Title: Use of Tamil language and IT in Tamil language education
Author(s): Seetha Lakshmi and Jarina Peer
Source: 3rd Redesigning Pedagogy International Conference, Singapore, 1 - 3 June 2009

This document may be used for private study or research purpose only. This document or any part of it may not be duplicated and/or distributed without permission of the copyright owner.

The Singapore Copyright Act applies to the use of this document.
Use of Tamil Language and IT in Tamil Language Education*

Seetha Lakshmi, NIE and Jarina Peer, MOE

Paper presented at the 3rd Redesigning Pedagogy International Conference,
June 2009, Singapore
Abstract

‘There is a compulsion, not option to use technology’, said Raveendran N., President of the Computer Society of India. (The Hindu Newspaper 2008). He stressed that barriers including language should be circumvented to make technology available to all. The use of computer technology enhances the knowledge and resources of the Tamil language. National Institute of Education and Ministry of Education in Singapore are continuously harnessing effective Information Technology in Teaching and Learning in Singapore Schools. Tamil Language Education is not an exception for it. Naa Go Tamil Language Information Technology competition was one of the process to develop the IT and Language skills among the Singapore Primary School Tamil Students and Tamil teacher trainees. 50 Primary schools and Diploma in Education Year 2 teacher trainees took part in this competition which capitalized on their skills.

From the palm leaves in the olden age when Tamil words were written more than 2500 years ago to the age of computers and internet has made Tamil a living language. Among all the Indian Languages, Tamil has already made a considerable presence on the internet.

Naa Govindasamy was known as “The Father of Tamil Internet”. In view of all his noteworthy contributions towards Tamil Language and the Tamil community, the Naa Govindasamy Tamil IT Award was inaugurated to inspire our young generation to engage in the development, use and promotion of Tamil IT. The National Institute of Education (Tamil Language & Culture Division) and Tamil Murasu, a local Tamil newspaper, jointly organized the Naa Govindasamy Tamil IT Award Competition at the national level to all Primary schools offering Tamil language and Tamil teacher trainees from NIE. This paper shares the process, the experience and the outcomes in terms of IT and language skills among the students and teacher trainees.
Introduction

Media is an effective tool to facilitate the learners in the classroom which is either teacher centered or student centered. In language learning, the media is more or less equal to the teacher as it can generate the first and second language speakers’ voices and current language usage models to the learner to learn more about the language. Grabe (2007) states that technology can play an important part in school restructuring. It can help students learn to think and learn to learn. Through the media, all language items can be introduced to learners via contextualized, audiovisual presentations and provide examples of real life objects and texts like maps, bus timetables, flight schedules, application forms etc to expose the authentic life related texts. As the media is an important motivator in the classrooms, the teachers are using more and more media in their language lessons. Media can capture the real life and real world related snapshots with quality, it is an irreplaceable tool in the classroom. The media can be a companion to the learner in the language learning not only at the classroom but also out of the classroom during the teacher’s absence. In fact, Grabe (2007) claims technology will make some traditional educational goals obsolete, and teachers will move to more constructive practices in the classroom. On a different note, he also questions whether new teachers are prepared to use technology. He states lack of preparation or lack of equipment and instructional softwares and disinterest among college faculty members as being some issues for the non-usage of technology.

Within the media there are two major divisions which, the nontechnical media and technical media. The various nontechnical media are blackboards/whiteboards/magnet boards/flannel boards/pegboards, flashcards/index cards, wall charts, posters, maps, scrolls, board games, mounted pictures/photos, cartoons/line drawings, objects/brochures/flyers/menus, equipment, operation manuals, puppets, newspapers/magazines and under technical media, record player,
audiotape player/recorder, CD player/recorder, radio, television, video player/recorder, telephone/teletrainer, overhead projector, filmstrip/film projector, opaque projector, slide projector, computer, language lab, computer lab, multimedia lab and self access centre (Celce-Murcia, 2001:462). With these overwhelming choices, the teachers need to know how to adapt rich and complex learning materials according to their students’ needs and language competencies (Pefiled 1987 in Celcie-Murcia, 1998).

