

CROSS-EXAMINATION OF LANGUAGE AS GERMANE PHENOMENON FOR TECHNOLOGICAL ADVANCEMENT IN DEVELOPING NATION, NIGERIA

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Abstract

This study examined the effect of language on the technological development of Nigeria. It views Language as an essential tool for conducting the most mundane transactions of our lives. Language is inexorably tied to the effective existence of man in the society that any meaningful discussion of man must rely on. Senior secondary school students from five (5) selected senior secondary schools in Odogbolu local government, Ogun state, Nigeria were used for the study. The descriptive survey research design was used for this study. A predetermined number of one hundred and fifty (150) students of selected secondary schools in Odogboiu Local Government Area of Ogun state were selected using simple random sampling technique. Self-Structure questionnaire was used as research instrument. Data collected was analysed using frequency tables and simple percentage. The hypotheses were tested using students Chi-Square. Result of the findings shows that there is significant relationship between language and technological advancement among secondary school students in Odogbolu Local Government Area of Ogun State. The outcome of the result also revealed a significant effect of language as a concept of technological advancement of developing nation. Based on the result of the findings, recommendations were made that there is need to establish the importance of language in technological advancement of any nation. Policy makers and curriculum planners should also revisit the position of indigenous language in the Nigerian National policy on Education. People should be encouraged to use their indigenous language to bring out the potentials in them. In other words, priority should be given to indigenous languages, made it popular among the youths for them to exhibit the endowed talents in them.

Introduction

Language is a phenomenon that permeates human lives from birth to death which is either learnt or acquired. Adekola (2005) views language “as a phenomenon that defines man’s humanity and enables him to survive”. Language is the medium by which we

establish and express our most important human relationship. Language also serves as an essential tool for conducting the most mundane transactions of our lives. In education, language is the cement that holds the curriculum together. Language is inexorably tied to the effective existence of man in the society that any meaningful discussion of man must rely on. In other words, human existence and development depend largely on the existence and development of language for communication. Wikipedia 2019, the online encyclopedia, defines language as a system of signs for encoding and decoding information." "Language refers to the cognitive faculty that enables humans to learn and use systems of complex communication." Language which is a human social phenomenon is utilized by individuals in different capacities. Language determines our models of the world and the way concepts are represented in the world.

Language is as old as the creation of the world, it emerged in the early prehistory of man, before the existence of any written records, its early development has left no historical traces, and no comparable processes can be observed today. Language is the only means of communication that is paramount for human existence. Oyeade (2004) also conceives language as a system of symbols which is purely human and non-instinctively used for communication among the members of a community. The ability to use language in diverse form involves many forms of communication from the written word, oral language, sign language, or any other way that humans interact with one another and the world around them. Language is the anchor to which acquisition of knowledge and information is ensured. It is the vehicle with which knowledge is transferred. All forms of education and learning are not possible without language and communication. Language irrespective of where one is looking at it can be learnt or acquired. A learnt language is the language imposed on the learners for its functions/duties or status in that society e.g English language in Nigeria. In the same vein, an acquired language is the language that is inherited/picked from friends and relatives without any formal setting.

Technology on the other hand is a trending issue in the global world that has to do with the use of materials, tools, techniques, and sources of power to make life easier or more pleasant and work more productively. Technology focuses on making things happen."In the past, only big successful companies would dominate the market because they could afford the expensive advertising Medias, like Television, to reach any target market. Small businesses typically don't have fat budgets and find it hard to compete in any given profitable market. Now with advanced internet technologies, a small business can use most advanced internet marketing tools with a small budget that can range from \$100 – \$5000 to reach over 100,000 target customers. Technology advancement has simplified the way we do things, it saves time, it increases on production, it simplifies communication, it has improved health care and it has also improved our educational environment.

