## The Role of Technology in Creating Safe Language Learning Spaces

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While several SLA theories assert the need to maximize language input, oral production of language is equally necessary for developing language proficiency. The opportunity for this is seen to be limited in the conventional classroom.

In this paper we argue that a Technology Enabled Language Learning (TELL)/blended language learning platform offers greater opportunities and a 'safe space' for students to speak in the target language, as compared to the whole class environment. This is supported by the non-judgemental, immediate feedback afforded by the technology platform that encourages students to produce language more spontaneously and with less inhibition.

To support this claim, we draw on our classroom observations of students' engagement with an interventionist, blended language module in a semi-urban school in Mizoram, designed as part of the Connected Learning Initiative-x (CLIx), a project undertaken at Tata Institute of Social Sciences, Mumbai, in collaboration with Massachusetts Institute of Technology, Boston and Tata Trusts. Our observations, supplemented with surveys, student and teacher interviews, confirm that the TELL environment creates a space that can complement language learning in the regular classroom.

Keywords: ESL, SLA, TELL, safe space, blended learning.

## Introduction

Language acquisition studies in the past have asserted the need for a conducive environment to ensure better language acquisition (Krashen 1982, & Brown 2012). This study is located in the CLIx English classrooms which is a lab-based space that offers course modules to improve listening and speaking skills. Drawing on responses to surveys, classroom observations, anecdotal evidence and interviews with teachers and students at three government high schools in Aizawl, Mizoram, our study explores ways in which the affordances of a Technology-Enabled Language Learning (hereafter, TELL) environment can be utilised optimally to mobilise effective second language learning.

## Significance of the Study

Current language learning practices adopt an integrated approach where listening, speaking, reading and writing are seen as not separate skills but inter-related aspects of language that strengthen language acquisition. Kumaravadivelu signposts the need for learners to use the language skills in different combinations to achieve better control over the target language (Kumaravadivelu, 1994). Similarly, Eli Hinkel has argued that an integrated approach to language learning is more desirable than a splitting of the skills. Teaching and learning a language must, therefore, adopt a holistic approach to acquiring the skills. (Hinkel, 2012)

The classrooms in government schools, with their emphasis on reading and writing, do not provide students sufficient opportunities to integrate the four skills. The reasons could be the examination-centric classroom practices, the high student-teacher ratio and limited time available to complete the syllabus. NCERT studies highlight the lacunae in the current pedagogy of teaching English in schools where students don't get adequate opportunities to speak in English. The study says that only 20% teachers were of the view that it is important to train students in listening and speaking. The remaining 80% thought that English teaching is English writing (NCERT, 2012). Robin Alexander's comment that Indian students are "monosyllabic in their utterances than those elsewhere" concurs with the NCERT findings. (Alexander, 2001).

Besides the lack of opportunities available, speaking in a class can be particularly challenging as compared to reading, writing or listening, given the spontaneous nature of the task, the immediate response it attracts and the fear of making mistakes in front of an audience. Jeremy Harmer talks about the natural reluctance of students to speak and participate in discussions because they are shy and not predisposed to expressing themselves in front of other people (Harmer, 2000). Apprehension arises from fear of making mistakes and of social evaluation that may prevent a more frequent use of a language (Brown, 2012).

These behavioural patterns were reflected in the preferences chosen by students in the survey conducted for this research. Students were required to choose the skill in English they are best at. The preference leaned towards reading and listening (reception-oriented) rather than writing and speaking (production-oriented) with very low percentages for listening and speaking. The responses could indicate low confidence levels and a fear of using these skills.

Paradoxically, it is only through practice that the learner can gain confidence in speaking the language. The lacunae noticed in the regular classroom can be filled by offering this supplementary space with the affordance of technology. The use of technology provides more time and opportunities for students to practice the language. Also the environment created with the affordances of TELL is perceived as less 'risky' for learners to be able to practice the language and make mistakes without fear of judgment.

This study explores how these alternative 'safe spaces' can be built and the role the CLIx platform plays in supporting a holistic language development.

