

Enhancement of English Language Skills using Language Laboratory: An Analysis of its Environmental and Educational Attributes

P. Sangeetha¹, Dr. S. Chamundeswari^{2*}

¹Ph.D. Research Scholar, Email: sangeetha97835@gmail.com

^{2*}Principal, N.K.T. National College of Education for Women, Chennai, Email: rajchamu2006@yahoo.co.in, +91 9790953062

*Corresponding Author: Dr. S. Chamundeswari

*Principal, N.K.T. National College of Education for Women, Chennai, Email: rajchamu2006@yahoo.co.in, +91 9790953062

Citation: Dr. S. Chamundeswari et al. (2024). Enhancement of English Language Skills using Language Laboratory: An Analysis of its Environmental and Educational Attributes, *Educational Administration: Theory and Practice*, 30(11) 2431-2437

Doi: 10.53555/kuey.v30i11.10570

ARTICLE INFO ABSTRACT

The present study investigates the influence of parental involvement and school environment on enhancement of English language skills using Language Laboratory at the secondary level. An experimental research is carried out with a sample of 60 standard IX students and it consists of 30 Control and 30 experimental groups. The research tools used are Parental Involvement Scale (Adapted from Prattana Charoenlap (2017) and modified by the investigators), School Environment Scale (Adapted from Lodhi et al. (2019) and modified by the investigators) and Linguistic Knowledge Assessment Scale developed by the investigators. The results of the statistical analyses show a significant correlation among parental involvement, school environment and linguistic knowledge at the secondary level. However, significant differences between pre-test and post-test are observed among standard IX students at the secondary level pertaining to their parental involvement, school environment and enhancement of English Language skills using Language Laboratory.

Keywords: Parental Involvement, School Environment, Enhancement of Language Learning Skills, Language Laboratory, Linguistic Knowledge

1. Introduction

Since traditional methods of delivering education will not motivate the young minds of the nation brimming with ever-changing technological advancements, Higher Educational Institutions have endeavored to enrich the learning experiences of student community with the state of the art educational technologies. Technology enhances learning experiences making it more interactive and engaging, thereby sustaining student motivation and interest. As technology enables personalized learning catering to individual student needs, teachers consider it as a boon. Correspondingly, Language Laboratories are opted by Institutions for Language Skill Development.

Language Laboratories are considered as tools for learning a language effectively, both by teachers and students in an Institution as they are a blend of technology and language content facilitating teaching delivery and language learning. They are seen as an audio-visual system, an instructional aid for enriching teaching-learning experience of any language and it is predominantly used by almost all educational institutions from government run schools to colleges and universities.

A Language laboratory accelerates language learning through its interactive nature, motivating individuals to learn the second language with great zeal and dedication. Learners perceive language labs more exciting without boredom that is usually associated with studying a language in regular classrooms. The conducive environment and the variety of learning material present in a language laboratory stimulate the learners to learn the language. Thus, enhancement of English Language Skills happens in a Language Laboratory combined with apt school environment and parental involvement.

2. Need for the current research

Beyond individual learner characteristics, external factors significantly shape learning experiences. Parental involvement, whether by providing resources, offering encouragement, or creating a supportive home

environment, can have a profound impact on a child's language learning progress. Parents who value English proficiency and actively support their children's efforts can significantly boost motivation and provide valuable opportunities for practice outside the classroom. Understanding the nature and extent of parental involvement is necessary to explore how this crucial external support system can be leveraged to enhance communication skills.

Secondly, the school environment plays a critical role in formal primary learning settings. The quality of teaching, availability of resources, opportunities for interaction in English, classroom atmosphere, and overall school culture contribute to the effectiveness of language learning. A supportive, engaging, and resource-rich school environment can facilitate practice, reduce anxiety, and provide consistent language exposure. Conversely, an unsupportive or resource-poor environment can hinder the progress. Examining the characteristics of the school environment helps identify the best practices and areas for improvement within educational institutions to better support the enhancement of English communication skills.

Similarly, foundational linguistic knowledge, encompassing grammar, vocabulary, pronunciation, and syntax, provides the building blocks for effective communication. While communication is more than just linguistic accuracy, a solid understanding of the language system is necessary to convey meaning clearly and accurately. Investigating the current level of linguistic knowledge among learners helps pinpoint specific areas of weakness that may impede communication flows and intelligibility. This understanding is vital for tailoring language instruction to address specific linguistic deficits and building a strong foundation upon which communication skills can flourish.

