

The Impact of Bilinguality on Pre-University Students in English Achievement in Mysore (India)

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Abstract

Being exposed to more than one language starting from birth is a common fact. If we also consider second or foreign language learning, we can say that many people in the world face the task of processing two or more languages at the same time, at some point in their life. For this reason, research on bilingualism-acquiring two languages from childhood - has always been an important issue.

In the present study, the relationship between bilinguality of second language learners at pre-university stage and their English knowledge achievement in the language as a medium of instruction has been investigated. Results of data analyses indicate that the subjects' bilinguality has a positive effect on a general English proficiency test, while as it was shown in the process of the analysis, monolinguals and bilinguals didn't differ significantly in their performance in English achievement.

Key words: Bilingualism, mono-linguality, language learning, multilingual

Abstracto

La exposición a más de un idioma desde una corta edad es un hecho común para muchas personas. Incluso, hay quienes enfrentan la necesidad o el deseo de procesar al menos dos idiomas simultáneamente durante algún momento en sus vidas. Por esta razón, la investigación sobre el bilingüismo, o el proceso de adquirir dos idiomas desde la niñez, siempre ha sido un tema de gran interés. En este estudio analizamos la relación entre el bilingüismo de personas en un nivel pre-universitario y su conocimiento del inglés como medio de instrucción. Los resultados revelan que el bilingüismo de estos sujetos produce un efecto positivo al medir su nivel de aprovechamiento en el examen de destrezas de inglés. Sin embargo, los resultados revelan que los sujetos monolingües y bilingües no variaron significativamente en su rendimiento en el examen de inglés.

Palabras clave: *Bilingüismo, monolingüismo, aprendizaje de idiomas, multilingüismo*

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Introduction

Bilingualism in education refers to, learning of more than one language, as well as learning through a non-native language. In either case, bilingualism is not a black and white, or, all or nothing phenomenon, but a matter of degree. There are situations, as in India, where students come to school as bilinguals, and pose different problems for educational planners. The term 'bilingualism' in this study is used in the wider sense to include multilingualism.

The terms 'bilingualism' and 'multilingualism', have interchangeably been used in literature to refer to knowledge or use of more than one language by an individual or a community. Bilingualism has been treated both as a societal and individual phenomenon (Romaine, 1995). It is not possible to make a neat demarcation between bilingualism as a societal and individual phenomenon (Adler, 1977).

According to Laubeová, (2000) the term 'bilingualism' has many different meanings. At the *individual* level it refers to consecutive or simultaneous learning or the acquisition of a second language and involves issues of language competence, performance, ability, proficiency, and achievement. At the *societal* level it refers to complex phenomena concerning minorities and migrants. While it is not possible to separate effects of individual and societal bilingualism, the latter refers to concepts such as 'diglossia' and 'domain' that are helpful in understanding different ways in which linguistic resources are organised in multilingual communities, including phenomena such as borrowing, interference, transfer, and code-switching (cited in Wolff, D., 2003).

'Diglossia' refers to the coexistence of two forms of the same language in a speech community. Often, one is the literary form and the other is the spoken form used.

Sociolinguists also use the term 'diglossia' to denote bilingualism, as the speaking of two or more languages by the members of the same community, as, for example, in New York City, where many members of the Hispanic community speak both Spanish and English, switching from one to the other according to the social situation or the needs of the moment (Sofu & Ertekin, 2003).

A large number of additional studies point in the direction of cognitive advantages associated with bilingualism, although caution must be exercised in making strong claims for bilingual advantages because of the difficulties of controlling background variables in some of the studies (Sofu & Ertekin, 2003). What is clear, however, is that the development of home language literacy skills of students entail no negative consequences for their overall academic or cognitive growth, and in some situations, there may be significant educational benefits for students, in addition, to the obvious personal benefits of bilingualism.

