

Study of Socio-economic Status and Family Environmental Factors and Their Effect on Language Skills of Engineering College Students

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Abstract

Acquisition of language skills is vital both to the academic and individual development as it enables the learners to perform specific communicative functions in the academic and professional context. Since development of language skills is closely associated with the process of growth, the type of social, economical and family background in which a learner is nurtured either facilitates or inhibits students' achievement in language learning process. Socio-economic conditions and family environmental factors lead to individual differences. This paper presents the findings of a study conducted to find out the effect of socio-economic status and family environmental factors on language skills of the selected first year engineering college students.

Key words: *Socio-economic statuses, Family environment, Language skills*

Introduction

Language is the chief means by which human personality expresses itself and fulfills its social interaction with other people, and hence essential for survival and development as human beings. With the increasing population and rapid development of science and technology, people of various culture and nationalities now meet, interact, and socialize to achieve common goals. To sustain this constant contact and achieve the goals, the need for a common language in a diverse society has become necessary. English being the most common link language, the teaching of English has taken on a special significance.

Language, being a skills subject, needs much more attention in teaching learning process. Most often, the verbal responses, language patterns and behaviors of the poor learners are considered inadequate and inappropriate and are referred to as language disabilities. Such disorders and differences in language acquisition are observed in learners at all levels. Differential language skills affect academic progress. Hence, effective language instruction should incorporate aspects of diversity, pedagogy, skill and knowledge of strategies, assessment and diagnosis (NCERT 2000).

India being a multicultural and multilingual country, children from different socio-cultural contexts enter the educational institutions. The different cultural patterns and value systems of these children are reflected and reinforced in their living and learning styles and speech and language patterns. The language thus developed is not just a means for communication but reveals the nature of communication. Therefore, the culture and language used in a society are inseparable. The tendency to superimpose one's speech patterns on the new culture's language causes a cultural accent. The family environment influences the language use and the language which a child develops at home and neighborhood becomes the first language, and while studying a second language, the learner's home language influences his second language use.

Research background

Family and school are the two main social environments in which a child grows. The learners are always in harmony with their environment. These social environmental factors determine the individual's socio-psychological perspective, and hence cannot be overlooked. The social aspects of language acquisition culminate in the differences in language development and use among the learners from

different social classes. Bernstein's (1961) basic hypothesis is that the language heard and spoken by children from lower-working class homes is different in content from that of the language substance used by children from a middle-class home background. The social interaction that the middle-class children have at home help them develop extensive vocabulary (elaborate code), while the working class children, deprived of this opportunity for learning, have learning difficulty in formal situations. Such a low level linguistic ability (restricted code) would also have an impact on problem solving, attitude to learning and abstract thinking.

Socio-economic factors are usually closely related to language development. Barton (1962) in a survey found that socio-economic class was the most important determinant of success in reading in school. Economic independence at home leads to equality of family members, need for formal education, and better home environment. Educational level of parents and their occupation contribute a supportive home environment, and thus influence children's aspirations and attitudes. Apart from financial assistance, opportunity for learning and verbal interaction and parents' expectations regarding the child's intellectual development are some of the distinct advantages enjoyed by the middle class children. Children from low economic status who are deprived of these facilities are unable to develop their natural talents. In general, home environment of the advanced communities allows the children to opt for good education, whereas the backward communities do not realize the importance of education.

Most studies indicate that pupils from upper socio-economic homes come to school with more background knowledge and experience than those from lower socio-economic homes. The past experiences that the middle class children possess help them learn the tasks in a fast manner (Henry 1963). Parental care, encouragement, attitude towards children and their education, and provision of adequate stimulating reading materials would develop pre-requisite readiness skills in children. The absence of such facilities would contribute to academic delay. These factors influence the social context learning in the family. Social learning experiences in the family differ from one another according to the individual's home status and this experience is only a part of social development and the learner is further influenced by the institutional factors. Significant difference in academic achievement of students from different socioeconomic status home has been reported (Coleman, 1966; Ajech, 1991).

Worley and Story (1967) reported that the language facility of first-grade children from low socio-economic groups was over a year below to that of children from high socio-economic status. However, they stated that socio-economic status was not a completely accurate determinant of reading achievement, but it was closely related to broadness of experience and language facility. Likewise, Callaway (1972) revealed that income of the family and occupation of the parents were not significantly related to reading achievement. However, according to Srivastava, Singh and Thakur (1980), socio-economic status has positive correlation with achievement, examination and anxiety. High socio-economic status students had superior performance scores. Eggen and Kauchak (2002) and Ward (2002) identified a direct relationship between socio-economic status and examination performance in secondary school. Thus, factors such as social status, economic imbalances and family climate because of social and economical deprivation significantly correlate with the learning process.