3. Review of Related Literature

Studies reviewed pertaining to the present study have been compiled and presented below under appropriate headings.

3.1 Studies Related to Linguistic Knowledge

Tian Tian et al. (2022) investigated the relationship between English literacy as defined by the General High School English Curriculum Standard and academic achievement in the digital age. This study involving 446 high school students found no significant difference in English literacy between male and female students. The study revealed insights such as the language ability as a significant predictor of cultural consciousness, thinking quality and learning ability, and thinking quality and learning ability as correlates to students' academic achievement. However, cultural consciousness did not predict academic achievement. Similarly, learning ability acted as a mediator between language ability and academic achievement. These findings suggest that fostering students' language ability and learning ability is crucial for improving their academic performance, highlighting areas for teachers to prioritize in future instruction.

Wahyoedi and Barus, (2022) investigated an experienced English teacher's linguistic competence and its classroom implementation within English for Academic Purposes (EAP) course. Unlike other studies that often highlight deficiencies in pre-service teachers, this study focused on a teacher with 30 years of experience. The researchers had used content analysis, observing audio-visual recordings of online classroom sessions and conducting an interview with the teacher. The collected data was then categorized based on the teacher's linguistic features. The findings detailed the linguistic features evident in the data and explained how these features facilitated the teaching and learning process. This research underscores the importance of a language teacher's linguistic knowledge beyond mere fluency. Ultimately, the study recommends that English teachers enhance their language awareness and linguistic competence to better meet students' needs in English language acquisition and improvement.

Devi (2023) examined the relationship between Indonesian postgraduate students' English language proficiency and their academic achievement and found a positive linear correlation between English proficiency and academic achievement. The researcher recruited 54 male and female English education majors from a university in Bandung. Their Test of English as a Foreign Language (TOEFL) scores measured language proficiency, while their Grade Point Average (GPA) indicated academic achievement. A computation of correlation revealed a significant positive linear correlation between the two variables, suggesting that higher English proficiency is associated with greater academic success. These findings offer valuable insights, particularly for educational environments where English is the primary language of instruction.

Evaluation

The current literature on high school language education primarily emphasizes reading, writing, and the acquisition of foreign languages, as well as the informal language use by adolescents. However, there is a significant lack of thorough research that specifically analyze the extent and nature of high school students' formal linguistic knowledge, including their comprehension of elements like parts of speech, sentence structures, and morphology. This gap also applies to studies exploring the relationship between explicit linguistic knowledge and academic success in all subjects, the effects of different curricular strategies on metalinguistic awareness, and the long-term development of these abilities. Additionally, there is minimal research on how prepared teachers are for providing explicit linguistic instruction and how linguistic knowledge differs among various demographic groups. This lack of data poses substantial obstacles to effective

curriculum design, results in pedagogical inefficiencies, leaves important learning deficits unaddressed, and complicates informed policy-making, highlighting the pressing need for more targeted research in this domain.

3.2 Studies Related to Parental Involvement and Linguistic Knowledge

Ong'ayo, (2013) used a causal-comparative design to investigate the impact of parental involvement on secondary school students' English language academic performance in Likuyani Sub County. Researchers sought to determine if students with actively involved parents performed better in English. Data collected from 54 students across four secondary schools via questionnaires revealed that 77.7% of students received active parental support for their academic needs. The analysis, employing both descriptive and inferential statistics, conclusively showed a significant positive impact of parental involvement on English language academic achievement. These findings highlight the crucial role parents play in their children's educational success, emphasizing the need for parents to provide scholastic resources, support school activities, and actively engage in their children's academic lives.

Ebuta and Ekpo Eloma (2018) investigated the influence of parental involvement on Senior Secondary Two (SS2) students' academic achievement in English language within the southern educational zone of Cross River State. Through a sample of 376 students, data was collected using a Home Background Variable Questionnaire (HBVQ) and an English achievement test, which was then analysed with Pearson's Product Moment Correlation Analysis. The findings revealed a significant positive relationship between parental involvement and children's education and it was demonstrated in their English language academic performance. The study concluded that when parents actively assist with schoolwork at home, students' academic achievement is likely to be higher. Therefore, it was recommended that parents consistently engage with their children's learning activities at home to enhance academic success.

