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## Role of Multimedia Games in Tamil Teaching / Learning

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### Introduction

It is a well-known fact that language serves as a base for the acquisition of knowledge. Particularly the mother tongue competence of a person plays a vital role in the learning and using other languages. Though language education is fundamental, somehow it (particularly regional language education) does not gain due recognition on par with other subjects. Language is defined as 'a vehicle of human communication' and is an important tool for effective learning of other subjects. There is a need to motivate children in language learning by making required changes in the preparation of materials, method of teaching, and in providing supplementary materials. New technologies introduce a variety of teaching aids and through which a change is made in the learning process. Particularly, the computers have made a remarkable impact on all walk of human life including language education. The advantage of this medium as an educational aid is its interactive capability. Lot of supplementary materials with a variety of presentation can be made available for making language learning enjoyable. One such presentation style is the Games model.

Enjoyment of games is not restricted by age. Some individual, regardless of age, may be less fond of games than others. Games help and encourage many learners to sustain their interest and work. Games can provide intensive drills and practices in all the skills in all the stages of the learning / teaching. The supplementary materials should be designed and prepared in such a way that it requires no or little assistance from teachers. Here, in this paper an attempt is made to explain various supplementary materials for different media, advantages and limitations of each of them with reference to the development of language skills and communicative ability of a language learner. The main focus of the paper is to discuss the advantages of multimedia as a teaching aid, in general, and the use of multimedia language games in motivating the children toward learning the language skills, in particular. This paper also explains the methodology, materials and the techniques of representation of situation based language games adapted in 'Senthamizh', a multimedia title for the Tamil learning children in level1.

### Development of Communicative Skills

Communicative skills refer to the four language skills, viz. listening, speaking, reading and writing and in addition, the ability to use language appropriately in a given social situation. A number of studies reveal the advantages of communicative language teaching over the others, for the reason that language teaching/learning cannot take place in vacuum and will be more

effective if the linguistic components are taught in a real-life context. The most significant contribution of the communicative approach is that it has brought about a more comprehensive view of teaching and learning. Jo Mc Donough and Christopher (1993:26) discuss seven implications of communicative approach for teaching purposes: 1) *'communicative'* implies '*semantic*', 2) there is a complex relationship between language form and language function, 3) form and function operate as part of a wider network of factors, 4) *appropriacy* of language use has to be considered alongside *accuracy,* 5) *'communicative'* is relevant to all the four language skills, 6) the concept of communication takes us beyond the level of the sentence and 7) '*communicative'* can refer to both to the properties of language and to behavior. It implies that teaching communicative skills does not mean merely teaching the four language skills in isolation. If the objective of teaching is to make the learners '*communicatively competent'* in the target language, this will involve more than being able to perform in each of the four skills separately. An integrated material and method will give a better understanding of communication in the target language. The integrated approach that will suit for multimedia language games, which create an environment for communicative ability, is dealt with later in this paper.

## Role of Supplementary Material

Any supplementary material is generally prepared keeping the curriculum, prescribed to a specific level of learners and the core materials in view. The objectives of supplementary materials are 1) to reinforce the classroom learning, 2) to provide opportunity to have more drills and practices on the concepts learned, 3) to expose to a variety similar illustrations and 4) to furnish additional information related to the concept. Materials with varieties in presentation can make the learners to enjoy learning. It can be prepared such a way to encourage different activities and promote acquisition of knowledge. The screen design, presentation style, the type and quantum of visuals, sound effects, etc. have to be selected according to the age group of the learners. For the children, who begin schooling, the materials must be with more visuals and sounds. In this much attention has to be paid to designing activities, which focus on task that are mediated through language or involve the negotiation and showing of information by the participants. The visuals and sounds should provide ample opportunities to the children to be motivated to talk among themselves.

## Supplementary Materials and Choice of Medium

Supplementary materials can be prepared and presented in different media like print, audio, audiovisual and multimedia. Material preparation and the presentation methods widely vary from one medium to another. Each medium has its own advantages and limitations. Some media are more powerful for teaching some linguistic skills than others.

