

Efficacy of Varied Student-Centric Teaching Methodologies for Teaching Basic Tamil among Other Language Students

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Abstract

The present study investigated the efficacy of varied student-centric teaching methodologies for teaching basic Tamil among other language students. The independent variables were of the study were namely Traditional teaching method, Gamified Digital flashcards method, and Think-Pair-Share method. The dependent variables included in the study were ability to Read, Write, Speak, and Translate Tamil. A total of 120 non-Tamil speaking students aged 18-20 years from University of Madras affiliated colleges, Chennai were randomly selected and divided into three equal groups (n=40 per group). Pre-test and post-test were conducted on all four dependent variables. The collected data were analysed using dependent t-test and ANCOVA with Scheffe's post-hoc test. The data analysis revealed significant improvements in all groups. However, the Gamified Digital flashcards group showed significantly greater improvement compared to Traditional and Think-Pair-Share groups on the proficiency of Reading, Writing, Speaking, and Translation in Tamil. The study concludes that gamified digital flashcards was the most effective student-centric methodology for teaching basic Tamil to other language learners.

Keywords: Student-Centric Learning, Traditional Teaching, Gamified Digital Flashcards, Think-Pair-Share, Basic Tamil, Other Language Students.

Introduction

Student-centred teaching approach serves as a two-way learning method in higher education, replacing the stereo typed one-way learning system. In this approach, students' active participation and self-learning enthusiasm are significantly high.

Through this method, students' thinking skills, practical knowledge, and problem-solving abilities are enhanced. Furthermore, by employing new strategies, students expand their knowledge and performance capabilities.

Students gain the ability to take responsibility and make sound decisions. Additionally, they develop creative thinking for social development and create useful innovations for society.

Skills such as teamwork, punctuality, honest learning, and managing conflicting opinions develop among students. Moreover, since individual talents and differences are taken into consideration, self-assessment skills, the ability to retain what is learned, and new technological knowledge are enhanced.

Quality education is accessible to all, and this method provides opportunities for multi-faceted development as well as increasing strengths and minimizing weaknesses.

Student-centric learning shifts the focus from teacher to learner, emphasizing active participation, autonomy, and engagement. In second language acquisition, traditional teacher-centred methods often result in low motivation and retention among non-native learners.

Traditional teaching method is lecture-based, focusing on explanation, memorization, and translation of vocabulary and grammar. While it provides structured content, it lacks interactivity.

Gamified digital flashcards are a modern learning method. Because of the game-like environment, students can continue learning with enthusiasm and interest without getting bored. Through spaced repetition and active recall methods, the information studied remains in memory for a long time. Since one can immediately know whether the provided answers are correct or incorrect, mistakes can be corrected right away. Students can use this to learn at their own pace, anytime and anywhere, using a smartphone or computer.

Points, leaderboards, and rewards create healthy competition and motivation among students to keep learning. Instead of just reading and moving on, engaging in activities like flipping cards and guessing answers increases brain activity. Digital flashcards are extremely helpful for studying effectively during short intervals (such as while traveling or in free time).

Gamified Digital flashcards method integrates game elements such as points, levels, spaced repetition, visual cues, and audio into digital flashcards. According to self-determination theory, gamification enhances intrinsic motivation and memory consolidation, particularly for vocabulary and script learning. Think-Pair-Share (TPS) is a collaborative learning strategy developed by Lyman (1981). Students think individually, pair to discuss, and share with the larger group, promoting peer interaction and speaking confidence.

Think - The teacher will present a question or a problem to the students. Without talking to anyone, students will think individually about the answer or take notes silently for 1 to 3 minutes.

Pair - Students will pair up with another student sitting nearby (In Pairs). For 2 to 5 minutes, they will discuss the ideas they thought of with their partner and arrive at a common or clear conclusion.

Share - The teacher will call upon a few pairs to share their discussed conclusions with the entire class. Through this, an exchange of ideas takes place across the whole classroom.

In regular classes, only a few students tend to answer. However, in the TPS method, every student in the class is required to think and speak. Students who hesitate when asked directly by the teacher gain confidence by discussing their thoughts with a friend first. Thinking and discussing before answering develops higher-order thinking skills rather than just giving an immediate response. It provides practice in clearly expressing one's own thoughts and listening attentively to the ideas of others.

Teaching basic Tamil to other language students in Tamil Nadu is a challenge due to script unfamiliarity and phonetic differences. Hence, identifying an effective student-centric method is crucial.

Statement of the Problem:

The purpose of the study was to find out efficacy of Traditional Teaching Method, Gamified Digital flashcards, and Think-Pair-Share methods to enhance the Reading, Writing, Speaking, Translation skills in Tamil among other language students.

Significance of the Study The findings will help curriculum designers, language teachers, and policymakers to adopt effective technology-integrated student-centric pedagogy for language teaching.

Hypotheses

H1: It was hypothesised that there would be a significant improvement on Reading, Writing, Speaking, and Translating skills in Tamil among other language students due to Traditional Teaching methods.

H2: It was hypothesised that there would be a significant improvement on Writing, Speaking, and Translating skills in Tamil among other language students due to Gamified Digital flashcards methods.

H3: It was hypothesised that there would be a significant improvement on Writing, Speaking, and Translating skills in Tamil among other language students due to Think-Pair-Share method.

