

DEVELOPMENT OF E-CONTENT FOR LEARNING TAMIL PHONETICS

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I. Introduction

It is a well established fact that the process of e-learning is endowed with a lot of advantages, of which the same are not at all available in the human-enabled teaching and learning process. People enlist a lot of advantages and benefits of e-learning. Some of the important advantages of e-learning are; it is not just learning but sharing, the content in the e-content is not static rather dynamic, it is any where and any time learning, it has a global audience, the content to be delivered through the process of e-learning has certification, it is indeed dam cheap, the instructional design in e-content will be learner centric, it invites structured feed back, it is self paced, it can be used in real time and many time, it can present the content through multimedia presentation, it will have Scientific evaluation method, the content would be authentic, and it may have the provisions like interactivity, Book marking, white board, Hot spot, Hypertext and Hyperlinks etc.,

Apart from these, the e-content will present the content in multiple formats; complete technical contents are explained with suitable graphics and Animations. The e-content will generally be in self directed and paced instructional format and smooth instructional strategies will be chalked out in such a way that learners never lose the interest. It presents the content in a simple text with unambiguous graphics and with relevant supportive headings. Sometimes, it will have its own reference materials which generally do not burden the learners and those can appear on demand with optional frames. Some e-content has certain striking features like automatic retaking of the lessons. Wherever learners are not satisfactorily able to perform, it may have automatic learning path. Sometimes, it offers room for selection of the quantum of information considering the learners requirements. Some advance level e-content provides 3D virtual reality-synchronous and asynchronous interactivity – chat, conferencing, etc.,

The above details establish that e-learning is a mixture of different learning methods, delivered to the learners through information technology supported with educational instructional design and relevant content. The e-learning is, as a universe, comprising of three basic elements viz. 1.Content 2.Services and 3.Technology

The content forms the back bone of the e-learning, services and technology forms the rider on which the content travels.

II. e-education and language learning.

In the domain of education, a lot of metamorphoses have occurred because of the social needs and scientific advancements. The traditional means of education may not be suitable in modern days. Thanks to electronic devices which are being used in the field of education and which facilities and of course accelerates the learning pace of our learners. The use of electronic device in the domain of language teaching is quite significant and unique. There is no doubt that human enabled language teaching is powerful and the learners are comfortable enough in learning language in it. But the machine or computer enabled learning

or teaching is the need of hour as it possesses a number of advantages besides the advantages attached with the human instructor involved in teaching-learning process. For example a computer mediated language teaching / learning process will supply rich and accurate linguistic corpora which will certainly mould the learners to the greater extent by providing them ample room of opportunities to freely mingle with the relevant and original linguistic data of language, whether it is a second language or foreign language or even first languages. Similarly learning a language from the mouth of native speakers of the language has some added advantages especially in the second language learning situations. But a native speaker in the traditional teaching / learning process cannot address to the global learners. But the e-content travels across the world and caters to the varying needs of the learners of heterogeneous nature.

III. Learning Tamil

It is a known fact that Tamil is now-a-days learnt globally. Appointing native Tamil teachers for teaching Tamil across the globe is indeed practically not possible. But through e-learning it is possible to teach or learn Tamil from the native Tamil teachers since e-learning is any where and anytime learning and also has its own power and strength.

It is needless to mention that Tamil being one of the living classical languages; it maintains its tradition and obtains modernity without sacrificing its original colours, for meeting both the classical and contemporary needs of the society. Having declared it as a classical language, there is a global acclaim among the Tamils as well as non-Tamils.

Since Tamil is 20,000 years or so old, it gained a lot finesse and richness in terms of its linguistic nuances and intricacies in articulatory and auditory aspects, sequencing the allophones and phonemes, formation of words, invention of grammatical features and elements, formation of sentences / utterances and other advance level of communicative strategies. Of course, to a linguist no language is superior than other languages and inferior either, and no language is easy to learn or hard to learn. But, if a language has a rich tradition with a lot of linguistic nuances, it is, of course, in a way superior to other languages and harder to learn. In this way, as Tamil is rich and powerful, one has to take special effort in learning certain subtleties of Tamil language in order to master the Tamil as if a native Tamil speaker.

