 4 Language Acquisition
- Unit 5 Language Problems

Module2 Language Therapy

- Unit 1 Language Disorder
- Unit 2 Causes of Language Disorder
- Unit 3 Understanding Language Disorder
- Unit 4 Major Characteristics of Aphasia

Module 3 Language and National Development

- Unit 1 Language Therapy and National Development
- Unit 2 Strengths and weaknesses of Language Diversity

Unit 3 Language and the nation

MODULE 1 – Psycholinguistics

Two concepts combine to form the word, Psycholinguistics. They are

- i. Psychology and
- ii. Linguistics

Broadly speaking, psycholinguistics is the study of language and the human mind. From a morphological perspective, it is easy to see that there are two words that form the background to psycholinguistics. Psychology is the study of human behaviour while linguistics on the other hand, is the scientific study of language (Adegbite, 2009). Both definitions show that, if we observe the data produced by a person via speech, we can work out what goes on in the person's mind. This is directly concerned with the general purpose of this course – Language and National Development. Before one can dwell on the effects of language on national development, it is important to situate the future developments within the framework of language acquisition and the problems encounterable by language users. This is the essence of psycholinguistics.

From the definition earlier given above, psycholinguistics can also be known as:

- a. psychology of language.
- b. the study of the interrelations between linguistic factors and psychology.
- c. the psychological and neurobiological factors that enable humans to acquire, use, comprehend and produce language.
- d. the field of linguistics concerned with the mechanisms in which languages are processed and represented in the mind and brain.

The study of how the mind works is not the responsibility of linguists or grammarians. Modern research works have made use of other fields to report their findings on psycholinguistics. Such fields include:

- i. Biology,
- ii. Neuroscience,
- iii. Cognitive science
- iv. Linguistics, and Information Science.

These fields, moreover, have contributed to knowledge on how to study the mind-brain processing of language, and the known processes of social sciences, human development, communication theories and infant development, among others. There are a number of sub-disciplines with non-invasive techniques for studying the neurological workings of the brain; for example, neurolinguistics has become a field in its own right. Initial forays into psycholinguistics were found in philosophical and educational fields, due mainly to their location in departments other than applied sciences.

From the hints above one can summarily submit that:

- a. Psycholinguistics is concerned with the cognitive faculties and processes that are necessary in order for grammatical forms of language to be produced from a mental grammar and the lexicon.
- b. It is also concerned with the perception of these constructions by a listener.
- c. Developmental psycholinguistics, as a branch of psycholinguistics, concerns itself with the child's ability to learn language (Brown & Bellugi 1972).

Psycholinguistics is an interdisciplinary field; hence, it is studied by researchers from a variety of different backgrounds, such as:

- i. psychology,
- ii. cognitive science,
- iii. linguistics,
- iv. speech and language pathology, and
- v. discourse analysis.

Evidently, psycholinguistics incorporates all the fields listed above. Psycholinguistics is a study of many different topics, but these topics can generally be divided into answering the following questions:

- (1) how do children acquire language (language acquisition)?;
- (2) how do people comprehend language (language comprehension)?;
- (3) how do people produce language (language production)?; and
- (4) how do people who already know one language acquire another one (second language acquisition)?

Although, in Nigeria there are other tongues, further tongues, and mother tongues (Brann, 2006), multiplicity of tongues culminate in language problems and insecurity. Such problems require lasting solutions if a sustainable development will be achieved in Nigeria. National development and attendant issues will be discussed in Module 3 of this course material.

Some subdivisions have been recognised in psycholinguistics. They are made based on the different components that make up human language.

Self-Assessment Exercise

1. What is Psycholinguistics?
2. What about Language acquisition and Language Learning?
3. What are the branches of psycholinguistics?

Linguistics-related areas:

- Phonetics and phonology are concerned with the study of speech sounds. Within psycholinguistics, research focuses on how the brain processes and understands these sounds.
- Morphology is the study of word structures, especially the relationships between related words (such as dog and dogs) and the formation of words based on rules (such as plural formation).
- Syntax is the study of the patterns which dictate how words are combined to form sentences.
- Semantics deals with the meaning of words and sentences. Where syntax is concerned with the formal structure of sentences, semantics deals with the actual meaning of sentences.
- Pragmatics is concerned with the role of context in the interpretation of meaning.

2.1 Unit1: Language and the Brain

The first encounter of any student with studies on the BRAIN is in Biology textbooks. The human anatomy and physiology is a complex system controlled by the brain. Studies in mental health show that the brain is the nucleus of every activity of the body as the control room. Linguistically, psycholinguistics has made the study of the brain inevitable since it houses the source and means of speech production. The brain is a major constituent of the nervous system. It is characterized prominently with the study of human anatomy and physiology but receives the greatest emphasis in the field of Neurology.

The brain controls, integrates and regulates all activities of the sense and body. In Psycholinguistics, the brain becomes a relevant factor in accessing where language is located (Adegbite 2009). Thus, many people assume that the physical basis of language lies in the lips, the tongue or the ear but language is resident in the mind-brain (Goodglass, Kaplan, & Barresi(2001).

In this coursebook, a general structure of the brain will be reviewed with the aid of a diagram, because a human brain displays a number of physiological and structural characteristics that must be understood before beginning a discussion of the brain and language acquisition generally. See the figure 1 below copied from www.shutterstock.com.

Self-Assessment Exercise

1. List the functions of the human brain
2. List the parts of a human brain
3. How is language stored in the mind?

2.2 Unit2: Development Sequence of Language in Children

Developmental psycholinguistics is a study of infants' and children's ability to learn and process language. This is the beginning of any form of language development. Psycholinguistics, in seeking to understand the properties of language acquisition, has roots in debates regarding

innate vs acquired behaviours (both in Biology and Psychology). For some time, the concept of an innate trait, was something that was not present in the psychology of the individual. However, with the redefining of innateness as time progressed, behaviours considered innate could once again be analyzed as behaviours that interacted with the psychological aspect of an individual. After the diminished popularity of the behaviourist model, mentalism became once again a leading train of thought within psychology, and by these means, language, as an innate behaviour within humans, could be examined once more in the scope of psychology.

Before the study of language acquisition, it is important to account for children's transition from the initial stage to adult – like knowledge of language (Uziel-Karl 2001). Scholars have reported a lot of findings on child language (Lennerberg 1967, Brown 1973). Lennerberg (1967) shows the parallel development of motor skill and language. Lennerberg (1967) notes that language develops in children according to a relatively fixed schedule. Crystal (1987, p.232) opines that in child language acquisition “there is a simultaneous development of sounds, grammar, meaning and interaction skills and significant progress can be made on several different points in a matter of days”. This is an indication that what the child learns at any point in time is immeasurable.

According to Adegbite (2009, p. 37), there is an order of progression in language development from crying to additional cooing sounds, babbling follows and the introduction of intonation patterns. Then followed the holophrastic speech whereby individual words seem to convey propositions and then the rapid acquisition of the syntactic structure of the particular language to which the child is exposed. Our review will reflect the language development of children from the earliest stage with emphasis on their age.

Self-Assessment Exercise

Summarise the stages in language acquisition

What is the role of each stage to language development in a child?

What is the relationship between language and the mind?

2.3 Unit3: Language Development

Human language acquisition especially in children develops in stages. These stages are listed and discussed below.

- Crying and Cooing (0-6 months)
- Babbling (6-12 months)
- Holophrastic (1-11/2 years)
- Telegraphic (11/2 – 21/2 years)
- True Speech (3-6 years)

Language development in humans is a process starting early in life. Infants start without knowing a language, yet by 10 months, babies can distinguish speech sounds and engage in babbling. According to the reports on the Wikipediasome research has shown that the earliest

learning begins in utero when the fetus starts to recognize the sounds and speech patterns of its mother's voice and differentiate them from other sounds after birth.

Typically, children develop receptive language abilities before their verbal or expressive language develops. Receptive language is the internal processing and understanding of language. As receptive language continues to increase, expressive language begins to slowly develop. Usually, productive language is considered to begin with a stage of pre-verbal communication in which infants use gestures and vocalization to make their intents known to others. According to a general principle of development, new forms then take over old functions so that children learn words to express the same communicative functions they had already expressed by pre-verbal means (see Sarojini, 2010).

Crying and Cooing

Crying and cooing are preparatory stages for child language acquisition. From approximately four to six months, infants use these cooing sounds to play with such language – related phenomenon as loudness and pitch.

Babbling

Babbling is a process of vocalization that all children engage in. Infant children all over the world make the same kind of sounds; even those who may not develop speech in future, such as the deaf and dumb, still babble (Lenneberg, Rebelesky and Nicholas 1965; Steinberg, 1982). At 6 months, infants come up with a language like sounds called babbling, which consists of consonant-vowel sequences.

Holophrase

At this stage, the child attaches meanings to his one word utterances, and adults around have to decode from contexts of what the child says. This stage presents each 'sentence' only one 'word' long (Goodglass, Kaplan, & Barresi (2001). The first set of words of children are similar all over the world (Pinker 1995). The most common in the child's one-word utterances are /m/, /b/, /p/, /g/, /æ/, /ʌ/, etc. (Adegbite, 2009).

Telegraphic

At this stage the number of words that constitute his/her utterances have increased to two or three words and most of them are concrete objects. It is a stage that has been widely studied. Braine (1963a, 1963b), Miller and Hayim (1964) are among the first to study two –word utterances of children (See also Brown and Bellugi 1972).

True Speech

A true speech begins in a normal child from age three. It is a speech which is syntactically complex. The child uses various transformational rules s/he has internalized to generate complex sentences. Sometimes, the child can overgeneralize the rules, for instance, the child may say: 'A bags' or 'I digged the hole' instead of 'A bag' and 'I dug the hole'.

2.4 Unit 4: Language Acquisition

There are essentially two schools of thought as to how children acquire or learn language, and there is still much debate as to which theory is the correct one. The first theory states that all

languages must be learned by the child. The second view states that the abstract system of language cannot be learned, but that humans possess an innate language faculty, or an access to what has been called universal grammar (see Cook, 1987). The view that language must be learned was especially popular before 1960 and is well represented by the mentalistic theories of Jean Piaget and the empiricist Rudolf Carnap. Likewise, the school of psychology known as behaviorism (see Skinner(1957) puts forth the point of view that language is a behaviour shaped by conditioned response; hence it is learned.

The innatist perspective began with Noam Chomsky's highly critical review of Skinner's book in 1959. This review helped to start what has been termed "the cognitive revolution" in psychology. Chomsky posited humans possess a special, innate ability for language and that complex syntactic features, such as recursion, are "hard-wired" in the brain. These abilities are thought to be beyond the grasp of the most intelligent and social non-humans. According to Chomsky, children acquiring a language have a vast search space to explore among all possible human grammars, yet at the time there was no evidence that children receive sufficient input to learn all the rules of their language (see poverty of the stimulus). Hence, there must be some other innate mechanism that endows a language ability to humans. Such a language faculty is, according to the innateness hypothesis, what defines human language and makes it different from even the most sophisticated forms of animal communication.

