



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

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

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

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

*Corresponding Author: Dr. S. Chamundeswari

*Principal, N.K.T. National College of Education for Women, Chennai, 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 Psychological and Educational Attributes, *Educational Administration: Theory and Practice*, 30(3) 3447-3456
Doi: 10.53555/kuey.v30i3.10569

ARTICLE INFO ABSTRACT

The present study investigates the influence of Attitude towards Learning English Language and Interest for Learning English Language 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 Attitude towards Learning English Language (Adapted from Yulian et al. (2023) and modified by the investigators), Interest for Learning English Language (Adapted from Dian Nirmala Sari (2021) 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 Attitude towards Learning English Language, Interest for Learning English Language and Enhancement of English Language Skills using Language Laboratory 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 Attitude towards Learning English Language, Interest for Learning English Language and Enhancement of English Language Skills using Language Laboratory.

Keywords: Attitude, Interest for Learning English, Enhancement of English Language Skills, Language Laboratory, Linguistic Knowledge.

1. Introduction

Among the core values of National Assessment and Accreditation Council, An Autonomous Institution of the University Grants Commission, “fostering global competencies among students” and “promoting the use of technology” stress the importance of inculcating skills to students for reaching global standards on par with their counterparts and the use of modern tools and technological innovations for teaching-learning process. Accordingly, NAAC accredited institutions prioritize use of technology for academics and administration and development of student skills, especially enhancement of communication skills.

With regard to development of communication skills, the enhancement of English language skills is crucial for a plethora of reasons, which impact personal growth, academic progress and professional advancement. The acquisition of English language skills facilitates improved communication for higher education and career opportunities. It fosters communication with people of diverse backgrounds for international understanding, collaboration and cultural enrichment. It is a well-known factor that proficiency in English can amplify self-confidence of individuals for social and professional occasions. It should also be borne in mind that world’s significant amount of knowledge like academic articles, research and all content available online is in English. Subsequently, learning of English language skills is of paramount importance at all times immemorial.

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 attitude towards learning English and interest for learning English.

2. Need for the current research

In an increasingly interconnected global scenario, proficiency in English communication has become an indispensable asset that opens doors to educational opportunities, career advancement, and cross-cultural understanding. However, many learners face significant challenges in terms of developing effective English communication skills. Accordingly, understanding the multifaceted factors influencing English Language development is crucial for designing targeted interventions and improving pedagogical approaches. And therefore, this study investigates the interplay of several key elements: Attitude towards learning English Language, Interest for learning English language, existing Linguistic Knowledge, level of Parental involvement, and the School environment.

Learners' attitudes towards learning English Language and their interest for learning English language are powerful internal motivators. A positive attitude fosters openness to new learning experiences, resilience in facing challenges, and willingness to actively engage with the language. Similarly, genuine interest drives intrinsic motivation, leading learners to seek opportunities for practice, explore authentic materials, and persist on their learning journey. Studying these affective factors is essential, because negative attitudes or a lack of interest can create significant barriers to learning, regardless of the quality of instruction or resources available. Research in these areas can help identify how to cultivate more positive dispositions and spark greater interest among learners.

Furthermore, 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

Albashtawi et al. (2016) investigated the linguistic knowledge aspect in academic reading, the challenges faced and strategies adopted by English major undergraduates at a Jordanian Higher Education Institution. The study was conducted among 297 English major undergraduates at Hashemite University and it aimed to identify the challenges students face in academic reading and the strategies they employ, recognizing academic reading's crucial role in overall academic success. Using a questionnaire, data was gathered and analyzed with SPSS, employing descriptive statistics, Post Hoc Tests, Scheffe Method, and frequency analysis. The questionnaire demonstrated high internal consistency reliability, with Cronbach's alpha coefficients of 0.93 for reading difficulties and 0.87 for deployed strategies. The findings revealed that students struggled primarily with insufficient knowledge of text structure, constructing meaning, and fluent reading. In terms of strategies, metacognitive strategies were the most frequently used, followed by social strategies. Cognitive strategies were the least utilized. The study concluded with several pedagogical implications for educators.