**Print medium:** In print medium materials can be presented through texts and pictures. Pictures with different colours are, to some extent, attractive to children and can be used to develop the sub skills like concept perception, colour identification, etc. Simple stories presented through pictures in sequence of events help the children for the conception of idea, sequencing of events and to develop narrative skills. Materials through text, of course, have a lot advantage for developing various language skills, but not so much in the early stages of learning. For the beginners it is useful for learning scripts, spelling words and word-concept correlation. The advantage of this medium is that it is popular and cost effective comparing to other media. But it lacks interactions and motivations and it is less interesting, particularly for young children.

**Audio medium:** This medium is a powerful one for developing the listening skills and, to some extent, for speaking skills. Materials prepared with careful selection and gradation, recorded

with correct pronunciation and with good voice and suitable background music will be more interesting and children like to listen often and often. It is especially useful for disadvantages learners, who receive exposure to the correct language being spoken with an intelligible accent and intonation. It provides with opportunities for listening the use of language in various social contexts and subsequently makes them understand the nuances of communicative skills. Nursery rhymes in SL with music make the learners to enjoy listening, to recite and thereby to internalize the sentence patterns.

**Audiovisual medium:** Audiovisual medium facilitates to incorporate texts, graphics, animation, real-life pictures and sounds. It provides with opportunities to bring various real-life situations which otherwise cannot be brought to a classroom. Students normally enjoy viewing video materials and thereby they are motivated in learning. Property tailored teaching materials through this medium are more effective and children retain more, as the acquisition is through visual and aural. It is effective in teaching the communicative skills like listening, reading, comprehension, etc. it allows presenting the use of language in different social situations with real visuals. One could exploit the medium for the advantage of preparing situation-based language teaching materials for a specified audience group. Before schooling the children from different mother tongue (other than SL) groups employ their HL in various situations. Those situations can be brought through videos films with suitable SL components in the form of conversations, descriptions, narrations, etc. so that the linguistically disadvantaged children get an opportunity to learn the use and usage of that language and thereby allow them to acquire the various components of communicative skills in SL. One of the drawbacks of the medium as a supplementary material is that it lacks interactions between the learners and the medium, but provides opportunities for group discussions among learners as well as with teachers.

**Multimedia:** Before the multimedia came to exist, computers with a variety of software were/are used as educational aid. The greatest advantage of computer as a teaching aid is its interactive capability. The media, print, audio and video, which are explained above can only present the teaching components and can give what is correct answer, etc. But computers can take the responses from the learners, evaluate them, if an error, point out the mistakes and can also explain how the answer is wrong. So we can very well say that computer is an active medium whereas others are passive ones. Computer as an educational aid "promotes the acquisition of knowledge, develops the learners critical faculties, demands active participation and encourages vigilance (Kenning and Kenning, 1983:3).

Since late 70's computers are used in education in a number of developed countries. CAS (Computer Aided Instruction) and CALL (Computer Assisted Language Learning) packages were developed for teaching various subject and languages. There are number of studies and reports (Labelle, 1990; Cravan, 1990; Niemiec and Walberg, 1992; Sin, 1994; to quote a few) on the merits of CAI and CALL packages for different levels of students and on the comparisons among them. Many of the studies reveal that the performance of students used CAI/CALL is better in number of scales when comparing to that of other instructional materials.

The tremendous growth of computer technology and the introduction of CD-ROM in the beginning of 90's have, at least in the west, made a revaluation in the use of Personal Computers in the name of multimedia computers. Multimedia is a combination of the features of all the media mentioned above i.e. text, graphics, art, sound, animation and video elements with interacting facilities. Multimedia is a powerful presentation tool, which can be effectively used for teaching. "Studies indicate that if you are stimulated with audio, you will have about a 20 percent retention rate, audio-visual is up to 30 percent and in interactive multimedia

presentations, where you are really involved, the retention rate is as high as 60 percent" (Vaughan, 1997:10).

For the first time in the country a multimedia title called "**Senthamizh"** (1998) has been brought out for teaching Tamil to the level 1 learners. This title consists of 16 units and each unit has seven components, viz.

