Incorporating ‘The Triple E Framework—Learning First, Technology Second’ and Cooperative Learning’ in Low Tech English Classrooms

Pushpa Nagini Sripada, Mani Ramana Cherukuri

Abstract— In a classroom the focus of teaching is always on facilitating learning to take place for the students. In recent times, use of technology by educators and schools is gaining ground in India. The paper presents the theoretical framework for evaluating the lessons that use technology for teaching purposes. Blooms taxonomy suggests the criteria for taxonomy of learning at the cognitive domain, affective domain etc. This leads to the question of involving students in “thinking, reflecting, and effortful mental activity” but not in the mere act of “swiping, tapping, and physically engaging with an app” (Dr. Ellen Wartella). The paper presents frame work that is developed by Liz Kolb, a clinical Assistant Professor at the University of Michigan that enables the teachers to choose smart tool that suits their instructional purposes. The paper also touches Cooperative Learning strategies that can be focussed in Low tech classrooms in Indian contexts

I. INTRODUCTION

Frame works for Using Technology: Teacher professionals made use of frameworks such as TPACK and SAMR while integrating technology into classroom learning. According to Lee Shulman (online), “At the heart of the TPACK framework, is the complex interplay of three primary forms of knowledge: Content (CK), Pedagogy (PK), and Technology (TK). . Effective technology integration for pedagogy around specific subject matter requires developing sensitivity to the dynamic, transactional relationship between these components of knowledge situated in unique contexts” Content Knowledge (CK) refers to “Teachers’ knowledge about the subject matter, According to Shulman (1986), this knowledge would include knowledge of concepts, theories, ideas, organizational frameworks, knowledge of evidence and proof, as well as established practices and approaches toward developing such knowledge” (cited online).

Technology Knowledge (TK) refers to knowledge about certain ways of thinking about, and working with technology, tools and resources. Pedagogical Content Knowledge (PCK) Central to Shulman’s conceptualization of PCK is the notion of the transformation of the subject matter for teaching. PCK covers the core business of teaching, learning, curriculum, assessment and reporting, such as the conditions that promote learning and the links among curriculum, assessment, and pedagogy” (online).

SAMR is a model that helps educators to infuse technology into teaching and learning. Popularized by Dr. Ruben Puentedura, the model enables teacher educators to design, develop, and infuse digital learning experiences with the use of technology with a purpose to focus on higher levels of achievement for students. (online).

As many teachers integrate technology to connect, and to engage students and also use technology to reach out to students even outside the classroom. Building on the TRACK and SAMR frameworks and also keeping teachers’ goals in integrating technology for teaching Liz Kolb, designed the Triple E Framework as a practical tool to help teachers put “learning first, technology second.” She suggests a rubric along with the framework to guide in professional thinking. To quote White Amber (2017), “After establishing clear learning goals and then determining what technology will be integrated into the lesson, the framework can be used to evaluate overall lesson quality by looking through the lens of the three E’s: engagement in learning goals, enhancement in learning goals and the extension of learning goals”. The rubric for evaluation is shared online to benefit teachers, who use the framework.

Use of Technology in Indian Classrooms:

Though MHRD is insisting on using technology in the classrooms, the scenario in actual contexts at the class room differ from college to college, school to school. These class rooms can be broadly categorised into three types based on the availability of the technology gadgets both to teachers and students.

High tech classroom: A high tech smart classroom with multimedia tools, internet facility allows a teacher to engage the learners in activities that involve team work and cooperative learning atmosphere. Students may solve online tasks by discussing with peers as it enables them to engage in real life situations. But such classrooms also may prove to be highly distractive if mobile phones are allowed. Low tech classroom: A classroom with limited technology, only allows a teacher to expose the students to technology, as individual experience on using technology will be
constrained. Teachers may ask the students to do tasks using their smart phones or by using their computers at home by demonstrating the process of doing the task in the classroom by using a projector. Due to this constraint, students may seek others help by using Whatsapp.

No – tech classroom: No tech classrooms only offer the text book as source of materials for teaching English teacher. Most of the students may lack computer literacy hence digital literacy cannot be taught.

