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THE EFFECT OF SCHEMA THEORY ON READING COMPREHENSION IN COMPARISON WITH TRADITIONAL READING APPROACH
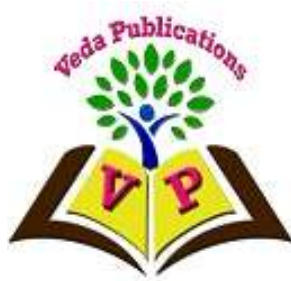
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ABSTRACT

This study was carried out to investigate the effectiveness of using schema theory in comparison with traditional reading approach to improve reading comprehension skills of first year engineering students affiliated to JNTUK, Kakinada during the second semester. The prescribed reading texts were used in this study for examination. The respondents were 120 students who belonged to the branch of Electronics & Communication Engineering (ECE) of Sri Sarathi Institute of Engineering & Technology, Nuzvid. The study was conducted in three stages. The first stage was conducted to understand the opinion of English faculty and first year students on the effectiveness of prescribed lessons in the English text books and their effectiveness in improving reading comprehension skill. The second stage was carried out to find out the present level of students' reading comprehension skill. After understanding from the stage-1 that majority of the English faculty were using traditional reading approach (bottom-up) which was not producing the desired outcome and students were poor in reading comprehension from the second stage-2 of the study, the researcher felt that there was a need for the adopting suitable method in teaching as alternative to traditional reading approach (bottom-up) which was being used in the present classrooms. Hence, a detailed examination was carried out in previous studies to identify a suitable method to overcome the present problem in teaching reading comprehension. From the analysis and observations of all the reading methods used in the past, it was learnt that schema theory (top-down) method was a suitable method because of its effectiveness to teach English reading skills to the second language learners of English. Hence the present study was conducted by implementing schema theory in comparison with traditional reading approach (bottom-up). The results of the study revealed that schema theory (top-down) was more effective in improving the reading comprehension skill of first year engineering students.

Keywords: *Schema Theory (Top-Down) , Traditional Reading Approach (Bottom-Up).*

Reading is the most difficult of all the Language Skills to acquire. It becomes very important at a higher level of language instruction. Though it has been given significant importance in Engineering curriculum in the recent years, it has not yet received proper attention in teaching programmes. As reading is a recognized objective among most language teachers for the assessment of comprehension ability of learners, it should be emphasized in the classroom. Reading requires the learners to assimilate the ideas of the writer in a sequential form. It also necessitates the leaner's ability to use decoding skills with accurate structure and appropriate vocabulary. Reading comprehension measures the learner's ability to understand different perspectives of writers on various issues, command of the language and knowledge of the use of different structures of sentences. Therefore it is considered to be the most complex of all.

It is found that the reading comprehension skill of 1st year Engineering students in the colleges affiliated to Jawaharlal Nehru Technological University Kakinada (JNTUK) is poor and need improvement. Therefore, the study has been taken up to critically evaluate the component of reading during second year course of the Engineering study. As a teacher of English, the researcher realized that there is a need for the improvement of teaching and learning process of reading skill in Engineering students. Though the teachers and the students are well aware of the practical value and importance of the reading skill to acquire knowledge, proper approach is not followed. In real time, the majority of the English teachers are using traditional reading approach (bottom-up) in the class rooms to teach reading texts. Since the reading comprehension ability of the students to learn with this approach is poor, this approach is not producing desirable results in classrooms.

Therefore, with a view to introducing a suitable method for improving learners' reading comprehension, and having studied previous studies on various reading methods, the researcher felt that schema theory would help the learners to improve their reading comprehension. Hence schema theory (top-down) is applied in the present study and the results are compared with traditional reading approach (bottom-up).

OBJECTIVES

1. To know the opinions of teachers about English proficiency level of I-B.Tech students and importance of English language to them.
2. To find out the proficiency level of students reading comprehension.
3. To find out the effect of schema theory (top-down) in comparison with traditional reading approach (bottom-up).
4. To find out whether there is any relationship between pre-reading scores and post-reading scores of experimental group that followed schema theory.
5. To verify how far the schema theory is appropriate for I-B.Tech students affiliated to JNTUK in comparison with traditional reading approach (bottom-up).

REVIEW OF LITERATURE

After making a considerable review of literature on various studies in teaching reading comprehension to second language learners, it is understood that substantial research has been carried out in different types of reading methods across the world. In particular, the previous studies reveal that traditional reading approach (bottom-up) makes the reader passive, interactive model allows the reader to be interactive, and schema theory (top-down) continuously connects background knowledge of the reader to the content of the reading text. The important aspect of schema theory is how knowledge is acquired, processed, and retrieved. Schema is the technical term used by cognitive scientists to describe how people process, organize, and store information in their heads.Research on the schema theory had great impact on understanding reading comprehension in the second language. Theresearch in this area seems to agree that when learners are familiar with the topic of the text they are reading (i.e., possess content schema), they are in a better position to comprehend their assigned reading text successfully. A few research studies are available to the best of the researcher's knowledge in comparing the effectiveness of schema theory (top-down) with traditional reading approach (bottom-up). Since, no study seems to have been conducted comparing the

results of schema theory (top-down) with traditional reading approach (bottom-up), the study is conducted on this reading method while comparing its results with traditional reading approach.

