Using ZPD & Scaffolding as strategies in improving Reading Skills of Engineering Students in Large ESL Class: A paradigm of Action Research

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The ESL large classrooms in general and professional universities in Sindh, Pakistan witness the diversity of students belonging to various social and educational backgrounds. The past attributions affect the way the learners cope with challenges with their field using English language. The students at professional universities have to read their course material in English language. Some students perform better than others. It has generally been experienced that the students having their past education in O' level system perform relatively better than those who have their matriculation and intermediate from Sindh Boards of examination. This dichotomy places a latter category at disadvantage resulting in poor performance in functional/remedial classes of English language at university level. This paper attempts to propose that ZPD standing for 'zone of proximal development' can be helpful to handle such issues of dichotomy at university level. The paper is the result of an action research implemented in Mehran University of Engineering& Technology, Jamshoro, Sindh Pakistan. The study went through various phases and found that students working in group using ZPD learn better than they do individually. The study also found that the students also learn well when they find teacher as a facilitator. The study recommends that instead of using traditional method of teaching reading skills in classroom at any academic level, the students should be instructed through modern teaching methods which involve learners in entire learning process.

Key Words: Action Research, ESL Large class, Reading Skills, University Students, ZPD

1. Introduction

Teaching English in large classes is a general issue for all the ESL teachers in Pakistan and abroad. Bughio (2012) notes that teaching in large class is a problem in most of developing countries including Pakistan. Sarwar (1992) says that a large class is a reality in Pakistan and one of the reasons for failure or bundle of issues in education in Pakistan. The issue of large class was explored systematically in 1950's and then there has been frequent interest in the issue from the 70's onward. Teaching English in large classes brings about a number of issues for an ESL teacher. Bughio (2012) and Shamim (1993) mention some of the problems in large ESL classes as under:

- ✓ Management problems
- ✓ Physical or practical problems
- ✓ Affective factors
- ✓ Interaction problems
- ✓ Feedback & Evaluation
- ✓ Insufficient student involvement in learning

The current study addresses the issue of 'insufficient student involvement in learning' which results in poor performance by the students. Reading Skills is one of the problems which learners and teachers face in Pakistan. This is due to the fact that reading comprehension in Pakistani context is done through traditional method in which an individual leaner is engaged in grasping the complexity of language, however, monitored by the teachers. The present study uses Vygotsky's (1930) Socio-cultural Theory (SCT) to see the impact of scaffolding and Zone of Proximal development on students' reading comprehensions outcomes in large class at university level. Reading comprehension is a serious issue in a large class. A teacher cannot help all students to improve their reading skills by calling them out individually and make them read a lesson in front of the whole class which is traditionally being followed. The present study aims to address this issue to see how scaffolding strategies can help learners to cope with their reading comprehension problems.

1.1 Significance of the Study

The present study contributes towards existing knowledge on using sociocultural modal of Vygotsky in classroom learning. The study is significant for the reason that in Pakistani schools, colleges and universities, most teachers teach reading comprehension through controlled approach. This affects the learners' reading performance. Moreover, the students are not seen to be interested in reading materials including their textbooks. Both intensive and extensive readings lack among these learners. This study, thus, attempts to bring in class the social learning modal by employing scaffolding and peer tutoring strategies so that the learners inspire to take part in reading comprehension actively without relying merely on teachers. Zone of Proximal Development (ZPD) is one such technique that helps to improve reading skills of the learners.

1.2 Objectives of the study

- To investigate the problems and challenges faced by the ESL learners while working individually at University level.
- To see the impact of using scaffolding and peer tutoring techniques to improve reading comprehension of learners at university level.

1.3 Research Questions

- What problems and challenges do ESL learners face while working individually?
- How far ZPD & Scaffolding are helpful to develop reading skills of the ESL learners?

2. Literature Review

The Zone of Proximal Development (ZPD) is a well-known construct in Socio-cultural theory (SCT) proposed by Vygotsky (1930). It is a gap between what a learner has already mastered and what he can achieve when provided with educational support. Vygotsky cited in (Mitchel and Myles, 2004, p.196) defines ZPD as the difference between the child's development level as determined through problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. Mitchel and Myles (2004) maintain that from a socio-cultural perspective, children's early language learning arises from the processes of meaning making in collaborative activity. Similarly, the second language acquisition has an opportunity to participate in collaborative activity with users of target second language.

