

# The Impact of Multimodal Learning Strategies on Enhancing Communication Skills Among Engineering Students

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## Abstract

This study investigates the impact of Rauding—a simultaneous process of reading and listening—on enhancing communication skills among first-year undergraduate engineering students. Rooted in Carver’s Rauding Theory, which merges “reading” and “auding” to support dual-mode language comprehension, the research aimed to determine whether such multimodal input improves students’ expressive skills, particularly speaking and writing. Ninety students participated in the experiment, divided into two equal groups based on prior English proficiency. Using dialogues designed by the Regional Institute of English and the RK Communication Skills Test as a measurement tool, students underwent fifteen 45-minute Rauding sessions over three weeks. Comparative analysis of pre- and post-test scores revealed significant improvements across all four language skills. These results underscore the effectiveness of Rauding as a pedagogical strategy to strengthen both receptive and productive skills in ESL contexts. The findings advocate for incorporating multimodal learning techniques into communication skills training programs, especially in technical education settings.

## Introduction

Men, as social beings, live in a society, conveying their thoughts and ideas to one another. Language is the instrument through which ideas are transmitted from one mind to another. Language is a system of communication and as such it is essential for human society and every society has its own language.

All living things have ways of transmitting information within their own group; communication is essential to their survival. In this regard, some use vocal voices, others physical movements and others facial expressions. Man is unique in the sense that he was created in a very complex way. A comprehensive system of communication, therefore, unlike the sign and symbols, which are the modes of communication of the birds and animals, needs a language.

Interest in communication skills has increased dramatically since social scientists first turned their attention to life skills in the mid-1960s. But “over all understanding of communication skills has not reached a level where prescriptive generalisations are warranted”. (The International Encyclopaedia of Education, 1988). Communication skills, a subset of general social skills, involve the manipulation of symbols to achieve some goal. “The concept underlying both teaching and research in this area is that pupils vary in their ability to communicate with others, and that by improving their skills, they will have more effective and satisfying communication experiences”. (The International Encyclopaedia of

Linguistics, 1992). It is interesting to know that for teaching and learning of Communication Skills takes place through Communication itself.

## Language Skills: Four-Fold Analysis

Harris (1974) observes, “Language exists in two forms, the spoken and the written. Two linguistic activities are associated with both speech and writing – an encoding and a decoding process. Speaking and Writing themselves are the encoding processes whereby we communicate our ideas, thoughts, or feelings through one or the other form of language; and listening and reading are the parallel decoding processes by which we comprehend either a spoken or a written message. Thus, language includes four skills or complexes of skills –listening, speaking, reading and writing. It is perhaps in this order that we originally learnt our native language, and it is in that order that foreign languages are now very frequently taught and tested”. The communicative approach to language teaching aims at learner-centred materials for the development of four major skills, viz., Listening, Speaking, Reading and Writing. A four fold analysis of the language skills is presented in the following table.

### Four Fold Analysis of the Language Skills

Medium	Aspect	
	Skills of Comprehension	Skills of Expression
	Receptive/ Passive	Productive/ Active
Spoken Medium	Listening	Speaking
Written Medium	Reading	Writing

As seen in the above table, Language Skills are of two types: Skills of Comprehension which include Listening and Reading and the Skills of \_Expression which include Speaking and Writing. Skills of Comprehension are referred to as Receptive / Passive/ Input Skills and Skills of \_Expression as Productive / Active / Output Skills. The fact that one’s mastery of the Skills of Comprehension serves as the means of one’s proficiency in the Skills of \_Expression needs the special attention of the practising teachers of English, Curriculum Developers and Course Designers alike. The history of English Language Teaching has witnessed the success of any instructional strategy which is not based on the understanding of this important concept.

## ELT Research and Rauding Theory

The world of education has witnessed ceaseless efforts being made at different levels to enhance the students’ communication skills especially in a foreign language. Especially, the field of ELT (English Language Teaching) innumerable number of studies have been conducted with regard to the various aspects of teaching and learning of Communication Skills viz., the psychology of language learning, instructional strategies for improving the students’ language skills, language difficulties and remedial teaching, bi-lingualism, the interaction among the skills of communication and the relative influence of them on one another etc. One such research conducted by Carver (1996) led to the development of Rauding Theory. Rauding means to comprehend words - either written or spoken words. Rauding is a new word that has been derived from the combination of two words: reading and auding. Reading