Izatullah et al. (2022) investigated the connection between English language proficiency and academic performance among undergraduate students in higher education institutions where English is a second language. The study, involving 300 undergraduates from two institutions, utilized a British Council-developed English proficiency test to gather data. Through descriptive statistics and correlation analysis, the findings revealed a significant positive relationship between English proficiency and academic success. This led the authors to recommend implementing more language proficiency trainings and courses for undergraduate students.

Heinrich (2023), in his chapter, *Revisiting the Language Lab in the Age of Online Learning: Videoconferencing, Teacher Feedback, and Learner Self-Correction*, published in *Language Education during the Pandemic: Rushing Online, Assessment and Community*, has expressed that learning strategies have witnessed a drastic change following the COVID-19 emergency, ensuing Remote Teaching practices such as the use of technology of the language lab through blended learning with online education settings. Based on a behaviorist approach, language labs were considered state-of-the-art in most schools, colleges, and universities. He states that when oral pattern drills were widely criticized by theorists and practitioners alike, the focus on learners' oral production and self-correction supports today's technology-enhanced language classroom. His chapter explores how videoconferencing software allows learners to interact with each other in a virtual classroom setting, enabling students to analyze and correct their language production at a later stage, just like a language

lab. Furthermore, his research explores how the features of online language teaching can enhance formative assessment practices beyond remote teaching.

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 Attitude towards Learning English Language and Enhancement of English Language Skills using Language Laboratory

The attitude a person has towards learning a language determines the success or failure of learning it. Gedamu and Kuche (2018) studied EFL learners' attitudes towards communicative language learning and the relationship between learners' attitudes and English language achievement. They adopted survey research design and 217 students belonging to 11th Grade were selected through random sampling technique. Attitude questionnaire, achievement test and interview were used for data collection. In order to find students' attitudes towards communicative language learning, the mean score obtained from attitude scale and qualitative descriptions of the interview data were utilized. Similarly, to address the relationship between students' attitudes to communicative language learning and English language achievement, and to decide the predictive power of attitude on learners' English language achievement, Pearson correlation and regression were applied respectively. Additionally, t-test was made use of to find out whether gender caused differences or not. It was found that positive attitude towards communicative language learning significantly contributed to achievement scores of students. Similarly, it was also seen that gender did not influence a person's attitude towards communicative language learning.

Idris, et al. (2021) studied the attitudes and achievement motivation of Arab Postgraduate Students towards the learning of English Language in selected Malaysian Public Universities. Educators believe that motivation and attitude are linked with classroom learning and they are important elements for second language learning process. Attitude is needed for understanding human behaviour and it is considered as a mental state that includes feelings and beliefs. In review carried out, the researchers explain the concept of attitude and its models, attitudes and language acquisition, and achievement motivation and its theories. The study shows that Arab postgraduate students have some positive attitudes towards the learning of the English Language and are also motivated towards the learning of the English Language as they understand the importance of English language in their academic and professional lives. Both intrinsic and extrinsic motivations have influenced their learning process. From the study, it was found out that positive attitude can lead to higher motivational levels, thereby improving language acquisition. The researchers conclude that educators should cater to developing positive attitudes and motivation among students to enhance their language learning experiences. Tran Quang Thao (2021) investigated non-English majors' attitudes towards autonomous technology-based language learning (ATLL) at Da Lat University. Recognizing the crucial role of technology in modern language education, the study explores student perceptions of ATLL through questionnaires and semi-structured interviews. Findings reveal generally positive attitudes towards ATLL, with students demonstrating strong cognitive awareness of technology's importance in autonomous learning and positive affective feelings towards its use. However, behavioural attitudes, specifically regarding the implementation of technology-based learning activities, exhibited some uncertainty. These findings provide valuable insights into the potential of technology to enhance learner autonomy and inform the effective integration of technology into autonomous English language teaching and learning practices.