Focus on Affective Domain: One must accept the fact that apart from Cognitive Domain, teachers also should focus on the highest order thinking skills like Critical Thinking and also on the affective domain. These aspects are taken care of by usage of ICT tools for teaching. With Cooperative learning taking focus now, students working a teams and pairs by using Google documents, creating their Blogs, Sharing posts in groups and social book marking sites, there is more focus on cooperative learning. With a combination of students very good at using and learning new technologies, and those who need assistance from the teachers, usage of ICT tools enables the teacher to encourage the students to involve in team work. Then one can definitely say that Cooperative learning takes place in such situations. ICT allows nurturing respect and friendship among students.

Johnson, Johnson, and Smith (1991) suggested that cooperative learning is more than simply “working in groups,” it allows positive interdependence where team members are reliant on one another to achieve a common goal, and the entire group suffers the consequences if one member fails to do his or her work. Another aspect of Cooperative learning is individual accountability, where each member of the group is held accountable for doing his or her share of the work. It also allows more interaction where, most of the tasks are performed through an interactive process in which each group member providing feedback. Another positive side of ICT in classroom is collaborative learning, where there are opportunities for students to develop trust-building, leadership, decision-making, communication, and conflict management skills. Another outcome of ICT tools is group processing in which team members work in teams, as a designer, as a materials gatherer, time keeper etc, by establishing group goals and involve in assessment of their performance as a team, by reflecting on their performance, they identify changes that need to be made in order for the group to function more effectively. Hence The focus of areas of Cooperative learning are met with in Triple E Frame work – Learning first, technology second.

According to Johnson and Ahlgren (1976) and Johnson et al. (2007), group dynamics play an important role in effective collaboration, while “competitively structured groups” can be a hindrance. “Positive interdependence exists when individuals perceive that they can reach their goals if and only if the other individuals with whom they are cooperatively linked also reach their goals and, therefore, promote each other’s efforts to achieve the goals” (Johnson et al., 2007, p. 16). However, Onwuegbuzie as Collins, and Jiao (2009) point out, individual accountability is key to the success of the overall group and helps to prevent “social loafing,” or reduced individual effort resulting from too much dependence on other group members (p. 272). In ICT enabled classrooms, individual accountability is also taken care of as the tools project individual work without one group member remaining passive or dominant throughout.

Use of Technology to Focus on Critical Thinking Skills: Students get opportunities to do online group work by using web 2 tools. They can involve in collaborative work by using Google documents, interactive power points, using online sticky notes like Padlet to work on a common wall, and even using virtual avatars like Voki Avatar. Group collaboration as students produce better materials than by working in individual work. They also learn to respect the point of view of the peers in the group, and collaborating on a project or studying with a group generally stimulates interest, increases the understanding and knowledge of the topic.

Activities for Low Tech Classrooms: Since many educations institutions have less technology availability, some of the activities that can be done in low technology classrooms are shared. Teachers can demonstrate to the students how they can create a Woki, Padlet, or even an Infographics in the classroom, which students can try using their smart phone or laptop. Link can be shared in the group created by the teacher either on Whatsapp, pb works, or Edmodo etc.

Examples of Triple E Frame work based tasks:

<table>
<thead>
<tr>
<th>Description of the Activity</th>
<th>Which goal or goals the task has met</th>
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<td>Students use a digital wall (Padlet) to advertise a product they have at home for sale. They are asked to take a picture of the item and post a suggested price. Other students read the ad and comment on things such as price, beauty, interest, or ask for further information.</td>
<td>This activity would Extend and Engage learning in some manner (two Es). It allows students to build on skills that they can use in everyday life (bargaining, asking questions, using image and text). It also engages learners because the platform that shares everyone’s creations causes them to move from passive to active social learners once the task engages them more meaningfully</td>
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In the class Watsapp group students are asked to upload photos of their favourite thing (decor, piece of clothing, a book etc.) and write why they choose it. Next lesson we discuss it using Past Simple (What did Ali chose?) and Passive Voice (What was it made of?) - a sort of lead-in to the topic.

Students prepare a power point presentation and present a picture and an explanation of its pieces, showing what this invention will be able to do. They also talk about any disadvantage that it has. At the end they answer questions stated by the audience related to their invention.