At the same time, nowadays, print media also can be viewed through the audio video media. The multimodal features of technology provides a rich learning experiences to the students in the language lessons especially in the second language classes where the students need effective teaching materials to understand the lessons/language. Language is one that tells about our experiences about the world around us and within us. Though it is natural, it should be reflected in the linguistic method (Kress, G., 1976). Through the information technology our students could develop their language skills and higher order thinking.

Media can be used to structure the lessons and the whole lesson can be conducted by the assistance of media. In fact nowadays youngsters like this kind of media very much as the media is exposed to multimodals within it. At the same time, Bodo, Luke, and Anttila, (2001) argued that the computerization of course materials in the teaching modules provides a better learning and understanding of the subjects to the students. They further mentioned that to incorporate IT, there is a strong need for the learning and teaching with suitable pedagogy. Though an IT tool can be very useful for teaching but it will not be able to replace a teacher itself who is a human.
IT in Singapore schools

The Ministry of Education (MOE) has invested and put in a lot of effort to introduce IT in the schools. IT is a key enabler for Singapore to remain competitive and meet the challenges of the knowledge-driven future (Ministry of Education, 2004). The first Masterplan for ICT in Education (1997 — 2002) laid a strong foundation for schools to harness ICT, particularly in the provision of basic ICT infrastructure and in equipping teachers with a basic level of ICT integration competency, which achieved a widespread acceptance for its use in education. The second Masterplan for ICT in Education (2003 — 2008) built on this foundation to strive for an effective and pervasive use of ICT in education by, for example, strengthening the integration of ICT into the curriculum, establishing baseline ICT standards for students, and seeding innovative use of ICT among schools. MOE has now developed the third Masterplan for ICT in Education (2009-2014). The third masterplan represents a continuum of the vision of the first and second Masterplans, i.e. to enrich and transform the learning environments of our students and equip them with the critical competencies and dispositions to succeed in a knowledge economy (Ministry of Education, 2008).

The broad strategies of the third Masterplan for ICT in Education are:

- To strengthen integration of ICT into curriculum, pedagogy and assessment to enhance learning and develop competencies for the 21st century;
- To provide differentiated professional development that is more practice-based and models how ICT can be effectively used to help students learn better;
- To improve the sharing of best practices and successful innovations; and
- To enhance ICT provisions in schools to support the implementation of mp3.
- Strengthening Integration of ICT into Curriculum, Assessment & Pedagogy
With such investment and effort put in by the MOE, ICT will be more extensively integrated into the planning, design and implementation stages of the curriculum, assessment and pedagogy. There will be greater alignment of students’ learning outcomes in the syllabi, national examinations, and classroom experience to 21st century skills such as IT skills, and the ability to communicate persuasively and collaborate effectively. Students will be required to use ICT to look for information, synthesis reports, give feedback on each others’ work and collaborate with peers within and outside school (Ministry of Education, 2008).

**ICT Training for teachers**

All teacher trainees undergo a compulsory academic unit on ICT as ICT are an important part of classroom environments in Singapore today. The module adopts four major thrusts:

1. working in teams to modify or create authentic interactive ICT-based learning resources for engaging learners
2. creating and facilitating online collaborative learning environments
3. managing ICT learning environments
4. professional development by independent self-learning of innovative technologies


This module prepares teachers entering the profession to be equipped with skills to use ICT in their lessons. Besides this module, all modules in one way or other train teachers to infuse IT into the pedagogy.

Likewise, teachers in schools have a whole range of IT courses that they may attend if they feel the need. Thus various training is available for teachers to upgrade their IT skills so that they may use it in the classrooms to enhance learning and engage the pupils.
Computers in the classroom

Computers play an increasing role in our everyday lives, and our children should be educated in their use. In the classroom we are concerned with using the computer as an instructional tool. For this teachers need to develop not only competence but they also need guidance on how to integrate the computer into the curriculum (Underwood & Underwood, 1999). The classroom computer can, and should, be used in more liberating and creative ways to stimulate children’s intellectual capacities. Children need to be able to search out relevant information, critically access the ideas and facts offered, and then make use of those findings. In such an environment, the teacher’s role is to provide a scaffold for the children.