Agus Husein As Sabiq (2021) investigated the impact of gender on students' attitudes and motivation towards English language learning in a junior high school in Banyumas Regency, Indonesia. While previous research has explored gender differences in learning outcomes, this study delves deeper by examining the interplay between gender, attitudes, and motivation. Utilizing the Attitude/ Motivation Test Battery (AMTB) and interviews, the study found significant gender differences in attitudes and motivation, with female students demonstrating higher scores. Qualitative analysis revealed that limited real-life communication practice and exposure to English contributed to lower motivation among male students. These findings underscore the importance of providing authentic learning experiences, such as increased exposure to real-world English and opportunities for authentic communication, to enhance the motivation and engagement of all students, particularly male learners.

Ajam et al. (2023) studied the Students' English Achievement, Perception and Attitude in English Language Teaching and found students' attitudes to be positive and significant towards learning English and their

achievement. 276 persons formed the population of this study and one class out of seven was chosen through random cluster sampling method. A perception survey, an attitude survey and an achievement test were the tools used. Students' perceptions towards English instruction and attitudes towards learning English were gathered through questionnaires, which reflected English proficiency of students. And the findings concluded that attitudes towards learning English and English achievement correlate with perceptions of English instruction's effectiveness. The correlation coefficient (R^2) was calculated and the result was .588 and the multiple correlation coefficient (R) was .767. As a result, attitude and perception "accounted for" 58.8% of the accomplishment, with neither factor having an impact on the remaining 41.2%. Recommendations are given to EFL teachers and other scholars who want to further investigate the topic in the future based on the findings. These suggestions highlight how important it is to maintain attitude and perception in order to improve pupils' English proficiency.

Evaluation

Success in learning English is prominently impacted by attitude, yet there is currently no thorough research on the nature, evolution, and certain factors influencing high school students' attitudes toward learning the language. The knowledge required to understand the complex attitudinal characteristics of this sort is typically lacking in existing studies, which either concentrate on pedagogical interventions or generally connect attitude with achievement. The lack of research on complex attitudinal profiles such as self-efficacy, language anxiety, and intrinsic motivation should be taken into consideration and the effects of certain curriculum elements, pedagogy, and teacher traits are some of the main gaps found during review of related literature. In-depth research on the impact of social media and digital platforms on formal learning attitudes, the significance of contextual and sociocultural elements, and teacher opinions and training regarding student attitudes is also lacking. There is an urgent need for more targeted and thorough investigations since this research gap results in ineffective educational interventions, irrelevant curricula, ignored motivational hurdles, and restricted policy effectiveness.

3.3 Studies Related to Interest for Learning English Language and Enhancement of English Language Skills using Language Laboratory

Lungit (2014) investigated students' interest as an important aspect in the educational system since it helps students to achieve their goal and students with ample interest try their best to accomplish their aims and goals. The study used SIQ questionnaire with 18 questions to identify the interest of Eighth grade students and for analysis, ANOVA and correlation were used. The findings revealed that students have enough interest in learning English and there is a relationship between students' interest in learning English. It was also found that the environment plays an integral part in influencing learning English. The researcher suggests that future investigators should identify the factors that influence students' interest as without interest even a single task cannot be accomplished and this includes various educational settings and demographical variables in order to have holistic understanding of what drives language learning.

Yuliana et al. (2019) have tried to find the correlation between students' learning interest and their English Achievement at Sman 10 Kendari, Indonesia. The method used for the research was correlation and the results of the study showed that there is significant correlation between students' learning interest and their achievement in English. The sample of the study was eleventh grade students of SMAN 10 Kendari, which consisted of 102 students and the technique used was proportional random sampling. They used a questionnaire with 18 items in order to know the student learning interest score. It was known from the study that students' learning interest could affect their achievement. Students who have good interest in learning usually get a better score than the lower ones. They try to pursue knowledge than others. They get attentive in learning the lesson and they become happy and interested to accomplish any task given by the teacher. They continuously attempt to learn English both in the classroom and also at home.