The field of linguistics and psycholinguistics since then has been defined by reactions to Chomsky, pro and con. The pro view still holds that the human ability to use language (specifically the ability to use recursion) is qualitatively different from any sort of animal ability. This ability may have resulted from a favourable mutation or from an adaptation of skills evolved for other purposes. The view that language can be learned has had a recent resurgence inspired by emergentism. This view challenges the "innate" view as scientifically unfalsifiable; that is to say, it cannot be tested. With the amount of computer power increasing since the 1980s, researchers have been able to simulate language acquisition using neural network models. These models provide evidence that there may, in fact, be sufficient information contained in the input to learn language, even syntax. If this is true, then an innate mechanism is no longer necessary to explain language acquisition.

Language Learning

Language Learning also known as Second language or L2 is an organized way of learning a language through a product of formal instruction. According to Wilkins, (1974; Krashen 1982), language learning refers to a conscious process (i.e. explicit meaning) whereby the learner has the ability to learn a second language through structured exposure in a classroom. This means, learners have a conscious knowledge of the new language which is different from unconscious knowledge of the new language which is different from unconscious knowledge of the new language which is different from unconscious knowledge of language acquisition and this created the formulae. Language Acquisition equal (=) Learning minus (-) consciousness; Language Learning equal (=) learning plus (+) consciousness. Language learning, therefore, has to do with more efforts, needs and strong impulses.

Self-Assessment Exercises

1. How would you differentiate the processes of language acquisition and language learning?
2. Explain the process of language acquisition using the formulae in your material
3. Mention and explain the stages involved in language acquisition
4. Summarise the key activities at the language acquisitive stages

2.5 Unit 5: Language Problems

Language disorder or language impairment are disorders that involve the processing of linguistic information. It involves:

- i. grammar (syntax and/or morphology),
- ii. semantics (meaning), or other aspects of language.

These problems may be:

- i. receptive (involving impaired language comprehension),
- ii. expressive (involving language production), or a combination of both.

Examples include specific language impairment, better defined as developmental language disorder (DLD), and aphasia, among others. Language disorders can affect both spoken and written language, and can also affect sign language; typically, all forms of language will be impaired. Current data indicates that 7% of young children display language disorder, with boys being diagnosed twice as much as girls. Preliminary research on potential risk factors have suggested biological components, such as:

- i. low birth weight,
- ii. prematurity,
- iii. general birth complications,
- iv. male gender, as well as family history and low parental education can increase the chance of developing language disorders.

For children with phonological and expressive language difficulties, there is evidence supporting speech and language therapy. However, the same therapy is shown to be much less effective for receptive language difficulties. These results are consistent with the poorer prognosis for receptive language impairments that are generally accompanied with problems in reading comprehension. Note that these are distinct from speech disorders, which involve difficulty with the act of speech production, but not with language.

Language disorders tend to manifest in two different ways:

- i. receptive language disorders (where one cannot properly comprehend language); and

- ii. expressive language disorders (where one cannot properly communicate their intended message).

Receptive language disorders can be acquired or developmental (most often the latter). When developmental, difficulties in spoken language tend to occur before three years of age. Usually such disorders are accompanied by expressive language disorders.

However, unique symptoms and signs of a receptive language disorder include: struggling to understand meanings of words and sentences, struggling to put words in proper order, and inability to follow verbal instruction. Treatment options include:

- i. Language therapy
- ii. Special education classes for children at school, and a psychologist if accompanying behavioural problems are present.

Unlike those with a speech disorder, the problem with expressive language disorders pertains not only to the voice and articulation, but to the mental formation of language itself.

Expressive language disorders can occur during a child's development or they can be acquired. This acquisition usually follows a normal neurological development and is brought about by a number of causes such as head trauma or irradiation. Features of an expressive language disorder vary, but have certain features in common such as: limited vocabulary, inability to produce complex grammar, and more lexical errors.

If it is a developmental disorder, the child will have difficulty acquiring new words and grammatical structures. The child will often begin speaking later than his/her peers and progress at a slower rate linguistically. Due to the very nature of these disorders, the child may struggle with academics and socializing with peers. Experts that commonly treat such disorders include speech pathologists and audiologists.

What causes speech disorders?

Speech disorders affect the vocal cords, muscles, nerves and other structures within the throat. The causes may include:

- vocal cord damage
- brain damage
- muscle weakness
- respiratory weakness
- stroke
- polyps nodules on the vocal cords
- vocal cord paralysis

People who have certain medical or developmental conditions may also have speech disorders. Common conditions that can lead to speech disorders are:

- autism
- attention deficit hyperactivity disorder
- oral cancer
- laryngeal cancer
- Huntington's disease
- dementia
- amyotrophic lateral sclerosis (ALS) also known as Lou Gehrig's disease

Speech disorders may be hereditary, and they can develop over time.

What are the symptoms of a speech disorder?

Depending on the cause of the speech disorder, several symptoms may be present. Common symptoms experienced by people with speech disorders are:

- repeating sounds, which is most often seen in people who stutter
- adding extra sounds and words
- elongating words
- making jerky movements while talking, usually involving the head
- blinking several times while talking
- visible frustration when trying to communicate
- taking frequent pauses when talking
- distorting sounds when talking
- hoarseness, or speaking with a raspy or gravelly sounding voice

Self-assessment Exercises

1. Describe a case of language disorder in a boy of about 13 years above
2. What likely shades of language problems can you identify?
3. Describe the symptoms of language disorder in an adult

Psychopathology of Language

Aphasia is an inability to comprehend or formulate language because of damage to specific brain regions. The major causes are a cerebral vascular accident (stroke), or head trauma, but aphasia can also be the result of brain tumors, brain infections, or neurodegenerative diseases such as dementia. However, the latter are far less common and so not as often mentioned when

discussing aphasia. To be diagnosed with aphasia, a person's speech or language must be significantly impaired in one (or more) of the four aspects of communication following acquired brain injury, or have significant decline over a short time period (progressive aphasia). The four aspects of communication are auditory comprehension, verbal expression, reading and writing and functional communication.

The difficulties of people with aphasia can range from occasional trouble finding words to losing the ability to speak, read, or write; intelligence, however, is unaffected. Expressive language and receptive language can both be affected as well. Aphasia also affects visual language such as sign language. In contrast, the use of formulaic expressions in everyday communication is often preserved. For example, while a person with aphasia, particularly Broca's aphasia, may not be able to ask a loved one when their birthday is, they may still be able to sing "Happy Birthday". One prevalent deficit in the aphasias is anomia, which is a difficulty in finding the correct word.

With aphasia, one or more modes of communication in the brain have been damaged and are therefore functioning incorrectly. Aphasia is not caused by damage to the brain that results in motor or sensory deficits, which produces abnormal speech; that is, aphasia is not related to the mechanics of speech but rather the individual's language cognition (although a person can have both problems, particularly if they suffered a hemorrhage that damaged a large area of the brain). An individual's "language" is the socially shared set of rules, as well as the thought processes that go behind verbalized speech. It is not a result of a more peripheral motor or sensory difficulty, such as paralysis affecting the speech muscles or a general hearing impairment.

Aphasia affects about 2 million people in the US and 250,000 people in Great Britain. Nearly 180,000 people acquire the disorder every year in the US alone. In Nigeria, one percent (1%) of people acquire the disorder as a result of environmental and psychological factors while others from their genetic make-up. In a study with Nigerian population, 96% of stroke patients experienced aphasia. Ekeh, et.al (2019) reported four cases of crossed aphasia seen in their practice within one week. Other studies conducted in Nigeria prove that the case of aphasia following stroke is high in Nigeria. Any person of any age can develop aphasia, given that it is often caused by a traumatic injury. However, people who are of middle age and older are the most likely to experience the problem. Older individuals have the highest risk of developing aphasia because the danger of stroke increases with age: approximately 75% of all strokes occur in individuals over the age of 65. Strokes account for most documented cases of aphasia: 25% - 40% of people who survive a stroke develop aphasia as a result of damage to the language-processing regions of the brain.

Study Activities

1. From what you have read above, what is the psychopathology of language
2. Describe the case above clinically then linguistically

3.0 MODULE2: LANGUAGE THERAPY

In this section, the major language or speech problems will be identified first before the possible treatments will be suggested. Language therapy means treatment of language or speech related

problems in human beings. Animals are not known users of language but sounds. Language Therapy is therefore directly concerned with clinical solutions to problems associated with language acquisition and learning in humans. Thus, the target condition is language-related. A few of these problems have been discussed below.

3.1 Unit 1 Language Disorder

Aphasia

History of Aphasia

In this course, the first point of call is the history of aphasia. This history is necessary for a proper introduction to the language or speech disorder. The first recorded case of aphasia is from an Egyptian papyrus, the Edwin Smith Papyrus, which details speech problems in a person with a traumatic brain injury to the temporal lobe.

During the second half of the 19th century, aphasia was a major focus for scientists and philosophers who were working in the beginning stages of the field of psychology. In medical research, speechlessness was described as an incorrect prognosis, and there was no assumption that underlying language complications existed. Broca and his colleagues were some of the first to write about aphasia, but Wernicke was the first credited to have written extensively about aphasia being a disorder that contained comprehension difficulties. Despite claims of who reported on aphasia first, it was F.J. Gall that gave the first full description of aphasia after studying wounds to the brain, as well as his observation of speech difficulties resulting from vascular lesions. A recent book on the entire history of aphasia is available (see Tesak, & Code (2008))

The symptoms of aphasia

Aphasia is the most popular language-related disorder. People with aphasia may experience any of the following behaviours due to an acquired brain injury, although some of these symptoms may be due to related or concomitant problems, such as dysarthria or apraxia, and not primarily due to aphasia. Aphasia symptoms can vary based on the location of damage in the brain. Signs and symptoms may or may not be present in individuals with aphasia and may vary in severity and level of disruption to communication. Often those with aphasia will try to hide their inability to name objects by using words like thing. So when asked to name a pencil they may say it is a thing used to write. The common traits include:

- Inability to comprehend language
- Inability to pronounce, not due to muscle paralysis or weakness
- Inability to speak spontaneously
- Inability to form words
- Inability to name objects (anomia)
- Poor enunciation

- Excessive creation and use of personal neologisms
- Inability to repeat a phrase
- Persistent repetition of one syllable, word, or phrase (stereotypies, recurrent/recurring utterances/speech automatism)
- Paraphasia (substituting letters, syllables or words)
- Agrammatism (inability to speak in a grammatically correct fashion)
- Dysprosody (alterations in inflexion, stress, and rhythm)
- Incomplete sentences
- Inability to read
- Inability to write
- Limited verbal output
- Difficulty in naming
- Speech disorder
- Speaking gibberish
- Inability to follow or understand simple requests

Related Behaviours

Given the previously stated signs and symptoms, the following behaviours are often seen in people with aphasia as a result of attempted compensation for incurred speech and language deficits:

- Self-repairs: Further disruptions in fluent speech as a result of mis-attempts to repair erred speech production.
- Speech disfluencies: Include previously mentioned disfluencies including repetitions and prolongations at the phonemic, syllable and word level presenting in pathological/ severe levels of frequency.
- Struggle in non-fluent aphasias: A severe increase in expelled effort to speak after a life where talking and communicating was an ability that came so easily can cause visible frustration.
- Preserved and automatic language: A behaviour in which some language or language sequences that were used so frequently, prior to onset, they still possess the ability to produce them with more ease than other language post onset.
- Poor eyesight (Oral Dismorphia), usually characterized by tingling in the arms and legs, and sometimes heart disorders.

