IF : 4.547 | IC Value 80.26 VOLUME-6, ISSUE-6, JUNE-2017 • ISSN No 2277 - 8160

Original Research Paper Education

Effectiveness of Language Learning Strategies on Achievement of Science Students in English Language

Dr. Rachna Pathak Associate Professor Department of Education, N.A.S College, Meerut, U.P

Kavita Research Scholar Department of Education, N.A.S College, Meerut, U.P

ABSTRACT Language is a system for the expression of thoughts, feelings etc. It is acquired and learnt just as other skills by adopting different Language Learning Strategies. These Language Learning Strategies help the learners in learning the language and thus enhancing their achievement. This study focuses on the effectiveness of Language Learning Strategies on achievement of students in English language learning at high intelligence level. Collected data were analyzed via descriptive statistics as Mean ANOVA and POST HOC tests. The results revealed that there is significant difference in the achievement of students adopting different Language learning strategies.

KEYWORDS :

Introduction

Within the field of education during the last two decades, a gradual but significant shift has taken place, resulting in less stress on teachers and teaching and greater emphasis on learners and learning interest in resources for language learning strategies in foreign and second language teaching and learning. Researchers such as Oxford (1990a); Cohen (1987); and O'Mallay and Chamot (1990) have stressed that effective learners use a variety of different strategies and techniques in order to solve problems that they face while acquiring or producing the language. One focus of research in the area of EFL has been that of the identification of how learners process new information and what kinds of strategies they employ to understand, learn or remember the information. Students are expected to be self-regulated learners, that is, to manage their homework and studying on their own. In acquiring knowledge and skills they are expected to personally initiate and direct themselves and not rely mainly on their classes. Although research shows that students can learn to be more self-regulated, they are self-regulated if they are directly and indirectly active participants in their own language learning process. Ideally, students are self-regulated learners. Self-regulated learning assumes reciprocal causation amongst three elements: commitment to academic goals, self-efficacy perceptions of performance and skills, and self-regulated language learning strategies. Students can be taught or prompted to become self-regulated language learners by acquiring or using more language learning strategies and to become successful language learners. People do not understand any language when they are born, but have to learn the language so that they are able to understand and communicate with others. Therefore, during the language learning process, one might find that some people can learn the foreign language very quickly and well. Intelligence also has been recognized as the primary factor which control language behaviour from time immemorial it was believed that man has an abstract mind which exerts control over and determines all his behaviour. Language and mind have always been seen as operation and faculty of operation and as such both have been found related in several ways. This is one way of looking at the relation between language and mind. But in present day psychology not many feel at home with a word like 'mind' and at the same time for technical convenience a distinction is drawn between the mind and intelligence. On the other hand, some people have problem in learning the language. Therefore, many researchers have tried to find out how learners go about learning the language, what makes learners successful in language learning. Within the area of foreign language research, a number of studies indicate that learning strategies play a significant role in successful language learning. Politzer and McGroarty (1983) investigated that learning strategies are positively associated with language acquisition. They may improve learners' learning in the forms and functions which are required for comprehension and production (Rubin, 1981). Moreover, learners utilize learning strategies to aid the acquisition, storage, or retrieval of information (Rigney, 1978). In specific, the behaviors or actions used by learners to make language learning more successful, self-directed, and enjoyable are considered language learning strategies. Therefore, persistent the use of the strategies for language learning is a fundamental requirement. As a result, it affects achievement (Bialystok & Frohlich, 1978; Bialystok, 1979). When the learners start to learn the language, they have the ability to facilitate the obtaining, storage, retrieval and use of information in the particular learning situation and to manage their learning in an appropriate way. Thus, language learning strategy work for the learners like footballers who use tactics in order to win a game, when they are in the stadium learners use language learning strategies in order to learn the language more successfully. Various studies had been conducted by researchers in respect to language learning strategies of students at different levels, but no study had been done before in relation to intelligence of science students in Meerut region. So, it was felt that there was a need to work on language learning strategies in relation to intelligence of science students of Meerut region.