Ginting et al. (2021) conducted a study on students' Interest and Students' Achievement in learning English at SMA Swasta Pertiwi Medan. They used observation and questionnaire techniques to collect data and selected 30 students as a sample from Grade XIA2. They found out that students' interest could influence the achievement of students. Students with high interest try to pursue knowledge for development and they are found to be more attentive in learning the lesson. They have the motivation to enrich their vocabulary, practice English regularly and indulge in a lot of exercises to become more skillful in using the language. Based on the research findings, it was found that there is a correlation between students' interest and their achievement. The researchers have suggested that teachers who teach English in classrooms should ensure that both students with high interest and low interest are motivated towards learning the language and the teachers should kindle students to think creatively.

Katharine et al. (2022) at Nigeria have analyzed the academic interest and self-esteem as correlates of secondary school students' academic achievement in English language. The population consisted of 18, 297 senior secondary students from 261 secondary schools situated in the state of Anambra in Nigeria and proportionate stratified random sampling adopted for the study. The tools used for data collection were students' academic interest scale, self-esteem scale and students' academic achievement scores in English language. Similarly, Pearson Product Moment Correlation and Multiple Regression Analysis were used for data analysis. The study concluded that there is a joint and positive relationship among academic interest, self-

esteem and academic achievement of secondary school students in English language. They have also highlighted the fact that students spend only 45 to 90 minutes per day in school with a teacher of English and therefore that parents should take up their first job as a teacher to their children and support their children in learning the language.

Utami et al. (2023) have attempted to study the correlation between students' interest and their English learning achievement at tenth grade of SMKN 5 Makassar. For this study, correlation method was adopted and students were chosen from tenth grade of SMKN 5 Makassar. Similarly, Questionnaire and English Score Documentation were made use of to collect data and quantitative data analysis was done. And, it was found that there was a positive significant correlation between students' Interest and their English learning achievement, which was proved by the co-efficient correlation score of 0.814 at 5% significant level. Therefore, it was concluded that the higher the interest, higher their English learning achievement will be.

Evaluation

There is a notable lack of thorough study on the nature, development, and drivers of interest, despite the fact that interest is a crucial motivating factor for high school students learning English and has a substantial impact on their engagement and success. Although previous research on attitude and motivation in language learning covers a wide range of topics, it frequently falls short of separating "interest" as a separate concept or offering detailed information on what motivates it in varied high school students. The need to comprehend the unique characteristics of interest such as situational versus individual, the direct impact of particular curriculum content and pedagogical strategies, and the ways in which non-formal English exposure influences formal learning interest are some of the major research gaps. Additionally, little detailed study has been done on the sociocultural and contextual factors that influence interest as well as how teachers perceive and foster interest in the classroom. This research gap highlights the critical need for focused studies to promote sincere and long-lasting enthusiasm in learning English. It results in inefficient curriculum design, ineffective motivating techniques, missing possibilities for deep learning, and limited policy influence.

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 Psychological and Educational Attributes

