8 Technology in Language Classrooms: Filmmaking as a Tool for Developing Life Skills

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ABSTRACT: *An acquisition-rich environment is one where language is used in real-time by the users outside of the classroom. Learning occurs best when the learner is self-motivated and the task at hand entails multiple interactions and challenges the learner's cognitive processes. With rapid advancements in technology, language classrooms in India are undergoing sea-changes where teachers are being compelled to incorporate technology into their teaching methodologies so that the present day learner's needs are addressed. But rather than "learning from technology", it is the "learning with technology" method which allows for more creative and empowered learning. This paper explores the potential the filmmaking process has in developing the life skills of 40 undergraduate engineering students. Right from the initial idea to the final presentation there are so many opportunities and experiences for learning that it can safely be considered as a powerful and appropriate tool for the 21st century language classrooms. The filmmaking experience which cultivates the students' visualization skills, problem solving skills, logical thinking skills, planning and coordinating skills and speaking and writing skills, could act as a stepping stone to other innovative and creative academic projects. At National Institute of Technology (NIT), Rourkela where the filmmaking project was successfully completed by the students as a Language lab group assignment is reflected upon as a case study. At NIT, Rourkela, language lab is a one-semester, compulsory two-credit lab course for all the 2nd year Bachelor of Technology (B.Tech) students.*

Introduction

With rapid advancements in technology, classroom teaching and learning strategies are being redesigned continuously to meet the demands of present day digitally-literate learners. Technology has become so ubiquitous today that if we don't integrate it into our classroom teaching then students tend not to take assignments too seriously. It also seems unwise not to take advantage of all that technology that is being made available to us by the system. But effective technology integration should happen in ways that serve to expand and enhance the learning process rather than to teach basic computer skills and software programs. In particular, technology integration must support the four key components of learning: active engagement, participation in groups, frequent interaction and feedback among students, and connection to real-world experience.

With new technological tools continuing to emerge and impact the teaching-learning methods, language teachers and researchers worldwide are also facing the question of how best to utilize the vast array of technological tools available in the language classrooms while keeping abreast of the rapid changes in Computer Assisted Language Learning (CALL) world (Chapelle, 2003; Chapelle & Douglas, 2006). Additionally, with technology becoming more interactive, accessible and convenient, students also wish to use it more in their classroom learning. In language classrooms, particularly where the target students are potential engineers, it becomes all the more essential that the integration of technology into our teaching strategies happen in

such a way that utilizes and generates students' inherent technical knowledge and skills as well as provides them with a supportive learning environment which nurtures their creativity and other life skills.

Rationale

An acquisition rich environment is one where language is used in real-time by the users outside of the classroom. Learning occurs best when the learner is self-motivated and the task at hand entails multiple interactions and challenges the learner's cognitive processes. Active student involvement in the learning process always enhances learning. Most experts agree that students learn best when they take an active role in the education process, discussing what they read, practicing what they learn, and applying concepts and ideas (Davis, 1993). "Active learning" as defined by Bonwell and Eison (1991) is "anything that involves students in doing things and thinking about the things they are doing." Active learning as suggested by Smart and Csapo (2007) include the following general characteristics:

- Students are involved in more than listening.
- Instruction emphasizes the development of students' skills more than just transmitting information.
- Students develop higher order thinking skills (analysis, synthesis and evaluation).
- Students are engaged in activities (e.g., reading, discussing, and writing).
- Students explore their own attitudes and values.