The ZPD uses social interaction in form of scaffolding, group and collaborative tasks with more knowledgeable others (MKO). MKOs can be a teacher as well as a peer within the group (Blake and Pope, 2008, p.62). Razaee & Azizi (2012) mention that ZPD comprises scaffolding process which helps a child/learner to learn with the help of teacher, a parent, a caretaker, language instructor or any other peer who has already achieved that target. Bruner (1983) cited in Fernandez (2001) et all describes scaffolding as a cognitive support given by teachers to learners to help them so that they can do the tasks which they could not do on their own.

Walqui (2006) notes that education never takes place in a vacuum but is deeply embedded in a social milieu. Learning is not all about the human cognitive development. The most important process in learning is interaction. This can be done when a learner comes into contact with other others learners. Thus, the cognitive and social factors go hand in hand in classroom learning. ZPD is actually social in nature. It emerged in socio-cultural modal of learning which was basically proposed by Lev Vygotsky. With the new research in the field of SLA, the focus from mind turned to society. Arnfast and Jorgensen (2010) mention that language is seen as a part of complex and dynamic processes of social membership, culture and identity. Language learning is not only a matter of individual capability, but also the opportunities for interaction at micro social level and power relations and linguistic norms at the macro social level. The role of social interaction is to provide supporting structures or scaffolding for individual competencies and thus to mediate language learning through communicative patterns

and other semiotic tools. In the socio-cultural context, learning takes place through zone of proximal development (ZPD) as determined by Vygotsky.

Several studies have been conducted to show a relation between zone of proximal development (ZPD) and positive outcome of reading comprehension. Poorahamdi (2009) conducted a study in Iranian context to see the impact of employing ZPD and Scaffolding techniques to help improve reading skills of EFL learners. She found that scaffolding techniques work better than teaching students in traditional way. Another study by Atterzedah (2011) was conducted in Iranian context to see how reading performance of EFL learners can be improved through assistance. The study found that the scaffolded group of learners performed better than those who learned individually. A similar study was conducted in Pakistani context. Haider & Yasmin (2015) note that scaffolding and peer tutoring work comparatively better than the traditional teaching methods.

3. Methodology

We have chosen action research as method for our study as it helps in improving educational practices. Since, the researchers in the study are Practitioners in University so the research meets the researchers' needs. The action research has provided an effective framework to investigate the problems of reading skills and help the students develop their understanding of the texts by using techniques of ZPD & scaffolding.

3.1 Action Research

The main purpose of action research is to focus on action and research simultaneously. The practitioners in case of classroom issues identify a certain problem and plan a strategy or any techniques to implement it in order to resolve the problem. Gopang (2015) et al mentions that AR includes the systematic collection of data after implementing a certain strategy on any action to be changed, modified or reinforced, analysis of data, reflection on findings for more observation and action. This systematic process in action research makes it planned, organized and reflective practice in the process of teaching and learning language. Kemmis and McTaggart (1992, p.10) say that an action research is to plan, act, observe, and reflect more carefully on the problem identified. This observation and reflection is more rigorous than the everyday life situations where the people may ignore some of the things.

3.2 Participants

The participants were the first year engineering students of Mehran University of engineering & technology, Jamshoro who study functional English as a remedial course in their first semester/second semester. There was a diversity of students in the class belonging to various social, cultural, educational and religious backgrounds. Some of them had their matriculation and intermediate from Sindh Texts while some others had done O' level & A' level.

3.3 Data Collection

The data was collected through a focus group interview and observation. A focus group interview helps the researchers to know 'in-depth response' of students or how they think about a certain phenomenon as noted by Bell (2006, p.162). A focus group interview is useful in gaining direct insights from the participants. In action research, participants are very important as a certain action is implemented through them. Therefore, the participants' insights were important to us to answer our questions.

The problem was identified through the first phase of interviews. Students working individually on reading comprehension passages lacked thorough understanding of the texts due to their low educational level. They belonged to rural Sindh or in case of urban, they were from government schools. After implementing the ZPD & scaffolding strategy in the class, the same students numbering 5 were interviewed to investigate their responses on the action implemented. Their names have been kept confidential due to ethical consideration.

3.4 Data Analysis

We conducted the interviews from the students who were from Telecommunication Engineering department. Therefore, the data was analyzed qualitatively through the researchers' observation, reflection on field notes, and discussion on reported data in interview. The data collected helped us to answer our questions. The data is quite useful to the ESL teachers in many ways.

4. Results of the Study

The findings of the study are presented into three phases. The first phase refers to pre-action phase. The second phase is action phase and the last phase is post-action phase.

4.1 The Pre-Action Phase

In the first phase, a focus group interview was conducted with some students in order to investigate the problem so that an appropriate action may be implemented to resolve it. This

phase helped me as a practitioner to know the weak areas in my teaching especially reading skills. The interview was taken for 30 minutes where students' data was recorded during discussion with them. They stated many problems faced by them while reading. They are mentioned below in their comments:

P1: Reading passages are complex and I really get tired while understanding the text.