Let us Speak (peesuvoom)

Let us Read (paTipoom)

Let us Pronounce (colli paZhakuvoom)

Let us Practice Writing (eZhutip paZhakuvoom)

Tamil Letters (Tamil eZhuttukaL)

Lexicon (coRkaLanjiyam)

Language Games (moZhiviLaiyaaTTukaL)

The objectives of this multimedia title are broadly on three heads, viz.

1) Communicative skills and language development

2) Skills related to thinking

3) Language and Culture (For more details refer to Gnanasundaram, et.al. 1998). The present paper is mainly based on the language games of this multimedia title.

**Multimedia Language Games**

In multimedia the teaching components can be presented in a number of ways and they can be grouped broadly under four styles, viz. 1) page turning, 2) tutorials, 3) exercises and 4) games. Some keeps exercises as part of games. Here we concentrate only on games and their design and presentation and how they help to achieve the objectives of language teaching. Games, in general, are interesting and that too presented through multimedia, which is a medium for entertainment, will, no doubt, be enjoyable not only for children but also for adults. However, making a game interesting or not mostly depends on the design. Language games can be designed in a number of ways. Depending on the type of involvement of the learners they come under three categories, viz. 1) simple games, 2) adventures and 3) simulations.

Games of any type demand active participation of the learners and so teaching through games makes the students to internalize the concept thoroughly, and also the learning will be fast. Language games can be designed for single or pair of players. They make the learners to think about the problems aloud, and to arrive at the solution fast. Most of the occasion they encourage group discussions and other activities like noting down some points, referring to the earlier lessons or dictionary, etc. Through the varieties of activities learning is taking place automatically and indirectly. Games can be designed such a way that they can be used by fast learners as well as slow learners. Rewards for the players who successfully complete the games may be given in a different ways like 1) verbal appreciation, 2) score, 3) time on a game, 4) attainable goal such as the winning of a horse race and 5) unpredictable reward. Such appreciations encourage the children to play games more and more with involvement.

Interactive games allow students to work in multiple modes of discourse: reading, writing, and speaking; both individually and while working collaboratively and potentially listening. Language games can be used to test indirectly the knowledge acquired by the learners, not by asking

directly questions as in tradition textbooks. They are also useful to evaluate the teaching materials and methods followed in the classroom.

**Types of Games**

As mentioned earlier, language games can be designed in a numerous ways on the basis of type of skills to be imparted, the level of learners, possibility of technical support, etc.

**Simple Games**

In this type of games the learners are simply users; they are not assuming any role in the games. For example, the games like Train, Balloon, etc. in *"Senthamizh"* comes under this category. In the game Train, the situation of train in an amusing park is used. The reason for selecting this situation is that it is, first of all, familiar to the children and children normally like to play in this type of tinny trains. The train is with an engine and bogies in the shape of duck. The whole situation of a tinny train in a real amusing park with a platform, cave, stationmaster, signals, entrance, etc. are portrayed. The game goes like this: There are five bogies in the train. Tamil characters (letters) are scattered outside the platform. The user has to pick up a letter using the mouse and by clicking on a letter. The letter selected will move to the train and will occupy the front bogie. The user has to select different letters one after another to build a meaningful word. Once a word is built, the user has to inform the stationmaster, by clicking the mouse on him. Stationmaster gives signal either green or red depending on the corrections of the word built. If it is correct, the train moves otherwise it will not. Any letter occupied a bogie can be removed at any time by clicking the mouse on the letter. Once a correct word is built, the train moves forward and disappears for a while and then enters into the frame with empty bogies for building next word. There is a scoreboard, which indicates the number of possible correct words and the number of correct words built so far. If one tries to build a word, which is already built, message will be given through voice in Tamil.

This is a sample game, through which different linguistic skills like recognition of symbol, i.e. character, vocabulary development, and spelling learning. While working collaboratively with friends, the game allows group discussions among them on building different correct words and the correctness of a word being built etc. One among the group can note down on the paper all the correct words one by one after building it. There is a possibility of engaging them with this type of activities.

