Using Reading and Audio-Visual Materials to Develop Communication Skills of the Engineering Students

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Abstract

This paper attempts to explore the possibilities of developing communication skill of engineering students through reading and audio-visuals materials. In the present paper, the students of an Engineering institution were taken as subjects to help them develop communication skills through cognition. Two kinds of activities were used to develop their communication skills. In the first type of activity, the students were asked to watch a documentary clipping and to answer two important questions. This exercise enabled the students to use the English language without worrying about the errors they might commit. In the second type of activity, the students were asked to read from a selected piece of material and interpret the material they read.
The results show that these two materials helped them to enhance communication skills of the engineering students.

**Introduction**

Reading has always been regarded as an important skill in teaching and learning English as a Second Language (ESL). The reading skill is important because it stimulates thinking, compels students to analyze and criticize. In other words, reading helps effective communication. In the industrial work environment the students are expected to decide individually or with a group. When they hold an important position, they have to handle different situations including managing the workers, deciding the shape of the products, increasing the products, etc., for which they have to communicate. Acquisition of communication skill demands proper selection of materials and facilitation of the teacher.

This paper discusses two activities conducted for developing communication skills of the students using reading and audio-visuals in engineering colleges. The two activities gave prominent importance to communication. Communication skill is given importance because it is essential in industrial setting to carry out duties and supervise the work of other co-workers. Effective Communication is required to become and function as an effective leader.

In cognitive theory, learning is viewed as an active, constructivist process in which learners select and organize information input, relate it to prior knowledge, retain what is considered of their learning efforts (Gagne, et al.1993). Cognitive skill is useful not only in the classroom but also in the non-classroom setting to think about the language and use it in an appropriate way. The students’ interest in communication in English as a second language is discouraged due to various factors. Livingston (2012) in an article puts that the students are “discouraged from speaking English because of their rural and social backgrounds. The role of English teachers is a challenging task to make them to speak in English”.

**Brief Review of the Literature**

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Many research studies had been conducted on cognitive skill by scholars in the past. Slobin (1987) shows that cognitive skill helps motivate thinking to develop better speaking skill. Diaz and Berk (1992) observe that young children verbalize more when the tasks are more difficult, and they were successful in problem-solving when they verbalize more. The thinking and beliefs are brought to bear on classroom processes (Burns 1996).

Gatbonton (1999) presents six general domains of pedagogical knowledge:

1. Knowledge of how to manage specific language items so that students can learn them.
2. Knowledge about the students and what they bring to the classroom.
3. Knowledge about the students’ goals and subject matter of teaching.
4. Knowledge about techniques and procedures.
5. Knowledge about appropriate student – teacher relationships.
6. Knowledge about evaluating student task involvement and progress during the lessons.

The Present Study

Aims

The study investigates how reading and audio-visuals are helpful in using the cognition of the students in the development of communication skill in the ESL classroom. The primary purpose is to bring students from product-based approach to process-based approach in developing communication skill of the Engineering students. The present activity specially addresses two research questions:

(1) How students are using their cognition for these two different activities?

(2) What is the subjects’ result or product of the use of the cognitive skill for enhancing communication skill?

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Subjects

The subjects were thirty-two first year Automobile Engineering students in the age group of 17-18 in a University. The students had twelve years of English education, which is usually exam-driven. The twelve years of language education could not provide practical opportunities at the level of spoken communication, because the courses concentrate only on written skill, where students interpret the material etc. given in writing and they all do this through the process of memorization and reading Notes available in the open market. Their goal is to score good marks, not mastery of the speaking and writing skills. Memorization of the probable answers is given importance. The consequence of this process of learning is that the students are not able to construct a sentence of their own. When they join the university courses they may not have the ability to produce a sentence of their own. The “Notes” was helpful for them at the school level, whereas in the university the Technical English course book has no “notes”. When they have no helping material like notes, they have to write on their own. But they write only a few sentences and they could not develop their ideas further.

Procedure

For the purpose of this study two different kinds of activities were given. The activities were conducted for two days with two sessions. Each session ran for two hours. The first day was used to view a clipping about a planet. After viewing the clipping about a planet, all the students were asked to answer two questions. The second day was used to comprehend a selected reading material and to interpret it (that is, the intended meaning of the passage) in the class. All the students read a sentence from the given reading material. After reading the sentence all the students were asked to give the meaning/interpretation of the reading material from their own understanding of the reading material. The students produced different lengths of answers, for this single sentence interpretation activity.
On the first day thirty-one students participated and the session ran for two hours. The first day was used to play a documentary about a planet. All the students viewed the clip. After viewing the documentary the students were asked two kinds of questions.

(1) What did you expect when you viewed the introductory part of this clipping?

(2) What kind of ideas you got after viewing this clip?

The Students’ Answers to the First Question

The questions were asked to stimulate students’ thinking to create and organize ideas. All the students participated enthusiastically. The student answers can be categorized into three kinds. First is the long talk. The second is the short talk and the third is very short talk.

The long talk

Seventeen students answered the question well with long answers. All their answers were long and creative. The students asserted that they assumed that what they were about to see was an unknown planet and earth. They spoke more than two sentences.

The short talk

The second category of students who spoke less was eight in number. These students gave their answers in one sentence. They could not produce more sentences because they did not develop their thought further using their English knowledge.

The very short talk

The third category of students could not produce more than one or two words (for example yes or no) and they were six in number. They did not show any observation using their English skills. In addition, they seemed as if they did not listen and they hesitated in producing their response, perhaps because they lacked in confidence in their knowledge of English.

The students’ answers to the second question
The students’ answers for the second question can be divided into three kinds of thinking: direct professional thinking, indirect professional thinking and non-professional thinking.