Subcortical

- Subcortical aphasias characteristics and symptoms depend upon the site and size of subcortical lesion. Possible sites of lesions include the thalamus, internal capsule and basal ganglia.

There are regions of the left hemisphere that can give rise to aphasia when damaged. As students, there are certain characteristics of Aphasia that affects the brain. These include the causes, types and remedies to Aphasia.

- Aphasia is most often caused by stroke, but any disease or damage to the parts of the brain that control language can cause aphasia.
- Some of these can include brain tumors, traumatic brain injury and progressive neurological disorders.
- In rare cases, aphasia may also result from herpes viral encephalitis. The herpes simplex virus affects the frontal and temporal lobes, subcortical structures, and the hippocampal tissue, which can trigger aphasia.
- In acute disorders, such as head injury or stroke, aphasia usually develops quickly. When caused by brain tumor, infection, or dementia, it develops more slowly.

Substantial damage to tissue anywhere within the region shown in blue colour on the figure 1a shown at the right can potentially result in aphasia. Aphasia can also sometimes be caused by damage to subcortical structures deep within the left hemisphere, including the thalamus, the internal and external capsules and the caudate nucleus of the basal ganglia. The area and extent of brain damage or atrophy will determine the type of aphasia and its symptoms. A very small number of people can experience aphasia after damage to the right hemisphere only. It has been suggested that these individuals may have had an unusual brain organization prior to their illness or injury, with perhaps greater overall reliance on the right hemisphere for language skills than in the general population.

Primary Progressive Aphasia (PPA), while its name can be misleading, is actually a form of dementia that has some symptoms closely related to several forms of aphasia. It is characterized by a gradual loss in language functioning while other cognitive domains are mostly preserved, such as memory and personality. PPA is usually initiated with sudden word-finding difficulties in an individual and progresses to a reduced ability to formulate grammatically correct sentences (syntax) and impaired comprehension. The etiology of PPA is not due to a stroke, traumatic brain injury (TBI), or infectious disease; it is still uncertain what initiates the onset of PPA in those affected by it.

According to Pinker (1995), epilepsy can also include transient aphasia as a prodromal or episodic symptom. Aphasia is also listed as a rare sideeffect of the fentanyl patch, an opioid used to control chronic pain. Aphasia can best be considered as a collection of different disorders, rather than a single problem. Each individual with aphasia will present with their own particular

combination of language strengths and weaknesses. Consequently, it is a major challenge just to document the various difficulties that can occur in different people, let alone decide how they might best be treated. Most classifications of the aphasia tend to divide the various symptoms into broad classes (Pinker 1995). A common approach is to distinguish between the fluent aphasia (where speech remains fluent, but content may be lacking, and the person may have difficulties understanding others), and the non-fluent aphasia (where speech is very halting and effortful and may consist of just one or two words at a time).

However, no such broad-based grouping has proven fully adequate. There is wide variation among people even within the same broad grouping and aphasia can be highly selective. For instance, people with naming deficits (anomic aphasia) might show an inability only for naming buildings, or people, or colours.

It is important to note that there are typical difficulties with speech and language that come with normal aging as well. As we age, language can become more difficult to process resulting in a slowing of verbal comprehension, reading abilities and more likely word finding difficulties. With each of these, though, unlike some aphasia, functionality within daily life remains intact.

3.2 Unit 2 Causes of Language Disorders

Language disorder is either congenital or acquired. It is congenital if the child was born with that deformity as inability to either produce or receive speech, known as comprehension. Aphasia are of many kinds. These types have been discussed elaborately in this material. However, language comprehension is to be discussed below.

Language comprehension

Language is a means of communication. In fact, it is the most acceptable means of communication because only human beings use language. How language is used by a user of language tells the level of communicative competence which has been attained by the language user. Language users share something in common; that is comprehension. Comprehension means understanding. What is comprehended in any context of language use is meaning. Thus, any communicative exchange is expected to be meaningful. In communicative skill tests, written passages are prepared for students to read and demonstrate comprehension by responding appropriately.

Reading

One question in the realm of language comprehension is how people understand sentences as they read (also known as sentence processing). Experimental research has spawned a number of theories about the architecture and mechanisms of sentence comprehension. Typically, these theories are concerned with what types of information contained in the sentence the reader can use to build meaning, and at what point in reading does that information become available to the reader. Issues such as "modular" versus "interactive" processing have been theoretical divides in the field (see Opubor 1985, p.14).

A modular view of sentence processing assumes that the stages involved in reading a sentence function independently in separate modules. These modules have limited interaction with one

another. For example, one influential theory of sentence processing, the garden-path theory, states that syntactic analysis takes place first. Under this theory, as the reader is reading a sentence, he or she creates the simplest structure possible in order to minimize effort and cognitive load. This is done without any input from semantic analysis or context-dependent information. Hence, in the sentence "The evidence examined by the lawyer turned out to be unreliable," by the time the reader gets to the word "examined" he or she has committed to a reading of the sentence in which the evidence is examining something because it is the simplest parse. This commitment is made despite the fact that it results in an implausible situation; we know from experience that evidence can rarely if ever examine something. Under this "syntax first" theory, semantic information is processed at a later stage. It is only later that the reader will recognize that he or she needs to revise the initial parse into one in which "the evidence" is being examined. In this example, readers typically recognize their misparse by the time they reach "by the lawyer" and must go back and re-parse the sentence. This re-analysis is costly and contributes to slower reading times.

In contrast to a modular account, an interactive theory of sentence processing, such as a constraint-based lexical approach, assumes that all available information contained within a sentence can be processed at any time. Under an interactive account, for example, the semantics of a sentence (such as plausibility) can come into play early on in order to help determine the structure of a sentence. Hence, in the sentence above, the reader would be able to make use of plausibility information in order to assume that "the evidence" is being examined instead of doing the examining. There are data to support both modular and interactive accounts; which account is the correct one is still up for debate.

Types of Language Disorder

Language production concerns how people produce language, either in written or spoken form, in a way that conveys meanings comprehensible to others. One of the most effective ways to explain the way people represent meanings using rule-governed languages is by observing and analyzing instances of speech errors (cf. Opubor 1985, p. 14). They include speech dysfluencies like:

- i. false starts
- ii. repetition
- iii. reformulation and
- iv. constant pauses in between words or sentences; also,
- v. slips of tongue, like blendings, substitutions, exchanges (e.g. Spoonerism), and various pronunciation errors.

These speech errors yield significant implication on language production, in that they reflect that:

1. Speech is planned in advance: speech errors like substitution and exchanges show that one does not plan his/her entire sentence before s/he speaks. Rather, their language faculty is constantly tapped during the speech production process. This is accounted for by the limitation

of the working memory. In particular, errors involving exchanges imply that one plans ahead in their sentence but only about significant ideas (e.g. the words that constitute the core meaning) and only to a certain extent of the sentence.

2. Lexicon is organised semantically and phonologically: substitution and pronunciation errors show that lexicon is organised not only by its meaning, but also its form.

3. Morphologically complex words are assembled: errors involving blending within a word reflect that there seems to be a rule governing the construction of words in production (and also likely in mental lexicon). In other words, speakers generate the morphologically complex words by merging morphemes rather than retrieving them as chunks.

Klebic (2011) asserts that it is useful to differentiate between three separate phases of production: conceptualization "(determining what to say), formulation (translating the intention to say something into linguistic form), and execution (the detailed articulatory planning and articulation itself)." Most psycholinguistic research has largely concerned itself with the study for formulation because the phase of conceptualization largely remains an elusive and mysterious period of development.

For models of speech production, see Psycholinguistics/Models of Speech Production.

3.3. Unit 3: Understanding Language Disorder and Treatment of Language Disorder

Oftentimes, the cause of this disorder is unknown. Genetics and nutrition may play a role, but these explanations havenot yet been proven. Normal language development involves the ability to hear, see, comprehend, and retain information. This process may be delayed in some children, who eventually catch up with peers. A delay in language development may be related to:

- hearing problems
- brain injury
- damage to the central nervous system (CNS)

Sometimes, delayed language may accompany other developmental problems, such as:

- hearing loss
- autism
- a learning disability

Language disorder isnot necessarily related to a lack of intelligence. Experts try to identify the cause when language development doesnt happen naturally. The disorder is often treated through the collective efforts of parents, teachers, speech-language pathologists, and other health professionals.

Medical Exam

The first course of action is to visit your doctor for a full physical examination. This will help rule out or diagnose other conditions, such as a hearing problem or other sensory impairment.

Language Therapy

The common treatment for language disorder is speech and language therapy. Treatment will depend on the age of the child and the cause and extent of the condition. For example, the child may participate in one-on-one treatment sessions with a speech-language therapist or attend group sessions. The speech-language therapist will diagnose and treat the child according to their deficits.

Early intervention often plays an important role in a successful outcome.

Symptoms Related to Expression

Language disorder is often noticed in childhood first. The child may overuse “um” and “uh” because they cannot recall the right word.

Other symptoms include:

- reduced vocabulary in comparison to other children of the same age
- limited ability to form sentences
- impaired ability to use words and connect sentences to explain or describe something
- reduced ability to have a conversation
- leaving words out
- saying words in the wrong order
- repeating a question while thinking of an answer
- confusing tenses (for example, using past tense instead of present)

Some of these symptoms are part of normal language development. However, the child may have a language disorder if several of these issues are persistent and do not improve.

Symptoms Related to Understanding Others

An equally important aspect of this disorder is having a hard time understanding others when they speak. This may translate into difficulty following directions at home and school. According to the Journal of the American Family Physician, there may be a problem if the child is 18 months old and does not follow one-step directions. An example of a one-step direction might be “pick up your toy.” If, at 30 months, the child is not responding to questions verbally or with a nod or headshake, then it may be a sign of a language disorder. The common treatment for language disorder is speech and language therapy. Treatment will depend on the age of your child and the cause and extent of the condition. For example, the child may participate in one-on-one treatment sessions with a speech-language therapist or attend group sessions. The speech-language therapist will diagnose and treat him/her according to their deficits.

Early intervention often plays an important role in a successful outcome. There are home care options: Working with your child at home can help. Here are some tips:

- Speak clearly, slowly and concisely when asking your child a question.
- Wait patiently as your child forms a response.
- Keep the atmosphere relaxed to reduce anxiety.
- Ask your child to put your instructions in their own words after giving an explanation or command.