Level: PG English specialisation
Paper: Concepts of Critical Thinking, they watch video and read to prepare notes
Tools: Padlet
Standards of reasoning notes was shared, PG students created notes on padlet to share with group members. Purpose is to make them explain the terms related to Standards so as to enable them to identify in reading passages

Engagement: Students internalize or personalize the topic, cooperating with new ideas.
Enhancement: Learning by listening and reading as they put to practice what they learn as they work in teams and groups.
Engagement: The students are motivated to complete the work working in groups. Using Padlet enabled them to complete the task
Extension: Some students used the tool in their part time jobs as some of them work as IELTS trainers. They used it to teach vocabulary
Links to Padlet work by students:
1. https://padlet.com/angelin9996/3fk0n96v38st By Student 1
2. https://padlet.com/karthika8875/kfsdfm81wm6a By Student 2
3.https://padlet.com/dhivyadrasthi/c5g8d3sd3psw By Student 3
4. https://padlet.com/georginasalvaraj/5herw7fk5ekj By Student 4
5. https://padlet.com/priyaramanathan2896/ydlqv60xrwk6 By Student 5

Other tools to teach include Infographics. Infographics are great authentic materials that provide visual materials to teach language in the classroom. They facilitate teaching of pronunciation, grammar, vocabulary, reading and writing. The paper comprehensively discusses how infographics can be used in ESL classrooms by sharing some activities as they also provide useful web links that can be used by the instructors to facilitate students to develop infographics and share them on pintrest. Such activities form part of problem solving tasks that facilitate language teaching and ways to engage and motivate students, the digital learners, in the classrooms. Larry Ferlazzo (2012) explains Infographics as images that show data in a visual way, and they “make the information much more accessible for English Language Learners and everybody else”. Infographics are also great tools for memorising. Various colors, different fonts and creative shapes can all be used together to help students to learn more efficiently but they can also help educators keep their students focused on the topic at hand, without the need for wasting any extra energy on warnings and re-establishing order in the classroom...” A study suggest that visuals are processed 60,000 times faster in the brain than text. Another reason for choosing Infographics is to reduce the carry load of books to the students. With digital literacy catching up, more and more schools are opting for online assignments, e books and even Infographics for teaching purposes. Hence the benefits of using visuals like Infographics in the classrooms are undeniable. Visuals like Infographics are very much beneficial to the teachers and students also. A central image can be used for the entire class to focus instead of reading or looking up notes while explaining in the classrooms.

Some of the ideas for Teacher Created Infographics include (PLB 2015)

- Finding Infographics online and sharing them with the students.
- Getting students to answer questions based on an Infographics
- Teaching students to make interpretations based on statistics on an Infographics

Writing skills can be improved by using Infographics. Vocabulary related to the teask can be easily taught and the students can write descriptive paragraphs by suing them. Students can be asked to represent their essays in an Infographics. While engaging students in the classrooms,

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they can be guided to note their information in a sequential order, and not necessary in points or paragraph format. This process helps students build visual presentation and communication skills. Infographics are a great way to explore vocabulary. Learners can make choices, view and comment, and even create their own Infographics about words and topics. Many Infographics for teaching can be found at pint rest, an example is provided here. Students can be asked to look at an Infographics and can be asked to come up with as many as questions as possible.

**Learning first, technology second**

The EEE Framework is framed with the assumption of focussing more on learning by using the technology that will effectively be used to improve students’ learning students or to meet the instructional goals of the lesson. By using the frame work as a rationale for developing tasks for teaching English Language would greatly help the learners. Since Learner participation is the central to all teaching learning activities, as it is the only way in which learners can attribute real meaning to their own learning. Some teachers are constantly encouraged to employ pedagogical methods that promote the active involvement of learners in their own learning. Cooperative learning is a viable and effective instructional methodology for teaching and learning social studies. It helps to make social studies exciting and enjoyable for both students and teachers. Cooperative strategies can be integrated at any grade level for any social studies topic. Moreover many positive effects are noted by teachers and students. Students learn to cooperate with others and communicate with their peers easily. The classroom atmosphere tends to be relaxed and informal, help is readily available, questions are freely asked and answered and even the shy student finds it easy to be involved. Students tend to become friends with their group members and the teacher-student relationship tends to be more relaxed. In addition, many students maintain a high level of interest in the social studies activities and have an opportunity to pursue the more challenging and creative aspects of social studies.

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