## Objectives

How can technology be made an effective medium to ensure the provision of a 'safe space' for the students to express themselves freely? We define 'safe space' in this study as one that is stress-free and non-judgemental and can be achieved through collaborative learning. This study

works with the positive hypothesis that creation of a low stress, non-judgmental learning environment enables ESL learners to acquire language more easily, and such an environment can be created with the use of technology in language learning.

This paper examines the attributes of an alternative pedagogic and learning space, created by the CLIx English lab. The CLIx English lab complements the pedagogy of the regular classroom by providing greater time, opportunity and space for students to listen to the language and express themselves in English. It also provides scaffolds for students to meaningfully to develop their skills at their own pace. Through this study we look at whether all these factors ensure that the environment thus created using a blended language learning platform is conducive for oral production of language and how learners interact with it to effectively utilise its features.

# **Description of CLIx English**

This study on the role of technology in creating a safe learning space for higher secondary ESL students was conducted at three government high schools in Aizawl, Mizoram that are part of the Connected Learning Initiative-x (CLIx) project.

CLIx is a project undertaken at Tata Institute of Social Sciences, Mumbai, in collaboration with Massachusetts Institute of Technology, Boston and the Tata Trusts . It aims at creating supplementary course modules in English, Maths and Science for higher secondary students in four Indian states - Rajasthan, Chhattisgarh, Mizoram and Telangana. The CLIx English course focuses on refining the listening and speaking skills of students through active language production. It is structured as an interventionist lab and using the TELL platform, follows a blended learning approach to influence language learning practices among students. The course contents emphasise relevance or authenticity to the learner's context to enable better communication in English in real life situations. One of the pedagogic pillars of CLIx that guides the module is creating a safe learning space that will allow students to make and learn from their mistakes. The blended learning space, with support from TELL platform, enables this process.

## The CLIx English course and Tools:

The CLIx English course is a process-oriented one that lays emphasis on "learning how to learn" (Winch, 2005). It promotes the need for a change in attitude to language learning from an outcome based approach to language acquisition, by encouraging language production.

At present, the CLIx English module, offered to Class IX students, includes 20 hours of lessons that cover two levels: the *English Beginner (EB)* and the *English Elementary (EE)*. The EB module was designed in response to a demand from some states for an English course pitched at a lower level. The EB module has two short audio stories followed by comprehension and minimal production oriented exercises based on the two stories, to maximise language input. The EE has one audio story and activities that are structured loosely around the script. The EE requires the learners to produce language spontaneously in a variety of social contexts and provides speaking opportunities to enable language output.

The EB and the EE use a variety of tools on an asynchronous, offline digital platform. The tool for recording speech, or the Audio Recording Tool (ART) allows students to practice and record their answers to questions over a duration of 100 seconds. These recordings can then be replayed and if the student is dissatisfied, re-recorded. Scaffolds for this activity are given in the form of Model Conversations in the audio format, and Word Clouds that give students relevant keywords to create their own dialogues.

The Open Story Tool (OST) allows students to choose pictures from an image gallery and create slideshow movies. Students can type captions of upto 140 characters for each slide and record their lines. The selection tool supports multiple choice questions and lends itself to comprehension. The Moveable Word Tool enables movement of letter or word blocks on the screen to construct words, sentences, match columns, fill in blanks, and follow audio instructions to accomplish a set task. Also available is a Short Extended Answer tool that allows students to type answers of different lengths in a box provided. Each of these tools provides scaffolding to students in the form of textual and audio hints, Model Conversations and feedback that guide students towards task completion.

### **Research Methodology**

This study adopts a mixed methods approach to study the influence of a safe learning space on language production by ESL learners. Based on survey questionnaires, classroom observations of students' behaviour in the CLIx lab, interviews with teachers and focus group discussions with students, this paper is descriptive and interpretive in approach.

The study was conducted in three governments schools in Aizawl in the last week of the CLIx lab of this academic year. The choice of schools for this study were based on availability of desired infrastructure, electricity supply and power back-up in case of power failure, presence and engagement of teachers with the programme, since this research looks at the ways in which technology intervenes in language learning practice. The schools though categorized as English medium, were largely bilingual.