Miyagi et al. (2021) investigated the relationship between parental involvement and English achievement among high school students in Pangkalpinang, Bangka. Data was collected from a sample of 85 students across three classes, using a questionnaire to gauge parental involvement and students' English report book scores from their teachers. Pearson Product-Moment Correlation analysis revealed a significant positive correlation, with an r_{xy} value of 0.256, exceeding the r -table value of 0.213 at a 5% significance level. This led to the acceptance of the alternative hypothesis and the rejection of the null hypothesis, confirming a significant correlation between parents' involvement and students' English achievement.

Suh (2022) conducted a cross-sectional survey in the Tubah Sub-Division of Cameroon's North-West Region and studied how various aspects of parental involvement would impact the English language academic performance of Class Six pupils. The researcher had focused on four key areas namely, provision of required textbooks and workbooks, expression of concern towards academic work, support with homework, and parental literacy levels. A sample of 80 parents from four primary schools was chosen from a target population of 631 Class Six pupils and their parents across 20 state-approved primary schools in Bambili and Bambui. Using the Chi-Square test for non-parametric data, the study found a significant positive relationship between parental involvement and pupils' English language performance. It was realized from the study that students achieved higher academic results when parents provided necessary textbooks, assisted with homework and expressed concern about academic progress. Interestingly, the study concluded that parental illiteracy was not a barrier to involvement. Based on these findings, the researchers recommend that parents actively participate in their children's education by providing resources, assisting with homework, attending school meetings, and monitoring progress. Teachers and school authorities are encouraged to support parents in setting realistic goals, reinforcing achievements, promoting English language use at home, and regulating study time.

Melanium et al. (2023) endeavoured to investigate the extent and nature of the relationship between parental involvement and students' English learning achievement, hypothesizing a positive and significant connection. The research utilized a product-moment correlational analysis on a sample of 91 Class VIII students. The findings indicated a highly significant relationship, with a p -value of 0.00, which is less than 0.05. This result led to the rejection of the null hypothesis and acceptance of the alternative hypothesis, confirming a strong and statistically significant positive relationship between parental involvement and students' English learning achievement. It shows that the higher the involvement of parents, the better is student's learning and that learning of the language will decrease if the parents do not show involvement.

Evaluation

Even though parental participation is widely acknowledged to be essential for academic achievement in a variety of areas, there are still very few empirical research that particularly look at how it affects high school children's acquisition and competence of the English language. Although early language development and general academic support are frequently mentioned in research, less attention has been paid to the special ways parents can promote secondary English learning, such as helping children with vocabulary growth, reading comprehension, and communication abilities. The creation of focused treatments and resources for parents is hampered by this gap, which could lead to the loss of an important, untapped resource for enhancing adolescent English learning outcomes.

3.3 Studies Related to School Environment and Linguistic Knowledge

Obeka, (2016) analyzed the relationship between the school learning environment and students' attitude and achievement in English language. Their examination covered various environmental components, from classroom conditions and essential infrastructure like libraries and labs, to furniture and vital instructional materials. A critical observation was that numerous schools, particularly in Nigeria, are plagued by dilapidated buildings, structural deficiencies, and a general lack of conducive facilities. The paper posits that such an unfavorable environment directly contributes to students developing a negative attitude towards English, which in turn leads to poor academic results. Given this, a significant recommendation was to prioritize the renovation and aesthetic improvement of old school buildings nationwide to instill a more positive attitude in students, thereby enhancing their English language performance.

Umar, (2017) investigated on how the classroom environment influences the learning of English as a foreign language among a group of first-grade students in secondary schools located in Gezira State, Sudan. The classroom environment significantly affects students' academic performance and supports their overall growth. For students, the classroom serves not only as a place for intellectual learning but also as a social, emotional, and physical setting. Therefore, the aim of the study was to explore the impact of the classroom environment on the process of learning English as a foreign language for first-grade students in secondary schools. The study adopted an experimental methodology to achieve its goals. The Experimental group, which included 122 students, was placed in three well-renovated classrooms; in contrast, the Control group consisted of 135 students studying in non-renovated schools with relatively poor classroom conditions. Both groups received the same English language instruction from teachers who had comparable qualifications and experience during the first term of the 2016 academic year. Their scores on the English Final Examination were compared to evaluate the effect of the classroom environment on student achievement. These results were compiled and analyzed using descriptive statistics and the findings indicate that there were notable differences in the English achievements of the Experimental and Control groups, with the Experimental group outperforming the Control group, having learned in more favorable classroom conditions. The researcher has also investigated the perspectives of administrators and teachers concerning the learning environment in the study area and its potential influence on students' success in English. The study concludes with several recommendations, including the need for further research into the environmental impact on other subjects and the academic performance of female students.

