

Learning Language through Computer Based Speech-Focused Activities

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Introduction

I have been in the University of Dundee (Scotland) researching into the feasibility of speech-based language learning for Sri Lankan students in Higher Education. Simply put, the problem instigating this study was the necessity in the undergraduates to acquire English in the very short time they have to spend in the English Proficiency class rooms in the university. Many of the students come into the University with a very basic knowledge of English. Some come in with no knowledge of English. This makes it difficult for many students to acquire the necessary standard to pass the compulsory English component to get their degree certificate. The job market also remains unproductive for them because of the lack of English. The above problem is very acute in the case of undergraduates in the Faculty of Arts in state run universities. This student-background had been researched into before (Abeysooriya, 1992, Atapattu, 2003; Lecamvasam, 2002).

In the ELTU classrooms where I teach, we urge undergraduates to practice alone and do self-study. Their de-motivation to do this might be due to the lack of self-study material that motivates, gives quick learning of the language, and makes it possible for the student to use it fluently. The main reason for the lack of such material is that the students call for speech fluency in English while the ELTU use the time set for English tuition to teach material on writing, reading, and grammar. This is because the students have to be coached for academic study. One important motivational factor that launched this research is the need to find a solution to the apparently contradictory call/need for English speech-fluency by the undergraduates and the need for English to cope with academic study. Self-study seemed to be the answer but material that could answer the two needs was missing. Strangely, my experience in the ELTU classrooms shows that speech can be used to teach academic study. The preference and effectiveness of speech as a learning tool is true even with grammar. The undergraduate is able to speak

fluently; use tenses correctly, and is able to master such intricate components as subject-verb agreement quickly if they are made to use it in speech first.

Objectives of the Study

My theory (theory as defined by Silverman, 1993), which I call speech-theory which is the hypothesis at the helm of the present research, is that ‘speech, in the adult second language learner in Higher Education, can be used to trigger all facets of language needed for academic study.’

This theory was the trigger for my research. But I had to find conclusive and scientific evidence to take it from a mere ‘hunch’ and make it a strong theory based on data as well as a result-giving one instigating more research in to adult speech.

My research questions for this study are:

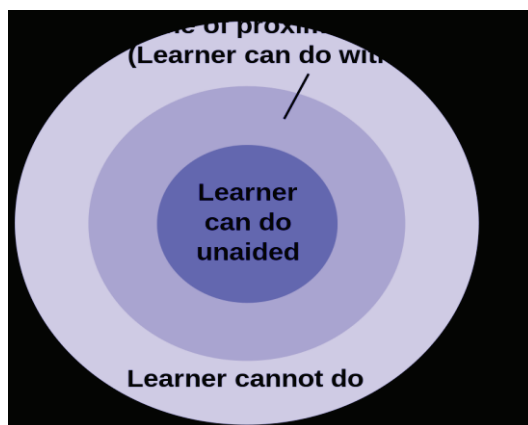
- Are students motivated to learn English through speech based online programs?
- How should such a program be made to get results that are both enjoyable and result-giving (by speedy language acquisition) to the learner?
- Can English for academic purposes be taught this way? How far could this learning go?
- Could such learning facilitate face-to-face- learning/other online and face-to-face learning?

Theoretical Considerations and Empirical Evidence

In Dundee, I read avidly and I found many factual evidence discovered by research that proved beyond doubt the effect of speech on learning. Data about an adult learner acquiring a language through speech was gathered mostly through research done to prove other areas of learning. I have written 75% of the chapter on Literature Review.

In the work of Lev Vygotsky the Russian psychologist (Vygotsky, 1962), I found out that my speech-theory was but a development of his work on speech and learning. Vygotsky's work speaks of the speech of preschoolers and its invaluable contribution to the child's assimilating of new knowledge and the successful use of the knowledge thus assimilated. Vygotsky speaks of egocentric speech in preschoolers (the beginning of research into egocentric speech was in the work of Piaget) and proves that when a child goes on speaking to him/her self, he is not only assimilating the language but using it to solve problems and create. He also shows how egocentric speech goes underground and becomes inner speech or cognitive/rational thoughts in an adult. Thus, in the light of my research, Vygotsky's work on speech points out that, an adult learner (as in the preschooler) uses speech when learning, many facets of mind such as memory, problem solving, creativity, confidence, enjoyment etc that promotes learning. Not much work has been done on the area of adult second language learners' speech and its effect on learning.