Definition of Language Learning Strategies

The team language learning strategy has been defined by many researchers. Wenden and Rubin (1987:19) define learning strategies as "any sets of operations, steps plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information. The concept of learning strategy is dependent on the assumption that learners consciously engage in activities to achieve certain goals and learning strategies can be regarded as broadly conceived intentional directions and learning techniques".

Taxonomy of Language Learning Strategies

Although different researchers have proposed different schemes for the classification of learning strategies, Oxford (1990) added a robustness to the definition of learning strategies. Oxford viewed learning strategies as "specific actions taken by the learner to make leaning easier, faster, more enjoyable, more self directed, more effective, and more transferable to new situations". The strategies were first divided into two main classes - direct and indirect classes, each class comprising three strategy groups.

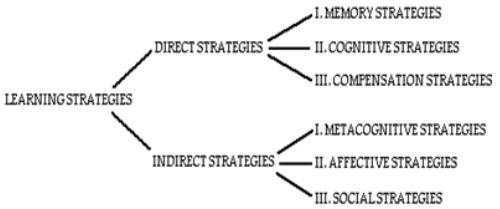

Figure 1: Direct and indirect strategies (Source: Oxford, 1990, p160)

Method

Methods of research are generally determined by the theory of the topic under study, objectives of the study, resources of researchers etc. These considerations have led the investigator to use the Descriptive Survey method of research for the present study.

Tool Used

For data collection in the present study, following tools were used –

- Dr. R.K Tondon's Group of Mental Ability Test to measure the intelligence level of students.
- Strategy inventory for Language Learning Strategy (SILL) applied to identify different Language Learning Strategy adopted by the students.
- Achievement Test constructed by the researcher herself.

Statistical Techniques Used

The collected data were statistically analyzed by using Means, S.D, ANOVA and POST HOC tests.

Results

After analysis of data, it was observed that the strategies (MET) were mostly adopted by the science students of high intelligence group followed by strategies AFF, COG, COM, MEM and SOC respectively in learning English language. The achievement in English language of science students of high intelligence students was observed. The results are presented in table-1.

Table-1

Showing the Achievement of Science Students of High Intelligence Group in English Language (N=30)

Strategies Adopted	N	Mean	Std. Deviation	Std. Error
Strategies (MEM)	2	26.50	.707	.500
Strategies (COG)	4	25.25	.957	.479
Strategies (COM)	3	25.00	1.000	.577
Strategies (MET)	12	26.75	1.055	.305
Strategies (AFF)	2	26.00	.000	.000
Strategies (SOC)	7	26.71	.756	.286
Total	30	26.30	1.088	.199

According to the results of table-1, mean value of academic achievement of science students of high intelligence group on language learning strategies by adopting strategies (MEM), (COG) (COM) (MET), (AFF) and (SOC) found to be 26.50, 25.25, 25.00, 26.75, 26.00 and 26.71 respectively. It is shown that there was not a big difference in the means of academic achievement adopting different language learning strategies by science students of high intelligence group. To study the significance of difference in academic achievement of science students adopting different language learning strategies one way ANOVA was applied.

Table-2

Summary of ANOVA for Significance of Difference in Academic Achievement of Science Students of High Intelligence Group (N=30)

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.371	5	2.674	3.067	.028
Within Groups	20.929	24	.872		
Total	34.300	29			

It is evident from the above table that F- value was found to be 3.067, which was significant at the 0.05 level of significance. It means that there is significant difference in the achievement of science students of high intelligence group in English language adopting different language learning strategies.