Frequent contact with teachers is also important. Your child may be reserved in class and may not want to participate in activities that involve talking and sharing. Ask the teacher about class activities in advance to help prepare your child for upcoming discussions.

Psychological Therapy

Having difficulty understanding and communicating with others can be frustrating and may trigger episodes of acting out. Counseling may be needed to address emotional or behavioural issues.

Consequences and Prevention of Language Disorder

Effective communication is an important part of forming relationships at work, school, and social settings. An unaddressed language disorder can cause long-term consequences, including depression or behavioural problems in adulthood.

Preventing a language disorder is difficult, especially because the exact cause of the disorder is largely unknown. However, it is possible to reduce the disorder's impact by working closely with a speech-language pathologist. Seeing a counselor can also help in dealing with the emotional and mental health challenges that the disorder may cause.

Self-Assessment Exercise

1. What are the types of language therapy?
2. Describe the clinical steps towards achieving a successful language therapy
3. What advice would you give to a sufferer of language-related problems?
4. How can aphasia be treated?

3.4 Unit 4: Major Characteristics of Aphasia Types

The table below is copied from www.aphasia.org. It is a table showing the major characteristics of different types of aphasia according to Braine (1963) The examples online are taken from Code (1982).

Table 1. Major Characteristics of Aphasia Types (Code (1982, pp. 141-152.)

Type of aphasia	Speech repetition	Naming	Auditory comprehension	Fluency
Broca's aphasia	Moderate–severe	Moderate–severe	Mild difficulty	Non-fluent, effortful, slow
Wernicke's aphasia	Mild–severe	Mild–severe	Defective	Fluent paraphasic
Conduction aphasia	Poor	Poor	Relatively good	Fluent
Mixed transcortical aphasia	Moderate	Poor	Poor	Non-fluent
Transcortical motor aphasia	Good	Mild–severe	Mild	Non-fluent
Transcortical sensory aphasia	Good	Moderate–severe	Poor	Fluent
Global aphasia	Poor	Poor	Poor	Non-fluent
Anomic aphasia	Mild	Moderate–severe	Mild	Fluent

Individuals with Wernicke's' aphasia, also referred to as receptive or fluent aphasia, may speak in long sentences that have no meaning, add unnecessary words, and even create new "words" (neologisms). For example, someone with receptive aphasia may say, "delicious taco", meaning "The dog needs to go out so I will take him for a walk". They have poor auditory and reading comprehension, and fluent, but nonsensical, oral and written expression. Individuals with receptive aphasia usually have great difficulty understanding the speech of both themselves and others and are, therefore, often unaware of their mistakes. Receptive language deficits usually arise from lesions in the posterior portion of the left hemisphere at or near Wernicke's area. It is often the result of trauma to the temporal region of the brain, specifically damage to Wernicke's area. Trauma can be the result from an array of problems. However, it is most commonly seen as a result of stroke.

- Individuals with Broca's aphasia frequently speak short, meaningful phrases that are produced with great effort. It is thus characterized as a non-fluent aphasia. Affected people often omit small words such as "is", "and", and "the". For example, a person with expressive aphasia may say, "walk dog", which could mean "I will take the dog for a walk", "you take the dog for a walk" or even "the dog walked out of the yard". Individuals with expressive aphasia are able to understand the speech of others to varying degrees. Because of this, they are often aware of their difficulties and can become easily frustrated by their speaking problems. While Broca's aphasia may appear to be solely an issue with language production, evidence suggests that Broca's aphasia may be rooted in an inability to process syntactic information. Individuals with Broca's aphasia may have a speech automatism (also called recurring or recurrent utterance. These speech automatisms can be repeated lexical speech automatisms; e.g., modalisations ('I can't..., I can't...'), expletives/swearwords, numbers ('one two, one two') or non-lexical utterances made up of repeated, legal but meaningless, consonant-vowel syllables (e.g., /tan tan/, /bi bi/). In severe cases the individual may be able to utter only the same speech automatism each time they attempt speech.

- Individuals with anomic aphasia have difficulty with naming. People with this aphasia may have difficulties naming certain words, linked by their grammatical type (e.g., difficulty naming verbs and not nouns), or by their semantic category (e.g., difficulty naming words relating to photography but nothing else) or a more general naming difficulty.

- People tend to produce grammatical, yet empty, speech. Auditory comprehension tends to be preserved. Anomic aphasia is the presentation of tumors in the language zone; it is the aphasia presentation of Alzheimer's disease.

- Anomic aphasia is the mildest form of aphasia, indicating a likely possibility for better recovery. Individuals with transcortical sensory aphasia, in principle the most general and potentially among the most complex forms of aphasia, may have similar deficits as in receptive aphasia, but their repetition ability may remain intact.

- Global aphasia is considered a severe impairment in many language aspects since it impacts expressive and receptive language, reading and writing. Despite these many deficits, there is evidence that has shown individuals benefited from speech language therapy. Even though individuals with global aphasia will not become competent speakers, listeners, writers, or readers, goals can be created to improve the individual's quality of life. Individuals with global aphasia usually respond well to treatment that includes personally relevant information, which is also important to consider for therapy.

- Individuals with conduction aphasia have deficits in the connections between the speech-comprehension and speech-production areas. This might be caused by damage to the arcuate fasciculus, the structure that transmits information between Wernicke's area and Broca's area. Similar symptoms, however, can be present after damage to the insula or to the auditory cortex. Auditory comprehension is near normal, and oral expression is fluent with occasional paraphasic errors. Paraphasic errors include phonemic/literal or semantic/verbal. Repetition ability is poor. Conduction and transcortical aphasias are caused by damage to the white matter tracts. These aphasias spare the cortex of the language centres but instead create a disconnection between them. Conduction aphasia is caused by damage to the arcuate fasciculus. The arcuate fasciculus is a white matter tract that connects Broca's and Wernicke's areas. People with conduction aphasia typically have good language comprehension, but poor speech repetition and mild difficulty with word retrieval and speech production. People with conduction aphasia are typically aware of their errors. Two forms of conduction aphasia have been described: reproduction conduction aphasia (repetition of a single relatively unfamiliar multisyllabic word) and repetition conduction aphasia (repetition of unconnected short familiar words).

- Transcortical aphasias include transcortical motor aphasia, transcortical sensory aphasia and mixed transcortical aphasia. People with transcortical motor aphasia typically have intact comprehension and awareness of their errors, but poor word finding and speech production. People with transcortical sensory and mixed transcortical aphasia have poor comprehension and unawareness of their errors. Despite poor comprehension and more severe deficits in some transcortical aphasias, small studies have indicated that full recovery is possible for all types of transcortical aphasia.

Classical-localizationist Approaches (Code, 1982)

Cortex

Localizationist approaches aim to classify the aphasias according to their major presenting characteristics and the regions of the brain that most probably gave rise to them. Inspired by the

early work of nineteenth-century neurologists Paul Broca and Carl Wernicke, these approaches identify two major subtypes of aphasia and several more minor subtypes:

- Expressive aphasia (also known as "motor aphasia" or "Broca's aphasia"), which is characterised by halted, fragmented, effortful speech, but well-preserved comprehension relative to expression. Damage is typically in the anterior portion of the left hemisphere, most notably Broca's area. Individuals with Broca's aphasia often have right-sided weakness or paralysis of the arm and leg, because the left frontal lobe is also important for body movement, particularly on the right side.

- Receptive aphasia (also known as "sensory aphasia" or "Wernicke's aphasia"), which is characterized by fluent speech, but marked difficulties understanding words and sentences. Although fluent, the speech may lack in key substantive words (nouns, verbs, adjectives), and may contain incorrect words or even nonsense words. This subtype has been associated with damage to the posterior left temporal cortex, most notably Wernicke's area. These individuals usually have no body weakness, because their brain injury is not near the parts of the brain that control movement.

- Conduction aphasia, where speech remains fluent and comprehension is preserved, but the person may have disproportionate difficulty where repeating words or sentences. Damage typically involves the arcuate fasciculus and the left parietal region.

- Transcortical motor aphasia and transcortical sensory aphasia, which are similar to Broca's and Wernicke's aphasia respectively, but the ability to repeat words and sentences is disproportionately preserved.

Recent classification schemes adopting this approach, such as the "Boston-Neoclassical Model" (see Code 1982, p. 35), also group these classical aphasia subtypes into two larger classes: the non-fluent aphasias (which encompasses Broca's aphasia and transcortical motor aphasia) and the fluent aphasias (which encompasses Wernicke's aphasia, conduction aphasia and transcortical sensory aphasia). These schemes also identify several further aphasia subtypes, including: anomic aphasia, which is characterized by a selective difficulty finding the names for things; and global aphasia, where both expression and comprehension of speech are severely compromised.

Many localizationist approaches also recognize the existence of additional, more "pure" forms of language disorder that may affect only a single language skill. For example, in pure alexia, a person may be able to write but not read, and in pure word deafness, they may be able to produce speech and to read, but not understand speech when it is spoken to them.

Cognitive Neuropsychological Approaches

Although localizationist approaches provide a useful way of classifying the different patterns of language difficulty into broad groups, one problem is that a sizeable number of individuals do not fit neatly into one category or another. Another problem is that the categories, particularly the major ones such as Broca's and Wernicke's aphasia, still remain quite broad. Consequently, even amongst individuals who meet the criteria for classification into a subtype, there can be enormous variability in the types of difficulties they experience.

Instead of categorizing every individual into a specific subtype, cognitive neuropsychological approaches aim to identify the key language skills or "modules" that are not functioning properly in each individual. A person could potentially have difficulty with just one module, or with a number of modules. This type of approach requires a framework or theory as to what skills/modules are needed to perform different kinds of language tasks. For example, the model of Max Coltheart cited in Robey (1998, p. 4) identifies a module that recognizes phonemes as they are spoken, which is essential for any task involving recognition of words. Similarly, there is a module that stores phonemes that the person is planning to produce in speech; and this module is critical for any task involving the production of long words or long strings of speech.

Once a theoretical framework has been established, the functioning of each module can then be assessed using a specific test or set of tests. In the clinical setting, use of this model usually involves conducting a battery of assessments, each of which tests one or a number of these modules. Once a diagnosis is reached as to the skills/modules where the most significant impairment lies, therapy can proceed to treat these skills.

Progressive Aphasias

The record in this paragraph is according to Goodglass, Kaplan, & Barresi, (2001). Primary Progressive Aphasia (PPA) is a neurodegenerative focal dementia that can be associated with progressive illnesses or dementia, such as frontotemporal dementia / Pick Complex Motor neuron disease, Progressive supranuclear palsy, and Alzheimer's disease, which is the gradual process of progressively losing the ability to think. Gradual loss of language function occurs in the context of relatively well-preserved memory, visual processing, and personality until the advanced stages. Symptoms usually begin with word-finding problems (naming) and progress to impaired grammar (syntax) and comprehension (sentence processing and semantics).