Around 100 students from the three schools answered questions on language learning practices, preferences and attitudes to technology in the survey. Interviews and focus group discussions were also conducted with the students and their teachers. This data supplemented classroom observations of the CLIx lab based on codes developed to note the number of instances of students interacting with each other, instances of progression, regression and distraction, instances of teacher intervention and students' ability to complete the task set to them.

## **Observations and Analysis**

This section presents the observations of our research on language learning practices in the three schools. We begin with discussing how students perceive their skills and their preferences that is revealed from the survey conducted. The interviews and classroom observations were coded for

analysis and triangulated with the survey data. They also throw light on the nature of student response and their course of progression and regression.

As noted in the earlier section 'Significance of the Study,' present day classrooms provide minimal opportunities for students to speak. The students of these schools also revealed that speaking is the skill the least number of students perceived themselves to be good in, indicating a low task self-esteem. Lower self-confidence could lead learners to struggle in producing speech, part of the reason being fewer opportunities to practice speaking without fear or intimidation in the regular classroom.

According to Krashen, the self-confidence variable has to be higher to reduce the affective filter. For Brown,

Production involves a display of language and therefore causes a sense of insecurity. One can afford to fumble, backtrack, or try out different possibilities in comprehension, without revealing one's incompetence or losing face, while any such strategies in production run the risk of being noticed. Learners therefore need a relatively high level of linguistic confidence (arising from a relatively firmly-formed internal system) to engage in production. (Brown, 2012)

Speaking becomes particularly intimidating because of its relative spontaneity. The low preference or liking for speaking in English was also revealed in the survey. Fear factors arise from fear of making mistakes, being ridiculed by peers and the rupture of a fragile language ego that may prevent further use of a language. Yet, a greater percentage of students leaning towards the positive scale(I like speaking: very much/not very much) as compared to the negative (very little/not at all) could indicate motivation and desire among learners to work on their skills and develop further.



Despite this there was several factors that motivated them to learn the language. The survey had a component where the students were asked if they liked learning English on the computer. A high average of 65% (between 62%-68%) indicated that they liked it 'very much.' In two of the schools, moreover, there was 0% negative response to this item, indicating a strong preference for learning with technology.

There were two questions to gauge whether students like to work on the computer and whether they like to work with a friend on the computer. To the question 'I like to work on the computer' 59.7% students marked 'very much' and 74.58% students gave the same response to 'I like to work with a friend on the computer. This interest to learn the language from computers expressed by students can be considered an intrinsic motivation to learn the language through digital platforms.

For the item, "My parents want me to speak English", the response has been overwhelmingly positive. Between 68% to 90% of students across the three schools said that their parents want them to speak in English in the three different schools, thereby strongly establishing motivation and parental support in learning the language. This ensures a social support structure that permits language learning.

Students also showed greater preference towards working with friends on computer compared to working alone. This comparison of statistics has been combined with the analysis of observations in the classroom and interviews in the next section to establish the role of peer collaboration in supporting the safe learning space.

Observations of the three classrooms revealed heightened engagement of the students with the lessons. There were several instances of cross-pair discussions observed as well as intense paired discussions in the process of task completion. There were several light hearted moments of banter that punctuated serious discussions on the language task and silent reflections. The classroom observations were transcribed based on codes developed to study learner behaviour in a process-oriented language learning lab. PDp indicates instances of pair discussions that lead to progression, PDr, instances of pair discussions leading to regression and PDn, instances of paired discussion that had no noticeable outcome. By progression, we imply actions that range from successful completion of tasks to silent processing of information, engaged discussions over the language task and applying the knowledge gained in previous activities to other tasks. Regression involved actions that did not yield language results, where students displayed confusion, apprehension or incomprehension. Neutral was used to characterize activities that involved aimless browsing or distractions. Other codes - PD-M and PD-E - were used to capture the number of instances where the paired discussions were held in the mother-tongue (in this case, Mizo) and English, respectively. Also included were coding of the number of instances of teacher talk in Mizo and English (TT-M and TT-E, respectively).