Table-3

Multiple Comparisons of Means among Different Language Learning Strategies adopted by High Intelligence Science Group (N = 30)

(I)Strategies Adopted	(J) Strategies Adopted	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Strategies (MEM)	Strategies (COG)	1.250	.809	.135	-.42	2.92
	Strategies (COM)	1.500	.852	.091	-.26	3.26
	Strategies (MET)	-.250	.713	.729	-1.72	1.22
	Strategies (AFF)	.500	.934	.597	-1.43	2.43
	Strategies (SOC)	-.214	.749	.777	-1.76	1.33
Strategies (COG)	Strategies (MEM)	-1.250	.809	.135	-2.92	.42
	Strategies (COM)	.250	.713	.729	-1.22	1.72
	Strategies (MET)	-1.500*	.539	.010	-2.61	-.39
	Strategies (AFF)	-.750	.809	.363	-2.42	.92
	Strategies (SOC)	-1.464*	.585	.020	-2.67	-.26
Strategies (COM)	Strategies (MEM)	-1.500	.852	.091	-3.26	.26
	Strategies (COG)	-.250	.713	.729	-1.72	1.22
	Strategies (MET)	-1.750*	.603	.008	-2.99	-.51
	Strategies (AFF)	-1.000	.852	.252	-2.76	.76
	Strategies (SOC)	-1.714*	.644	.014	-3.04	-.38
Strategies (MET)	Strategies (MEM)	.250	.713	.729	-1.22	1.72
	Strategies (COG)	1.500*	.539	.010	.39	2.61
	Strategies (COM)	1.750*	.603	.008	.51	2.99
	Strategies (AFF)	.750	.713	.303	-.72	2.22
	Strategies (SOC)	.036	.444	.937	-.88	.95
Strategies (AFF)	Strategies (MEM)	-.500	.934	.597	-2.43	1.43
	Strategies (COG)	.750	.809	.363	-.92	2.42
	Strategies (COM)	1.000	.852	.252	-.76	2.76
	Strategies (MET)	-.750	.713	.303	-2.22	.72
	Strategies (SOC)	-.714	.749	.350	-2.26	.83
Strategies (SOC)	Strategies (MEM)	.214	.749	.777	-1.33	1.76
	Strategies (COG)	1.464*	.585	.020	.26	2.67

	Strategies (COM)	1.714*	.644	.014	.38	3.04
	Strategies (MET)	-.036	.444	.937	-.95	.88
	Strategies (AFF)	.714	.749	.350	-.83	2.26

It is revealed from multiple comparisons that strategies (MET) is better than strategies (COG), strategies (SOC) is better than strategies (COG), strategies (MET) is better than strategies (COM), strategies (SOC) is better than strategies (COM), strategies (SOC) is better than strategies (COG). When overall multiple comparison was studied, strategies (MET) were to be found the most effective strategies by science.

Conclusion

On the basis of results this study reveals that the science and the arts students of high intelligence level adopted all six strategies however Strategies (MET) were found to be most effective Strategies by Science students in English language learning. This study suggests that a language teacher should select suitable Language Learning Strategies, which include more senses and active involvement of students to improve their achievement in English language.

REFERENCES

1. Chamot, A.U. & Kupper, L. (1989). Learning strategies in foreign language instruction. Foreign Langauge Annals, 22, 13-24.
2. Domino, G. (1971). "Interactive Effects of Achievement Ostentation and Teaching Style on Academic Achievement". Journal of Educational Psychology, Vol. 62. No. 5 Page 427-431.
3. King A. (1992), "Comparison of self questioning, summarizing, and note taking review as strategies for learning", from Lectures American Educational Research Journal, 29, 303-232.
4. Mc Daniel, M.A., & Einstein, G.O. (1989), Material appropriate processing : A contextualist approach to reading and studying strategies. Educational Psychology Review 1, 113 - 145.
5. O'Malley, J.M., & Chamot, A. (1990). "Learning Strategies in Second Language Acquisition." Cambridge: Cambridge University Press.
6. Ormrod, J.E, (2000); Educational Psychology Developing Learners, III Edition. Pearson Merrill, New Jersey.
7. Oxford, R.L. (1990a), "Language Learning Strategies: What Every Teacher Should Know," Boston, MA: Heinle & Heinle.
8. Taylor, B.M. (1982). Text structure and children's comprehension and memory for expository material. Journal of Educational Psychology. 74, 323-340.
9. Yadav K.P. (2004); "Encyclopedia of Modern Techniques of Teaching" V-3, Sarup & Sons, Daryaganj, New Delhi.