In India, individual and societal bilingualism is widespread. Bilingualism is a perplexing reality. Demographically, bilingualism and multilingualism has been defined as the presence and use of two or more languages in a modern nation or state (Asher & Simpson, 1994). According to Reich (1986) 47.3% of the world's population speaks more than one language. It is well known that India is one of the largest bi/multilingual countries. The Indian Constitution lists over 18 languages for official or administrative purpose. There are 219 identifiable home languages. Of these, 114 languages have 10,000 or more speakers. (Census of India 1991). Many of these languages and dialects may or may not have scripts, but are in active use. The nature of bilingualism is also not the same across the country.

Bilingual education in multilingual India is of two types. The first type is in accordance with the universal principle of education. In this case, the mother tongue is used as medium of instruction and other languages are taught as subjects. In the second type, a second language is used as medium of instruction. The effect of these two types of media of instruction on a host of variables has been extensively investigated by scholars and in terms of findings the study by Srivastava (1998) stands out as significant.

In view of these findings, the mother tongue as medium of instruction is being advocated by many scholars. At the same time the importance of English is also not ignored.

The present study, investigates the relationship between bilinguality of second language learners at pre-university stage and their English knowledge achievement in the language as a medium of instruction.

The following null hypotheses are formulated:

Null Hypothesis

- a) The linguality of subjects has no impact on their performance in general English proficiency and grammatical judgment test.
- b) Gender of subjects has no impact on their performance in proficiency and grammatical judgment test.

The significance of the present study is that its results could shed some light on the issue of bilingualism, contribute to approaches and strategies in evolving a language policy and a scheme for its implementation in school, and thereby help modify the present curriculum.

The present research investigates the effect of home languages such as: Kannada, Urdu, Tamil, Telugu, Hindi, Marathi and some others used in Mysore on the learning of English as a medium of instruction.

Method

Participants

Initially, a total of 100 students in the age range of 16 to 18 at five pre-university colleges in Mysore (using English as a medium of instruction) participated in this project. These colleges were randomly selected. (St. Philomena's, J.S.S., Chinamava, Mahajana and Vivekanada colleges). Through a background questionnaire, demographic information of each participant was elicited. Based on indicators such as parents' socio-educational background and occupation (which according to Morris, 1994 is a good indicator of social class status), the participants were matched as close as possible for socio-economic background to minimize the effect of social class. Accordingly, the participants were classified as middle class.

Two groups of fifty students each participated in this study:

- a. Group A (male/female monolinguals) who use just one language as home language;
- b. Group B (male/female bilinguals) who use more than one language as home languages.

Participants, in both groups were homogenous, in terms of:

- a. Socio-educational context: socio economic level,

- b. Type of the college attended,
- c. Methodology used at colleges,
- d. Number of hours devoted to the teaching of English, and
- e. Age of the participants.

It is worth mentioning that those students who use English as a home language are excluded.

Data Collection

The investigator personally visited the selected colleges and, on the spot, got the subjects fill in questionnaires. In order to include those students who are in the same level of proficiency, the marks required under item 9 in questionnaire (see the Appendix) were later collected from college records.

To determine the students' sameness level of proficiency two axes have been used to examine:

- a. Marks obtained in English in SSLC (Secondary School Leaving Certificate, Karnataka, India) were considered, in order to exclude those students who are far better or extremely weaker than the middle range of the class. Intention being to include middle level competence in English.
- b. Marks obtained in General English Proficiency Test have been regarded as a pivotal factor for categorizing the students' level. These marks have been obtained after administering the Standard American Transparent English proficiency test to the participants.

Instruments

The instruments used are as follows:

- a. **A background questionnaire:** In order to elicit subjective information about participants, a background questionnaire was developed by the investigator. It covered issues such as the subjects' age, bi/linguality status, their parent's socio-educational background, and occupation. Other issues of ethical consideration were observed in while administering the questionnaires.

The subjects were assured that the elicited information would be kept in full secrecy.

- b. **General English Proficiency Test:** English Transparent Test was utilized as the pedestal for assessing the participant's level of proficiency in English. This test comprised of 30 multiple-choice vocabulary, grammar, and reading comprehension items. The reliability of G.E.P.T. estimated by Kuder Richardson formula (1937) appeared to be 75.