Our aim therefore, should be to ensure that learners are assigned tasks driven by technology, and at the same time it should be cultivating their life skills that have become so essential in today's competitive work place scenario. In recent times rapidly changing circumstances at work and in society are putting a premium on adaptability, collaborative learning and learning through experience. World Health Organisation defines life skills as 'abilities for adaptive behavior that enable individuals to deal effectively with the demands and challenges of everyday life. UNICEF defines it as a behaviour change or behaviour change approach designed to address a balance of three areas: knowledge, attitude and skills. The core set of skills as proposed by the World Health Organisation, that follow the above descriptions are:

- Problem solving
- Critical thinking
- Interpersonal skills
- Coping with stress and emotions
- Effective communication skills
- Decision-making
- Creative thinking
- Empathy
- Negotiation skills
- Self-awareness

Life-skill education therefore promotes mental well-being in young people and equips them to face the realities of life. Effective application of life-skills can influence the way learners feel about others and themselves, which in turn can contribute to their self-confidence and self-esteem. Today's learners are going to be tomorrow's leaders and managers. "No organization in a post-industrial, hyperturbulent, twenty-first century environment will survive without executives capable of providing both management and leadership. Leading change and managing stability, establishing vision and accomplishing objectives, breaking the rules and monitoring conformance, although paradoxical, all are required to be successful" (Whetten & Cameron, 2007). Our students, in other words, need to develop competencies that will enhance their ability to be both leaders and managers. The critical factor here is to develop these skills in our students by giving them such tasks and assignments that showcase their tech-savvy abilities and creativity at the same time.

Digital media: Need and application

Students today live in a world immersed in visual literacy. Television, computer/video games, cell phones, social networking sites, e-mails, chat rooms and instant messaging are common forms of entertainment and communication among students of this generation. After all this

exposure they become quite accustomed to learning from the visual media. Digital natives, or "native speakers" of today's technology, require learning environments that support their need to learn and think in technological terms (Prensky, 2001). Visual literacy has become extremely important today in both education and in the wider world of business and industry; the latter because employers are increasingly demanding it of their prospective workers.

Having said that, the focus in education, should be on "learning with technology" rather than "learning from technology," (Kingsley, 2006) as the former allows for more creative and empowered learning. Learning with technology fosters creativity in the learner as he or she is empowered to design individual representations of content using technology. With multimedia, learners engage in knowledge construction rather than knowledge reproduction (Reeves, 1998). The use of multimedia (text, sound, graphics, and video) can assist students to incorporate their creativity and innovation into a project delivered by the computer. Creative projects using multimedia elements encourage discovery and innovation and their application to real world situations. Teaching digital natives is not simply about learning technology; instead, it is about teaching students to use technology such that they become critical thinkers and problem solvers (Theodosakis, 2001). The filmmaking assignment reported in this study is one such means of using multimedia techniques that allows students to communicate ideas visually. When students use technology as a tool or a support for communicating with others, they are in an active rather than a passive role of working with the technology in course of researching, analyzing, organizing and representing information they have gathered for their assignment.

The Indian scene

In order to stay abreast of global trends of engaging in the use of technology to transfer knowledge, language classrooms in India are also undergoing sea-changes where teachers are being compelled to incorporate technology into their teaching methodology, so that the present day learners' needs for the working world are properly addressed. In most engineering institutes and colleges in India today, multimedia digital language laboratories are the norm rather than the exception. But strangely, in Indian language classrooms, the use of digital video/visual literacy is limited, even with the advanced technology that has been made available in most technical colleges and institutes. While teachers and researchers in the USA, like Theodosakis, (2001), Hofer and Owings-Swan (2005), Sharkey (n.d.), Armstrong, Tucker and Massad (2009), Sheffield (n.d.), in the United Kingdom, Kingsley (2006), Allam (2007), in Australia, Kearney and Schuck (2004), Ludewig (2001) and in Singapore, Pun (2009) have been in the forefront as digital video/digital storytelling practitioners and researchers their counterparts in India have not really considered filmmaking as a tool in the language teaching-learning process. A review of contemporary literature did not reveal any Indian scholar working on this particular teaching and learning strategy. However, this is gradually becoming an area of interest to researchers of CALL in India. Some individual scholars have started exploring digital video productions as an effective tool for developing life-skills of present day learners.