H4: It was hypothesised that there would be a better significant improvement Writing, Speaking, and Translating skills in Tamil among other language students due to Gamified Digital flashcards methods than Traditional teaching and Think-Pair-Share method.

Methodology

In the present study pre-test post-test randomized group design was adopted. One hundred and twenty (n=120) Non-Tamil speaking students (other language students) from University of Madras affiliated colleges, Chennai, aged between 18-20 years were randomly selected and assigned to three groups of 40 each. The independent variables of the study were Teaching methodology namely Traditional teaching method (TTM), Gamified Digital Flashcards methods (GDFM) and Think-Pair-Share method (TPSM). The following dependent variables namely Reading, Writing, Speaking, Translation skills in Tamil were included in the study. Basic Tamil proficiency test developed by investigator assessing Reading, Writing, Speaking, and Translation was used. Pre-test administered. 12 weeks intervention, 4 sessions per week, 45 minutes per session. Post-test administered after intervention. The collected data were analysed with Mean, SD, dependent t-test, ANCOVA (pre-test as covariate), and Scheffe's post-hoc test at 0.05 level.

Results and Findings

Table 1: Descriptive Statistics and Dependent t-test for Reading, Writing, Speaking, Translation

Variables	Group	Pre Mean $\pm$ SD	Post Mean $\pm$ SD	Mean Difference	t ratio
Reading	Traditional Teaching Method (TTM)	15.20 $\pm$ 0.91	16.75 $\pm$ 1.35	1.55	8.34*
	Gamified Digital Flashcard Method (GDFM)	15.05 $\pm$ 0.88	20.27 $\pm$ 1.22	5.22	26.43*
	Think -Pair- Share Method (TPSM)	15.18 $\pm$ 1.03	19.38 $\pm$ 1.25	4.20	16.90*
Writing	Traditional Teaching Method (TTM)	13.65 $\pm$ 2.05	16.20 $\pm$ 1.68	2.55	7.27*
	Gamified Digital Flashcard Method (GDFM)	13.60 $\pm$ 2.00	20.18 $\pm$ 1.43	6.58	19.48*
	Think -Pair- Share Method (TPSM)	13.47 $\pm$ 1.54	18.68 $\pm$ 1.59	5.20	18.56*
	Traditional Teaching Method (TTM)	15.90 $\pm$ 1.77	18.25 $\pm$ 2.44	2.35	5.37*
	Gamified Digital Flashcard Method (GDFM)	16.12 $\pm$ 1.87	20.80 $\pm$ 2.68	4.67	9.67*

Speaking						
	Think -Pair- Share Method (TPSM)	15.78 ± 1.79	19.05 ± 2.06	3.27	8.21*	
	Traditional Teaching Method (TTM)	10.90 ± 1.79	15.00 ± 1.22	4.10	11.08*	
	Gamified Digital Flashcard Method (GDFM)	10.88 ± 1.70	19.25 ± 1.30	8.38	23.91*	
Translating	Think -Pair- Share Method (TPSM)	10.72 ± 1.58	16.48 ± 1.99	5.75	14.61*	

*p<.001 significant

Interpretation: All three methods of teaching improved all the selected dependent variables significantly, thus researcher's first, second and third hypotheses were accepted.

Table 2: ANCOVA and Scheffe's Post-hoc on Post-test Scores

Dependent Variable	F (2,116)	Sig.	Scheffe Post-hoc Ordered Means (Adjusted)
Reading	82.26	p<.001	Gamified Digital Flashcard Method (20.30) > Think -Pair- Share Method (19.36) > Traditional Teaching (16.73)
Writing	65.26	p<.001	Gamified Digital Flashcard Method (20.17) > Think -Pair- Share Method (18.70) > Traditional Teaching (16.18)
Speaking	11.74	p<.001	Gamified (20.76) > TPS (19.09) > Traditional (18.26)
Translating	78.54	p<.001	Gamified Digital Flashcard Method (19.25) > Think -Pair- Share Method (16.47) > Traditional Teaching (15.00)

ANCOVA showed significant group differences after adjusting for pre-test scores. Scheffe's test revealed Gamified Digital Flashcards method (GDFM) was significantly superior to both other methods, and Think -Pair- Share Method (TPS) was superior to Traditional teaching. Thus, researcher fourth hypothesis was accepted.

Discussion

The superiority of Gamified Digital Flashcards method (GDFM) can be attributed to dual coding theory, immediate feedback, spaced repetition, and increased engagement. Think -Pair- Share Method (TPS) improved over traditional teaching due to collaborative learning but lacked visual and game-based reinforcement.

Conclusion

1. Student-centric methods significantly improved basic Tamil proficiency skills namely Reading, Writing, Speaking, and Translation among other language students.

2. Gamified Digital Flashcards is the most effective method for enhancing Tamil proficiency skills namely Reading, Writing, Speaking, and Translation among other language students.
3. Think-Pair-Share is more effective than Traditional teaching among other language students.

Recommendations

1. The educational institutions should train teachers in gamified digital tools.
2. Language curriculum for non-Tamil students should incorporate gamified digital tools.
3. Modern digital tools may be integrated with think pair and share method and other student centric teaching methods for holistic development.

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