# Teaching and Resource Building in Teacher Education

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### Abstract

This paper talks about the experience of teaching of Tamil language and learning through IT in pre service course training at the National Institute of Education, Singapore. Teachers are undergoing their training on educational history of Singapore, educational psychology and teaching their first and second curriculum studies with the content subjects and practicum at the pre service training. While they are going to be the teachers of 21<sup>st</sup> century learners, it is essential to equip themselves with the necessary and relevant professional skills. Ida Fajar Priyanto(2007) stated about the production IT based teaching resources for the development of teachers.

Here, instead of learning students' learning and teachers' teaching approaches, they were taught to use, facilitate with information technology and to produce resources for their students and other students. This kind of resource building providing cognitive, social and emotional constructivism based engagement and focus on a common goal i.e. developing the Tamil students in Singapore. The resources were prepared by the writing lesson but can be customized by the teachers for their teaching of other skills in Tamil class. The resources building was based on task based approach, web-quest approach, group investigation approach and multimodal approach. Although the trainees were encouraged to focus on student based learning package they also provided guidelines for the teachers to use it effectively in their class. Here, developing and equipping young students to be the frequent users of the Autonomous Technology-Assisted Language Learning (ATALL) for their understanding and learning of the second language i.e. Tamil (http://en.wikibooks.org/wiki/ Autonomous\_Technology-Assisted\_ Language\_ Learning). This way of learning provided the facilitation to the student while he/she learns on his/her own pace in the mode of student based learning with the communication tools for eg. Computer, sound based media and the content of their subject. A questionnaire was used to collate the trainees constructive comments as they are told to use their and their peers' resources during their teaching Practicum at various Primary Schools for 10 weeks in this January Semester, 2010.

The article will share the full picture of this process at the conference.

### Introduction

Today, information technology has kept the world under its control and has made us all dance to its tunes. We should not forget one thing here. The man, who invented it, when he runs after it, takes on the role of a parent when he strives for its love and comes under its influences to ensure its growth. How do we bring information technology into the education system, and specifically, into Tamil education? Let's look at some the thoughts on this.

As the usage of information technology is prevalent in English, similar efforts are also expended in Tamil lessons. This is commendable. Nevertheless, many questions arises when we look at research sources based on the extent of a student's involvement on information technology in language learning and usage as well as the extent of information technology usage in classroom conversations. I use computers for my teachers and educators in Tamil lessons, my students carry out these activities weekly and some of that can be listed down. However, it sets one thinking on whether a student converses with a computer, or whether students converse with one another to complete assignments or whether a teacher converses with a student to make learning Tamil enjoyable or encourage a student to continue learning with the computer by telling him that he is doing well. This is because our students are well versed with the computer. Today, a five-vear-old child knows how to set up a face book account. The child also knows how to change to a new password if he forgets the old one. He knows how to create his own blog. He knows how to chat online with others. However, with these skills, we cannot claim proudly that our child knows everything. The child should know his cultural, language and national boundaries well and does not cross these limitations with information technology. He should know how to protect his mind and body even when he uses this medium. He should learn how to communicate face-to-face even after conversing with the text messages on the hand phone and computer. He should know how to make a stand with his own identity in an environment with people of multi-nationalities and multi-languages. Knowing all these aspects is important; it will be futile without this knowledge.

It is here in information technology that they say that research in Tamil education has not progressed as much as we have. Although the Tamil teachers encourage the students with their love on the Tamil language and passion on their job and strong beliefs on their students' development, still there are areas to improve. At some time, based on the fluent use of written Tamil during the classroom conversation, a teacher should not mention that his/her students are using Spoken Tamil in a confident manner. After teacher training, teachers need to develop them further to excel in their job and equip themselves with the pedagogical approaches. Later they could go into undertaking studies on their students' learning and teach new things. Yes, we need more research studies in Tamil and need to progress in many areas as they can convey much information for future generations.

Let's compile information on usage on information technology in classrooms:

From 1988, NIE has been holding workshops and conferences related to information technology. Today, Tamil teachers are well-versed in both computers and the English language. But, they must also be well-versed in the Tamil language. This is important. Computers can be used to teach conversations in Tamil. These technological talents are necessary in the 21<sup>st</sup> century(). It is good to ponder if we can create a good author with the usage of a computer.

We should not use the power point software merely as a tool. We should use it as a thinking guide. Lessons should be designed to suit their ages and tap on their experiences and should also allow for their views to be aired. (Gopinathan S., 2000).He further stated that it appears that we do not spend much attention on language pedagogy that understands students' needs and prepares them for global changes and Singapore's long-term visions. In a bilingual Singapore, many have set out to learn about their culture and identity in a language that they are well-versed in. In Singapore's context, this language turns out to be English. (Gopinathan S., 2000). Here, in our today's Singapore context, a number of computer-

related issues have been resolved. Today, Tamil language should become easily conversant in the classrooms. Are Tamil teachers using computers in the classrooms?