It was observed that the students who recorded their answers became excited upon hearing their voices. In the initial stages of recording, it was observed that students paid attention to the Model Conversation before they recorded their answers. They chose and practised specific sentences from the conversation and subsequently recorded those very lines. The following transcripts of our classroom observation indicate this practice.

'P9 listens to model conversation and turns audio transcript on (PDp). They choose the line from the transcript "I am in Class 9" and decide to record (PDp). Says "1, 2, 3" and record (P).'

The transcripts reflect Jeremy Harmer's statement that in the initial stages of language learning, students imitate the language. As they progress further, however, they re-word their ideas. Rehearsals that they can listen to gives students a feel of how they sound and allows them to improve on what they have recorded, giving them more confidence subsequently (Harmer, 2000). The students in the CLIx classrooms were observed recording their lines multiple times as practice attempts before saving their file, thereby tapping into the non-judgemental space of the TELL platform along with their peers to practice production of speech in the target language.

Further, in the school where the students had progressed to the EE module, the Model Conversations were not used merely as content for repetition. Students listened to the audios carefully and wrote dialogues in their book in a pattern resembling the model conversations. Also of significance was that while the patterns of the dialogues were similar to the model conversations, the contents had newer ideas, introduced by the students individually. In the one hour classroom observed, there were at least 4 distinct instances observed of students spending time and going through the Word Cloud by moving the cursor and reading out the words.

#### Findings

During the interviews there were students who said that "Let's Talk" or the Audio Recording Tool was their favourite. The students' comments correspond with classroom observations wherein they were seen experimenting, exploring the tool and in some cases even singing into the audio recorder. In this case, we can argue that part of the the motivation to produce the language is triggered by interest in the tool.

It was observed that students recorded their lines multiple times before being satisfied enough to save their recordings. In terms of the process of language learning, the oral language produced acts as the input for self-correction (Krashen, 1982). Learners also start 'noticing' the nuances of a language as they speak more. The very act of trying to speak, even in hushed voices into the microphones, was an opportunity for speaking and for self-correction. Harmer indicates the need to give students some quiet time to think silently about what they want to speak about and how they will speak out. This could mean letting them practice in pairs before having they do anything in public. (Harmer, 2000)

Tool design and the scaffolds in activities were also learning aids that were supplied by the technology platform. The instances cited during the observations show the significance of scaffolds or language inputs that students were observed to be using effectively for oral production. The design of the tool that allows students to listen to scaffolds as many times as they want and spend time on the word cloud keeps the affective filters low and makes the student open to comprehensible input, reinforcing Krashen's point that improvement upon learner levels occurs from comes from supplying a K+1 communicative comprehensible input. (Krashen, 1982)

The presence of a peer in planning the content for recording favoured a smoother participation in Let's Talk. Studies have shown that during adolescence the language ego among learners is greater as compared to younger learners (Brown, 2012). Therefore, the inhibition to speak is more. The presence and support of peers in the process helps reduce the inhibition (Brown, 2012). In the CLIx classroom, cross-pair interaction during Let's Talk and Open Story Tool was highest. It was also observed that the headphones were shared with neighbouring pairs so they could listen to the recordings done. In this process, when the other pair was encouraged to record their answers, they would at times record the same answers. This was an initiation for some learners to take risks and record their lines. Peer interaction enabled this process. During the interview a student said: "We help each other. We answer questions together. We discuss how to answer the questions together". The survey data also corroborates that students enjoy working with their friends on the computer.

The blended platform attempts to break the pattern of teachers dominating conversations in the classrooms. During the interview the teacher of a school stated,

The students have really started opening up. See, in a classroom, it's a big group together, and we have to maintain some discipline to finish our course. We are telling them to be quiet, sit down, don't shout. Here, in this course, there is no pressure, they really enjoy it. They walk around the lab, they talk to their friends, they discuss with each other.