Vygotsky also introduces the concept of the Zone of Proximal Development (Vygotsky, 1992) when learning. The ZPD can be scaffolded with a teacher.

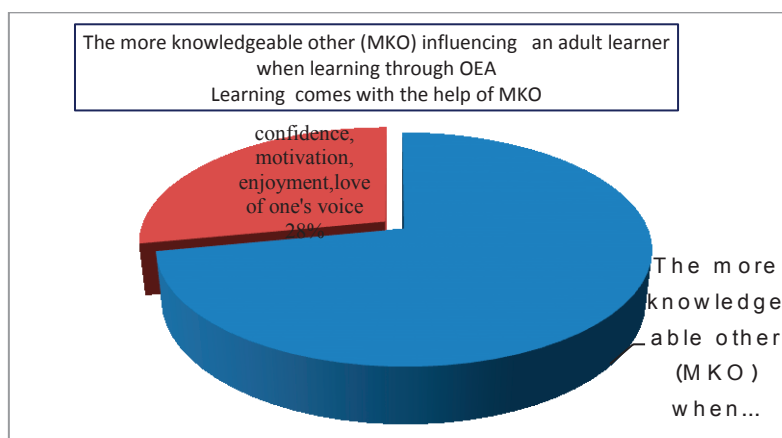


Vygotsky calls the person who assists the scaffolding of knowledge the More Knowledgeable Other (MKO). This is most of the time a teacher.

My theory was further strengthened by the above knowledge. That is, in an adult learner the MKO is the second language learner himself/herself.

Speech triggers the MKO in the adult language learner. The MKO is also triggered by students in self-study using speech-based learning.

I have built an Online speech-based Educational Apparatus (OEA). The OEA is supposed to give data on the adult language learner and the MKO. It is also going to give data on whether the MKO is stimulated through speech-based online learning. Data collection and analysis is underway. I am using the audio recordings of the student as he/she attempts to learn the language.



Research Methodology

I used Design Based Research methodology (DBR). DBR began as a reaction to psychological educational research (Brown, 1992; Collins, 1992) which had dominated educational Research. Examples of DBR, called Design experiments, are modeled on 'procedures of design sciences such as aeronautics and artificial intelligence (Brown, 1992).

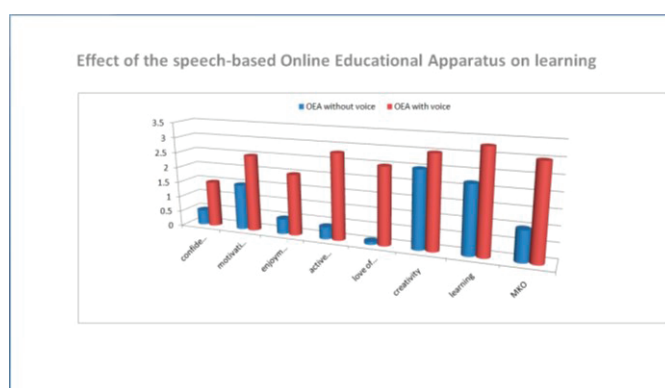
DBR methodology is a collection of methods. 'Design-Based research is a collection of innovative methodological approaches that involve the building of theoretically-inspired designs to systematically generate and test theory in naturalistic settings. (Sasha Barab, Anne Arici & Craig Jackson, 2005, 1992).

The Control group which was going to do the same OEA without the speech element (They would read the slides and write down their answers like in any text –based online program.) There will also be fifty

students doing the lesson through a face-to-face class. The findings will be triangulated by other data:

- pre-test
- post-test
- questionnaires
- video of learning sessions
- semi-structured interviews of both class students and teachers

The collection of data is not yet completed as the students got their vacation in the middle of it. But analysis of data from the little obtained could be seen from the table below.



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