With such great focus in IT by Ministry of Education, this paper looks at a competition arranged for students learning Tamil and teacher trainees specializing in Tamil. The competition allows us to access their IT based knowledge and Tamil language exposure in Singapore.

Tamil Language and Naa Go Tamil IT Award

In Singapore, there are three Mother Tongue Languages taught at the second language level. Most of the Indian students are studying Tamil Language as their Mother Tongue Language subject at the second language level. In Tamil Language Teaching and Learning in Singapore, Information technology has a special place among the students and teachers especially young teachers. However, some teachers on the other hand feel somewhat distant from these feelings."Many teachers feel threatened by this challenge, for one reason, because it represents a journey into the unknown," (Roblyer, Edward and Havriluk, 1997). They have further analyzed that change is the only constant. As a sizeable number of teachers in Singapore are from bilingual educational background and are IT Savvy, they create
enthusiasm among children through their infusion of IT in their lessons. At the same time the students also happen to be the cyber citizens, and have mastered the basic IT conventions.

In Tamil Language and Culture Division, media is not a stranger. The late N Govindasamy, pioneered the IE Keyboard and placed Tamil in the internet around 2000. He had organized the Tamil Internet Conference in Singapore in 1997 in Singapore and created a strong awareness of Tamil computing in Singapore through this the use of Tamil computers is actively promoted by the Tamil Diaspora in at least 65 countries(http://www.frontlineonnet.com/fll1608//6080810.htm). He also initiated word processing training to the Tamil teachers through Venus software and many young teachers were attracted by his interest in IT and provided their help in uploading Tamil content pages in the internet.

Naa Govindasamy was a lecturer in NIE from 1981 to 1999. He was also a leading author, social activist and internet pioneer. In the IT world he became known as “The Father of Tamil Internet” when he and Dr Tan Tin Wee from NUS made the pioneering effort to place Tamil on the net. He also created the NIE Tamil Keyboard after much research, which became a world standard. Naa Go’s achievements as teacher, writer and Tamil IT expert made him a role model for many young Indians and, despite his untimely death at an early age, he remains a leading light in the community.

A group of Tamil teachers carried Naa Go’s mission after his sudden demise in 1999 in Malaysia. Faculty staff and especially an IT based educator trained the Tamil teachers from 1997 onwards through pre and inservice courses on flash, hot potatoes and others. Incorporating IT based pedagogy enhanced trainee teachers’ awareness on developing high
order skills through their teaching to the young Singaporeans. In addition to that all trainee teachers are well equipped with the IT skills as they have IT based modules taught during their pre-service. Teachers on the other hand can benefit more from students who participate during lessons. At the same time, students were eager to assume responsibilities to provide assistance to one another and to teachers. The result was the gradual evolution of a “student expert” structure in which teachers began to capitalize on the technical expertise of their students.”(Roblyer M D, Jack Edwards and Mary Anne Havriluk, 1997:214). They further added that formerly unmotivated students could be motivated, thus raising their academic performance, increasing self esteem and accepting greater responsibility.

The only niche area is to teach them how to use the IT effectively with the Tamil language and to develop the student’s knowledge in Tamil through IT. As most of the teachers are from second language background they tend to immerse themselves in IT in many ways but need help in incorporating IT into language teaching. With this background, Naa Go Tamil IT Award was introduced in schools to create an IT based language wave among students and trainee teachers.

**Naa Go Tamil IT Award**

The Tamil Language and Culture Division commemorated Naa Govindasamy, the father of Tamil IT, to motivate and develop the potential of young students. Two teachers and two advisors worked together to anchor the competition. The organizing committee organized the competitions to primary schools and teachers trainees. The objectives of organizing this competition are as follows:

- To inspire the younger generation to use and promote Tamil IT through innovative and creative projects;
• To acknowledge the efforts of Naa Govindasamy who, as an NIE staff, had made outstanding contributions to the promotion and use of Tamil IT.