The loss of language before the loss of memory differentiates PPA from typical dementias. People suffering from PPA may have difficulties comprehending what others are saying. They can also have difficulty trying to find the right words to make a sentence. There are three classifications of Primary Progressive Aphasia: Progressive non-fluent aphasia (PNFA), Semantic Dementia (SD), and Logopenic progressive aphasia (LPA).

Progressive Jargon Aphasia is a fluent or receptive aphasia in which the person's speech is incomprehensible, but appears to make sense to them. Speech is fluent and effortless with intact syntax and grammar, but the person has problems with the selection of nouns (see Goodglass, Kaplan, & Barresi, (2001)). Either they will replace the desired word with another that sounds or looks like the original one or has some other connection or they will replace it with sounds. As such, people with jargon aphasia often use neologisms and may persevere if they try to replace the words they cannot find with sounds. Substitutions commonly involve picking another (actual) word starting with the same sound (e.g., clocktower - colander), picking another semantically related to the first (e.g., letter - scroll), or picking one phonetically similar to the intended one (e.g., lane - late).

Deaf Aphasia

There have been many instances showing that there is a form of aphasia among deaf individuals. Sign languages are, after all, forms of language that have been shown to use the same areas of the brain as verbal forms of language. Mirror neurons become activated when an animal is acting in a particular way or watching another individual act in the same manner. These mirror neurons are important in giving an individual the ability to mimic movements of hands. Broca's area of speech production has been shown to contain several of these mirror neurons resulting in significant similarities of brain activity between sign language and vocal speech communication. Facial communication is a significant portion of how animals interact with each other.

Humans use facial movements to create, what other humans perceive to be faces of emotions. While combining these facial movements with speech, a fuller form of language is created which enables the species to interact with a much more complex and detailed form of communication. Sign language also uses these facial movements and emotions along with the primary hand movement way of communicating. These facial movement forms of communication come from the same areas of the brain. When dealing with damages to certain areas of the brain, vocal forms of communication are in jeopardy of severe forms of aphasia. Since these same areas of the brain are being used for sign language, these same, at least very similar forms of aphasia can show in the Deaf community. Individuals can show a form of Wernicke's aphasia with sign language and they show deficits in their abilities in being able to produce any form of expressions. Broca's aphasia shows up in some people as well. These individuals find tremendous difficulty in being able to actually sign the linguistic concepts they are trying to express.

Severity

The severity of the type of aphasia varies depending on the size of the stroke. However, there is much variance between how often one type of severity occurs in certain types of aphasia. For instance, any type of aphasia can range from mild to profound. Regardless of the severity of aphasia, people can make improvements due to spontaneous recovery and treatment in the acute stages of recovery. Klebic et al. (2011) found that people with severe aphasia improved after receiving therapy for a year, consequently reducing the severity of their aphasia. Additionally, while most studies propose that the greatest outcomes occur in people with severe aphasia when treatment is provided in the acute stages of recovery, Robey (1998) also found that those with severe aphasia are capable of making strong language gains in the chronic stage of recovery as well. This finding implies that persons with aphasia have the potential to have functional outcomes regardless of how severe their aphasia may be. While there is no distinct pattern of the outcomes of aphasia based on severity alone, global aphasia typically makes functional language gains, but may be gradual since global aphasia affects many language areas.

Cognitive Deficits in Aphasia

While aphasia has traditionally been described in terms of language deficits, there is increasing evidence that many people with aphasia commonly experience co-occurring non-linguistic cognitive deficits. By some accounts, cognitive deficits, such as attention and working memory constitute the underlying cause of language impairment in people with aphasia. Others suggest that cognitive deficits often co-occur but are comparable to cognitive deficits in stroke patients without aphasia and reflect general brain dysfunction following injury. The degree to which

deficits in attention and other cognitive domains underlie language deficits in aphasia is still unclear.

In particular, people with aphasia often demonstrate short-term and working memory deficits. These deficits can occur in both the verbal domain as well as the visuospatial domain. Furthermore, these deficits are often associated with performance on language specific tasks such as naming, lexical processing, sentence comprehension and discourse production. Other studies have found that most, but not all people with aphasia demonstrate performance deficits on tasks of attention and their performance on these tasks correlate with language performance and cognitive ability in other domains. Even patients with mild aphasia who score near the ceiling on tests of language often demonstrate slower response times and interference effects in non-verbal attention abilities.

In addition to deficits in short-term memory, working memory and attention, people with aphasia can also demonstrate deficits in executive function. For instance, people with aphasia may demonstrate deficits in initiation, planning, self-monitoring and cognitive flexibility. Other studies have found that people with aphasia demonstrate reduced speed and efficiency during completion of executive function assessments.

Regardless of their role in the underlying nature of aphasia, cognitive deficits have a clear role in the study and rehabilitation of aphasia. For instance, the severity of cognitive deficits in people with aphasia has been associated with lower quality of life, even more so than the severity of language deficits. Furthermore, cognitive deficits may influence language treatment outcomes in aphasia. Non-linguistic cognitive deficits have also been the target of interventions directed at improving language ability, though outcomes are not definitive. While some studies have demonstrated language improvement secondary to cognitively-focused treatment, others have found little evidence that the treatment of cognitive deficits in people with aphasia has an influence on language outcomes.

One important caveat in the measurement and treatment of cognitive deficits in people with aphasia is the degree to which assessments of cognition rely on language abilities for successful performance. Most studies have attempted to circumvent this challenge by utilizing non-verbal cognitive assessments to evaluate cognitive ability in people with aphasia. However, the degree to which these tasks are truly 'non-verbal' and not mediated by language is unclear. For instance, Wall et al., (2017) found that language and non-linguistic performance were related, except when non-linguistic performance was measured by 'real life' cognitive tasks.

Prevention of Aphasia

Aphasia is largely caused by unavoidable instances. However, some precautions can be taken to decrease risk for experiencing one of the two major causes of aphasia: stroke and traumatic brain injury (TBI). To decrease the probability of having an ischemic or hemorrhagic stroke, one should take the following precautions:

- Exercising regularly
- Eating a healthy diet, avoiding cholesterol in particular

- Keeping alcohol consumption low and avoiding tobacco use
- Controlling blood pressure
- Going to the emergency room immediately if you begin to experience unilateral extremity (especially leg) swelling, warmth, redness, and/or tenderness as these are symptoms of a deep vein thrombosis which can lead to a stroke.

To prevent aphasia due to traumatic injury, one should take precautionary measures when engaging in dangerous activities such as:

- Wearing a helmet when operating a bicycle, motor cycle, ATV, or any other moving vehicle that could potentially be involved in an accident.
- Wearing a seatbelt when driving or riding in a car.
- Wearing proper protective gear when playing contact sports, especially American football, rugby, and hockey, or refraining from such activities.
- Minimising anticoagulant use (including aspirin) if at all possible as they increase the risk of hemorrhage after a head injury.

Additionally, one should always seek medical attention after sustaining head trauma due to a fall or accident. The sooner that one receives medical attention for a traumatic brain injury, the less likely one is to experience long-term or severe effects (see Goodglass, Kaplan, & Barresi, 2001).

Management

When addressing Wernicke's aphasia, according to Bakheit et al. (2007), the lack of awareness of the language impairments, a common characteristic of Wernicke's aphasia, may affect the rate and extent of therapy outcomes. Klebic et al. (2011) suggests that people benefit from continuing therapy upon discharge from the hospital to ensure generalization. Robey (1998) determined that at least 2 hours of treatment per week is recommended for making significant language gains. Spontaneous recovery may cause some language gains, but without speech-language therapy, the outcomes can be half as strong as those with therapy.

When addressing Broca's aphasia, better outcomes occur when the person participates in therapy, and treatment is more effective than no treatment for people in the acute period. Two or more hours of therapy per week in acute and post-acute stages produced the greatest results. High-intensity therapy was most effective and low-intensity therapy was almost equivalent to no therapy.

People with global aphasia are sometimes referred to as having irreversible aphasic syndrome, often making limited gains in auditory comprehension and recovering no functional language modality with therapy. With this said, people with global aphasia may retain gestural communication skills that may enable success when communicating with conversational partners within familiar conditions. Process-oriented treatment options are limited and people may not become competent language users as readers, listeners, writers, or speakers no matter how extensive therapy is. However, people's daily routines and quality of life can be enhanced with

reasonable and modest goals. After the first month, there is a limitation to language abilities of most people. There is a grim prognosis leaving 83% who were globally aphasic. After the first month they will remain globally aphasic at the first year. Some people are so severely impaired that their existing process-oriented treatment approaches offer signs of progress, and therefore cannot justify the cost of therapy.

Perhaps due to the relative rareness of conduction aphasia, few studies have specifically studied the effectiveness of therapy for people with this type of aphasia. From the studies performed, results showed that therapy can help to improve specific language outcomes. One intervention that has had positive results is auditory repetition training. Kohn et al. (1990) reported that drilled auditory repetition training related to improvements in spontaneous speech, Francis et al. (2003) reported improvements in sentence comprehension, and Kalinyak-Fliszar et al. (2011) reported improvements in auditory-visual short-term memory.

Most acute cases of aphasia recover some or most skills by working with a speech-language pathologist. Recovery and improvement can continue for years after the stroke. After the onset of Aphasia, there is approximately a six-month period of spontaneous recovery; during this time, the brain is attempting to recover and repair the damaged neurons. Improvement varies widely, depending on the aphasia's cause, type and severity. Recovery also depends on the person's age, health, motivation, handedness, and educational level.

There is no one treatment proven to be effective for all types of aphasias. The reason that there is no universal treatment for aphasia is because of the nature of the disorder and the various ways it is presented, as explained in the above sections. Aphasia is rarely exhibited identically, implying that treatment needs to be tailored specifically to the individual. Studies have shown that, although there is no consistency on treatment methodology in literature, there is a strong indication that treatment, in general, has positive outcomes. Therapy for aphasia ranges from increasing functional communication to improving speech accuracy, depending on the person's severity, needs and support of family and friends. Group therapy allows individuals to work on their pragmatic and communication skills with other individuals with aphasia, which are skills that may not often be addressed in individual one-on-one therapy sessions. It can also help increase confidence and social skills in a comfortable setting.