5. Objectives of the Study

- I.To investigate the possible relationship between the independent variables, attitude towards learning English language and interest for learning English language and the dependent variable, enhancement of English language skills using language laboratory;.
- II.To investigate the possible significant difference between the pre-test scores of attitude towards learning English language, interest for learning English language and linguistic knowledge among standard IX students in Control and Experimental Groups;
- III.To investigate the possible significant difference between the pre and post-test scores of attitude towards learning English language, interest for learning English language and linguistic knowledge among standard IX students in Control and Experimental Groups and
- IV.To investigate the possible significant difference between the post-test scores of attitude towards learning English language, interest for learning English language 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, attitude towards learning English language and interest for learning English language and the dependent variable, enhancement of English language skills using language laboratory.
- II.There will be no significant difference between the pre-test scores of attitude towards learning English language, interest for learning English language and linguistic knowledge among standard IX students in Control and Experimental Groups.
- III.There will be no significant difference between the pre and post-test scores of attitude towards learning English language, interest for learning English language and linguistic knowledge among standard IX students in Control .and Experimental Groups and ;
- IV.There will be no significant difference between the post-test scores of attitude towards learning English language, interest for learning English language 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 Attitude towards Learning English Language, Interest for Learning English Language 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, 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. Attitude towards Learning English Language
(Adapted from Yulian et al, (2023) and modified by the investigators)
2. Interest for Learning English Language
(Adapted from Dian Nirmala Sari (2021) and modified by the investigators) and
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 are 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	Attitude towards Learning English	Interest for Learning English	Enhancement of English Language Skills
Attitude towards Learning English	1	0.48**	0.38**
Interest for learning English	X	1	0.60**
Enhancement of English Language Skills	X	X	1

**Significant at 0.01 level

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

Analysis of Variance with regard to the Pre and Post-Test scores of Attitude towards learning English language, Interest for learning English language and Linguistic Knowledge among Standard IX Students at the Secondary level.

The analysis of variance commonly referred to by the acronym ANOVA, at its lowest level is essentially an extension of the logic of t-tests to those situations where comparison of means of three or more samples, called independent groups concurrently becomes essential. The following tables (Table-3a and Table 3b) exhibit the analysis of variance among standard IX students in control and experimental groups with regard to pre-test scores of Attitude towards learning English language, Interest for learning English language and Linguistic Knowledge among standard IX students at the secondary level

Table-2: Statistical Analysis of Means of Pre-test Scores of Attitude towards learning English language, Interest for learning English language, and Linguistic Knowledge among Standard IX Students in Control and Experimental Groups

Variables	Groups	Sample Size	Mean	SD	SEM	SED	CR	Level of Significance
Attitude towards learning English	Control Group	30	89.4	10.97	2.00	3.01	0.22	0.83 ^{NS}
	Experimental Group	30	90.0	12.35	2.25			
Interest for learning English	Control Group	30	68.4	14.11	2.57	3.50	0.53	0.60 ^{NS}
	Experimental Group	30	66.6	13.01	2.37			
Linguistic Knowledge	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 attitude towards learning English language are 89.4 and 10.97 respectively among standard IX students in the control group and 90 and 12.35 respectively among standard IX students in the experimental group. The critical ratio value is 0.22 which is not significant. The mean and standard deviation of pre-test scores of interest for learning English language are 68.4 and 14.11 respectively, among standard IX students in the control group and 66.6 and 13.01 respectively among standard IX students in the experimental group. The critical ratio value is 0.53 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 pre-test scores of attitude towards learning English language, interest for learning English language, and linguistic knowledge among standard IX students in control and experimental groups.

The analysis of variance between the pre and post-test scores of attitude towards learning English language, interest for learning English language, and linguistic knowledge among standard IX students in control and experimental groups is presented hereunder in the Tables -3a & 3b.

Table – 3a: Statistical Analysis of Means of Pre and Post-test Scores of Attitude towards learning English language, Interest for learning English language, and Linguistic Knowledge among Standard IX Students in the Control Group

Variable	Pre and Post Test Scores	Sample Size	Mean	SD	SEM	SED	CR	Level of Significance
Attitude towards learning English	Pre-test	30	89.38	10.97	2.00	2.80	1.14	0.26 ^{NS}
	Post-test	30	92.58	10.73	1.96			
Interest for learning English	Pre-test	30	68.45	14.11	2.57	3.55	0.28	0.78 ^{NS}
	Post-test	30	69.45	13.40	2.45			
Linguistic Knowledge	Pre-test	30	28.40	4.77	.872	1.38	0.85	0.40 ^{NS}
	Post-test	30	29.57	5.84	1.07			