Filmmaking as a creative assignment

Right from the initial idea to the final presentation the filmmaking process is full of so many opportunities and experiences for learning that it can safely be considered as a powerful and appropriate tool for the 21st century language classrooms (Theodosakis, 2001). The filmmaking experience cultivates the students' ability to visualize, problem solving, logical thinking, planning and coordinating skills as well as speaking and writing skills that could act as a stepping stone to other innovative and creative academic projects. As creativity and innovation are increasingly being considered invaluable in securing jobs and livelihoods in today's competitive and fast-changing marketplace. Today's generation of youth are always looking for opportunities to express themselves; and by expressing themselves creatively through such an assignment they

get empowered with the notion that they can translate their goals into tangible reality. They develop valuable life-skills that boost their self-confidence and enthusiasm for taking on new challenges.

Digital moviemaking is broadly defined as the use of a variety of media (images, sound, text, video and narration) to convey meaning. User-friendly, non-linear video editing software like Windows Moviemaker, Apple's iMovie, Sony Vegas Pro 9, Total video converter, Photoshop, Nero Soundtracks etc. are used by students to create videos to communicate thoughts and ideas. The ability to capture diverse images, text and sounds and make educated decisions regarding the best way to combine them into a coherent and meaningful product makes digital filmmaking an appropriate tool for creative language learning. The students explore an original idea, prepare their own script and then simultaneously do the acting and directing. Editing concludes the process. These activities of exploring ideas and turning them into tangible scripts and role playing in films where the language for communication is English, best exemplify creative language learning.

The filmmaking assignment has its foundation in the task-based approach to language learning and teaching. Language learning is a developmental, organic process that follows its own internal agenda. Errors are not necessarily the result of bad learning, but are part of the natural process of interlanguage forms gradually moving towards target forms (Ellis, 1994). Studies demonstrate that by engaging in meaningful activities, such as problem-solving, discussions, or brainstorming, the learner's interlanguage system is expanded and encouraged to develop (Long & Porter, 1985; Ellis, 2003).

The study

This study reported in this paper is the outcome of a successfully completed filmmaking task assigned to 40 undergraduate engineering students at NIT, Rourkela Institute as a part of their Language lab semester-end project. The Language lab is a compulsory, one semester, two-credit lab course for all the 2nd year Bachelor of Technology (B.Tech) students. Increased intelligibility in speech, improved communication skills and greater self-confidence are the learner goals in these classes. In these three-hour weekly lab sessions, along with the language learning multimedia resources that the students access on a self-study basis, other practical activities are regularly conducted to make the sessions meaningful. Engineering students are technologically inclined but to get them motivated and interested in completing an assignment and actually enable them to learn something from it is not easy.

The filmmaking assignment was given with some of the following key objectives in mind:

- To provide the students with an innovative assignment that would require originality of thought and optimum application of their creativity.
- To give an assignment to the students that along with improving their written and spoken English, also fosters their team spirit abilities, problem solving and analytical thinking skills, leadership skills and their ability to plan, organize and coordinate things.
- To give an opportunity to the students to do something creative that would remain with them as a memoir years after they leave their alma mater.

Filmmaking and communication skills

Students today realize that employers view effective communication skills and the ability to work in teams as being critical to an individual's success in the competitive workplace. They are genuinely interested in improving these skills, but their age range (18–21) is such that unless the assignments challenge their creativity and critical thinking skills they immediately lose interest. Also, although they are advanced language learners, they do commit grammatical, lexical and pronunciation errors while writing and speaking in English. At the same time it can be said that these deficiencies in their speech and writing have never deterred them from using their L2. Their technical abilities/potential necessitates that the assignments are challenging and at the same time not too content-led that they might hinder them from enjoying the learning process.