For the school category, there were four rounds of competition.

**Round 1**

In the first round 42 colour pictures and 29 sound clips were given to the students to choose and write a compo or story based on them. Teams of 3 students from Primary 4/Primary 5 level worked together to form a twister story. They were asked to use any Tamil software with TSCII encoding or Unicode.

Competitors were given some pictures, sound clips and clip-arts. They may use these pictures or source for additional pictures via Internet. They could use callouts or type the dialogue or just describe the flow of the story. They were given 2 hours to complete their stories with not more than 8 slides. Although the themes were given on the competition day, teachers were informed earlier to train their students on IT skills, and that the criteria for testing are their IT skills, originality, creativity and the language.

The students created the story by generating ideas. Working as a group, this competition provided a platform to use the Spoken Tamil in their conversation and use it as an additional resource to do an essay in written Tamil. From the mixed range of pictures, the students presented their compositions/stories. Few pictures are shown below:
Students were disciplined and managed to do the task in an orderly manner within the given period of time (state how much). Many teams did their PowerPoint presentation with multicolor background, and also incorporated sound clips. From that first level, 17 entries were selected to the second level of the competition based on the following judging criteria:

**Content and Use of Language**

- Points are relevant to the given theme
- Presented in an interesting and exciting manner
- Flow of ideas
- Use of proper grammar and spelling

**IT Skills**

- Layout of the slides
- Use of color, font, clipart and movie clips
- Use of appropriate images and animation
- Use of sound effects

**Originality**

Definition of Originality in this context:

- Project is unique in nature in terms of presentation and perspective

**Creativity**

Definition of Originality in this context:

- The ability to combine images and ideas in different ways in order to give new purpose and meaning through the project.

The criteria for the second level competition were sent to the 17 schools were selected for the second round. Teachers had the opportunity to prepare them well with the expected criteria and before the second round.
Round 2
In round 2, the students created picture stories. The topics for the competition were given on the day of competition and each team was given 3 hours to complete its projects with a minimum of 6 slides. Participants were told to choose 1 out of 3 general topics for example: A Family Trip. And they were told to provide a suitable topic for their project. Teams were given a total of 4 different picture stories (in a soft copy - 6 pictures per story) and they were all jumbled up. The competitors must use 6 to 8 pictures out of the 24 pictures to create a new story. They were allowed to add other animated pictures to their product. Competitors were encouraged to come to an unusual ending. Pupils typed the dialogue or just described the flow of the story.

During the second round, some teams had done well and some did not. These were due to, insufficient time, unfamiliarity of the Tamil ‘tisci’ fonts, keyboard skills and time taken to discuss and include suitable Tamil vocabulary. From the 17 entries, the judges selected five groups for the final round. They mentioned that most of the teams displayed good IT skills which include animation, transition, and use of action buttons, audio and relevant pictures. They also suggested that some of teams need to concentrate on their spelling errors, language style, content development, creativity and originality. Overall, there was an overall improvement when compared to the first round.

For the final two rounds the criteria were sent to the students prior to the competition. The final round had an oral component where they had to speak about their presentation after its completion. The competitions were held in Umar Pulavar Tamil Language Centre (UPTLC) which is the resource centre for Tamil Language Teaching and Learning in Singapore. The first and second rounds went well at the computer lab and during the third round, there were some hiccups.

Round 3
Round 3 was focused on improvising the second round projects. Teams were given opportunity to further improve their previous submission which was given to them during the third round. They were allotted two hours to do their computer-based improvements and a further 10 minutes to make a presentation to the judges. They were allowed to source for more pictures and animated pictures via Internet to add flavor to their stories. They could use callouts or type the dialogue to describe the flow of the story. At the third round judges were told to finalise the 4th and 5th ranking winners for the consolation prizes during the final round competition. The top three presentations were announced after the third round.