It may be worth mentioning that due to random error, reliability measures determine the degree of inconsistency in scores. The calculation of reliability indices is beyond the scope of this discussion. The item analysis for objective tests that best provides includes three indices of reliability. Two of these, the Spearman-Brown and the Kuder-Richardson, (ibid.) provide estimates of the extent to which students would receive similar scores if they were re-tested with an equivalent form of the test. The Spearman-Brown approach reflects consistency due to item sampling only. The Kuder-Richardson approach (K-R 20) measures consistency of responses to all the items within the test and reflects two error sources:

- a. Item sampling and
- b. Heterogeneity of the content domain sampled.

Both these indices report reliability as a coefficient ranging in size from 0.00 (no consistency) to 1.00 (perfect consistency). The larger the coefficient, the better the test results, because the extent to which the coefficient falls below 1.00, is the extent to which errors of measurement are present.

Although it is not possible to obtain perfectly reliable scores when measuring classroom achievement, some instructors are able to construct tests that have reliability coefficients of 0.90 and above. We should strive to write tests that yield reliability coefficients of at least 0.70. Otherwise there will be no significant coefficient relationship.

- c. Grammatical Judgment Test: on the basis of the existing English text book prescribed for pre-university level a correction task was developed by the investigator.

Analysis

On the basis of answers to Item 6 (Language(s) spoken at home) in the questionnaire (see the Appendix), the subjects were first divided into two groups:

- a) Monolingual: if only one language is spoken at home, the subject was classified as a monolingual; and,
- b) Bilingual: if the subject spoke more than one language at home, he or she was classified as a bilingual.

After obtaining data, a two-way ANOVA was employed to find out the significant difference between linguality and gender as *independent* variables and scores obtained. General English Proficiency and Grammatical Judgment Test are considered as *dependent* variables.

Table 1 presents mean scores obtained in both tests

Table 1

Mean scores of General English Proficiency and Grammatical Judgment of male and female subjects with mono and bilingualism

Variable	SEX	Linguality					
		Monolingual		Bilingual		Total	
		Mean	S.D	Mean	S.D	Mean	S.D
G.E.P.	Male	10.90	3.82	15.60	4.03	13.51	4.56
	Female	18.55	3.36	19.84	2.82	19.27	3.11
	Total	14.73	5.26	17.72	4.06	16.39	4.84
G.J.T.	Male	9.05	3.66	11.72	3.18	10.53	3.62
	Female	12.45	5.08	11.96	2.86	12.18	3.96
	Total	10.75	4.70	11.84	3.00	11.36	3.86

Table 2 presents results of 2-way ANOVA.

Table 2

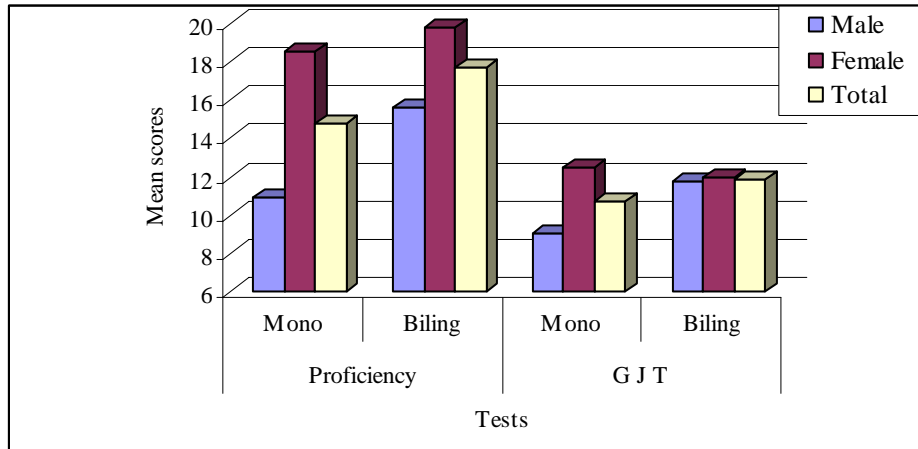
Results of 2-way ANOVA for mean G.E.P. and G.J.T. scores of male and female subjects with mono and bilingualism

Variable	Source of variation	Sum of Squares	df	Mean Square	F	Sig.
G.E.P.	Linguality (A)	199.334	1	199.334	15.960	.000 (S)
	Gender (B)	785.401	1	785.401	62.884	.000 (S)
	Interaction(A x B)	64.601	1	64.601	5.172	.025 (S)
G.J.T.	Linguality (A)	26.402	1	26.402	1.915	.170 (NS)
	Gender (B)	73.609	1	73.609	5.338	.023 (S)
	Interaction(A x B)	55.476	1	26.402	4.023	.048 (S)

Note: df: degree of freedom, S- Significant: NS-Non-significant.