Lodhi et al., (2019) explored the crucial role of the school learning environment in the academic success of English language learners in government schools. The authors conducted a quantitative survey among students, teachers, and head teachers to understand the influential factors. Their findings clearly demonstrated that a supportive school environment makes a significant difference in ESL learners' performance and accomplishment. Importantly, the study also revealed that positive student-teacher and teacher-parent relationships actively strengthen language learning. Therefore, the authors strongly advocate for creating school environments that are highly conducive to English language learning, arguing that these environmental factors are just as vital as the instructional approaches used by ESL teachers.

Nwokedi (2023) gathered valuable insights from both students and teachers within a diverse urban secondary school utilizing a mixed-method approach that combined surveys with focus group discussions. As classroom environment is a powerful force in shaping students' academic performance and engagement, especially in English language learning, the research delved into how various elements such as the physical layout, the quality of teacher-student interactions, the nature of peer interactions, the specific teaching strategies employed, and the assessment techniques. The results underscore that a favorable physical environment, positive relationships, innovative instructional methods, and fair assessment practices profoundly affect students' motivation and ultimately their English language performance. This work offers practical recommendations for enhancing the classroom environment to promote superior language acquisition and academic outcomes, thereby enriching our understanding of the classroom's role in shaping learning experiences.

Evaluation

There is a noticeable lack of empirical research particularly examining how different aspects of the school setting affect high school students' English language learning and proficiency, despite the fact that the wider effects of the school environment on academic performance are widely known. There is little in-depth investigation of the complex impacts of elements like classroom environment, peer relationships, access to English-rich resources, and the general school culture on teenage English learners. Instead, existing research frequently concentrates on teaching strategies or curriculum design. This oversight could impede targeted improvements in pedagogical practices and resource allocation because educators and policymakers lack comprehensive data on how to optimize the school environment to create more effective and conducive learning spaces for secondary English language development.

4. Title of the Problem

The review done from the available relevant literature, relating to the present research area, led the investigators to conceptualize the problem in an attempt to fill in the lacunae found.

Thus the problem is stated as here under:

Enhancement of English Language Skills using Language Laboratory: An Analysis of its Environmental and Educational Attributes

5. Objectives of the Study

- I.To investigate the possible relationship between the independent variables, parental involvement and school environment and dependent variable, enhancement of English language skills using language laboratory and
- II.To investigate the possible significant difference between the pre-test scores of parental involvement, school environment and linguistic knowledge among standard IX students in Control and Experimental Groups.

6. Hypotheses

- I.There will be a significant relationship between the independent variables, parental involvement and school environment and dependent variable, enhancement of English language skills using language laboratory and
- II.There is no significant difference between the pre-test scores of parental involvement, school environment and linguistic knowledge among standard IX students in Control and Experimental Groups.

7. Method of Investigation

The present study deals with the analyses of pre and post test scores of the control and experimental groups where the intervention is given to the experimental group for a period of 30 days and traditional method of instruction to the control group with respect to parental involvement, school environment and enhancement of English language skills using language laboratory at the secondary level.

7.1 Population and Sample Characteristics

A Government-aided Girls Higher Secondary School, in Chennai district, is chosen for the experimental study (30 students as experimental group and 30 students as control group). The English medium students of standard IX following the Tamil Nadu State Board Syllabi are selected. For validation of the tools, the investigator will select experts from schools and colleges of Education. The experts include Teacher Educators and Teachers of English from higher secondary and secondary schools belonging to government, government-aided and unaided sectors; comprising of both male and female experts.

7.2 Tools used for the Study

The variables chosen for the present study necessitated selection of relevant tools, which were adapted and modified by the investigators.

