A Quantitative Analysis of the Relationship between Intelligence and Linguistic-Errors in Punjabi Language

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Abstract

The major aim of this study was to examine the relationship between intelligence of students of fifth class studying in Government schools of Punjab and the linguistic-errors committed by them in their writing skill of Punjabi language. For the purpose of this study two tests were used: One is Group test of intelligence named as *Samoohik Mansik Yogyata Pariksha* (सामूहिक मानसिक योग्यता परीक्षा) by R. K. Tondon and second one is self-made test for checking the errors of students in Punjabi language. Then the data was analyzed and interpreted statistically and finally results were drawn. Results revealed that there is a significant relationship between intelligence and linguistic-errors of students.

Introduction

Language is a system of communications by sounds among the members of a given community. Different communities have different system of language, different style of pronunciation, different scripts, different words and different meanings. For example a person living in Punjab speaks Punjabi language and it would have its own style of pronunciation, writing style and it would be in Gurmukhi script. Being native of Punjab, each student acquires Punjabi language as Mother tongue either from heredity or from environment. He listen Punjabi, speaks Punjabi, reads Punjabi and writes Punjabi. But due to several reasons he commits so many mistakes in listening, speaking, reading and writing Punjabi. In this paper we are concerned about the errors committed by the students in Punjabi language. Being Assistant Professor in Education in Teaching of Mother tongue (i.e. Punjabi) the researcher has found that at each level of school and college, students commit mistakes in writing Punjabi language. The probable reasons for those errors may be so many- like their intelligence, age, sex, location, family income, occupation and qualifications of parents, number of siblings etc. In this paper only one variable i.e. intelligence has been taken into account

Objectives

- To study the errors in writing skill of Punjabi language by students of primary school.

- To analyze quantitatively the relationship between intelligence and linguistic-errors of students in Punjabi language.

- To study the significant difference in the mean scores of intelligence between boys and girls.

- To study the significant difference in the mean scores of linguistic-errors between boys and girls.

- To sensitize the teachers, teacher educators curriculum makers about the errors committed by students in writing Punjabi.

Hypothesis

- There is no significant relationship between Intelligence of students and the Linguistic-Errors in Punjabi Language committed by them, quantitatively.

- There is no significant difference in the mean scores of intelligence between boys and girls.

- There is no significant difference in the mean scores of linguistic-errors between boys and girls.

Review of Related Literature

Sunvani (2002) reported that intelligence, socio-economic status, domicile and type of school had a significant effect on achievement of the students in English grammar.

Gakhar and Bawa (2006) studied the effect of Intelligence, Socio-Economic Status, Domicile and Type of School on the Achievement of Students in English Grammar and found that students belonging to high SES group made fewer errors in English grammar and thus secure high on the achievement test. Also the students with high intelligence performed better than the students with lower intelligence.

Kaur (2007) in her M. Phil. Dissertation found that in English medium schools of Patiala, the teaching of Punjabi language is neglected.

Pishghadam (2009) revealed that student generally suffer from error phobia, meaning that they do not write or speak until they think they are perfect. Therefore, it seems to be natural that emotional factors are important in foreign language learning.

Singh (2010) studied the students' errors in English in relation to cognitive style and cerebral dominance. He found that the factors about the learner himself, like his age, intelligence, aptitude, attitude, strategies, locale, gender, etc, are the most numerous, the most prominent and the commonest causative factors. Major among other, less researched factors, could be listed the Cognitive Styles and Hemisphericity of the learner.

Kaur (2012) studied the academic achievement of 8th standard students in English in relation to academic achievement in Punjabi, gender and socio-economic status and found that there is positive co-relation between the academic achievements of students in Punjabi and English language. It is also found that girls performed well in achievement tests and there is no impact of socio-economic conditions of the students on their achievement.

Design of the Study

This study was designed to see the quantitative relationship of intelligence with linguistic-errors. In this study descriptive survey method was employed by the researcher.

Delimitations of the Study

Students of primary level of government schools of Patiala district of Punjab were selected for the study by random sampling.

Tools Used

In this study two tests were used: One is Group test of intelligence named as *Samoohik Mansik Yogyata Pariksha* (सामूहिक मानसिक योग्यता परीक्षा) by Dr. R. K. Tondon and second one is self-made test for checking the errors of students in Punjabi language.

- **Group test of Intelligence:** this test is a group intelligence test in verbal form by Dr. R. K. Tondon. It has a total of 91 questions employing seven types of sub-tests namely; Number series, Vocabulary Similarities, Vocabulary Opposites, Classifications, Best Answers, Analogies and Reasoning. All the questions have been framed in selective type providing 4 to 5 alternatives to each. The questions are in simple Hindi to enable the children to answer them without being influenced by proficiency in English language. It can be used on school going pupils of India of the age group 10 years to 16 years.