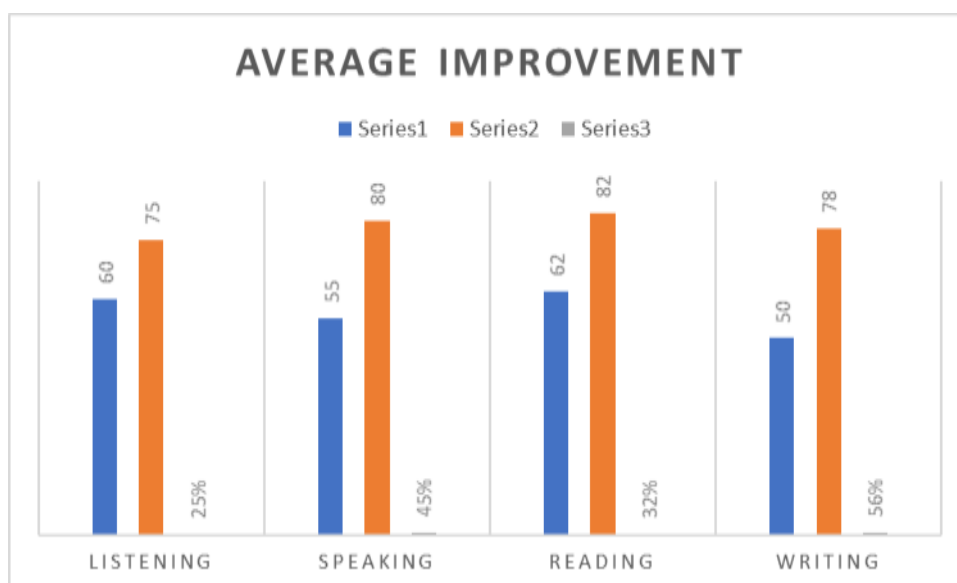
means to look at printed words in order to determine their meaning. Auding means to listen to spoken words in order to determine their meaning. The comprehension process is the same during reading and during auding. Rauding theory is concerned with the typical or normal reading of text, called the "rauding process" to distinguish it from other text reading processes such as scanning, skimming, learning, and recalling. Individuals ordinarily engage their rauding process when they are given texts that are not too difficult in relation to their ability to read accurately. A person who is reading and simultaneously listening to the text which he is reading is said to be "rauding", if the thoughts represented by the printed words are being understood. Thus, while rauding, a student gets a two-way input. Though common sense dictates that a two-way input will lead to better comprehension and have a better output, it requires an experimental research to empirically verify the outcome of a rauding programme.

### **The Rauding Experiment**

An experimental research was planned in order to ascertain the effectiveness of Rauding as a technique of teaching Communication Skills and to find out the impact of a combined practice of reading and listening on the skills of \_expression namely speaking and writing, if any. The experiment was conducted on a set of ninety first year undergraduate engineering students. Dialogues, developed by the Regional Institute of English for practice in the Language Lab were used for the rauding class. The dialogues were thematically structured and linguistically controlled. The copies of the dialogues were given to students before they sat for the rauding sessions. The experiment was conducted on the students during their lab classes in groups of forty five. It was ensured that the students formed two groups of approximately equal language ability, based on their Higher Secondary English marks. A protest was conducted with RK Communication Skills Test, developed by Karpagakumaravel (1995) before they started their rauding sessions. Rauding sessions were provided for practice in the Language Lab and the students listened to the dialogues played on a cassette player, sitting in the Language Lab booths as they read out the same from the handouts given to them. After practising rauding for a period of fifteen days, forty five minutes each, a post-test with the same tool used for the protest was conducted to find out the difference in the performance of the students.

### **The Results**

The data yielded by the tests conducted before and after the experiment were comparatively analysed. The averages of the students' scores in each of the four tests (Listening, Speaking, Reading and Writing Tests) of the RK Communication Skills test were taken for comparison.



**Figure 1 : Average Gains in Listening, Speaking, Reading, and Writing after Rauding Intervention**

The bar chart in Figure 1 illustrates the average score improvements across four core communication skills—Listening, Speaking, Reading, and Writing. Listening skills showed a 25% improvement, indicating that students became more proficient in decoding auditory input. Speaking scores increased by 45%, suggesting that the rauding sessions significantly enhanced verbal fluency and expression. Reading improved by 32%, showing better comprehension and speed—likely due to the dual input of reading while listening. Writing demonstrated the highest gain of 56%, highlighting that the improved comprehension directly contributed to stronger written expression.

The comparative analysis revealed that

- the students' performance in the pre and post tests differed significantly.
- the rauding sessions had a positive impact on the students' performance in the Listening, Speaking, Reading and Writing.
- the students' all the four skills of Communication Skills improved as a result of the rauding sessions.
- there was a remarkable difference in the performance of students in the subtests on Speaking and Writing.
- the combined input of listening and reading have resulted in the students' improvement in the output skills namely Speaking and Writing.
- the students improved their Reading Speed as a result of the combined input in the rauding sessions.
- the students improved their Reading Comprehension as a result of the combined input in the rauding sessions.
- the students showed increased mastery of all the communication skills, besides striking improvement in their reading skills.

## Conclusion

Thus, the present experiment proves the effectiveness of combined input as a means of enhancing the students' Communication Skills. The present experimental study is only a beginning in facilitating such a combined learning experience in the ESL classroom. But, it opens up a new area of research in which a

few more studies could be conducted to validate the effectiveness of rauding as a potential instructional strategy for providing training in the crucial skills of communication to students at different levels.

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