The professional thinking

The students with professional thinking were nineteen in number. They can be classified into three categories, according to their answers. Among the nineteen students, the performance of three students was very good. The three students spoke about producing cars suitable for the planet. Their thinking was more about professional and practical follow-up and needs. The second group of students consists of ten in number who spoke about searching for fuel. Their idea were not for the immediate purpose. Their kind of thinking goes step by step. The third group consists of six in number. They asserted that all the auto mobiles have to be taken into the space. These students’ level of thinking is illogical but more professional oriented.

Indirect professional thinking

The indirect professional thinking students were eight in number. They said that only after knowing about the conditions of living in the space, they will set up the industry. It shows that they want to build their industry only after knowing about the opportunity. They are cautious about their professional use and they do not want to take risk in setting up the industry without proper knowledge about the place.

Non-professional thinking

Four students answered that they want to search for water in the space. The students’ answers reveal that they want to search the space only for living purpose.

Second Day

On the second day the students were given a piece of reading material to read. After the completion of reading, all the students individually were asked to provide meaning for each sentence. All the students were informed to select only one sentence and to provide meaning for
that. The main objective of this reading activity is that the students had their reading comprehension from their school days, but many students are not able to understand a single sentence, even after entering into the university level. The activity paved the way to understand the difficulties faced by the students. The activity is categorized into five kinds: Very Clear, Clear, Not Clear, Misinterpretation and No Answer.

**Very Clear**

Five students were categorized as giving Very Clear answers. They gave long definitions for the sentence and showed examples from outside of the text. The definitions were easy to understand. Their choices of words were simple and the voice of the students was very clear, which made their speech a successful one. They spoke more than two minutes. It showed that they were interested to think more.

**Clear**

Thirteen students spoke clearly. They participated actively and spoke briefly. Their speech was about a minute. All the students gave meaning for the sentence given to them. They used their tone appropriately. The voice was clear and audible to class. Their level of critical thinking was direct and no example was given out of text.

**Not Clear**

Nine students were not able to produce the meaning of the sentence clearly. They were not able to produce it in their own sentence correctly because of their lack of vocabulary knowledge and lack of understanding the sentence fully. They could not speak the sentence clearly. All the nine students were able to understand the sentence only partially.

**Misinterpretation**

The misinterpretation of the reading material was done by only one student. The student misinterpreted the sentence, due to lack of vocabulary knowledge. The student studied through...
Tamil medium before he came to the university and was from a rural area. His lack of ability showed that he did not have basic English knowledge to interpret the given reading material.

No Answer
The students who did not answer and gave no meaning were four in number. They read the sentence but did not give any interpretation to that sentence. They were not able to interpret the sentence because they could not understand it in English. The learners expressed that they could not understand the given reading material, due to lack of understanding the words and they did not know to read correctly. All the students who gave no answers to the reading material were had their education through Tamil medium and from rural background. They did not have any training to interpret their thinking through English language. They must be given special attention to enhance their understanding of reading material.

The role of technology and the instructor

In this experiment two kinds of activities were used in the class. The first activity required technology to be used in the class. The technology used in the class included a laptop and a projector. The documentary was readily available in the laptop. After viewing the documentary the instructor asked questions and made the students to answer. All the students participated enthusiastically.

For the second activity the instructor gave a reading material to interpret it. All the students participated in this activity. In the second activity no technology was used. Unlike the first activity, which was simple and in which the students had the choice of using and speaking based on the ideas from other students and peers, in the second activity the student has to interpret and add ideas to the material. They have no choice of interpreting from the peers or adding previous students’ ideas to their own ideas.
These two activities required the presence of the teacher as moderator.

Results

The results of two kinds of activities were compared and descriptive results were obtained. Thirty-one students participated in the first activity and thirty-two participated in the second activity.

The results are given below:

- The long talk 54.8%
- The short talk 25.8%
- The very short talk 19.3%
- The professional thinking 61.2%
- Indirect professional thinking 25.8%
- Non-professional thinking 12.9%
- Very clear 15.6%
- Clear 40.6%
- Not clear 28.1%
- Misinterpretation 3.1%
- No answer 12.5%

The survey shows that the majority of students felt positive about the activity given to them. Most of the students asserted that the training helped them to think critically and prepared them for their professional setting.

Discussion
The activities conducted in the class using reading and audio-visuals paved the way to develop communication skills of the students. The students used their cognition at different lengths to express their ideas. The students have had the opportunity to improve their communication skills through cognition. All the students had the opportunity to understand the importance of reading and audio-visuals in enhancing their communication skills. They have no opportunity to share their ideas before these two classes. Many students came with new ideas because of this training program.

In addition, the cognitive skill encourages students’ involvement in the classroom activity. The activities offered an opportunity not only to use their cognition for speaking purpose, but also for comprehending the given reading material and interpreting the same before the class. With their personal involvement, students can develop their communication skill further and acquire better comprehension in reading and interpretation in English.

Finally, the cognitive skill made students aware of their intellectual strengths and limitations. This activity may force them to learn from others to overcome their weakness, and think about how to improve their communication skills in future practice.

Conclusion

The findings of the activities show that cognition was useful in improving communication skills of the students’ . On the whole both the activities stimulated their communication skills through cognition. The role of a teacher as a facilitator helps the learners to produce language without any difficulty. The role of technology plays an important part in these activities. The given reading and audio-visuals materials helped them to enhance the communication skills and to know themselves about the level of English knowledge they have. The finding suggests that, the above ninety percent in English at the higher secondary school
level of some learners did not help them to communicate and the mundane learners have to be
given special attention by proper selection of material and educational aids.

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