- **Self-made test:** all the students were asked to write a paragraph dictated by the researcher. This paragraph includes all the alphabets of Punjabi (35 ਅੱਖਰੀ) includes 6 more alphabets came under the influence of Urdu-Persian languages like ਸ਼, ਖ਼, ਗ਼ਾ, ਜ਼, ਫ਼ . Besides this it includes all the symbols (ਲਗਾਂ ਮਾਤਰਾ) of Punjabi (ਾ, ਿ, ੀ, ੁ, ੂ, ੇ, ੈ, ੋ, ੌ, ੰ, ਂ) etc. When paragraph was made for the students, care was taken in the selection of words. Difficulty level was also maintained. The text in the paragraph was selected from the students' text books.

Procedure of Data Collection

The present research work aims to find out the errors in writing skill of Punjabi language and to find out the quantitative relationship between intelligence and linguistic errors in Punjabi Language. The data was collected from students of government primary schools by the investigator and scoring was done according to the instructions given in the manual.

Statistical Techniques

Mean, Standard deviation, t-test and Correlation ware used. For the convenience of the researcher MS excel was used to find out Mean, Standard deviation, t-test and Correlation.

Analysis and Interpretation of Data

The raw data was collected, tabulated and correlation technique was employed to study the relationship between said variables. The means and standard deviations of linguistic-errors of male, female students and the total samples have been presented in table 1. It may be observed that from the table that mean of linguistic-errors of boys students were higher than that of female students (Boys 19.0740, Girls 10.6190). Whereas in intelligence, the mean scores of female students were higher than that of male students as revealed through table 2. This finding is supported by the studies conducted on gender wise differences which reveal that there is significant difference in different psychological variables between boys and girls.

Table 1: Mean and Standard deviation of linguistic errors of students

Students	N	Mean	Standard Deviation	Standard error
Male	27	19.0740	4.9685	0.9740
Female	21	10.6190	3.4420	0.7511
Total	48	15.3750	6.0551	0.8739

Table 2: Mean and Standard deviation of intelligence of students

Students	N	Mean	Standard Deviation	Standard error
Male	27	20.9259	4.9685	0.9562
Female	21	29.3809	3.4420	0.7511
Total	48	24.625	6.0551	0.8739

In order to see, to what extent the difference in linguistic-errors and intelligence between boys and girls is there, let us apply t-test and accordingly figures has been made made.

Table 3: Comparison between the linguistic-errors of boys and girls

Students	N	Mean± Standard Deviation	t value
Male	27	19.0740±4.9685	2.0128*
Female	21	10.6190±3.4420	

*significant at 0.05 level

Figure 1

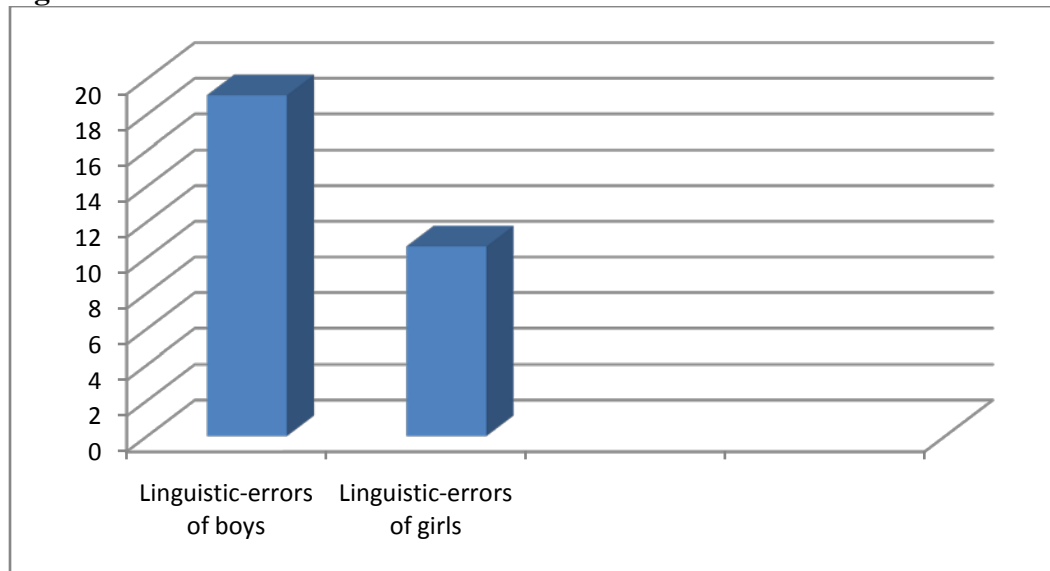**Figure 1 Showing linguistic errors committed by boys and girls**