Statement of the Problem

There is no gainsaying that technology has become the most trending phenomenon in the world today. However, for any nation to move with this trending issue there is need to put in place what it entails to achieve technological development. For any successful technology to take place there must be adequate interaction between human and the technological devices. Hence, the study of language as the only means of interaction that is peculiar to human being is paramount in this study. This study viewed language from different dimensions, examined the importance of language in the technological development of some countries, relate it to Nigerian situation and established Nigerian position in terms of technological development.

Purpose of the Study

The main purpose of this study is to identify the potentials in individuals using language (indigenous language) to develop technology among secondary school students in Ogun state Nigeria. This study specifically focused on three languages; indigenous, National, English language in Nigeria, and looked at their effects on technological development. The study therefore:

- (i) Identifies the roles played by the three languages; Indigenous, National, English language in technological development among secondary school students in Ogun state..
- (ii) Examines the effects of the three languages; Indigenous, National, English language on technological development in Nigeria.
- (iii) Determines the influence of the three languages; Indigenous, National, English language in technological development among secondary school students in Ogun state, Nigeria.
- (iv) Identifies the problems and prospects that the three languages; Indigenous, National, English language may have on technological development in Nigeria.

Significance of the Study

The study established the importance of language in the technological development of a nation. The study also assists in discovering potentials among Nigeria youths. Policy makers may use the outcome of this study to review the policy on education and do the needful on language learning at all levels of our educational sector to enhance technological advancement. The study will equally be of great importance to Nigeria nation as a whole in terms of technological advancement.

Research Hypotheses

The following null hypotheses will be tested in this study:

- Ho₁: There will be no significant relationship between students' perception of language as a tool for technological development in Nigeria

- Ho₂:** There will be no significant relationship between students' home background and their perception of language as a tool for technological development in Nigeria
- Ho₃:** There will be no significant relationship between students' class and their perception of language as a tool for technological development in Nigeria
- Ho₄:** Students gender will not significantly influence language as tool for technological development in Nigeria.

Scope of the Study

This study focused on the effects of language on technological development and the scope will be delimited to selected secondary schools in Odogbolu Local Government Area of Ogun State.

Design

The descriptive survey research design was used for this study. They are direct towards determining the nature of a situation as it exists at the time of study.

Population of the Study

The population for this study comprised a predetermined numbers of one hundred and fifty (150) selected secondary school students in Odogbolu Local Government Area of Ogun State.

Sampling Technique

Simple random sampling technique was used for this study. Five secondary schools were selected out of the entire secondary schools in Odogbolu Local Government Area of Ogun State. Thirty (30) students were selected from each of the five secondary schools selected.

Research Instrument

Self-Structure questionnaire tagged "Language as germane phenomenon for technological advancement of a developing nation" was used for the study. The questionnaire was divided into two sections. Section A comprised background information about the respondents while Section B consists questions on language and technological advancement which was sub-grouped into 3 items with 5 questions in each item, and it requires the respondent to indicate statements by carefully tick the most appropriate column that satisfies his/her responses, that is: Strongly Agreed= SA; Agreed = A; Disagreed = D; and Strongly Disagreed = SD.

Method of Data Analysis

Data collected was analysed using frequency tables and simple percentage. The hypotheses was tested using students Chi-Square.

It formular is given by:

Where; Σ = Summation
O = Observed frequency
E = Expected frequency
R = Number of rows
C - Numbers of columns

Result

Section A: Bio-Data of the Respondents

The data collected were analysed using the frequency count and percentage ratio.

Sex of the Respondents

Sex	Frequency	Percentage
Male	66	44%
Female	84	56%
Total	150	100%

Source: Researcher's Field-Survey (2019)

The table above shows the gender of the respondents, 66 of the respondents representing 44% were male, while 84 respondents representing 56% were female.

Class of the Respondents

Class	Frequency	Percentage
Science	45	30%
Arts	50	33%
Commercial	55	37%
Total	150	100

Source: Researcher's Field-Survey (2019)

The table above shows the class of the respondents, 45 respondents with 30% were in science class, 50 respondents with 33% Arts students while 55 respondents representing 37% were commercial students.