NS- Not Significant

In Table-3a the mean and standard deviation of attitude towards learning English language are 89.38 and 10.97 respectively for the pre-test scores and 92.58 and 10.73 respectively for the post-test scores of standard IX students in the control group. The critical ratio value is 1.14 which is not significant. The mean and standard deviation of interest for learning English language are 68.45 and 14.11 respectively for the pre-test scores and 69.45 and 13.4 respectively for the post-test scores of standard IX students in the control group. The critical ratio value is 0.28 which is not significant. The mean and standard deviation of linguistic knowledge are 28.4 and 4.77 respectively for the pre-test scores and 29.57 and 5.84 respectively for the post-test scores of standard IX students in the control group. The critical ratio value is 0.85 which is not significant. It is evident that there is no significant difference in pre-test and post-test scores of attitude towards learning English language, interest for learning English language, and linguistic knowledge among standard IX students in control group. The analysis of variance between the pre and post-test scores of attitude towards learning English language, interest for learning English language, and linguistic knowledge among standard IX students in experimental group is presented hereunder in the Table-3b.

Table – 3b: Statistical Analysis of Means of Pre and Post-test Scores of Attitude towards learning English language, Interest for learning English language, and Linguistic Knowledge among Standard IX Students in the Experimental Group

Variable	Pre and Post Test Scores	Sample Size	Mean	SD	SEM	SED	CR	Level of Significance
Attitude towards learning English	Pre-test	30	90.04	12.35	2.25	2.95	2.83	0.006**
	Post-test	30	98.40	10.41	1.90			
Interest for learning English	Pre-test	30	66.58	13.01	2.37	3.60	3.15	0.003**
	Post-test	30	77.90	14.80	2.70			
Linguistic Knowledge	Pre-test	30	29.03	5.67	1.03	1.36	3.36	0.001**
	Post-test	30	33.60	4.82	0.88			

****Significant at 0.01 level**

In Table-3b the mean and standard deviation of attitude towards learning English language are 90.04 and 12.35 respectively for the pre-test scores and 98.40 and 10.41 respectively for the post-test scores of standard IX students in the experimental group. The critical ratio value is 2.83 which is significant. The mean and standard deviation of interest for learning English language are 66.58 and 13.01 respectively for the pre-test scores and 77.90 and 14.80 respectively for the post-test scores of standard IX students in the experimental group. The critical ratio value is 3.15 which is significant. The mean and standard deviation of linguistic knowledge are 29.03 and 5.67 respectively for the pre-test scores and 33.60 and 4.82 respectively for the post-test scores of standard IX students in the experimental group. The critical ratio value is 3.36 which is significant. It is evident that there is a significant difference in pre-test and post-test scores of attitude towards learning English language, interest for learning English language, and linguistic knowledge among standard IX students in the experimental group.

Table-4: Statistical Analysis of Means of Post - test Scores of Attitude towards learning English language, Interest for learning English language and Linguistic Knowledge among Standard IX Students in Control and Experimental Groups

Variables	Groups	Sample Size	Mean	SD	SEM	SED	CR	Level of Significance
Attitude towards learning English	Control Group	30	92.58	10.73	1.96	2.73	2.13	0.037*
	Experimental Group	30	98.40	10.41	1.90			
Interest for learning English	Control Group	30	69.45	13.40	2.45	3.64	2.32	0.024*
	Experimental Group	30	77.90	14.80	2.70			
Linguistic Knowledge	Control Group	30	29.57	5.84	1.07	1.38	2.92	0.005**
	Experimental Group	30	33.60	4.82	0.88			

****Significant at 0.01 level**

***Significant at 0.05 level**

In Table-4 the mean and standard deviation of post-test scores of attitude towards learning English language are 92.58 and 10.73 respectively among standard IX students in the control group and 98.40 and 10.41 respectively among standard IX students in the experimental group. The critical ratio value is 2.13, which is significant. The mean and standard deviation of pre-test scores of interest for learning English language are 69.45 and 13.40 respectively, among standard IX students in the control group and 77.90 and 14.80 respectively among standard IX students in the experimental group. The critical ratio value is 2.32, which is significant. The mean and standard deviation of pre-test scores of Linguistic Knowledge are 29.57 and 5.84 respectively among standard IX students in the control group and 33.60 and 4.82 respectively among standard IX students in the experimental group. The critical ratio value is 2.92, which is significant. It is evident that there is a significant difference in post-test scores of attitude towards learning English language, interest for learning English language, and linguistic knowledge among standard IX students in control and experimental groups.

