



Effectiveness of E-content in enhancing the learning of Tamil Prose at Higher Secondary Level

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Abstract

In the present period of the slate revolution, faculties' part is largely grueling to make their higher secondary students meet global demands. Educational practices and educational strategies vary grounded on the need of the learners. Technology can be imperative for personalized instruction to bridge the gaps between tutoring and literacy. The preparation of the Tamil language is necessary for profitable growth and social metamorphosis. The Kothari Commission report asserts that if Tamil languages are inadequately tutored and poorly learned, it's a little further than burdening the mind with dead information. It could indeed deteriorate into new superstitions and Arts tutoring needs catching.

To understand the real conception of Tamil languages, classical face-to-face tutoring styles may have to be supplemented by innovative styles. Developing e-content is arising to be an innovative system that could help the learners visualizes the content to make them creative and productive learners. The e-contents are developed with the integration of media factors similar to a textbook, audio, videotape, vitality, and image which are set to insure a better understanding of Art by higher secondary students. In that way, e-content on Tamil Prose was developed to chancing its impact on learners. 120 higher secondary students from both genders were taken as a sample. Results revealed that e-content has a positive impact on Tamil language learning among higher secondary students irrespective of gender.

Keywords: *e-content, Tamil prose, higher secondary level, effectiveness*

Introduction

The primary idea of Tamil language education is to ameliorate tutoring and literacy practices. The field of Tamil language education has developed into a different aggregation of interest areas as witnessed in the Runners of Exploration in Tamil languages education and other journals in this field. Complex Tamil language motifs deal with complex systems that have multiple connected factors, and whose character isn't explained simply by examining the insulated factors, since the marvels result from the multiple relations of the factors. In the 21st century, higher secondary students learn how to integrate generalities across situations of association and complexity and synthesize and dissect information that connects abstract disciplines. Grundgeiger et al., (2023) found the improving procedural skills acquisition of students during medical device training using e-learning techniques. The instructed learning process resulted in significantly better skills test performance for e-Learning hands-on compared to e-Learning

only. Only a structured learning process based on multi-media learning principles and memory research improved procedural skills in operating a medical device.

As utmost parents suppose, the traditional part of Tamil language education is to give children the knowledge in arts, cultural and traditional historical knowledge that will allow them to enter tertiary education in a sphere where this knowledge and chops will be useful. Shemy, and Nader Said_(2022) researched the effect of different levels of constructivist scaffolding within e-content on undergraduate students' mastery of learning and their attitudes toward it. The research sample involves three experimental groups, each group having thirty (30) students. The first group (Group 1) studied e-content with simple constructivist scaffolding, the second group (Group 2) studied e-content with intermediate constructivist scaffolding, and the third group (Group 3) studied e-content with intensive constructivist scaffolding. The results indicate that the third group of students, who studied design skills with intensive scaffolding, scored higher than the other two groups; they achieved 85% proficiency.

Need for the Study

Appreciation of similar motifs in the Tamil language occurs from the new understanding of the information by the learner. Still, learners aren't veritably successful in generating their meaning, especially in computer-grounded literacy surroundings in which learners are needed to make opinions about their literacy process, since they infrequently regulate their literacy process cognitively. Ghobrini et al.,_(2022) studied migrating versus decentralizing MOOC-based e-content to teaching Master of Arts language and communication students. The prime objective is to devise a MOOC-based teaching modal that primarily palliates the current dire problems regarding students' equity. There were two online groups, the first one regards migrating to the MOOC itself and letting students operate on the MOOC provider. The second e-group decentralizes the e-content to a closed Facebook group where students can access the e-pedagogical materials directly from the social-media-mediated landscape. Findings revealed the difference between the two modes of teaching. They presented a framework enabling instructors to choose which one to leverage according to students' digital skills and access to internet bandwidth, thus serving as a guideline for any instructor wishing to participate in such an educational endeavor. Like this study, the researcher used the ADDIE model. (Paramsivam and Nachimuthu, 2022).