METHODOLOGY

The study proceeded through administration of tools like questionnaires, comprehension tests and pre-reading and post-reading tests to a sample of teachers and students at Engineering level in the colleges affiliated to Jawaharlal Nehru Technological University, Kakinada. In the Stage-I of the study, a sample of sixty teachers working at Engineering colleges affiliated to the university and students studying at Engineering colleges affiliated to the university are taken to draw the opinion of teachers and students on the prescribed English text books. In the Stage-II, a sample of sixty students studying in various engineering colleges affiliated to JNTUK is taken to find out the present level of engineering students' reading comprehension. In the main study, a sample of one hundred and twenty students is taken from Sri Sarathi Institute of Engineering and Technology, Nuzvid.

PROCEEDURE

The research study is carried out in three stages.

The Stage-I : It has two parts namely Part-1 and Part-2. Part-1 gathers information from English teachers who are working at different Engineering colleges affiliated JNTUK, Kakinada. It explores English proficiency level of 1st year Engineering students' and finds out teachers' views on prescribed English text books. In a similar way, Part-2 also collects information from 1st year Engineering students who are studying at different engineering colleges affiliated to JNTUK, Kakinada on the importance of English language in their professional career and their views on English text books. Questionnaires are prepared on the Likert Five point scale with 20 statements to elicit the views of English teachers and students.

Stage-II: It is conducted to estimate the reading comprehension level of 1st year Engineering students. Hence a reading text is taken from semester-1 English Text. The comprehension test with 20 questions is administered. The result of the test has

revealed that the reading comprehension level of seco students is poor and needs improvement.

Stage III: Since it is an experimental study before the main research plan i.e Stage-IV, a sample of two lessons from the prescribed text book for Semester-1 are taken for Stage-III and administered on eight students of two sections. Section-1 students are taught with the help of pre reading activities (schema theory) and Section-2 students are taught with the traditional reading approach. The pre-reading test scores of Section-1 students are compared with their post-reading tests so as to find the relationship between pre-reading and post-reading tests. After teaching reading text to Section-2 students with tradition reading approach (bottom-up), a post-reading test is given to them with the same questions given for Section-1. Finally, the answer scripts for the post-reading tests of both sections are evaluated and compared the results of each other so as to find out which reading method is effective to understand the given reading texts. Based on the result, Stage-IV is conducted.

Stage-IV (Main study): Based on the positive results found in the Stage-III for Schema Theory, Stage-IV (Main study) is carried out. It is comprised of ten reading comprehension proficiency tests. Out of the ten, five tests are conducted in Semester-1 and other five tests are in Semester-2. The total 120 strength of Electronics and Communication Engineering (ECE) branch students are divided into experimental group and control group with sixty students for each group. To examine the variation in the results of tests, as in the Stage-III, Schema theory (Top-down) is applied on the experimental group participants and Traditional reading approach (bottom-up) is applied on control group participants. The pre-reading test scores of experimental group are compared with their post-reading tests so as to find the relationship between pre-reading and post-reading tests and to determine the effectiveness of the method for improving reading comprehension skill.

RESEARCH TOOLS USED FOR THE STUDY

1. Conventional Tools : Likert Five Point Scale Questionnaire, Reading comprehension test and Proficiency tests.

2. Tatistical Tools**:** *t*- Distribution, Z-Distribution and Correlation Coefficient

FINDINGS AND CONCLUSION

- From the findings in Stage-I, it can be concluded that English proficiency level of 1st year students needs improvement. Students have remained weak in English language usage due to frequent use of their mother tongue, insufficient opportunities to practice English in the college and inadequate knowledge of English grammar and vocabulary.

- It can be concluded that there is a positive correlation between pre-reading scores and post-reading scores of experimental group that followed schema theory in reading.

- It can be seen that if the previous knowledge of the learners on the reading content is recalled with effective pre-reading activities, they are able to understand the reading text effectively and are able to write post-reading tests successfully.

- Finally the study confirms that there is a significant difference between the reading methods - Schema theory (top-down) and traditional reading approach (bottom-up) - while teaching reading comprehension text books to the 2nd year engineering students affiliated to JNTU Kakinada.

Therefore it is concluded from this study that Schema theory (Top-down) plays a significant role in improving learners' reading comprehension. It can be concluded that the teachers who conduct pre-reading tests prior to the explanation of the reading material will be able to improve the comprehension skills of learners effectively. Lectures with Traditional Reading Approach (bottom-up) are not improving the reading comprehension skills of learners. Selection of appropriate reading method affects learners' attention in the classroom and also helps them to improve their reading ability. Finally, this study concludes that there is a significant difference between Schema theory (top-down) and Traditional Reading Approach (bottom-up) while teaching reading comprehension skill to the II-B.Tech students affiliated to JNTUK, Andhra Pradesh.

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