Home background of respondents

Marital Status	Frequency	Percentage
High	34	23%
Middle	66	77%
Low	-	-
Total	150	100

Source: Researcher's Field-Survey (2019)

The above table shows that 34 respondents with 23% were from high background level; also, 66 respondents with 77% were from middle class.

Language in focus for the study

Indigenous language

National language

English language

Discussion and Testing of Hypotheses

One and fifty (150) questionnaires were administered to selected respondents and they were all returned for testing. For the purpose of this study, four research questions and hypotheses were analyzed, tested and interpreted using the Chi-Square (X^2) Method of data analysis, which exists between observed and expected frequencies.

Hypothesis 1

Ho₁: There will be no significant relationship between students' perception of language as a tool for technological development in Nigeria

Chi-Square Summary

Responses	Observed (O)	Expected (E)	(O – E)	(O-E) ²	$\frac{(O-E)^2}{E}$	DF	Tab (χ^2_t)	Cal (χ^2_c)	Remark
Strongly Agree (SA)	154	62.5	91.5	8372.25	167.44	12	21.026	273.94	Sign.
Agreed (A)	73	62.5	10.5	110.25	2.20				
Disagreed (D)	14	62.5	-48.5	2352.25	47.04				
Strongly Disagreed (SD)	9	62.5	-53.5	2862.25	57.24				

Source: Researcher's Field-Survey (2019)

Degree of freedom = $(r - 1) (c - 1)$; $(5 - 1) (4 - 1)$; $4 \times 3 = 12$

$X^2_{cal} = 273.94$

$X^2_{tab} = 21.026$

At 0.05 level of significance (95% confidence level), the degree of freedom is 12, the tabulated value from four figure table gave a figure to 21.026 and the calculated value of the findings gave a figure of 273.94. However, since the tabulated value of 21.026 is lesser than the calculated value of 273.94, we thus, accept the alternative hypothesis (H_i) and reject the Null hypothesis (H_o); meaning that, there is significant relationship between students' perception of language as a tool for technological development in Nigeria. Three languages (indigenous language, national and English language) were put to test. The following are the response of students based on language as tools for

technological advancement. 73% students agreed while 27% disagreed the fact that language serves as tools for technological advancement. Out of 73% students that agreed the fact that language serves as tools for technological advancement 58% went for indigenous language while only 15% went for English. There is no gainsaying that people tend to perform better when they understand the language used for communication.

Hypothesis 2

Ho₂: There will be no significant relationship between students' home background and their perception of language as a tool for technological development in Nigeria

Chi-Square Summary

Responses	Observed (O)	Expected (E)	(O – E)	(O-E) ²	$\frac{(O-E)^2}{E}$	DF	Tab (χ^2_t)	Cal (χ^2_c)	Remark
Strongly Agreed (SA)	97	62.5	34.5	1190.25	23.8	12	21.026	107.74	Sign.
Agreed (A)	101	62.5	38.5	1482.25	29.6				
Disagreed (D)	21	62.5	- 41.5	1722.25	34.4				
Strongly Disagreed (SD)	31	62.5	- 31.5	992.25	19.8				

Source: Researcher's Field-Survey (2019)

Degree of freedom = (r – 1) (c – 1); (5 – 1) (4 – 1); 4 x 3 = 12

X² cal = 107.74

X² tab = 21.026

At 0.05 level of significance (95% confidence level), the degree of freedom is 12, the tabulated value from four figure table gave a figure to 21.026 and the calculated value of the findings gave a figure of 107.74. Since the tabulated value of 19.49 is lesser than the calculated value of 107.74, we thus, accept the alternative hypothesis (Hi) and reject the Null hypothesis (Ho); meaning that, there is significant relationship between students' home background (high, middle and low) and their perception of language as a tool for technological development in Nigeria.