Objectives & Hypotheses of the study

The end of the exploration work is to assess the impact of e-content integration in Tamil language tutoring on the literacy performance of higher secondary students. The following objects are to be fulfilled:

- To develop and validate an e-content on Tamil Prose
- To find out the effectiveness of the e-content on Tamil Prose
- To develop an achievement test on Tamil Prose and
- To determine the position of performance in pre and post-test exploration

The Research questions are; (i) Can e-content in Tamil Prose be effective with higher secondary students at the Tertiary position?, and (ii) Can the strategy make any demographic variable differences?

The hypothesis of the study was, there is no significant difference in between the control and the experimental group in relation to the effectiveness of Tamil Prose in pre and post-tests.

Methodology

To understand the principles and process, learners need to integrate all parcels and functions of each element. Bare memorization of the factors of the system leads to little understanding of how the system works. Indeed, e-content modules will give a multi-sensory experience to the learners. Also, the learners will be suitable to fantasize about the entire content and attain mastery over the motifs. Bianchi et al., (2022) researched the role of graphics in video lectures. There is an increasing need to determine the most effective (i.e., the most conducive for learning) way to present lectures online (e.g., video lectures). Lecture graphics that are interesting but extraneous to the content (e.g., a celebrity), have been shown to impair comprehension of the material, likely resulting from an increase in cognitive load.

E-content tools give a wide range of sensitive stimulants. Flashing back the notorious quotation, 'I hear and I forget, I see and I flash back, I do and I understand', one can understand the need for technology. Hamid et al., (2021) discussed that, the e-content module for chemistry's massive open online course and its development and students' perceptions. This is a design and development study and the e-content module was developed based on ADDIE instructional design model.

Questionnaires were distributed to the students to determine the reliability (n = 23) and student's perceptions of the module (n = 129). Findings revealed the e-content module has high content validity and a good reliability index. The mean score for students' perception of module content is 3.66 and the standard deviation is 0.55, the usability mean score is 3.43 and S.D is 0.56, design mean score is 3.41 and S.D is 0.59, and the effectiveness mean score is 3.47 and S.D is 0.56 constructs were high. The robustness, simulations, software packages, speech, music, e-content networks, image advancements, etc. produce virtual realities and skills for the learners, help in making learning a more direct, useful, and joyous experience, and retain the knowledge of higher secondary students in the teaching of Tamil Prose.

An experimental exploration system with a control design was espoused in this study. Investigator named 120 higher secondary students as a sample from Salem District of Tamil Nadu State in India. E-content on Tamil Prose was developed by the investigator. Grounded on the material incorporated in the e-content, an achievement test was developed on the base of guidelines of Bloom which was validated by the experts. The pre-test was conducted originally for 120 higher secondary students and they were divided into two groups, viz. control, and experimental groups.

Only the experimental group was treated with e-content and the normal classroom method was exposed for the control group. The investigator clarified the queries if any, raised by the higher secondary students during the pre-test phase and the learners were handed a unanimous atmosphere for the pre-test. Soon after the pre-test trial was over, the post-test was conducted for all 120 higher- secondary students. The following are the different ways to be espoused for the development of e-content.

Selection of the Content

Selection of the content for the development of e-content has significance in any subject in general and Tamil language in particular. Unless a schoolteacher provides an occasion for a pupil to fantasize about certain functions in the Tamil language, the pupil finds it veritably delicate to master the ideas behind those contents. Tamil language subject involves explaining abstract generalities and frequently calls for visualization of bitsy objects organisms or gigantic processes. These challenges are met effectively by using plates, robustness, and simulations on computers. The use of technology in the classroom increases productivity to grease the educational process. Indeed, technology is used to give openings for higher secondary students to apply the knowledge gained from active participation, disquisition, and adaption in the real world.