Provisions can be made to change the set of characters and therefore the same game can be used by same user or group for any number of times and also can be used by students of higher levels. In "*Senthamizh*", there are few more different types of games under this category: There are 1) 'Balloons' for sound-symbol correlation, 2) 'Animal Sanctuary' for naming the sounds, made by different animals and birds, 3) 'Window' for letter identification, 4) 'Swan' again for sound –symbol correlation, 5) 'Word Coining' for concept perception and picture-word correlation, etc. Through the kind of skills developed are given here one each for a game, actually each game helps to acquire more than one skill.

**Adventure**

Games of this type make the user to do adventures like searching a treasure, hunting, etc. and the user has always to assume the role of an investigator. Adventure games are normally appearing with caves and dungeons. Instead, to maintain certain amount of reality and to teach naming the functions of real-life objects in the target language the game can present in different social situations. For example, a game called 'Cat Search' is designed with a house on its location. In this game the user has to guide a girl who has lost her cat. The game has a drawing

hall, dining hall, two bedrooms, a kitchen room, a verandah, backyard, and a garden in the backyard. There are four persons in the family, the girl, father, mother and her brother and a dog. The house is with all usual household articles. The girl lost her cat in the drawing hall. The user has to help the girl to locate the cat. You can take the girl all around the house with help of the mouse. When reaching various spots in the house, you will get different messages and cues to locate the hidden cat. For example, if you enter into the kitchen, where no one is there at that time you get a message like this.

*itu samayal aRai ' This is a kitchen'*

amma samayal aRaiyil iruntaal puunai inkee varum

'If the mother is in the kitchen, the cat comes here'.

Like this, oral messages and cues are served to the user and with help of the cues the user has to locate the cat. In some spot, there may not be any cues but only a message about the place or article is given.

The game may be quite interesting to the children. The cues give an ample opportunity to the learners to have discussions with fellow students. The game is basically useful to develop the listening skills and improve the analytical thinking of the learners. It also introduces vocabulary for a number of household articles. Different sentence structures, basic verbs, etc. are also introduced through this game. It indirectly provides a number of cultural notes.

### Simulation

In this type of games, a situation is simulated and the user will be one of the 'characters' is that situation.  For example, the learners can assure as if he is a bank manager, manager of a garments shop, receptionist in a hotel, etc. and he has to function as that character. Simulation is a sophisticated form of learning. There is an amount of open-ended dialogue between the characters, which have to be controlled by the software based on the situation taken for consideration. For the children in the primary levels, situation, which suits their level, has to be selected for this game. Fox example, a situation in a vegetable market can be taken as the location for a game.

There, the dialogue will be between the shopkeeper and customers. The learner can take the role of the shopkeeper or a customer. The conversation between these characters is limited and so the software could easily control it. In case, child at primary level cannot type sentence, menu can be displayed and he/she can select an item from it, as his response. The selected word or sentence will be produced through voice by the system.

To build games in simulation style lot of information have to stored for all possible dialogues and should be controlled for proper retrieval. It is an AI based game. Simulation games are more effective and interesting. Properly designed games develop the communicative ability of learners. Listening, Comprehension, reading, analytical and creative thinking, development of coherence and cohesiveness, and vocabulary are the skills directly linked with simulation.

### Conclusion

Multimedia is a medium of entertainment. Teaching through multimedia will be more attractive to the children and effective in learning. The cost of production of a multimedia title is, no doubt, much higher than that of the materials on other media. But the advantage of this media is that the whole material is in electronic media. It gives way to revise or reproduce the material with no or less cost and which is not, always the case in other media. The growth of Information

Technology and the use of Internet make the sharing of information simple with lesser cost. Though the production cost of multimedia title, which is a one-time investment, is so high, it can be used by a large number of populations with lesser cost. The way, the Internet spreads in this country gives a rough idea that, probably, in another few years the facility may be available in every village of the country. In that case, one has to think of, right now, the production of multimedia titles for language teaching and teaching of other subjects in Indian languages. Because, production of multimedia title is a time consuming job.

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