Evidence does not support the use of transcranial direct current stimulation (tDCS) for improving aphasia after stroke. Moderate quality evidence does indicate naming performance improvements for nouns but not verbs using tDCS. Specific treatment techniques include the following:

- Copy and recall therapy (CART) - repetition and recall of targeted words within therapy may strengthen orthographic representations and improve single word reading, writing, and naming
- Visual communication therapy (VIC) - the use of index cards with symbols to represent various components of speech
- Visual action therapy (VAT) - typically treats individuals with global aphasia to train the use of hand gestures for specific items

- Functional communication treatment (FCT) - focuses on improving activities specific to functional tasks, social interaction, and self-expression
- Promoting aphasic's communicative effectiveness (PACE) - a means of encouraging normal interaction between people with aphasia and clinicians. In this kind of therapy, the focus is on pragmatic communication rather than treatment itself. People are asked to communicate a given message to their therapists by means of drawing, making hand gestures or even pointing to an object
- Melodic intonation therapy (MIT) - aims to use the intact melodic/prosodic processing skills of the right hemisphere to help cure retrieval of words and expressive language
- Other - i.e. drawing as a way of communicating, trained conversation partners

Semantic feature analysis (SFA) - a type of aphasia treatment that targets word-finding deficits - It is based on the theory that neural connections can be strengthened by using related words and phrases that are similar to the target word, to eventually activate the target word in the brain. SFA can be implemented in multiple forms such as speech, writing, using picture cards, etc. The SLP provides prompting questions to the individual with aphasia in order for the person to name the picture provided. Studies show that SFA is an effective intervention for improving confrontational naming.

Melodic intonation therapy is used to treat non-fluent aphasia and has proved to be effective in some cases. However, there is still no evidence from randomized controlled trials confirming the efficacy of MIT in chronic aphasia. MIT is used to help people with aphasia vocalize themselves through speech song, which is then transferred as a spoken word. Good candidates for this therapy include people who have had left hemisphere strokes, non-fluent aphasias such as Broca's, good auditory comprehension, poor repetition and articulation and good emotional stability and memory. An alternative explanation is that the efficacy of MIT depends on neural circuits involved in the processing of rhythmicity and formulaic expressions (examples taken from the MIT manual: "I am fine," "how are you?" or "thank you"); while rhythmic features associated with melodic intonation may engage primarily left-hemisphere subcortical areas of the brain, the use of formulaic expressions is known to be supported by right-hemisphere cortical and bilateral subcortical neural networks.

Systematic reviews support the effectiveness and importance of partner training. According to the National Institute on Deafness and Other Communication Disorders (NIDCD), involving family with the treatment of an aphasic loved one is ideal for all involved, because while it will no doubt assist in their recovery, it will also make it easier for members of the family to learn how best to communicate with them.

When a person's speech is insufficient, different kinds of augmentative and alternative communication could be considered such as alphabet boards, pictorial communication books, specialized software for computers or apps for tablets or smartphones.

Intensity of Treatment

The intensity of aphasia therapy is determined by the length of each session, total hours of therapy per week, and total weeks of therapy provided. There is no consensus about what "intense" aphasia therapy entails, or how intense therapy should be to yield the best outcomes. A 2016 review of speech and language therapy for people with aphasia found that treatments that are of higher intensity, higher dose or over a long duration of time led to significantly better functional communication but people were more likely to drop out of high intensity treatment (up to 15 hours per week).

Intensity of therapy is also dependent on the recency of stroke. People with aphasia react differently to intense treatment in the acute phase (0–3 months post stroke), sub-acute phase (3–6 months post stroke), or chronic phase (6+ months post stroke). Intensive therapy has been found to be effective for people with nonfluent and fluent chronic aphasia, but less effective for people with acute aphasia. People with sub-acute aphasia also respond well to intensive therapy of 100 hours over 62 weeks. This suggests that people in the sub-acute phase can improve greatly in language and functional communication measures with intensive therapy compared to regular therapy.

Individualised Service Delivery

Intensity of treatment should be individualized based on the recency of stroke, therapy goals and other specific characteristics such as age, size of lesion, overall health status and motivation. Each individual reacts differently to treatment intensity and is able to tolerate treatment at different times post-stroke. Intensity of treatment after a stroke should be dependent on the person's motivation, stamina, and tolerance for therapy.

Outcomes

If the symptoms of aphasia last longer than two or three months after a stroke, a complete recovery is unlikely. However, it is important to note that some people continue to improve over a period of years and even decades. Improvement is a slow process that usually involves both helping the individual and family understand the nature of aphasia and learning compensatory strategies for communicating. After a traumatic brain injury (TBI) or cerebrovascular accident (CVA), the brain undergoes several healing and re-organization processes, which may result in improved language function. This is referred to as spontaneous recovery. Spontaneous recovery is the natural recovery the brain makes without treatment and the brain begins to reorganize and change in order to recover. There are several factors that contribute to a person's chance of recovery caused by stroke, including stroke size and location. Age, sex, and education have not been found to be very predictive.

Specific to aphasia, spontaneous recovery varies among affected people and may not look the same in everyone, making it difficult to predict recovery.

Though some cases of Wernicke's aphasia have shown greater improvements than more mild forms of aphasia, people with Wernicke's aphasia may not reach as high a level of speech abilities as those with mild forms of aphasia.

Drug Therapy

Research is currently being done using functional Magnetic Resonance Imaging (fMRI) to witness the difference in how language is processed in normal brains vs aphasic brains. This will help researchers to understand exactly what the brain must go through in order to recover from Traumatic Brain Injury (TBI) and how different areas of the brain respond after such an injury.

Another intriguing approach being tested is that of drug therapy. Research is in progress that will hopefully uncover whether or not certain drugs might be used in addition to speech-language therapy in order to facilitate recovery of proper language function. It is possible that the best treatment for aphasia might involve combining drug treatment with therapy, instead of relying on one over the other.

One other method being researched as a potential therapeutic combination with speech-language therapy is brain stimulation. One particular method, Transcranial Magnetic Stimulation (TMS), alters brain activity in whatever area it happens to stimulate, which has recently led scientists to wonder if this shift in brain function caused by TMS might help people re-learn languages.

The research being put into aphasia has only just begun. Researchers appear to have multiple ideas on how it could be more effectively treated in the future. ("Aphasia". National Institute on Deafness and Other Communication Disorders. 2015-08-18. Retrieved December 16, 2019.)

Self-Assessment Exercise

1. Attempt a summary of the section above.
2. Enumerate the steps that a physician can take in solving specific language problems.

4.0 MODULE 3 LANGUAGE AND NATIONAL DEVELOPMENT

Language is the first identity factor of any culture. In this section students will be exposed to such concepts as individual and societal development; language and the economy, language and national mobilization, language and national unity and integration; language and national ideology; language and patriotic culture, and language and nationalism. These features have not been elaborately discussed. Other sources can be consulted for detailed information about these features about language and national development. The course will also expose them to language and infrastructural facilities, language and social attitudes, language and social culture in order to place issues of language and national development in proper perspective. Students are advised to consult other sources for more information.

4.1 Unit 1: Language and National Development

The course is designed to expose students to the important role that language plays in the development of a nation. The word therapy in the context of Language Therapy suggests that language possesses the potentials to enhance the wellbeing of a nation. The philosophy of the course hinges on the relationship between language and national development.

Language in the Nation

With the attributes accorded language in society, coupled with the fact that language cannot exist independent of society, language must be domiciled in a nation, a condition which will

ultimately create the label “National Language” but what are these related concepts: nation, nationalism and national language? A narrow view of ‘nation’ tries to identify homogenous communities in the sense of race and language but a broader perspective incorporates heterogeneous societies; thus, it is this broad view that we consider Nigeria a nation. Fishman (1972) has suggested that nations, particularly but not exclusively the developing nations of the Third World, are faced by the requirement of satisfying two potentially conflicting needs of ‘nationalism’ & ‘nationism’.

Nationalism refers to a situation in which a “new” nation is involved in a search for its own ethnic identity as it attempts to overcome local, ethnic, religious and other communal loyalties which clash with loyalty to the state. Nationalism is national solidarity typically expressed by outward signs as a national flag, national anthem and perhaps a national language. Nationalism refers to the simultaneous need to achieve authenticity as a united people and the government of such a new state has to arrive at operational efficiency – power, rather than sociocultural level. The outward signs of nationism include state-operated postal and telegraphic and telephone services, health, education, finance, justice, etc.

Fishman (1972, p. 32) has retained the term “national language” for the code(s) chosen for the achievement of the goal of nationalism function. Akindele and Adegbite (1999, p. 51) see national language as that which has the authority of government conferred on it as the language of a number of ethnic groups in a symbol of oneness and unity and of achievement of independence in an erstwhile colonial state of nationhood. Such language must, as a matter of necessity, cut across the entire strata of the society in its use and application; for example, the English Language in England, Canada and the USA. It can also be qualified as a language that is both elite and mass oriented, integrating everybody in the political community.

Until we understand what national development is, we cannot fully understand the role democracy and national language play in national development.

National development, when narrowly defined as socio-economic development, is usually described in terms of:

- Economic growth
- Attainment of economic targets
- Growth rate, increase in Gross National Product (GNP) or
- Gross Domestic Product (GDP)
- Rise in per capita income, etc.

Bamgbose (1991, p.44) provides what seems to be more acceptable about national development rather than being limited in scope to socio-economic development. He says:

A wider and more satisfactory conception of national development is that which sees it as total human development. In this model of development, the emphasis is on a full realization of the human potential and a maximum utilization of the nation's resources for the benefit of all.

This explanation also implies that development in human affairs is the continuous promotion of the well-being and security of persons in such a way that they are constantly able to optimize the realisation of their potentials.

Elugbe (1989) sees national development as the growth of the nation in terms of:

- * Unity
- * Education,
- * Economic well-being
- * Mass participation in government, etc.

Thus, he argues that in terms of mass participation in government, there is a good a case for developing a national language.

National development, as cited above, involves re-orienting the citizenry towards national goals and harnessing of resources for the development of the nation and the welfare of citizens. How, then, does democracy and national language play parts in actualizing national development?

As we discuss the role of democracy in national development, (as we limit it to Nigeria) it must be borne in mind that it is not only in a democracy that national development can be achieved. For instance, Cuba and China practice socialism and yet, are far more advanced in terms of national development than many democratic states.

What Language is

Language is not animal sounds but a distinctively human system of communication based on oral and written symbols. It is the vehicle through which people's culture is transmitted. It is an extremely important aspect of a community. It is an index of identity which serves as a repository of a people's culture, industry and exploits. It is language that differentiates the Homo sapiens from other animals. The most effective engine of a people's culture is their mother tongue. Indigenous languages are treasures of our culture and self-identity. In other words, it is the indicator of history and self-identification (Solanke, 2006). Mother tongue is an indispensable cultural legacy with which all forms of human interactions are carried out. According to Engholm (1965) it is the key to the heart of the people. If we lose the key, we lose the people. If we treasure the key and keep it safe, it will unlock the door to wealth or affluence.

National Development

National development can be regarded as a situation whereby people harness the resources at their disposal in order to have a meaningful life. This development ranges from growth in education (intellectual growth), politics, economy, science and technology. In educational process, language (MT) is the main pillar through which the human has to plan, instruct and evaluate programmes. The development of individuals in respect of their aspiration in the society means development of a nation. Individuals develop educationally, socially, economically, politically and culturally through their interaction with government agencies that disseminate ideas and policies through various media in the languages that the individual best understands. According to Aziza (1998) national development is a gradual and advanced improvement or

growth through progressive changes in the socio-political life of the nation. Elugbe (2006) asserts that national development refers to the growth of the nation in terms of internal cohesion, integration, unity, economic wellbeing, mass participation in government, and educational growth.