9. Discussion

The findings of this study reveal a compelling positive correlation among students' attitude towards learning English language, their interest in the language, and the enhancement of their English learning outcomes when utilizing a language laboratory. This interconnectedness suggests a synergistic relationship where each factor significantly influences and reinforces the others, ultimately contributing to a more effective and engaging learning experience.

A positive attitude towards learning English serves as a foundational element. When Standard IX students approach the language with an open mind, a willingness to engage, and a belief in their ability to succeed, they are more receptive to new information and less prone to discouragement. This positive predisposition creates fertile ground for interest to blossom. Conversely, a negative attitude can create a barrier to effective learning, even with the best resources. The language laboratory, in this context, appears to act as a powerful catalyst in fostering and sustaining this positive attitude. Its interactive and engaging nature, moving beyond traditional rote learning, can transform English lessons from a chore into an exciting endeavor, thereby improving overall student disposition towards the subject.

Interest in learning English is a crucial motivational driver. When students are genuinely interested, they are inherently more curious, attentive, and proactive in their learning journey. This intrinsic motivation leads to deeper engagement with the material, a greater desire to practice, and a more resilient approach to challenges. The language laboratory, with its multimedia resources, real-life simulations, and opportunities for interactive communication, directly appeals to and cultivates this interest. By offering varied and stimulating activities such as listening to authentic accents, recording their own speech for pronunciation practice, and participating in interactive dialogues, the laboratory environment makes learning English more dynamic and relevant. This hands-on experiential approach can significantly elevate students' interest levels compared to passive learning methods.

The enhancement of English learning through the language laboratory is not merely an outcome but also a reinforcing factor for both attitude and interest. The immediate feedback mechanisms, personalized practice opportunities, and exposure to diverse linguistic inputs provided by the laboratory environment directly contribute to improved proficiency in various aspects of English, including listening, speaking, pronunciation, and even grammar and vocabulary through contextual usage. As students perceive their own progress and experience tangible improvements in their English skills, their confidence grows. This success, in turn, positively reinforces their attitude towards the subject and deepens their interest in continued learning. The positive feedback loop established within the language laboratory environment—where engagement leads to improvement, which then fuels further engagement—is a powerful driver for sustained academic growth.

10. Conclusion

The present research, *Enhancement of English Language Skills using Language Laboratory – An Analysis of its Psychological, Educational and Environmental 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 students with a positive attitude towards learning English and an unwavering high level of interest for the language were more receptive to the language lab activities and exercises and demonstrated better skill acquisition, especially in listening, speaking and pronunciation. Though the students were exposed to all the LSRW Skills and grammar, they were exceedingly interested in Spoken English, learning the sounds of the language and Practical Grammar, which form an integral part of learning the language. Similarly, the interest level was closely associated to active participation in the language laboratory and sustained engagement with the technology-enhanced learning process.

The study confirms that language laboratories can significantly enhance English language skills through consistent use and practice. However, the success is 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.

The analysis of pre-test and post-test data provides compelling evidence for the positive impact of language laboratory intervention on Standard IX students' attitude towards learning English, their interest in the subject, and their overall learning enhancement. Prior to the intervention, the pre-test scores revealed baseline levels of attitude and interest, along with initial English proficiency. Following a period of consistent engagement with the language laboratory, the significant improvements observed in the post-test scores strongly suggest that the interactive and multimedia-rich environment of the laboratory played a crucial role in fostering a more positive disposition towards English, substantially increasing student interest, and demonstrably enhancing their linguistic capabilities. This observed shift from pre-intervention to post-intervention highlights the efficacy of the language laboratory as a pedagogical tool that not only improves learning outcomes but also positively transforms the affective domain of the learners, creating a more engaged and motivated group of students.