Table 4: Comparison between the intelligence of boys and girls

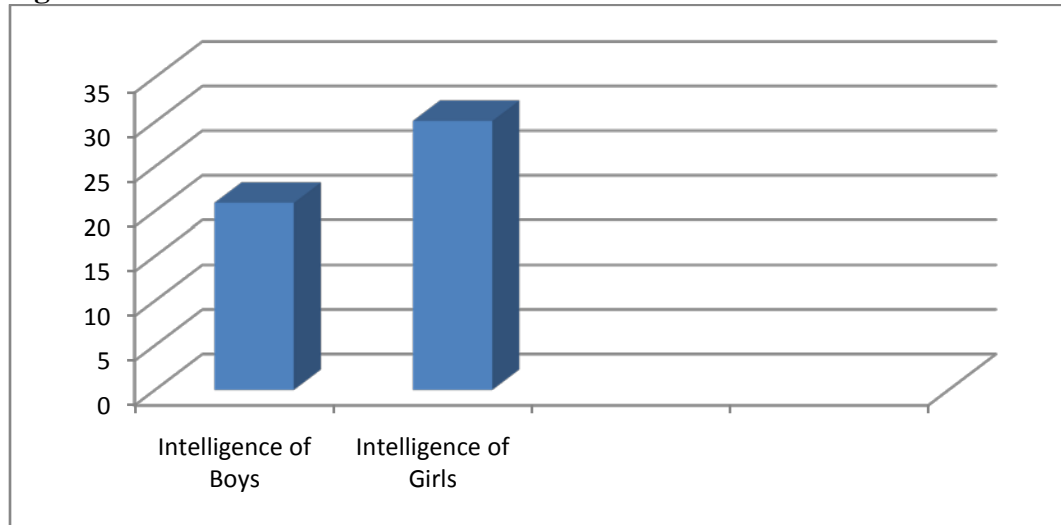| Students	N	Mean± Standard Deviation	t value
Male	27	20.9259±4.9685	2.0166*
Female	21	30.1111±3.4420	

*significant at 0.05 level

Figure 2

Figure 2 Showing intelligence of boys and girls

Table 5 Co-efficient of correlation between linguistic-errors and intelligence of total students.

Variables	Total students	Co-efficient of Correlation
Linguistic-errors	48	-0.86
Intelligence	48	

Table 5 reveals that the value of co-efficient of correlation between linguistic-errors and intelligence was -0.86 (df=46, N=48) which is statistically negative indicating the result that there is a strong negative relationship between linguistic-errors and intelligence of government primary school students. Hence the hypothesis that there is no significant relationship between Intelligence of students and the Linguistic-Errors in Punjabi Language committed by them quantitatively is NOT retained. This shows that intelligence level does affect the linguistic errors of the government primary school students.

Discussion of Results

It was very prominent in the whole data that students commit so many mistakes in writing Punjabi but most of the errors in their writing were in those words where those words were involve which came from other languages like ਖ਼ੁਸ਼ਕਿਸਮਤ, ਬਾਗ਼, ਖ਼ਸਤਾ, ਫ਼ਾਇਦੇ, ਖ਼ੁਸ਼ੀ ਆਦਿ. Further, as far as statistics is concerned, the mean of linguistic-errors of boys and girls were 19.740 and 10.6191 showing that boys commit more errors in writing skill of Punjabi language than girls. Further when intelligence test was employed, it was observed that girls were more intelligent than boys (mean scores were 29.3809>20.9259).

When t test was employed to compare linguistic-errors committed by boys and girls, it (t test) comes out to be 2.0128 which is significant at 0.05 level. t value again came significant (2.0166) in case of intelligence of boys and girls. So, we can conclude that to some extent gender and intelligence also play vital role for the occurance of errors.

Suggestions for further study

- This study examines the relationship between intelligence of students and the linguistic-errors committed by them. Similar studies may be conducted on relationship between attitude, aptitude or academic achievement and the linguistic-errors committed by them.
- This study examines the relationship between intelligence of students of fifth class and the linguistic-errors committed by them. Similar studies may be conducted on other standards like secondary, senior secondary, college or university level.
- This study examines the relationship between intelligence of students of government schools and the linguistic-errors committed by them. Similar studies may be conducted on private schools also.
- This study examines the relationship between intelligence of students of government schools of Punjab state and the linguistic-errors committed by them. Similar studies may be conducted on other states where Punjabi is studied as second or third language like Haryana, Himachal, Jammu, etc.
- This study examines the relationship between intelligence of students of Punjab and the linguistic-errors committed by them in their writing skill. Similar studies may be conducted on listening or reading skills.
- This study examines the relationship between intelligence of students and the linguistic-errors committed by them in their writing skill of Punjabi language. Similar studies may be conducted on other languages like Hindi, English, Urdu, etc.

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