Current State of Indigenous Languages in Nigeria

It is necessary at this point to identify the current state of indigenous languages in Nigeria in order to evaluate the worth, value and role of this resource in national development. Nigeria is a multilingual and multi-cultural nation with over 400 indigenous languages (see ethnologue). These languages are very diverse linguistically, unequal in size and status, and are at different stages or levels of development. The orthographies of many of them have not yet been designed or developed. This means that many of them are yet to be committed into writing. The Nigerian linguistic situation can be variously described and classified as follows: Three (3) foreign or exoglossic languages: English, French and Arabic. Awonusi (1990) calls these three exoglossic languages top level languages that are used for national and international communication. They are also regarded as world languages, with English and French being regarded as languages of colonization.

In line with the above definition, Akindele Femi and Adebite Wale (1999) see Nigeria as a typical example of a multilingual and a diverse society. According to them, Nigeria is made up of "more than 250 ethnic groups, with a conservative estimate of languages, each with its culture and behavioural pattern". Despite a recent history of tribal rivalry among some of the ethnic groups, they all continue to exist within the bounds of the country. Based on this argument they conclude that Nigeria is therefore a multilingual and multi-cultural speech community where, apart from the different indigenous languages, there are foreign languages and cultures such as English, French and even Latin (the Catholic Church Hymns).

Since ethnic lines follow linguistic diversity, the great variety of languages in Nigeria tends to suggest that Nigeria is an assembly of ethnic nationalities. It is in recognition of Nigeria's multilingual and multi-ethnic nature and attendant problems that a veteran Nigerian nationalist, late Chief Obafemi Awolowo, advocated strict federation for Nigeria and highlighted the linguistic factor in shaping the federal structure. Dada (2001) quotes Awolowo further:

"We are not only diverse in language and in racial affinity, but we are also diverse in manner of our political evolution, there was not that political cohesion in our relationship, and there was no relationship of a political type between all the ethnic groups and linguistic groups in the country until the European came."

Scholars and language researchers working within the field of inter-group relations and speech variations have their own opinions' and views about language and ethnicity. Fishman (1977) and Giles (1980) contend very strongly that language plays a dominant role in inter-group and ethnic relation. They assert that it is expected that members of an ethnic-group seeking social and psycholinguistic distinctiveness will invariably accentuate the ethnic markers in their speech by exhibiting remarkable speech "divergence" instead of "convergence". In a similar view, Klevian (1979) further confirms the interrelation between language and ethnic identity. He observes that

members of any speech community that share one common language usually have a feeling of belonging to a particular ethnic group and all other speech communities with whom direct linguistic communication is not possible are automatically regarded as aliens.

Ogbulogo (1991) views language diversity as a result of multiple languages which Nigeria has and he further says that with the diversity of language, it has brought unity to our country, because a Yoruba man, who is from the western part of the country, can be accepted in the eastern part because of his ability of speaking their language. He further says that Nigeria could be a very great country, in any way some persons have described her as the "United States of Africa." This is no exaggeration, but often seems appropriate as a description of her potentials in terms of resources. Nigeria is potentially one of the greatest countries in the world. The resources of men, languages, materials and money are sufficient to place her among the top twenty nations of the world. Unfortunately, she is not tapping her potentials. This is because among other problems such as indiscipline, Nigeria has language problems which have dwarfed and drowned her progress. This negative aspect of Nigeria is well brought out by Professor Tekena Tamuno the former Vice-Chancellor of the University of Ibadan in his valedictory address; Kayode (1987) posits that:

"From one Institution to another, from one sector of our national activities to another, from one community to another, we observe this pathetic phenomenon, all things bright and beautiful, all creatures great and small, all things wise and wonderful, Nigeria kills them all"

On Nigeria multilingual problems, Adejo (2002) reviews Adam (2002) thus:

"God in His infinite Wisdom made our dear country a rain-bow collection of tribes and tongues. The rainbow in the sky is a thing of beauty. But we seem blind to the beauty in our rainbow collection of tribes and tongues. Instead, we find mutual suspicion, hate and fear in other tongue and tribes. Consequently, several parts of our country are today convulsed in inter- and intra-ethnic conflicts leading to loss of lives as well as the destruction of private and public property. The gun is beginning to rule and ruin our country" (p.248)

Indeed, the gun is beginning to rule and ruin our country as past and present ethnic crisis have shown, for example, the Nigerian-Biafra War, Plateau and Nasarawa and the subsequent invasion of Benue State by Nigerian Army in 2001. The Udi problem and other ethnic Militias disturbances, Odua Peoples' Congress (OPC), Ijaw-Egbesu, and Igbo Bakassi Boys are all signs of inherent tension in the polity.

Plurality (Origin): There are many myths and theories on the origin of plurality of language. Some are discussed in this section. One of the earliest accounts of the origin of language plurality is the Biblical story of the "tower of Babel". According to this myth as captured in Genesis Chapter II, verse I - 9, the whole world at that time had only one language. The people then decided to build a tower that would reach up to heaven, but this did not please the Lord who reasoned that because the people had a common language, it was easy for them to join together to do anything they wanted to. In terms of modern political thinking maybe they could even have attempted a coup d'etat so the Lord decided to confound their language and scatter them all over the face of the earth (Bamgbose, 1994).

The second account of the origin of language diversity is captured by Karl Marx and Friedrich Engels (1845). In their work entitled, "The origin of the family, private property and the State", Engels lays down the three stages in the development of human: savagery, barbarism and civilization. Describing the lower stage in the development of human society (the infancy of the human race), Engels points out that the formation of articulate speech was the main achievement of the period. The era of barbarism followed, when more progress was made in production than in all the previous stages put together. The emergent tribes came within this period.

Under the tribal system, language was closely connected with the tribe, the highest organisational unit of which the members were aware of their mutual kinship. Engels points out that "in fact, tribe and dialects are substantially coextensive" and the tribe is identifiable by its peculiar dialect. At this stage there also came a rapid increase of the population and dense population in small areas. In quest of a living, the tribesmen had to go to other grey able and pasture lands. Those sections that have severed relations with their tribe eventually began to speak a bit different from their former kinsmen. This split in tribes led to splits in their languages.

Self-Assessment Exercise

1. Language is the first identity factor of any culture. Discuss.
2. How can language come to play in individual and societal development?
3. What is the relationship between language and the economy?

4.2 Unit 2 - Strengths and Weaknesses of Language Diversity

Since Nigeria is a diverse state in terms of language and culture, a language in a diverse society like "Nigeria" also serves both administrative and official needs. Where people working together even when they are not of the same ethnic background but because of the speaking of other languages which is not their own, they can communicate without using English language. Language diversity brings unity, increase awareness, fosters understanding and encourages partnership both economically and politically. The first set of problems of language diversity are that:

- i. It kills indigenous languages.
- ii. It causes regional variations in language
- iii. It destroys the tendencies of Lingua Franca and there will be no ethnic unity.

When a society has many languages and dialects like the tower of Babel, mutual understanding becomes very difficult. This has been one of the causes of bitterness and suspicion in almost every part of Nigeria, as what one says is often misinterpreted and misunderstood by his neighbours. It also breeds favouritism, nepotism, tribalism and other social ills which results to disunity, because many in Nigeria have the propensity to favour their own linguistic group. No wonder, it is a common place to see and hear people greeting the occupant of an office in their native language in an attempt to win favour.

National Development (Different Views)

Recent events across Nigeria's geo-political zones have shown an increase in ethnic agitations activism and militancy. The ethnic minorities in the multi-ethnic Nigerian nation have suddenly found fresh zeal to express their longstanding grievances. National development is one of the improvements in a country, is an umbrella term which is used to mean a situation where we can adequately utilize our diverse resources. Most times, it could be natural or human resources with the aim of benefiting things. It is a situation where people have the resource at their disposal to have a meaningful development. The people may be from different cultural backgrounds with diverse languages and values. Sentiments are put aside in a bid to work together towards the national development for the betterment and growth of their economy.

Scholars in the field of language have variously defined development, and one of such definitions is that which sees it "as economic growth and social change" Opubor (1985) views development in human society as a many sided process. At the individual's level, it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being. The achievement of any of those aspects of personal development is very much tied to the state of the society as a whole. That means national development has much to do with how people are united in a country.

Economic development is an improvement in material welfare, especially for persons with the lowest incomes and the eradication of mass poverty with its correlates of illiteracy (Kindleberger and Herrick, 1977). And in social development, we see how it has improved the social wellbeing of the citizen especially as a nation. Take note of the following points:

1. National development used to be measured in terms of increase in the Gross Domestic Products (GDP) of a country.

2. Emphasis is now placed on the content of the GDP as well as other indicators of the quality of life to see how and whether our economy has increased or decreased such indicators.

Manley (1991) summarizes development as it has to do with the development of the productive forces. It has to do with the harnessing of those forces to build viable societies. National development ranges from growth in areas of politics, economy, science and technology, education, health and security and also the aspect of language. Language plays an important role in national development as:

1. It fosters understanding, unity and sense of belonging among the various members of the different ethnic and social groups that constitute a nation.

2. Language development is a multi-disciplinary field that has as its central question; how is language learnt (psycholinguistics and speech therapy), because language is highly complex yet universally acquired. The answer to this question has profound implications for understanding the essential nature of the human mind.

National Language

Writing on the importance of a national language in the educational development of a nation, Umaru, B. Ahmed in his article entitled: "the cultural content in Nigeria Education: The

Language Curriculum in Ekeh, Peter and Ashiwaju, (eds.), Panel on Nigeria since independence History Project (see Ahmed1989) quotes Sekou Toure, the late President of Guinea as saying that:

The use of national language is the most efficient means to make it educationally operative; the use of national language makes it possible to extend education to all people. (32)

Similarly, he quotes Babs Fafunwa, a one-time Minister of Education in Nigeria as saying: It is universally accepted except in most African countries that a child learns best in his mother tongue and that mother tongue is natural to him as the mother's milk.

It is in line with this belief that the education of the child is meaningless without his/her mother tongue that the Federal Government of Nigeria came out with some pronouncements as evidenced in the National Policy on Education. According to the National Policy on Education (NPE 1989), the government appreciates the importance of language in the educational process and as a means of preserving the people's culture. (p. 19).