Reference

1. Ajam, A., Rizal, A., Sahmadan, S., & Ridayani, R. (2023). The Students' English Achievement, Perception and Attitude in English Language Teaching. *Journal of English Culture, Language, Literature and Education*. 11(2),250-263.
2. Albashtawi, A. H., Jaganathan, P., & Mehar Singh, M. (2016). Linguistic Knowledge Aspects in Academic Reading: Challenges and Deployed Strategies by English-Major Undergraduates at a Jordanian Institution of Higher Education. *Higher Education Studies*, 6(3), 61–71.
3. As Sabiq, A. H. (2021). The impact of gender on students' attitudes and motivation towards English language learning: A study at a junior high school in Banyumas Regency. *Journal of English Language Teaching and Linguistics*, 6(3), 651–668.
4. Sari, D.N. (2021). Survey of students' Interest in Learning English at the Seven Grade of MTS,MIFTAHUL MA'ARIF PELAMBIK in academic year 2021/2022, Thesis of Sarjana, State Islamic University (UN) of Mataram, Indonesia.
5. Gedamu, A.D., & Kuche, E. (2018). The Relationship between Attitude towards Communicative Language Learning and English Language Achievement among Ethiopian EFL Learners. *International Journal of Foreign Language Teaching and Research*, 6(21), 11–19.
6. Ginting, W., Risnawaty, R., & Harianto, H. (2021). The Correlation between Students' Interest and Students' Achievement in Learning English. <https://doi.org/10.32696/ijeal.v1i1.1058>
7. Heinrich (2023). "Revisiting the Language Lab in the Age of Online Learning: Videoconferencing, Teacher Feedback, and Learner Self-Correction" *Language Education During the Pandemic*.87-108.
8. Idris, M. O., Yusuf, M., Hanif, M. H. M., Adekunle, S. M., & Kayode, B. K. (2021). An Appraisal of the Attitudes and Achievement Motivation of Arab Postgraduate Students towards the Learning of the English Language in Selected Malaysian Public Universities. 11(1), 34-36.
9. Izatullah, S., Nasir, R., & Gul, F. (2022). A Study to Examine the Relationship between English Language Proficiency and Academic Achievement of Students in Higher Education Institutions. *Global Educational Studies Review*, VII(I), 164–171.
10. Katharine, A., Mbachu, C. U., & Akunne, L. I. (2022). Academic Interest and Self-esteem as Correlates of Secondary School Students' Academic Achievement in English Language in Nigeria. *Advances in Research*, 23(3),13–22.
11. Lungit, D. D. (2014). The relationship between the students' interest in learning english and their academic achievement in smp brawijaya smart school. 5(7). <http://jimbastrafib.studentjournal.ub.ac.id/index.php/jimbastrafib/article/view/497>
12. Novi Dwi Yuliani, Lailatun Najmiah, Beny Hamdani, Bambang Widi Pratolo (2023). EFL Students' Attitude Toward English Language Learning. *Journal of English Language and Pedagogy*, 6(1),82-91.
13. Thao, Tran Quang. "Students' Attitudes towards Autonomous Technology-Based Language Learning: A Case Study at Da Lat University." *International Journal of Language and Literary Studies*, 3(4), 1–15.
14. Utami R, W. A., Kadar, A. S., & Darmuh, M. M. (2023). Exploring the correlation: students' interest and their english learning achievement. *Klasikal: Journal of Education, Language Teaching and Science*. 5(1),246-253.
15. Yuliana, Y., Sale, F., & Nggawu, L. O. (2019). The correlation between students' learning interest and their english achievement at sman 10 kendari. 4(4), 375.