The tools to be used for assessment of the variables are as follows:

1. Parental Involvement Scale (Adapted from Prattana Charoenlap (2017) and modified by the investigators)
2. School Environment Scale (Adapted from Lodhi et al. (2019) and modified by the investigators)
3. Linguistic Knowledge (Developed by the Investigators)

The tools chosen are found to be suitable, workable, reliable and valid

8. Analyses of Data

The result of the analyses of data collected are compiled and presented in tables below:

Statistical analyses will be based on the hypotheses formulated for the present study. It is envisaged to be multivariate statistical analyses as the study includes multiple variables.

Table-1: Simple Correlation Matrix between Independent Variables and Enhancement of English Language Skills using Language Laboratory among Standard IX Students (N=60)

Variables	Parental Involvement	School Environment	Enhancement of English Language Skills
Parental Involvement	1	0.62**	0.54**
School Environment	X	1	0.30*
Enhancement of English Language Skills	X	X	1

**Significant at 0.01 level

*Significant at 0.05 level

It is seen in the table above (Table-1) that all independent variables, parental involvement and school environment correlate significantly and positively with the dependent variable, Enhancement of English language skills of standard IX students at the secondary level.

Table-2: Statistical Analysis of Means of Pre-test Scores of Parental Involvement, School Environment and Linguistic Knowledge among Standard IX Students in Control and Experimental Groups

Variables	Groups	Sample Size	Mean	SD	SEM	SED	CR	Level of Significance
Parental Involvement	Control Group	30	74.0	11.31	2.06	3.87	0.60	0.55 ^{NS}
	Experimental Group	30	76.3	17.95	3.28			
School Environment	Control Group	30	79.6	22.58	4.12	6.37	0.52	0.60 ^{NS}
	Experimental Group	30	82.9	26.61	4.86			
Enhancement of English Learning	Control Group	30	28.4	4.77	0.87	1.35	0.47	0.64 ^{NS}
	Experimental Group	30	29.0	5.67	1.03			

NS-Not Significant

In Table-2 the mean and standard deviation of pre-test scores of parental involvement are 74.0 and 11.31 respectively among standard IX students in the control group and 76.3 and 17.95 respectively among standard IX students in the experimental group. The critical ratio value is 0.60, which is not significant.

The mean and standard deviation of pre-test scores of school environment are 79.6 and 22.58 respectively, among standard IX students in the control group and 82.9 and 26.61 respectively among standard IX students in the experimental group. The critical ratio value is 0.52, which is not significant.

The mean and standard deviation of pre-test scores of linguistic knowledge are 28.4 and 4.77 respectively among standard IX students in the control group and 29 and 5.67 respectively among standard IX students in the experimental group. The critical ratio value is 0.47, which is not significant.

It is evident that there is no significant difference in the pre-test scores of parental involvement, school environment, and linguistic knowledge among standard IX students in control and experimental groups.

9. Discussion

Parental involvement, whether through support at home or participation in school activities, is a significant predictor of both academic success and socio-emotional growth by promoting a positive attitude towards learning in children. At the same time, a caring and inclusive school atmosphere, characterized by strong relationships and effective teaching methods, is vital for student well-being, engagement in academics, and the development of important skills such as critical thinking. Likewise, a solid foundation in language enhances all areas of learning, allowing students to understand, express, and integrate information across different subjects. Parental encouragement in the early stages of language development readies children for school, while a nurturing school environment reinforces language skills and promotes increased parental participation. Grasping these interrelated factors is crucial for creating well-rounded educational strategies that effectively cater to the learning and growth of all students.

Therefore, the present study was carried out in order to gauge the influence of parental involvement and school environment on enhancement of English language skills using language laboratory and it was found that there is no significant difference among parental involvement, school environment and linguistic knowledge among standard IX students, which could suggest that within this specific educational context such as standard IX, a basic level of support and linguistic proficiency would have been already established due to earlier interventions such as consistent educational support or similar pedagogical approaches and techniques. It could also convey that students at secondary level are not given adequate importance for enhancing English language skills by parents and school due to the pressure for scoring higher marks in science subjects and mathematics. The need to learn languages are overlooked and maybe other subjects are given importance to face board exams by standard IX students. This finding also conveys that research should be carried out at primary level to statistically analyze the influence of parental involvement and school environment on enhancement of English language skills using language laboratory.