P2: The newspaper articles, short stories, or any other material that teacher brings in the class create many problems in understanding vocabulary and complex structures of the language.

P3: I have not been a good reader. In our schools and colleges, we had very limited exposure to reading texts. Now I feel really dissatisfied with my present position as a reader. I cannot understand the text unless somebody explains or translates it to me.

P4: I cannot understand the text thoroughly as it contains difficult themes, words, idioms, and structures. I want my teacher to read it for me.

P5: Reading any kind of text is difficult for me as English language has really been tough. I cannot understand the complexity of language due to its difficult vocabulary and structures.

Besides these stated problems, the other students reported that the teacher assigns reading to the students without knowing their level of education. We (the students) belonging to rural Sindh do not have much exposure to reading. So, this really creates a problem for us to read any English language text comprehensively.

4.2. Action Phase

After identifying the learners' issues in reading skills, that was lack of understanding the text due to complexity of words and structures, we as practitioners in the university thought of strategy with the help of my co-researcher. We thought of implementing 'zone of proximal development' and 'scaffolding' as an effective strategy in the classroom to develop students' reading skills. I planned a lesson on 'Of studies'—an essay by Sir Francis Bacon which was a complex text for the first year engineering students. The class was divided into groups of 4 to 5 students in each group. They were given a text and asked to read it in group by discussing the theme and finding out new words from dictionary they had. In each group, one or two MKO's (More Knowledgeable other) were present who led the group. They were given twenty minutes to read, discuss and understand.

4.3. Post-Action Phase

During the reading tasks, the researchers observed the participants carefully who seemed to be very absorbed in reading, discussing and understanding the given text. In each group, one or two MKO's were present so they tried to explain the meanings of new words and rephrased to their partners. This helped the average students to understand the text and enabled them further to talk on the same text. This activity where the MKO's worked as scaffolding for their partners was very useful for the whole class in many ways: 1) it introduced group working and interacting with each other 2) to be able to share 3) to understand together using each other's' knowledge and expertise.

After reading was done, we chose one person from each group as a representative to explain what their group has understood about the text. The average participants were chosen to come as they faced them problem in reading skills. When they explained the text to the class, it was really appreciating. Majority of the students really performed well; they had developed their thorough understanding of the text and got familiar with the language structures and words, too. After the class, some of the students who were interviewed before were called to have another session of interview regarding their performance. They stated as follows:

P1: It is good that we got chance to communicate in groups. The group discussion helped me to clear my concepts.

P2: I remember, when you gave us a task in class to read and understand the text individually, we were not able to understand it because new words were used in English reading passage. Some structures were totally new to us. We failed to understand it. But, this time when you had us into groups we learnt a lot. Because if I did not know about anything, I asked my friends and they told me.

P3: I am very passive learner. I need a teacher or somebody else to explain to me the topic which is being studied. I really enjoyed being in the group. This made reading very easy for me. My friends shared different ideas and I came to understand the text.

P4: I was excited to be the part of group discussion. Whether a student learns alone or in group depends on that student. But, for me it is good to be in groups. My friends explained the topics in clear way. I learnt a lot and overcame all the problems that I most often face in reading.

P5: Working in a group is really interesting. I enjoyed learning. We all participated in understanding the given text. This helped us to grasp the most of the text by sharing and discussing on it.

Besides these participants, other students also gave positive remarks about the group task. They reported to have learnt content and language components in more effective than they do individually.

Discussion & Conclusion

Understanding the reading passages is a problem for engineering students due to various factors such as content, vocabulary, sentence structures. This problem is more related to the students coming from rural backgrounds or urban governments and private schools. The students who have done their O' level and A' level have good reading skills as compared to the former category. To resolve such problem, Vygotsky's notions of ZPD, scaffolding and MKO are useful. The present study revealed that when students work together into groups and interact with their peers, they learn comparatively better than they work individually. The study found that the average students can be helped through their peers acting as scaffolding and MKO to a certain stage where they become independent learners. The study suggests that learning in groups should be encouraged in ESL classrooms to develop reading skills among diversified groups of learners.

5. Recommendations & Suggestions

The study suggests that teachers should employ scaffolding strategies to reinforce the reading comprehension of learners. The traditional approach cannot help improve the students' reading skills. The socio-cultural theory of Vygotsky can be applied not only to university students but also schools and colleges where students are taught with only one approach. The scaffolding technique can help learners to improve their reading comprehension.

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