A nation without a language of its own will lose its self-respect in the eye of the world. If this is anything to go by, then Nigeria should be the most respected country in the world, because of her many languages. For a nation to function properly she has to choose a national language. This is what Nigeria has failed to do since independence because of her multilingual and multi-ethnic composition. The mechanisms for implementing National Policy on Education are only:

- The sounds of speech, their successes are unrealistic in the face of multiple languages to choose.
- Secondly, the use of all the languages simultaneously is not possible,
- Thirdly, if the choice is easy to make in the rural areas, it is not possible to do that in urban centres because of the multilingual nature of the society, that reflects in the society that reflects in the urban schools' population.
- In the face of this dilemma, coupled with the reflection of colonial English, many Nigerians have proposed Pidgin English as an alternative, but pidgin has its own problems. For one, it lacks standardization ordinarily, the pidgin spoken in Lagos has a Yoruba flavour, while that of Enugu differs from that of Kaduna according to Akinyele, (2000), Deji Olaiya's love for "pidgin English" once compelled him to compile and publish A Dictionary of Broken English in 1995. But while reviewing it, Taiwo Amodu, the reviewer said "the text, though enduring, generates some linguistic puzzles.

Also in 1982, one Mr. Alex Igbineveka of the Nigeria Television Authority (NTA) Lagos, invented an artificial language called GUOSA and hastily recommended it for Nigeria in his belief that GUOSA could redeem the nation from oppression, tribalism, sectionalism and hatred (Punch 22nd October, 1982). But an expert opinion suggests that the energy expended on "GUOSA" was misdirected (Bamgbose, 1985). The observation is that GUOSA is an amalgamation of words of existing language and that the author fails to indicate that each time

we want to form new sentences or pronounce words, we have to run helter-skelter, looking for Mr. Igbineweka, the language originator.

In the language debate of 1977, Wole Soyinka also suggested "Swahili" as the lingua franca for Africa during the Festival for Arts and Culture for Black Africa (FESTAC). His argument was that since "Swahili" is not associated with any ethnic group in Nigeria; the danger of ethnic domination is automatically eliminated. Bamgbose, (1985) has observed that the superimposition of the proposal is not compatible with the idea of policy of education in mother tongue (p. 100). It is also in the belief that Nigeria would not make any meaningful strides without adoption of an indigenous language, or national official language that calls have also been made by more Nigerians to adopt one. In the National House of Assembly debate of 21 November, 1961 M. Al-batan Yerima, called on the federal government to introduce Hausa, Yoruba and Igbo and other languages into institutions of learning with a view to adopting one of them as a national official language. The motion was seconded by Mr. G. D. O. Eneh who stressed the role of a national language in promoting harmony in "multilingual and multicultural society".

The same consideration encouraged M D. N. Orosanye and Baba Shehu Ibrahim to propose the adoption of Hausa as a language of unity. But these parliamentarians had hardly finished the proposal when opposition reared its ugly head. The minority ethnic members of the House feared that the majority ethnic groups were planning to dominate the country. Chief Anthony Enahoro, a minority champion, vehemently condemned the majority of the proposals and extolled the value of English language as a unifying factor.

The Functions of Language

Odebunmi (2001, p.5) posits that, given the nature of language, language has intrinsic resources, in being systematic; and when humans master a language, it can be used in society for intra-societal and inter-societal communication. He adds that this communication projects three basic and logical functions of language: descriptive, expressive or vocative and prescriptive.

With respect to its descriptive function, language provides information, states facts, refers to things, persons and properties and presents issues in all their dimensions. Much of this function is realised in offices, homes, schools and other settings where the descriptive details are privileged.

The expressive or vocative function of language evokes language users' psychological or emotional states. While settings such as worship places, the home and several cultural avenues play host to this expressive/vocative function, they can be found in almost every site of language performance, depending on the interaction preference of language users.

In its prescriptive function, language is used in giving directives, orders and instructions. It is therefore a communicative cue with asymmetrical orientation. Its most typical sites are the military, the police and other organizations or agencies with military orientation. In the broadest sense, however, it is found in all encounters where power is unequal, for example, in a parent-child interaction, doctor-patient interaction, senior-junior staff interaction and teacher-student interaction.

Self-Assessment Exercise

1. Discuss the following terms:
 - a. Language and national mobilization,
 - b. Language and national unity and integration;
 - c. Language and national ideology;
 - d. Language and patriotic culture,
 - e. Language and nationalism.
2. Attempt a choice of a national language for Nigeria, and defend your choice objectively

4.3 Unit 3: Elements of Language and National Development

The elements of language and national development include: language population, status of languages and the corpora available for education of the population. The most important element is the policy and interest of the government of the day. The pictorial representation of languages spoken in Nigeria clearly shows the population and popularity of speakers of languages in the north of Nigeria. Suffice it to say that, today (2020) English language enjoys the widest coverage in terms of population of speakers. This is not to say that all the speakers of the English language communicate in flawless English but merely speak the language tacitly. All forms of English, i.e. standard/Educated Nigerian English, Hausa Nigerian English, Pidgin and other debased forms or varieties of the English language exist above the Niger. The existence and coverage of English is due to the convenience of wider communication which it gives to all and sundry. Of course, the English language unites all the glaring divides in terms of inter- and intra-personal as well as transactional functions of a neutral language.

Following English which is a colonial language imposed on Nigerians to serve as an official, lingua franca, Hausa language is spoken as the main lingua franca in the north. It is the macrolect under which other indigenous languages find expression. Hausa is the language of immediate environment and constitutionally accepted as language of the early primary education. Fulani people are known to speak Fulfude. These people predominantly occupy Katsina, Borno, Adamawa and Gongola areas in the north. Fula, also known as Fulani or Fulah, is a language spoken as a set of various dialects in a continuum that stretches across some 20 countries in West and Central Africa. According to Wikipedia.com “the Fula language of West Africa is spoken by the Fula people from Senegal to Cameroon and Sudan. It belongs to the Atlantic branch of the Niger-Congo language family. Speakers of western dialects call their language Pulaar or Poular, while eastern dialects use Fulfulde.

Kanuri and other minor languages also exist in Nigeria. Kanuri is a dialect continuum spoken by some four million people, as of 1987, in Nigeria, Niger, Chad and Cameroon, as well as small minorities in southern Libya and by a diaspora in Sudan. At the turn of the 21st century, its two main dialects, Manga Kanuri and Yerwa Kanuri (also called Beriberi, which its speakers consider to be pejorative) were spoken by 5,700,000 people in Central Africa. It belongs to the

Western Saharan subphylum of Nilo-Saharan. Kanuri is of the Lake Chad region. The native speakers are about 4.1 to 10.5 million people. According to www.languagegulper.com a standard Kanuri orthography was formulated in Nigeria where the language is taught in schools and at the university of Maiduguri, being used in the media too, with several dialects. Akinyele (2000) in Nairaland.com (2.56am, May, 14, 2012) reports that “all dialects of Fulfulde/Pular are similar but there are also some vast differences”. The reason given is that the Fulani languages spoken in Nigeria, Niger, Cameroon, Chad, Central Africa Republic have too much Hausa influence. Also significant is that the Fulani languages spoken in Senegal, Gambia, Mali, Mauritania, Sierra Leone, Guinea, etc., have too much neighbouring language influences as well. For example,

“What is your name? Noyinnde ma?”

In Guinea:

“What is your name? ko honnoinnetenda?”

In Nigeria: See you tomorrow: Seyjango

In Guinea: See you tomorrow: awaenjango

The word, “sey” or “sai” is a Hausa word in origin that Fulani borrowed. One thing I have found talking to brothers and sisters from Senegal is that they believe that the Fulani they speak is purer (which is quite possible), but I find this hard to believe because the Wodaabe who are the purest Fulani sub-group speak a very similar dialect to the Fulani spoken in Adamawa and Gombe. Some words are just too different that sometimes one gets confused, e.g. “flute” in Nigeria Fulfulde: Ndandalu. Flute in the Republic of Benin and NW Niger is pronounced, “Serredu”.

We donot live too far from the Republic of Benin or Western Niger, yet there are differences in their Fulfulde, which is closer to Mali's Maasinkooré. I mean even in Niger, the Wodaabe Fulani who inhabit mainly Eastern Niger speak a vastly different Fulani language from their Western brothers and, in fact the Eastern Niger Fulani dialect is closer to what we speak here in Nigeria. Our focus in this paper is not a contrastive study of the dialects of Hausa, Fulani and other minority languages spoken across African countries, but an attempt at aggregating the languages in use in northern Nigeriaby taxonomizing the languages according to their relevance to education and other integrational purposes they serve in the Nigerian context.

Taxonomy of Languages in Northern Nigeria

A number of languages have been identified to be popular in interpersonal and interactional use by northerners and for different purposes. The English language undoubtedly is a language in use for officialdom and formal events. Although, the north is known for preference for mother tongue in public relations, it recognizes the constitutional status of the English language in Nigeria. Following English in the north is the language of the immediate environment, Hausa.

Hausa language is the most popular indigenous lingua franca in West and Central Africa. It is a Chadic language with the largest number of speakers spoken as a first language by over 44 million people, and as a second language by another 20 million. The total number of Hausa speakers is estimated at 63 million, according to ethnologue. The population of the speakers of

this Afro-Asiatic language in northern Nigeria goes to show that it is the most popular indigenous language in Northern Nigeria. This spread across Africa, especially in northern Cameroon, Chad, Sudan and the Ivory Coast among Fulani, Tuareg, Kanuri, Gur, Shuwa, Arab and other Afro-Asiatic speaking groups, makes it the second most important language in northern Nigeria. Hausa is written in Arabic characters, and about one-fourth of Hausa words come from Arabic. Many Hausa people can read and write Arabic.

Arabic is usually ranked among the top six of the world's major languages. As the language of the Qur'an, the holy book of Islam, it is widely used throughout the Muslim world. It belongs to the Semitic group of languages which also includes Hebrew and Amharic, the main language of Ethiopia. Around 300 million people speak Arabic across the globe out of which over 40 million people in Nigeria understand and probably speak it. With the dominance of Islam in northern Nigeria, Arabic has dominated all the other minority languages in the region. The language has also been accepted as the language of education in the north. Thus, Arabic has contributed immensely to the development of Nigeria as a nation. Evidently, the language has offered a lot in the upliftment of the country, especially in the areas of religion, education, economy, socio-psychology, diplomacy and security.

The French language is the second most taught language in the world but occupies the third placed as far as foreign languages in Nigeria are concerned. Following Hausa in terms of recognition is French which is spoken in the classroom where it is likely to be taught as a school subject, especially in selected privately owned schools. French competes with many indigenous languages in the north for relevance.

English language is not the most spoken language in northern Nigeria. It cannot be where Hausa is being spoken by the vast majority of uneducated people who reside in northern Nigeria compared to the level of education in the south-west.

Self-Assessment Exercise

- a. Attempt a list of languages in Nigeria
- b. Attempt the role of each language mentioned above
- c. How has the multiplicity of languages in Nigeria contributed to national integration?
- d. How has the state of multiple ethnicity contributed to insecurity and crisis in Nigeria?

5. Conclusion

This course book has addressed three issues for students to grapple with and attempt questions preparatory to the semester examinations. The three issues include language and the acquisition stages, language related problems of speech production and comprehension and languages spoken in Nigeria and their roles in the development of the nation. Nationism is fragile without effective communication using the languages in a country integratively and interactively. The political will of the government is essential if a democracy in a multi-ethnic nation will not remain nascent.

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