A perusal of the related literature reveals that a number of factors contribute to individual differences in language acquisition. The prevalence of individual differences in the acquisition of language skills is on the increase today. The goals of language learning at higher level have become more specific. The learners are expected to use their linguistic competence they have acquired during school days at different communicative situations both in their social and organizational roles. However, the performance of the learners when they enter college differs from one another. This may be due to the difference in the development of language skills which would have been caused by the socio-economic and family background. Since most of the earlier studies conducted in this area were at primary and secondary school level, the present study was conducted to find out effect of socio-economic status and family environmental factors on the language skills such as reading, language aptitude and verbal intelligence of the first year engineering college students and to study their influence on language acquisition process.

Objectives of the study

1. To assess and group the selected first year engineering college students based on their differential language skills.

2. To find out the influence of socio-economic conditions and family environmental factors on language skills of the selected first year engineering college students.

Hypotheses of the study

1. There will be a mean score difference in socio-economic status between the groups who possess differential language skills among the selected first year engineering college students.
2. There will be a mean score difference in selected factors of Family Environment between the groups who possess differential language skills among the selected first year engineering college students.

Design and samples of the study

Based on the objectives, hypotheses and logistics of the study, the sample survey research design was adopted for generating primary data. The data were collected from the selected samples of the first year undergraduate students from Electronics and Communication Engineering (ECE), Computer Science and Engineering (CSE) and Information technology (IT) of PSG College of Technology and Sri Krishna College of Engineering and Technology, Coimbatore. For the present investigation, 30 percent of the students were randomly selected as sample from these courses. Thus, 81 students from Sri Krishna College of Engineering and Technology and 54 students from PSG College of Technology and totally 135 students were considered as samples for this study. During the data collection, some sample attrition occurred at different stages due to the absence of sample. After certain sample attrition and data screening, the sample size was reduced to 100 at the end of the final data collection.

Data collection and analyses

The data were collected at two phases using Computer Assisted Language Skills Assessment Package (CALSAP), Language Aptitude Tests (Spelling and Error) (Bennet et al. 1947) and Group test of intelligence in English (Verbal) (Ahuja, 1971), Socio-Economic Status Scale and Family Environment Scale. As a first phase, the data collected with the help of tools related to language skills such as listening skills, reading skills, language aptitude and verbal intelligence were subjected to cluster analysis to group the samples of the study based on differential language skills. Three distinct groups such as high, moderate, and low group based on their relationship of language skills emerged consequent to the cluster analysis of language skills data. The high, moderate and low group of cluster analysis had 45, 36 and 19 samples respectively.

As a second phase, the data related to socio-economic status and family environment variables of the three groups were subjected to analysis of variance to find out the influence of the same on language skills of the selected engineering college students of the study.

Results and discussion

Table 1.1: Mean (M) and Standard Deviation (SD) in Socio-Economic Status of the groups who possess differential language skills among the selected Engineering Students.

Groups	Socio-Economic Status		
	N	M	SD
Low group	19	83.63	18.40
Moderate group	36	105.39	25.40
High group	45	111.96	17.06

*N- total number of samples in each group

Table 1.2: Mean Score difference in Socio-Economic Status between the groups who possess differential language skills among the selected Engineering Students.

Groups	Sum of Squares	Mean Squares	DF	F-VALUE	Level of significance
Between groups	10795.702	5397.851	2	12.624	Significant at 0.01 level
Within groups	41476.888	427.597	97		

*DF- Degrees of Freedom

*F-VALUE- Face value

Table 1.1 presents the scores of mean and standard deviation in socio-economic status of the three groups who possess differential language skills. The table further indicates a difference in mean scores between the group viz., low group (83.63), moderate group (105.39) and high group (111.96). It is also evident from the table that much difference in mean score is found between the low and moderate groups, and between the low and high groups. However, there is less difference between the moderate and high groups.

Table 1.2 exhibits significant mean score difference in socio-economic perspective between the groups who possess differential language skills among the selected engineering college students. Further, the results, indicate that the mean score difference is significant at 0.01 level, and hence the hypothesis no.1 is accepted. From the results, it can be confirmed that socio-economic status exercises a powerful influence on the development of language skills among the selected the engineering students.