It is a matter of importance that Tamil has a lot of unique properties which are not easily get-at-able to the neo-learners of Tamil language. The uniqueness is found to exist in all levels of language viz, Phonology, Graphology, Morphology, Morphophonemic, Syntax, Semantics, Beyond syntax (Discourse and pragmatics). To learn all those peculiarities, learner has to move the heaven and earth.

IV. Tamil e-content

Tamil, as stated above, is learnt globally. For this, Tamil is to be taught through Computer Based Teaching (CBT), Web Based Teaching (WBT) or Net Work Based Teaching (NBT). To enable this type of Tamil Teaching, various packages are prepared here and there in piece-meal. But no exhaustive work has so far been done for Tamil. The present paper tries to give some guidelines for developing e-content to teach Tamil phonetics to the learners who wish to learn Tamil as second language.

The Tamil phonetics has been studied by different scholars. Although Tamil has a number of regional dialectal variations and sociolectal variations with a lot of sound changes, there is a standard spoken Tamil spoken by the majority of the people and which is intelligible to majority of the people as well. The package to be prepared will use those standard phonemes and allophones. Since it is a pioneering attempt, only standard phonemes and allophones of Tamil can be used. But in the later stage, as this package in dynamic; dialectal and sociolectal sound variations can be used for introducing them to the learners through hypertext which will appear on demand. So, this package will cater the needs of all the learners of Tamil in all times.

V. e-content for Tamil phonetics

VI. 1) Introduction

A brief but technical introduction about Tamil phonetics will be presented through voice over and electronic text.

Then it will spell out the objectives of this package besides detailing the uniqueness and merits of this package.

Since this package is meant for global audience and for the audience of different nature, it will detail the rational of grading the corpora. Accordingly, the users or learners can select the options to directly go to the given frame.

2) Corpora

For the package, the following phonemes and allophones (as proposed by S. Rajaram) will be taught.

Vowel	: i, ii, e, ee, a, aa, u, uu, o, oo,
Vowels allophones	: I, E, ε, Λ, æ, ɔ, Ω, υ, †
Consonants	: k, η, c, ʃ, ʈ, ɳ, t, n, p, m, y, r, l, v, ʎ, ʟ, ɽ, ɳ.
Consonants allophones	: g, γ, ʃ, s, ɕ, ʀ, d, ð, φ, β.

3) Frame

For teaching each phoneme a frame will be spared. A learner can at the outset have some basic idea about Tamil Phonetics and its peculiarities by looking at the main frames. Then he can move to the frame of Corpora, in which he can select a particular phoneme by clicking it, and then he can move to a specific frame which tells all about a particular phoneme. If, for example, a learner comes to the frame of /p/ he will see the following type of e-text.

4) Model lesson for a phoneme /p/

- ❖ This model lesson will tell the phoneme first and then it describes its point and manner of articulation with a Graphic and Animation that directs the way in which the particular sound can be produced. Native speaker's standard pronunciation of this sound in isolation will be given. A voice will appear producing the sound in a list of words wherein the particular sound appears. After these, a dialogue box will appear directing the learners to produce the same sound by looking at the graphics /

Animation and by listening to the voice over. Then, learner's voice quality will be checked and quantified using Sonographics. Based on the performance of the learner, the sonographic pictures will appear on the screen and the score will also appear. The learners will be directed to repeat the sound by giving some guidelines. The learner will not be allowed to move on to next frame until he produces the particular sound with the expected quality. Then, if the learner wants, he can explore the exhaustive list of words which has the given phoneme in different distribution and combinations.