The filmmaking process that encourages the exploration and practice of a variety of life skills in an interesting way requires heterogeneous classrooms. If we consider the current educational methods in most Indian institutes, concepts from textbooks and case-studies are taught but little or no attention is paid to real-life skill sets (Agarwal, 2009). The additional skill-sets needed to make it in the corporate world, like conflict management, mentoring, networking, practicing leadership skills and execution (the art of getting things done) are not given much emphasis upon. Yet these are skills that are required most in the workplace.

Theodosakis (2001) in his website, www.thedirectorintheclassroom.com, details how the filmmaking process can develop these essential skills at every stage of its production. Each stage is a learning experience:

- It improves oral, visual, writing and presentation skills.
- It develops leadership, negotiating, communication skills and gives a sense of team spirit to the students. Students who hardly talk to each other start working together.
- It creates awareness of the community, friends and self.
- It bridges the gap between the curriculum and the world outside the classroom.
- It fosters research, organization, planning, analysis and synthesis skills.

The lives of our engineering students are mostly full of academic drudgery and very few students do any original or innovative project in the initial two years of their B.Tech career. This filmmaking experience which cultivates their visualization skills, problem solving skills, logical thinking skills and planning and coordinating skills, could act as a stepping stone to other innovative and creative academic projects during the last two years of their B.Tech studies. They have so much fun while completing the filmmaking project that they don't realize how much they learnt from the whole process. A few brief comments from the students are furnished here to highlight how much fun they had during the process:

> "... Thinking new ideas, new effects in movies, it was all fun and a great experience."
>
> "Had great fun sitting with friends and sharing different curious ideas."
>
> "We had a lot of fun and we explored different areas within ourselves."

This is one group assignment that provides a forum through which students learn from each other as they engage in content-focused give and take discussions (Michaelsen, 2000). They learn to coordinate, collaborate and strategize together to achieve a common goal. In real life language is most often used by two, three (or more) individuals to exchange greetings or share ideas, emotions or experiences. Group work, thus is an obvious source of rich and rewarding learning encounters (Tickoo, 2003). Language-acquisition research (Long & Porter 1985; Pica & Doughty, 1985) has also shown that it is in small group interaction that rich opportunities for negotiating meanings become available.

Some observations of students during the filmmaking process

The study reported in this paper was conducted on a class of 40 students who were first divided into random groups of seven or eight and assigned the task of preparing a short film to be presented to the whole class at the end of the semester. The assignment was given to them at the start of the semester. The theme of the assignment was "life at NITR," as that was the life they were most familiar with, and therefore, it was deemed that they would find it easier to visualize and storyboard. At the same time, groups were given the option to develop scripts based on other themes. Initially the students experienced a sense of apprehension when they heard of the assignment. Furthermore, the concept of moviemaking was somewhat new and different to them and they didn't know how to react. For some students it was "like a bolt from the blue, same as exam blues." A few others were left wondering "whether they were engineering students or movie-makers." But then, as the surprise factor wore off, a few enterprising boys took up the challenge and started giving serious thought to the assignment. The thought of making a

movie that was scripted, acted, directed and edited by themselves was extremely challenging, innovative and interesting, yet at the same time quite a few were very much apprehensive of the task. Gradually as the students defined their ideas, prepared scripts and visually laid out their stories, and captured images, they became engrossed and passionate about their work.

Basically there are three steps involved to make a movie: pre-production, production and post-production. The first stage starts with the students rehearsing, preparing the script and utilizing the props. This enables teams to develop their artistic vision through the script writing and rehearsals and most importantly, prevent any errors that would cost the teams wasting time during production. The second stage is the production stage, where acting, directing and shooting happens. This is a long-drawn process and quite a few changes are made to the script during this. The post-production stage involves the editing part after which the finished product is presented to the class and beyond. A sense of achievement is "felt" as days of brainstorming, discussions, arguments, counter-arguments and hard team-work combine to form a slick half hour package of creativity and imagination.