Fig. 1

Mean G.E.P. and G.J.T. scores of male and female subjects with mono and bilingualism:



Result and Discussion

General Proficiency Test (G.P.T.)

Monolinguals and bilinguals differed significantly in their general English proficiency scores ($F=15.96$; $P<.000$) where bilinguals had significantly higher scores (mean 17.72) against monolinguals (mean 14.73).

Gender also indicated a significant difference ($F=62.884$; $P<.000$) where females scored higher (mean 19.27) than males (mean 13.51).

The relation between linguality and gender was found to be a significant element ($F=5.172$; $P<.025$) where, much difference was not found between male and female subjects of bilingualism, but monolingual females scores were higher (+7.56).

Therefore, the first hypotheses formulated for general English proficiency test is rejected.

Grammatical Judgment Test (G.J.T.)

Monolinguals and bilinguals did not differ significantly in their G.J.T, where F tests failed to reach the significance level criterion ($F=1.915$; $P<.170$). Between genders a significant difference was observed ($F=5.338$; $P<.023$) where females' scores resulted higher (mean 12.18) than males (mean 10.53).

Therefore, the second hypotheses formulated for G.J.T stands acceptable only for linguality and rejected for gender and interaction effects.

Conclusion

Results of data analysis show that the subjects' bilinguality has a positive effect on General English Proficiency Test. Thus, the initial part of the first null hypothesis stating that the linguality of the subjects has no impact on their performance stands rejected.

The result supports the finding of other bilingual studies, which have demonstrated that bilingualism results more efficient in foreign language learning (cf. Lerea & Laporta, 1971; Cummins, 1979; Eisenstein, 1980; Ringbom, 1985; Thomas, 1988; Valencia & Cenoz, 1992; Zobl, 1993; Sanz, 2000; Hoffman, 2001).

The analysis indicates that, "monolinguals and bilinguals do not differ significantly in their performance in English achievement". Therefore, the second part of this null hypothesis stating the linguality of the subjects has no impact on their performance in Grammatical Judgment Test stands acceptable.

The evidence supports the finding of other bilingual studies which have mixed results, comparing monolinguals, bilinguals and multilinguals' acquisition of an artificial

grammar, which indicate that although the multilinguals showed superior performance under certain conditions, generally there is “no clear evidence that their results were superior regarding language learning abilities (Nayak et al, 1990; Magiste, 1984; Balke, Aurell and Lindbad, 1982 and Sawyer, 1992).

The results also point out that there is a significant difference between gender in performing general English proficiency, and also that English achievement test showed that females scores were higher than males. Therefore, the second null hypothesis stating that gender of the subject has no impact on their performance in general English proficiency and grammatical judgment test is rejected.

The result supports the findings of other researchers who indicate that female learners show possible advantage in SLA, which proves gender difference in SLA (Burstall, 1975; Boyle, 1994).

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Appendix 1

Student Proforma

1. Name of the student:.....

2. Age:.....

3. Gender:.....

4. Class studying:.....

5. Medium of instruction:.....

6. Language or languages which are used at home (Home language):

a) Kannada

b) Urdu

c) Hindi

d) Telugu

e) Marathi

Others (specify)

7. Educational levels of parents:

a) Father: Nil / Below middle / Middle / High school or P.U.C. / Graduation / Post
Graduation

b) Mother: Nil / Below middle / Middle / High school or P.U.C. / Graduation / Post
Graduation

8. Occupation of parents:

a) Father:.....

b) Mother:.....

9. Marks obtained in English annual examinations:

2005 (SSLC)

{ Maximum marks:.....
{ Marked obtained:.....

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