When we focus on teachers, there are challenges that they face. There are some major ones. They are:

- Lack of time
- Inability to spend time solely on teaching as they have other duties
- The absence of appropriate atmosphere or time to read more books to enhance their teaching standards
- Inability to interact with teachers from other schools during holidays as their personal lives do not allow for such luxuries (65 per cent of Tamil teachers in Singapore are women who spend much time with their families)

If we hope to do something for teachers, we can guide teachers to make our generations intelligent. Because, through education, we should prepare our students to live in the real world. Then, with their knowledge and enriched characters, they should make changes to the world and guide the generations to come. The skills of this 21<sup>st</sup> century are mandatory for this to be made possible. These are information technological skills, discussion tactics and teamwork. We need to tailor our curriculum plans to nurture, appreciate as well as to think of one issue in many angles at any one time. Here, the NIE's new approach on using PB works and is a boon for many of our Tamil teachers' resource production based hopes.

### **PB Works**

This section highlights various ways of using free, web-based software PB works which allow the users to increase their resources and provide passive permission to other educators to use them with proper acknowledgement and vice versa.

PB Works is software which allows a community to interact and develop further through net. The following are some of the selected features of PB works:

- It is a online community based collaborative and controlled website
- It allows everybody to take ownership and feel empowered
- It provides recognition and encourages competitiveness
- Helps to develop 21<sup>st</sup> century survival skills (collaborative, soft skills including IT skills and critical thinking skills)
- It has complete access control
- Easy adaptation
- Encouraging learning in a fun way
- Effective audit trailing which assures the citizens feel more comfortable and copyright
- Can do banking in the copyrighted materials without any fear
- "The best part is that my students have taken ownership of their wiki. Their writing has improved because they have the ultimate audience- Victoria C, High school Teacher," (http://pbworks.com/content/edu+resources)
- Free training
- Sharing feelings and critical comments about the content and new initiatives of trainees

According to its website source, currently PBworks "hosts over 300,000 educational workspaces, and has helped transform teaching and learning for millions of students, parents and teachers. (http://pbworks.com/content/edu+overview)"



There is a sample website on how to use PB works for teaching and learning in a useful way (http://pbworks.com/content/casestudies-academic) and websites on the current use of other educational institutions. http://pbworks.com/content/casestudy-northcolonie

# Preparation process:

Currently NIE is celebrating its 60<sup>th</sup> anniversary and it has made history through these 60 years of development and moving higher with more theory based practice oriented teacher training and research initiatives. Recently, at our NIE, we have produced a collaborative report titled, TE 21 and it shares its six key recommendations on refreshing, updating and strengthening NIE's model of teacher education. This covers the initial Teacher Preparation to all the way up to Leadership Training. In other words, it provides training and equips the future teachers with the expected and relevant 21<sup>st</sup> century skills and following are the main recommendations:

- 1. Focus on refreshed **values**, **skills and knowledge** as necessary pre-requisites for the 21st century teacher.
- 2. Define a set of professional benchmarks as a framework for developing **teacher competencies**.
- 3. Strengthen the **theory-practice nexus** through mentorship and reflective teaching, among other things.
- 4. Extend teachers' **pedagogical repertoire** of instructional strategies, modelled after best practices, to keep abreast of changing content.
- 5. Develop a high level of **assessment literacy** in response to changing pedagogies, so teachers can effectively evaluate student outcomes.
- 6. Enhance pathways and opportunities for **professional development** to make teaching a profession of choice.((http://singteach.nie.edu.sg/issue-22-janfeb-2010-/206-growing-a-21st-century-teaching-force.html)

Based on these 6 recommendations, something has been tried in my Tamil pedagogical modules during the last semester and this semester. For the Diploma in Education year 1 and year 2 trainees (28+15=43), I have used them for their pedagogical development. I have explained about the challenges faced by the

Tamil teachers and within a minority community, we discussed about their needs too. One of them is getting or producing suitable resources and uses them effectively in the class. Hence this process in teacher training is very handy and timely.