One common observation among the organizers and judges present during the competition, was the high enthusiastic level among the participants. They enjoyed having to create their own writing piece by selecting pictures. This was very different from their daily work in school where they had a given set of fixed pictures to work on.

During the third round, only just before the start of the competition, the committee was informed that there was no internet access in the lab. One of the advisors stressed that in order to avoid such unpleasant experiences a check list should be prepared from the very beginning to ensure nothing was overlooked. He also added that the committee should continue to use the UPTLC for future competitions and inform the staff if there are any requirements in advance. Other venues should only be considered if UPTLC is unable to satisfactorily fulfill our needs. The main reason is that the Government had spent funds to make it a community resource and the committee should make the best use of it.

For the third round, among the five teams two of them produced the story/essay on racial harmony day celebration and three of them produced the celebration of traditional festivals.
They created the PowerPoint slides presentation with subtitles and description with suitable pictures, sound clips and slide animation. Their language was good with no spelling mistakes. For example, team 4 had created a story and started its presentation as follows;

*palli mani kaadhai kizhipadhupol olibadhu. Suve than veettai nokki sittaai parandhaan.*

The school bell was rung. Su Wei ran home as fast as he can.

*avan than kudumbathaarudan ina nallinakkathin mukkiyathuavathai pattri kalandhuraiyaadinaan.*

He has discussed with his family about the importance of the racial harmony

In their story plot, the student Suve visited his Indian friend’s house and found out about their celebrations.

Another team had a presentation titled *nambakkoodiyadhu* (believable) and it talked about Christmas. The visual and audio effects were arranged well with the story lines. During the presentation, students presented their projects well and most spoke confidently.

**Round 4**

The fourth round was held at the National Institute of Education during the Naa Go Tamil IT Award Presentation Ceremony and Tamil Seminar for the Tamil Teachers. The top three winners from the third round presented their IT presentation and one school was selected as winner and received Naa Govindasamy Tamil IT Award with trophy. The other two schools received the second and third prizes and another two schools received consolation prizes. During the fourth round, the pupils presented well with good diction and language flow. The judges admired their presentation and praised them for their IT knowledge.
Of the 50 teams that took part in round 1 and 17 teams in round 2 and 5 teams in round 3 and three in final round, there was a varied quality of the final product. In terms of the content and use of language, some had very lengthy stories with a few lines on each slide and up to 8 slides to just one sentence per slide and a total of 4 slides. Regardless of the number of slides and length of plot all of them had a flow in the story written. What was different was the depth of the story and the different levels of descriptions in the story. This difference could be due to the child not being able to think of a good story plot or his/her difficulty in expressing his thoughts within a constrained environment such as a competition. In terms of originality and creativity, there was also a great disparity among the competitors. There were teams that used just one picture on the second slide and wrote a whole story around that. Some teams took various pictures with one per slide and wrote something for each slide. This group of students who did that had a greater level of creativity use they combined pictures and sequenced a story out of it.

For example, team 15 had different pictures on each slide and their story beside. An example of such a slide is shown below:

Another team, team 11 had their second slide as below:
They presented all the pictures they were talking in their story in the first slide and had their story written in the next few slides. In terms of creativeness this was no different from the earlier group which had one picture per slide, because team 11 are using their past experience, that is, what they see in their school worksheets where they get all pictures together and then they write their composition and have they did the same way. Thus teams that used a few pictures and combined them to form a story plot scored better for their creativity. For the category of originality, the story plot allowed the judges to decide on the level of originality. Some teams had the similar structure to stories that ware seen in school textbooks and worksheets and scored low for originality. When the story plot gave a new purpose and meaning the team was able to score high for originality. Likewise, in terms of IT skills there was also a great variation among the teams.