10. Conclusion

The present research, Enhancement of English Language Skills using Language Laboratory: An Analysis of its Environmental and Educational Attributes was attempted to find out whether the use of a language laboratory would enhance English Language Skills along with the right attitude, interest towards learning English Language, the involvement of parents at home and appropriate school environment consisting of teachers, peer students and apt infrastructure and the findings clearly indicated that the language laboratory serves as an effective pedagogical tool in improving English language proficiency among secondary students, mediated by the psychological, educational and environmental attributes that surround the learner.

It was found that Parental Involvement did not emerge as a supportive force in determining the learning ability and sustained interest of students. Since some of the parents were uneducated, they did not support their wards for consistent practice at home through continuous monitoring as they believed that learning English Language is not very vital for their children's future studies and career. Equally, the presence of a conducive school environment consisting of well-maintained language lab, effective teachers and opportunities to use English in interactions, did not induce interest in students for learning the language.

The study confirms that language laboratories can significantly enhance English language skills through consistent use and practice. However, the success will get enhanced only when combined with favourable attributes, such as positive attitude, sustained, genuine interest, supportive parental involvement during learning hours at home and an encouraging school climate in the premises. Thus, the stakeholders should adopt a holistic approach towards learning of English language using the Language Laboratory, remembering the effect of these psychological, educational and environmental attributes.

Reference

1. Charoenlap, P (2017). Parental Involvement in their Children's English Language Learning: The Case of Parents Working at a State Enterprise, Thammasat University, Bangkok, Thailand.
2. Devi, A.P. (2023). Relationship between English Proficiency and Academic Achievement of Indonesian EFL Postgraduate Students. <https://doi.org/10.31949/jell.v7i1.5566>
3. Ebuta, C.N. and Ekpo-Eloma, E. O. (2018). Influence of parental involvement on their children's education and their academic achievement in English language. *Global Journal of Educational Research*, 13(1), 31–36.
4. Habibie, A. and Wiyanti, W. (2022). The linkage regarding students' level of linguistic intelligence and their English academic performance. *Journal of English Teaching and Linguistic Issues*, 1(3), 124–133.
5. Lodhi, M.A., Sahar, A.H., Qayyum, N., Iqbal, S. and Shareef, H. (2019). Relationship of School Environment and English Language Learning at Government Schools. *Public Administration Research*, 8(1), 1–13.
6. Melanium, M., Afriani, S.H. and Husna, H. (2023). The Relationship between Parental Involvement and Students' English Learning Achievement of the Eight Grade Students in Palembang. <https://doi.org/10.24815/eej.v14i3.32826>
7. Miyagi, T., Supiah, S. and Sugiarto, D. (2021). The Correlation Between Parents' Involvement and English Achievement of High School Students. *English Education Journal*, 1(2), 36–45.
8. Nwokedi, B.F.C. (2023). Influence of Classroom Environment on the Academic Performance of Students in English Language. <https://doi.org/10.59890/ijasse.v1i4.732>
9. Ohakamike-Obeka, N. (2016). The School Learning Environment and Students' Attitude and Achievement in English Language. *Research on Humanities and Social Sciences*, 6(2), 31–37.
10. Ong'ayo, D.A. (2013). The influence of parental involvement on students' academic performance in english language among secondary school students in Likuyani sub-county, Kakamega County. <http://erepository.uonbi.ac.ke/handle/11295/74231>
11. SUH, I.F. (2022). Parental Involvement and Pupils' Academic Performance in English Language. *Journal of Language and Linguistics in Society*, 24, 21–32.
12. Tian Tian, X. X., Zhang, G. and Park, K.-H. (2022). The Influence of English Literacy on High School Students' Academic Achievement. *International Journal of Learning, Teaching and Educational Research*, 21(9), 477–493.
13. Umar, A.-M. A. (2017). The Effect of Classroom Environment on Achievement in English as a Foreign Language (EFL): A Case Study of Secondary School Students in Gezira State: Sudan. *World Journal of English Language*, 7(4), 1.
14. Wahyoedi, B. and Barus, I.R.G. (2022). Investigating Teacher's Linguistic Competence in Teaching English for Academic Purposes. *International Journal of English and Applied Linguistics (IJEAL)*, 2(3), 348–360.