Table 2.1: Mean and Standard Deviation (SD) in selected factors of Family Environment of the groups who possess differential language skills among the selected Engineering Students

Family Environment Factors	Groups	N	Mean	SD
Cohesion	Low	19	45.00	11.97
	Moderate	36	53.00	7.97
	High	45	54.93	6.21
Expressiveness	Low	19	29.42	7.87
	Moderate	36	31.53	5.75
	High	45	34.44	5.22
Conflict	Low	19	35.74	9.33
	Moderate	36	41.47	6.95
	High	45	45.82	7.35
Acceptance and Caring	Low	19	37.32	11.91
	Moderate	36	44.11	7.23
	High	45	47.22	4.94
Independence	Low	19	27.68	7.32
	Moderate	36	29.69	5.09
	High	45	31.82	3.76
Active recreational Orientation	Low	19	26.63	7.09
	Moderate	36	29.22	4.82
	High	45	31.27	4.40
Organization	Low	19	7.47	2.34
	Moderate	36	7.89	2.03
	High	45	8.42	1.36
Control	Low	19	14.21	3.75
	Moderate	36	14.81	2.85
	High	45	16.07	2.56
In general (Family Environment total)	Low	19	223.47	56.04
	Moderate	36	251.72	34.31
	High	45	270.00	24.51

Table 2.1 shows the mean and standard deviation in selected factors of Family Environment of the groups who possess differential language skills. As presented in the table, there is a great difference in mean scores between the groups namely, low group, moderate group and high group. It indicates much difference in mean scores between the groups, especially between the low and high groups.

Table 2.2: Mean Score difference in selected factors of Family Environment between the groups who possess differential language skills among the selected Engineering students.

Family Environ- ment Factors	Groups	Sum of Squares	Mean Squares	DF	F-VALUE
Cohesion	Between	1341.950	670.975	2	10.018
	Within	6469.800	66.977	97	
Expressiveness	Between	383.925	191.963	2	5.368
	Within	3468.800	35.760	97	
Conflict	Between	1401.206	700.603	2	12.060
	Within	5635.234	58.095	97	
Acceptance and Caring	Between	1311.721	655.861	2	11.661
	Within	5455.439	56.242	97	
Independence	Between	247.388	123.694	2	4.810
	Within	2494.322	25.715	97	
Active recreational Orientation	Between	297.307	148.653	2	5.612
	Within	2569.443	26.489	97	
Organization	Between	13.480	6.740	2	2.022*
	Within	323.270	3.333	97	
Control	Between	57.643	28.822	2	3.386*
	Within	825.597	8.511	97	
General (Family Environment total)	Between	29378.40 1	14689.20 0	2	11.475
	Within	124165.9 6	1280.061	97	

* Not significant at 0.01 level

Table 2.2 shows the mean score difference in selected factors of Family Environment between the groups who possess differential language skills among the selected engineering college students. According to the table, except Organization and Control, all other selected factors of family environment are statistically significant at 0.01 level, and hence the hypothesis no.2 is accepted. It can be said that the family environment, in general, facilitates the development of language skills. It is also proved that family environment factors do not support the students of low and moderate groups in acquiring their language skills.

Findings and Conclusions

- There is a significant mean score difference in Socio-Economic Status between the groups who possess differential language skills among the selected engineering students. It is evident from the study that socio-economic status of the students provides certain distinct advantages which enable them to achieve broadness of experience and language facility. This fact is proved by the mean score values which indicate much difference between the low and moderate groups, and between the low and high groups.

- There is a significant mean score difference in selected factors of Family Environment between the groups who possess differential language skills among the selected engineering students. The findings clearly confirm the fact that family environmental factors except factors like organization and control, contribute much to the development of language skills. It is also proved that the family environmental factors of the low and moderate groups do not support them in developing their language skills.

The findings of the present study clearly indicate that the socio-economic and environmental factors do affect language skills of the students. The findings related to the socio-economic status of the samples of the present study confirm the fact that economic status greatly influences the students' performance in terms of language skills. Socio-economic factors are closely related to language abilities as economic independence leads to equality of family members, and therefore provides better environment. Parents' level of education and occupational status influence students' commitment to learning. Opportunities for additional learning and verbal interactions among family members motivate the children to develop their language skills. The findings of the present study are in support of the earlier studies of Barton (1962), Henry (1963), Coleman (1966), Worley and Story (1967), Adler (1973), Ajech (1991), Eggen and Kauchak (2002) and Ward (2002).

The findings pertaining to family environmental factors reveal their significant influence on the language skills among the selected engineering students. The fact that the climate of the home in general influences learners' performance in language skills is indicated by the significant difference in mean scores between the low and moderate groups, and between the low and high groups. Family environmental factors such as cohesion, conflict, expressiveness, acceptance and caring, independence and active recreational orientation are found to influence the language skills among the selected groups. The fact that parental care, encouragement, attitude towards children and education and availability of stimulating reading materials facilitate the language abilities of the students of the present study has been confirmed. Similar observations were found in the earlier studies conducted by Robinson (1946), Bloom (1965), McClosky (1967), Deutsch (1967), Smith (1974), Coleman and Rainwater (1978) and Gilbert and Kahi (1987).

Based on the findings and discussion of the present study, it can be concluded that the socio-economic status and family environmental factors affect the language skills among the selected engineering students.

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