By round 3, there was a marked improvement in the different components like content, originality, creativity and IT skills. In the IT skills the judges noted a marked improvement in the quality of the product. Competitors were able to use various transition features, and they were able to source relevant pictures from the net to be included in the presentations.
Likewise there was a marked improvement in the layout of the slides, the use of colour, various font, clipart, movie clips, and also appropriate use of images and animation and sound effects. At the fourth and final round, selected 5 teams presented their entries with an oral presentation. They were assessed for their IT and presentation skills which focused mostly on the following:

- Very fluent in speaking good Tamil.
- No mistakes in pronunciation of words
- Presents ideas very clearly in a logical progression
- Very Good voice projection

As the NIE trainees were future teachers, they had to prepare an IT based lesson for students. They prepared their student centered IT lesson packages on the following topics based on the second language pedagogy:

1. One day at Bird Park: A student’s visit to the bird park. The lesson focuses mostly on speaking.
2. Racial Harmony
3. What are the necessary characters for a Student?
4. Tamil Nadu and its Tradition
5. Understanding Friends (reading lesson)
6. Friendship and how to identify good friends

The trainees were provided 6 hours to prepare the entire package in the first round. The team of judges assessed them and provided suggestions to add some pedagogical features to improvise the entries for the second round. The trainees were given additional time to do their improvisation before submitting their entries for the second round of judging. Table 1 shows the criteria for the selection of the final rounds.

Table 1: Judging Criteria for preliminary and final rounds
Key areas for judging | Scores
--- | ---
Content & Use of Language | 12
Creativity | 8
IT Skills: | 30
   Visual Effects: 12
   Layout of Screen: 6
   Sound Effects: 6
   Animated Effects: 6
Total | 50

At the teacher trainees’ category, during their first round, many of them did not create a very student centered learning package but they created a detailed lesson plan cum power point slide presentation. After receiving some feedback, they managed to add a greater component of student centered dimension in their lesson package.

The entry on Friendship and how to identify Good friends won the First Prize. The winner used the film music and scenes from Tamil movies in her lesson to keep the students engaged.

The lesson by the trainee teachers that won the first prize was about Friendship and it is based on a ‘Sangam’ literature based friendship between a Chola King and a poet. It is from Secondary two normal lesson from the Kurinji series of Tamil books. She has started the lesson with the word friendship, what is friendship and developed the concept of good and bad friendship. She used movie songs to talk about friendship. Then the students have to read the story on friendship and discuss about it. Finally, she gave some scenarios of school based good and bad friendship and asked the students to answer their critical comments to them. In this presentation, she has added the multimodals of texts, pictures, movie clips and animated graphics.
For the teacher trainees, their content was not a problem, all had good content knowledge. In terms of creativity there were some who were very creative than the others especially the one who won the first prize. She choose clips from different movie to teach a lesson. It was certainly a great lesson, which would need a lot of time to prepare but it will surely engage the students and keep them interested. Using such strategy, in a language lesson, is a very creative idea as it will motivate the students to participate. As most of our students come from English speaking homes and are not very interested in the language, Tamil, teachers teaching the subject need to find ways that they can gain the interest of the students and keep them engaged and motivated.

**Conclusion**

The competition provided a platform to witness the language proficiency and IT skills of the primary students and teacher trainees. Creating fun filled lessons and engaging students in Tamil classroom is essential for the survival of the Tamil Language in Singapore. As nearly 58% of Tamil students are from English speaking families, the schools have to provide the strong input in learning Tamil as a second language. As the students were in groups, they had interactions within themselves and with the computer. This allows them to work well integrating IT and language and allows us to enhance their creativity, as they create their presentation or lesson package.

The use of computer technology in teaching and learning enhances the knowledge and resources of the Tamil language. With the emphasis on continuously harnessing effective Information Technology in Teaching and Learning in Singapore Schools, this competition shows the efforts taken within the community involved in Tamil Language Education to promote the use of IT in Tamil Language.

**References**


- Our special acknowledgements to the advisors, co-organiser, judges, members of the steering committee, and working committee of Naa Go Tamil IT Award 2006 for their resources, advice, assistance and support.