Learning outcomes

With this kind of an assignment, where the impact on student learning is more in the process than in the product, assessment based on conventional grading patterns should not be the focus for the teacher. The process itself is a learning experience for the students which provide a foundation to the essential life skills required for today's work-place. The learning outcomes are closely tied to students' comments and feedback. Along with the general course feedback form, a questionnaire on the movie-making assignment was administered at the end of the semester to two engineering branches (Electronics and Instrumentation, Electronics and Communication) of 2nd year B.Tech students at NIT, Rourkela. All students, 40 in total, completed the questionnaire which was in two parts and did not require them to reveal their identity. One was the open-ended questions on the task and the other was the close-ended section on meeting educational objectives (see Appendix 1). Discussions with few individual students were conducted to supplement the primary data collected through the questionnaire.

General observations and students' feedback

Initially there were a few dissenting voices regarding the lack of cooperation from other team members and lack of cohesion in the team. A few students sought permission to change their teams, but were denied by the faculty. Eventually they learnt to work with their new team mates and had no further complaints. A few "social loafers" (Latane; Williams, & Harkins, 1979) emerged within the groups who simply filled up the numbers rather than doing anything substantial. Time-management was an issue with most of the students. However it was observed that the majority of the students enjoyed themselves and had fun within their groups during the filmmaking process. In general the students reported that the movie-making experience helped them to bond better with their team-mates, enabled them to utilize their creativity and imagination and developed their self-confidence in facing an audience. A few genuine comments on the filmmaking experience made by the students in the feedback form are furnished below to reinforce the observations:

> "I learnt that even I have the ability to think and bring out various ideas. I saw the inner creativity I had within me."
>
> "The most outstanding part of my experience was when the entire group came together in one small room and eruption of bizarre ideas that were flooded while thinking on a particular scene."
>
> "Team Works Means More We. I had read this quotation few years back but believe it now."
>
> "I think movie making will be the most outstanding part of my lab experience as it is very fun

as well as we are learning many more things."

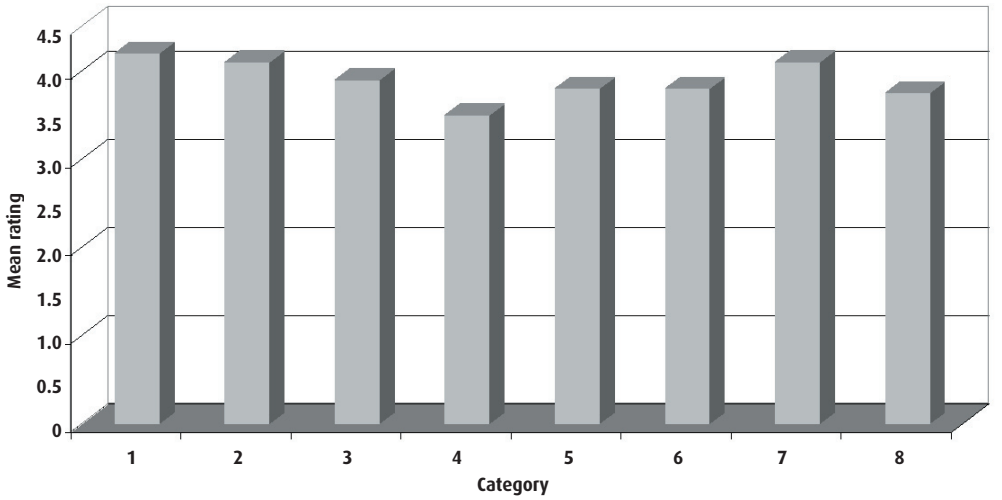
"Implementing on someone else's idea after discarding your one when you were fully in favour of yours is the thing I have learnt."

Section 2 of the questionnaire was used to assess the perception of the students on meeting educational objectives of the filmmaking assignment. There were eight statements in total, for dimensions such as, team-work and cooperative learning, creativity and visioning skills, technology skills, ability to experiment, analyze and reason, critical thinking skills, leadership skills and conflict management skills, communication skills and building self-reliance and confidence. The respondents were required to rate each statement on a five-point scale indicating their satisfaction level with the said objective.