First year and second year students pursuing a Diploma in education course at the National Institute of education, have been told about the resource building and in 2009 they were provided with the training to use the PB which is a website which creates a controlled website. Here, our officer at the Centre for Information Technology in Education provided the basic training to the student teachers. Based on it they have used it on this calendar year and during January semester. The planning are given here:

## **Preparation Process**

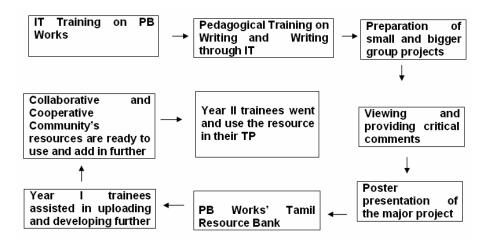
## Teaching writing through IT for Dip Ed II class

Although this process involved two groups of trainees, the active involvement is limited to Dip Ed II trainees. I have taught Use of Tamil in Teaching Module (DLT200) for 12 hours within 6 weeks of time span and the following are the main topics taught :

- How to incorporate Information Technology in the Tamil Classrooms(Primary Level)
- How to develop the 21<sup>st</sup> century soft skills among the students
- Explanation of the PB Works and the Resource Building Initiative
- Creating IT based self learning package(2 for Continual assessment and one for the major project)
- Sharing of projects on writing and information technology.

Overall, the Learning skills, psychology, pedagogy, proper usage of computer, usage of multimedia, suitable use of spoken and written language were the important areas to be looked into assessing the self learning package. Here, the assessment of produced works was done at peer and lecturer level. During the assessment round, they presented their individual and group projects in their classes first. They were told to hold discussions in forum styles at that time.

### PB Works in Tamil Resource Bank(Process)



The discussion forum covered areas on which sections were good and why, which sections could be better and why. These improvements were then made and uploaded on the Internet. They created websites with their names and uploaded them. They could then view their classmates' projects as necessary and learn from them. What happened here was that many uploaded projects were done out of their own interests too. This is a commendable initiative. The following picture shows the frame work of the process:

# **Current Development**

Here, currently more than 50 items were uploaded in the PBworks website. In uploading the content, the year 1 trainees were very happy to upload their seniors' works with the lecturers' close supervision. In the meantime, they have created their own pages within their folders and started to chat within themselves.

They have shared the following comments:

- Very useful
- Motivating them to create more resources and upload
- Indirectly happy to view that their classmates and seniors visited their pages
- Continuously encouraged to talk to their PBworks mates

Diploma Year 2 trainees:

- It is good that I can place my works including other lessons
- It is a readymade resource building
- There is no copyright issues
- It is safe and controlled hence I need not worry
- During our TP time, we have used them
- Although not always, I used for my certain lessons
- Now I have a place to banking my existing resources
- I will do the same to my students and motivate them to use IT for learning Tamil in a fun way

As a professor I feel that this is a good initiative. As there is no copyright issue or no outsider interruption, I am too motivated to parking all my existing projects, power points in this website

For self – centered learning, student based learning, interactive learning, constructive and collaborative learning, this kind of resource building sites are useful and they provide lifelong learning and understanding within their digital natives' community and outside community. Here, we could witness that many trainees have been placed their personal life related useful sharings and memories. In the sharing on the 'pokkisham', I myself have learned many useful things about my trainees, their intellectual thoughts and of course their heart and mind. It is a learning curve for many others too. I found that these kinds of features are very useful in this process. This PB works have the following key elements:

**Constructing knowledge:** Constructivism is building the knowledge the way we see the world. The new experience will become knowledge and scaffolded with the existing knowledge. Through this the human beings are enhancing their understanding the developing their cognitive potential to be an active citizen of his/her community. Here, the trainee teachers themselves construct their knowledge on content, pedagogy and real life related authenticity. At the same time, their future students will also learn the same skills and if possible some new knowledge from this resource.

**Interactivity**: http://www.clomedia.com/features/2008/December/2464/index.php?pt=a&aid=2464 &start=9644&page=4(accessed) Interactivity is a feature which is crucial to the success of the social network and it has to be done by proper and planned process. To develop the students as confident speakers and also confident writers, this process will be a good platform and it will be a role model for the Tamil Diaspora outside India and Srilanka.

**Social networking:** Social networking is vital for making necessary connection between the trainees. The inter and intra social networking enhances the responsibility and the integrity. Here in this project, this is happening and the schools are accepting as the trainee teachers used the products in their Teaching practicum at nearly 28 schools. So, in June another 15 will be trying this pattern of social network and it will become broader and deeper in the following years. As a result, our trainees will create their own PB works for their individual classes and they too invite their all Tamil classes and Tamil teachers to create a social network. At the end, 28X28X6= 4710 groups will be spanned and form a bigger network as *aalamaram* in Tamil. This is a short term result for us and indeed it will be a bigger and stronger pool for more resources. Yes, this will be a stronger and steady force for many predictable changes in the Tamil students' thought, cognitive, psychological process.

# Conclusion

To say that there are no resources is one thing. And to make good use of available resources is another thing. Showing others the usage of the resources and giving permission for this usage is another. At bringing together these aspects is a noble act. By doing this, all our trainee teachers have this facilities in their schools. It is notable that through this, there are many ways they can urge their students to create similar projects and discuss in depth about projects already presented.

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