Sometimes they also ask their friends across the class and on the next computer. And now, when they come to class, they have started talking more. Even the silent ones have started saying something. It is after this module that I realized that certain students could talk in English.

Another incident related by the teacher indicated motivation and agency to learn. The teacher recounted an instance, a few weeks after the start of the CLIx lab, where an erstwhile quiet students asked her if he could bring a dictionary to the classroom. The next day, he walked into the regular classroom with his personal dictionary that he used to look up meaning of words he did not know.

Teacher interviews and anecdotal evidence indicate that students, including hesitant learners, have begun to speak in regular classrooms. Also noticeable, states another teacher, is the improved abilities of the students to better understand and present what they are asked to do. However, we do not yet have observation of the regular classroom space to validate the spillover effect into the regular classroom space.

### **Discussions and Implications**

The observations, interviews and surveys have shown that a meaningfully designed TELL platform has potential to create a safe-space that is conducive to oral production of language. It provides ample time, opportunity for students to practice speech, take risks and orally experiment with language without fear of making mistakes and social evaluation. For students who are used to a teacher-centric classroom, TELL brings about a shift in learning culture necessitating greater student initiative, supported positively by peer-interaction and collaborative-learning. These potentialities can be harnessed for production and practice of oral skills, to effectively complement language learning in the regular classroom space.

Future work will draw on the current study to establish replicability over the next year, 2017-2018, and attempt to codify practices within a technology enabled language lab that can promote a conducive environment for effective learning.

#### **Acknowledgements:**

We would like to acknowledge the contributions of the following people in this research. We are grateful to our English advisor, Dr. Malathy Krishnan, for her invaluable insights and critical

comments that have helped shape the study. Karuna D'Souza, Manoj Bhandare and the CLIx media team helped in the illustrations and story ideations for the CLIx English module. Ashwin Nagappa, Prachi, Tanvi Domadia and Tejas from the Technology domain constructed the TELL platform for the course. Prof. Ajay Singh and Omkar Balli, the heads of project implementation, and Dr. Diki, Fela, Prasanna and Robert from Mizoram actively helped in collaborations with the schools and helped in data collection, conducting surveys and facilitating interviews with the teachers, headmaster and students, for which we are very grateful. Louisa Rosenheck and Ling Hsiao from MIT, Boston, have rendered invaluable support in activity and research design over the several months of the project. We finally register our gratitude to Profs. Padma Sarangapani and Archana Mehendale for their ambitious initiative in envisioning and driving the CLIx project, and their support in all matters ranging from administrative to academic discussions on pedagogy and research.

## **References:**

Alexander, R. J. (2001). *Culture and pedagogy: International comparisons in primary education* (pp. 391-528). Oxford: Blackwell.

Brown, Douglas H. (2000). *Principles of Language Learning and Teaching*. 4<sup>th</sup> Edition, New York: Pearson Education.

Cook, V. (2013). Second language learning and language teaching. Routledge.

Dutta, U. & Bala, N. (2012) *Teaching of English at Primary Level in Government Schools*. NCERT.

Harmer, Jeremy. (2007). *The Practice of English Language Teaching*. 4<sup>th</sup> Edition. New York: Pearson.

Hinkel, E. (2012). Integrating the Four Skills: Current and Historical Perspectives. *Oxford Handbooks Online*. Retrieved 13 Mar. 2017, from http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780195384253.001.0001/oxfordhb-9780195384253-e-8.

Krashen, Stephen. (1982). *Principles and practices in second language acquisition*. New York: Pergamon Press.

Kumaravadivelu,B. (1994). The postmethod condition:(E) merging strategies for second/foreign language teaching. *TESOL quarterly* 28.1. pp 27-48.

Swain, Merrill. (2000). "The output hypothesis and beyond: Mediating acquisition through collaborative dialogue". *Sociocultural Theory and Second Language Learning*, ed. James P. Lantolf, UK: Oxford University Press, 97-114.

Winch, C. (2005). Autonomy as an educational aim. Philosophy of education. Oxford: Routledge, 65-73.