Thus the selection of the content has to be done keeping the following principles in mind The content should apply to the followership and it should conform to the class It must pave the way to give a multi-sensory experience to the higher secondary students. Assess whether the pupil finds difficulty in understanding and learning the content through the classical approach. In sure the content is delicate to be explained through chalk and talk system. ensure the content which may bear virtual reality ensure the process of the content is to be witnessed by the higher secondary students and not allowed them to assume. Learners construct new knowledge and modify being knowledge as they witness situations, problems, circumstances, and other events in learning settings.

Designing of e-content

In the present study, the investigator decided to develop the e-content in HTML format grounded on the objects. At this stage, the sub-topics were formed and applicable images, robustness, and vids were collected. The script was precisely planned and prepared to cleave the morals. The audio part of the script contains the matter that has to be orally explained and the sound effect. The visual part of the script shows all shots that will explain the processes involved in the named content. A storyboard is a script with illustrations and explanations that actualizes the development of e-content. The investigator used three-column formats for storyboard jotting. In this format the first column contains the content part, the alternate bone was the illustrations, and the third bone was the effect of e-content.

Editing was done by the investigators with the help of experts in the plant. The videotape content, Tamil Prose was done by the programmer. The e-content in HTML format contains a textbook, images, videotape, and robustness. The investigator prepared the videotape and vitality to explain the conception according to the educational objectives and precisely edited it. The investigator used Adobe Premiere software for videotape editing. After the editing, the total videotape portion is presented as a complete e-content which was validated by the experts. A rubric was developed to ascertain the following information from the higher secondary students. Does the preface of thee-content in Tamil languages developed by the investigator give applicable information? Does the content include all important points? Are the textbook rudiments delicate to understand? Is the delivery well-rehearsed? Are the factors of e-content used effectively? Does the use of technology effectively conduct scientific knowledge?

Analysis and Interpretation of data

It can be set up from Table 1 that higher secondary students in both the control and experimental group don't differ in their pre-test performance which shows the parity of both the groups in their entry gets as far as their performance in Tamil languages. The entire firing took place in the plant, in a quiet terrain without background noise and distractions.

Table 1 Analysis of the effectiveness of e-content on Tamil Prose (Group-wise)

Group		N	Mean	S. D	't' value	p-value	0.05 level
Control Group	Pre-test	60	12.36	3.24	0.3486	0.7280	No sig.
	Post-test	60	12.58	3.66			
Experimental Group	Pre-test	60	13.22	4.88	10.6886	0.00001	Sig.
	Post-test	60	24.68	6.72			

From Table 1, the result revealed that at the 't' calculated was 0.35 ($p=0.73$). It could be lesser than the calculated value at 0.05 levels of significance. This implies that there were no significant differences in the pre and post-test achievement scores of the effectiveness of e-content in Tamil Prose concerning the control group. From Table 1, the result showed that the researchers accept the null hypothesis of no significance between the achievement mean scores of the students concerning the effectiveness of e-content in Tamil Prose in the control group.

But in the experimental group, the 't' value was 10.69 ($p=0.00001$) could be greater than the calculated value at 0.05 level and it rejected the null hypothesis. Hence, it showed that there is a significant difference between pre and post-test achievement scores in the experimental group indicating the effect of the e-content method of teaching Tamil Prose.

Table 2 Analysis of the effectiveness of e-content on Tamil Prose (Test-wise)

Tests	Groups	N	Mean	S. D	't' value	p-value	0.05 level
Pre-test Groups	Control	60	12.36	3.24	1.1372	0.2578	No sig.
	Experimental	60	13.22	4.88			
Post-test Groups	Control	60	12.58	3.66	12.2485	0.00001	Sig.
	Experimental	60	24.68	6.72			

From Table 2, the result concluded that at $p<0.05$, 't' calculated was 1.13 ($p=0.2578$). It could be lesser than the calculated value at 0.05 level in the pre-test achievement mean score in the teaching of Tamil Prose. This resulted that, there is no significant difference between the control and the experimental group concerning the pre-tests achievement scores. Whereas in the post-test achievement scores, the 't' value is 12.25 ($p=0.00001$) indicating the greater level of 0.05 significance indicates that there is a significant difference between them. It revealed that the method of e-content is effective to teach Tamil prose in the experimental mode of teaching.