Hypothesis 3

Ho₃: There will be no significant relationship between students' class and their perception of language as a tool for technological development in Nigeria

Chi-Square Summary

Responses	Observed (O)	Expected (E)	(O – E)	(O-E) ²	$\frac{(O-E)^2}{E}$	DF	Tab (χ^2_t)	Cal (χ^2_c)	Remark
Strongly Agreed (SA)	110	62.5	47.5	2256.2	45.12	12	21.026	196.84	Sig.
Agreed (A)	114	62.5	51.5	2652.2	53.04				
Disagreed (D)	11	62.5	- 51.5	2652.25	53.04				
Strongly Disagreed (SD)	15	62.5	- 47.5	2256.25	45.12				

Source: Researcher's Field-Survey (2019)

Degree of freedom = (r – 1) (c – 1); (5 – 1) (4 – 1); 4 x 3 = 12

X² cal = 196.34

X² tab = 21.026

At 0.05 level of significance (95% confidence level), the degree of freedom is 12, the tabulated value from four figure table gave a figure to 21.026 and the calculated value of the findings gave a figure of 196.34. Since the tabulated value of 21.026 is lesser than the calculated value of 196.34, we thus, accept the alternative hypothesis (Hi) and reject the Null hypothesis (Ho); meaning that, there is significant relationship between students' class (science, arts and commercial class) and their perception of language as a tool for technological development in Nigeria. Some arts students' response to question on options on subjects offered claimed that the terminologies in science are too scary but they can perform better in science if they are allowed to use their indigenous language found

Hypothesis 4

Ho₄: Students gender will not significantly influence language as tool for technological development in Nigeria.

Chi-Square Summary

Responses	Observed (O)	Expected (E)	(O – E)	(O-E) ²	$\frac{(O-E)^2}{E}$	DF	Tab (χ^2_t)	Cal (χ^2_c)	Remark
Strongly Agreed (SA)	118	62.5	55.5	3080.2	61.6	12	21.026	172.9	Sign
Agreed (A)	99	62.5	36.5	1332.2	26.6				
Disagreed (D)	16	62.5	- 46.5	2162.2	43.2				
Strongly Disagreed (SD)	17	62.5	- 45.5	2070.2	41.4				

Source: Researcher's Field-Survey (2019)

Degree of freedom = (r – 1) (c – 1); (5 – 1) (4 – 1); 4 x 3 = 12

X² cal = 172.9

X² tab = 21.026

At 0.05 level of significance (95% confidence level), the degree of freedom is 12, the tabulated value from four figure table gave a figure to 21.026 and the calculated value of the findings gave a figure of 172.9. However, since the tabulated value of 21.026 is lesser than the calculated value of 172.9, we thus, accept the alternative hypothesis (Hi) and reject the Null hypothesis (Ho); meaning that, students' gender (male and female) will significantly influence language as tool for technological development in Nigeria.

Recommendations and conclusion

This study viewed language from different dimensions, examined the importance of language in the technological development of some countries, relate it to Nigerian situation and established Nigerian position in terms of technological development. From the response of students on items raised for hypothesis one which states that there will be no significant relationship between students' perception of language as a tool for technological development in Nigeria. An outrageous number of students of almost 87% believed that language stands a better chance to influence the technological advancement of a nation. This correlates the definition of language that sees language as a system of communication that enables humans to exchange verbal or symbolic utterances. This definition stresses the social functions of language and the fact that humans use it to express themselves and to manipulate objects in their environment. The above lends credence to the technological development of nations like Germany, China and other countries where indigenous languages are mostly patronized. It was therefore recommended that priority should be given to indigenous languages, made it popular among the youths for them to exhibit their endowed talents. People should be encouraged to use their indigenous language to bring out the potentials in them. In other

words, priority should be given to indigenous languages, made it popular among the youths for them to exhibit the endowed talents in them.

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