Table 1: Scoring key

Total objective score			Dimension score		
31–40	Excellent	(75% and above)	4.5–5	Excellent	(75% and above)
21–30	Good	(65% and above)	3.5–4	Good	(65% and above)
11–20	Average	(50% and above)	2.5–3	Average	(50% and above)
< 10	Poor	(below 50%)	< 2	Poor	(below 50%)

Figure 1: Chart indicating meeting educational objectives mean rating



Note: **Category 1** = Integration of communication skills and subject knowledge.
Category 2 = Encouraging teamwork and co-operative learning among students.
Category 3 = Fostering creativity and visioning skills.
Category 4 = Developing technology skills.
Category 5 = Developing the ability to experiment, analyze and reason.
Category 6 = Improving critical thinking skills and decision making abilities.
Category 7 = Developing leadership skills and conflict management abilities.
Category 8 = Building self-reliance and confidence within new technology areas.

Results

The mean objective score, taking into account all 40 students was found to be 29.85 which is rated as *Good*. The results of all the mean dimension scores were found to be good. No mean dimension score reached the rating of *Excellent*, denoting 75% and above category. At the same time there was no average or poor ratings. This denotes that students were generally happy with the assignment and perceived the filmmaking task to be quite appropriate in meeting the educational objectives of the learner.

Conclusion

In an increasingly competitive and globalised world it is the creative brains which will survive and flourish the most. Along with creativity and innovation what will impact our students' life, both personal and professional, will be their ability to adapt to various adverse situations. Here, life-skills education comes into the picture. It is the need of today's world. It makes a person "a balanced adult" who contributes meaningfully to the community and to the society at large. Learners who have imbibed good life-skill abilities will have a clear competitive advantage over others. Therefore, as is evident from the study above, the filmmaking assignment which integrates technology and creativity on one platform is one way to let students have a hands-on, proactive approach to learning. They learn multiple skills at a time, and get an opportunity to analyze their own work to make sure that all its parts have a meaningful purpose. This leads to a strong sense of ownership and hence better quality of work. As is evident from the students' feedback, when used in teaching and learning, filmmaking has the potential to enhance participation, motivation and collaboration, qualities essential to be successful in life.

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Appendix 1: Course Language Lab (HS 371)—Moviemaking assignment questionnaire

Section 1

1. Did the movie making assignment challenge you intellectually?
2. Did the assignment meet your expectations?
3. Did you feel your time was well spent? Please explain.
4. What is the most significant thing you learned (individually) from this assignment?
5. Was the duration of the assignment optimal for the completion of the assignment?
6. What difficulties did you face (individually or as team while completing the assignment?
7. Do you feel this assignment contributed in any way to your overall objectives and goals here at the institute or afterwards?
8. In your opinion what was the most outstanding part of your movie making experience?
9. In your opinion what was the least valuable part of the movie making experience?
10. What additional comments and suggestions do you have about this assignment that I might incorporate for future assignments?

Section 2: Meeting educational objectives. *(Please circle the number)*

	Poor		Average		Excellent
1. Integration of communication skills and subject knowledge:	1	2	3	4	5
2. Encouraging teamwork and co-operative learning among students :	1	2	3	4	5
3. Fostering creativity and visioning skills:	1	2	3	4	5
4. Developing technology skills:	1	2	3	4	5
5. Developing the ability to experiment, analyze and reason:	1	2	3	4	5
6. Improving critical thinking skills and decision making abilities:	1	2	3	4	5
7. Developing leadership skills and conflict management abilities:	1	2	3	4	5
8. Building self-reliance and confidence within new technology areas:	1	2	3	4	5

Please read the whole paper through very carefully and see if you'de like to re-organize certain parts under more pertinent headings. I have made some suggestions but you will need to go through them very carefully as it's your paper after all.