Model Frame for Consonant Phoneme

1. Phoneme : / p /
2. Phonetic Description : Voiceless bilabial stop
3. Manner & point of Articulation
 - In the production of [P] the lips are closed and the soft palate is raised to close the nasal passage, when the lips are opened the air suddenly comes out without explosion. There is no vibration in the vocal cards.
4. Graphics (A picture will appear to help the student produce particular sound)
5. Native speaker's voice of this sound in isolation
6. List of the words wherein this sound appears.

pakal	-	'day time'	arpan	-	'a mean fellow'	
paavam	-	'sin'	vetpam-	-	'hotness'	
puli	-	'tiger'	kappal	-	'ship'	
pul	-	'grass'	tappu	-	'mistake'	Hot spot
7. Dialogue box to direct the learner to produce this sound

Produce this sound / can you produce this sound?
8. Picture of sonogram

Correct / incorrect
9. Exhaustive list will appear on the screen on demand from Hypertext

Go there

5) Model Lesson for Allophone

After the successful completion of this frame, the learners will be allowed to go to allophones of a particular phoneme one by one.

For each allophone IPA notation will appear. Then, Phonetic description will appear and point and manner of articulation for the particular allophone will also appear on screen with either graphics or Animation. Allophonic distribution will appear with a list of words. Learners will be advised to produce them repeatedly looking at the list of words.

Model frame for Allophone

1. Allophone [β]
2. IPA Symbol [β]
3. Phonetic Description : voiced bilabial fricative
4. Point and manner of Articulation

In the production of [β], the lips are closed slightly and the soft palate is raised to close the nasal passage. When the lips are opened the air stream is pushed through with a weak plosion. There is slight vibration of the vocal cards during its production.
5. Allophonic distribution

aβayam 'shelter'	
uβaayam 'trick'	Hot spot

laaβam ‘profit’

More

6) Consolidated lesson

After seeing all the allophones of a particular phoneme, a consolidated frame will appear. In this frame, all the allophones of a phoneme will appear with suitable examples.

The learners will be directed to produce those words and to observe the differences between and among the sub members of a particular phoneme with a comparative perspective.

After the consolidated frame, next frame for next phoneme will appear. The vowel phonemes and their allophones will appear at first and then consonant phonemes and their allophones will appear.

After introducing all phonemes, a specially devised text bearing all the phonemes and allophones of Tamil will be displayed coupled with a native speaker’s voice in a natural manner.

Having listened to it carefully, the learners will be advised to read it as the model guides.

Then, there will be an option for exploring the social and regional variations of certain selective words. This link will appear only on the demands of the learners. This will enable the advance level of learners to learn the social and regional variations of those certain selective words.

VII. Conclusion

This package will give the learners all minute details about the phonemes and allophones of Tamil, like; Phonetic and phonemic qualities of Tamil sounds, Allophonic distributions and possible combination in three positions viz. initial, medial and final, vowel-short and long, diphthongs, consonant clusters-both identical and non identical, and exhaustive list of minimal pairs and text for natural flow of sounds.

In this package, the content delivery is in multiple formats i.e. through Voice, Animation, Graphics, and Electronic Text etc.

This package is highly interactive. That is, the learner can interact synchronously and asynchronously with this package. So the management of learning experience is possible. This will help the learners to accelerate their learning pace.

Since this package simultaneously employs testing technique which is one of the important processes of teaching; it enables the learners to go to the right path of learning by conforming and ensuring the learning achievement with a sense of self confidence.

In the process of evaluation, it gives a positive as well as negative reinforcement by giving score. In certain frames, this package will not allow the learners to go further until they do not gain the expected level of competency in a particular phoneme. This type of periodical check-up will help the learner’s to progress in a slow and steady manner with the comfortable pace of learning.

This package will avail a lot of linguistic data which will in turn help the learners to improve their understanding and performance in the aspects of Tamil phonetics.

The data will be selected, graded and presented following the linguistic principles, educational psychology, instructional design, and technological advantages and constrains.

More number of hot-spots will be given so as to help different levels of learners. So a lot of hypertexts and hyperlinks will be given. For this purpose, all the findings of linguistic researches done so far on the phonetics and phonology of Tamil language will be used especially for corpora creation and for forming data base of this package.

In total, this paper suggests only the linguistic technical know-how of developing e-content for learning Tamil phonetics. These ideas and suggestions can be fruitfully used only when right types of computer software are employed to prepare the package. It is a joint venture that both linguists and computer scientists have to use their technical knowledge together to produce a fool proof packages for teaching/learning the Tamil phonetics.

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