The post-test mean achievement score of the e-content method (24.68) is also higher than the mean scores of the control group method (12.58) teaching. This implies that there were significant differences in the achievement mean scores of students in the post-test after they were exposed to experimental teaching methods. From Table 2, the result showed that the researchers reject the null hypothesis of no significance between the achievement mean scores of the students in post-tests. Hence, there's a significant difference in the achievement mean scores of students tutored with the e-content learning approach and conventional system concerning the analysis of post-tests.

Result and Discussion

The ensuing recommendations are given grounded on the findings and conclusions preceptors may be trained to develop e-contents of their own. Wang et al., (2023) discussed the effects of mobile technology usage on cognitive, affective, and behavioral learning outcomes in primary and secondary education through a meta-analysis. Based on our inclusion and exclusion criteria, we found 85 studies of 78 peer-reviewed papers (N = 9157) from electronic databases and major journals in educational technology and mobile learning between 2014 and 2022s. Compared with traditional technology and non-technology groups, using mobile technology produced medium positive and statistically significant effects on primary and secondary students learning, in terms of cognitive.

Developed e-content may be distributed to preceptors and higher secondary students from the educational institution for supplementing and completing the process of tutoring and literacy of Tamil language education. The teachers will motivate to prepare e-contents in all units in the Tamil language for higher secondary level and it will help to develop their knowledge in all the units.

Conclusion

Literacy through e-content encourages critical and active literacy. Fathi et al., (2023) studied a preliminary study on flipping English as a foreign language collaborative writing course with Video clips and its impact on writing skills and writing motivation. To this aim, two intact classes were selected as the participants of the study. The two classes were randomly assigned to a flipped classroom with 27 English as a Foreign Language (EFL) students and a non-flipped classroom with 24 EFL students. The data analysis from the individual semi-structured interview indicated that the flipped students had positive attitudes and perceptions toward the flipped writing classroom which further supported the quantitative findings.

With e-content accouterments, the learner and higher secondary school teacher will understand that he or she's changing from a provider of data to one who facilitates a literacy terrain. Jain et al., (2020) found that, technological approaches for e-content development and deployment through qualitative analysis. The findings of this study suggest how web technology can be deployed for e-content in the five identified stages, namely programming language, web application framework, presentation/design, content creation, and server-side technology including cloud storage. It's in this supposition that this disquisition attempts to concoct literacy was concerned. It's heartening to note that the experimental group which was given treatment on e-content along with classroom discussion outperformed their counterparts.

From these two results, it's inferred that e-content integration into Tamil language learning was set up effectively. These findings have the amount of agreement with Nachimuthu et al., (2022) study. It's imperative to take cognizance in the exploration study that e-content integration into Tamil language learning did make no gender differences. Indeed, it's good to note that e-content integration was set up effectively with the Tamil language of literacy of boys and girls in terms of furnishing equity pedagogy.

Responses of the higher secondary students

The preface part of the module was suitable to win the confidence of the higher secondary students. Their response reveals that the preface provides applicable information and establishes a clear purpose for engaging the listener. Script for Tamil Prose is well-planned and the storyboard is well-written with the language veritably simple and precise; as numerous as twenty-seven out of thirty higher secondary students revealed that the e-content presents accurate information and terse generalities; eight of the higher secondary students linked creativity and originality in the development of e-content.

The use of e-content in the content elicited good feedback from the higher secondary students. all the higher secondary students revealed that the photos, plates, audio, and videotape were applicable and created interest. It's heartening to note that all the higher secondary students felt that the whole e-content is easy to read with applicable use of fountain size, pellets, and italics and bold for headlines and heads. Sixty percent of the higher secondary students came out with fresh reflections that the plates and vitality applied to the audio and supported the content. Humans can integrate information from different sensitive stimulants into meaningful gesticulations. This empirical study proved that e-content of Tamil prose enhances the learning achievement of higher secondary students in the Salem District of Tamil Nadu State of India.

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