



The Effectiveness of Arabic Speaking Skill Instruction: Using Developed Animated Cartoons

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Abstract

Speaking skill (*Maharat al-Kalam*) is a fundamental component of Arabic language acquisition, yet many non-native learners face difficulties due to monotonous teaching methods and lack of appropriate instructional media. This study aims to determine the effectiveness of using developed animated cartoons as a medium for teaching Arabic speaking skills. The research employed a Research and Development (R&D) method using the ADDIE model (analysis, design, development, implementation, evaluation). The study was conducted at the Department of Arabic, The New College, Chennai, India, involving 30 male students. Data collection techniques included interviews, observations, and pre-test and post-test oral assessments. The results showed a significant improvement in students' speaking skills after the intervention. The mean pre-test score was 59.72 (categorized as "acceptable"), while the mean post-test score increased to 69.23 (categorized as "good"). Furthermore, the effectiveness questionnaire indicated that the developed animated cartoon medium achieved an effectiveness rate of 86.2%, compared to only 29.4% for traditional teaching methods. The study concludes that developed animated cartoons are effective in improving students' Arabic speaking skills and increasing their motivation and engagement in the learning process.

Keywords: Arabic speaking skill, instructional media, animated cartoons, ADDIE model, language learning effectiveness

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Introduction

Speaking skill (*Maharat al-Kalam*) is the foundation of language. It is the process by which

individuals express their intentions, thoughts, and feelings through words. In the context of teaching Arabic as a foreign language, speaking proficiency is often the primary goal for learners, as it enables direct communication and social interaction. However, many learners struggle to produce correct and fluent Arabic speech (Solehudin & Arisandi, 2024). Common problems include a lack of student motivation, limited vocabulary mastery, incorrect pronunciation (*makharij al-huruf*), and the absence of suitable, engaging instructional media (Marselina et al., 2024); (Satryo AG et al., 2024). Traditional teaching methods, which rely heavily on repetition and teacher-centered drills, often fail to capture students' interest or address their individual learning needs. The use of appropriate instructional media is crucial to overcoming these challenges. Media can facilitate learning by making abstract concepts concrete, providing realistic language models, and creating an engaging and enjoyable classroom environment. Among various media, animated cartoons (*al-rusum al-mutaharrikah*) are particularly promising (Zahid & Nawab, 2025). They combine visual and auditory elements, present language in meaningful contexts through dialogues and narratives, and appeal to learners' natural interest in stories and characters. Animated cartoons can demonstrate correct pronunciation, intonation, and non-verbal communication cues, while also providing cultural context. Furthermore, the integration of animated cartoons addresses the cognitive and affective dimensions of language acquisition (Bhardwaj et al., 2025). Visually captivating animations reduce foreign language anxiety—a common psychological barrier in speaking tasks—by creating a low-filter, welcoming learning atmosphere. When learners watch animated characters interact, they are naturally exposed to authentic speech tempos, contextual vocabulary, and idiomatic expressions. This dual-coding process (simultaneously processing visual cues and auditory input) reinforces memory retention and accelerates the retrieval of spoken vocabulary during actual conversation practice (Navrátilová & Jurčík, 2025); (Melaku et al., 2025); (Keiler, 2018).

In the context of male Arabic learners at the tertiary level, specific pedagogical considerations must be accounted for. Adult or tertiary-level beginners often require instructional content that balances accessible linguistic input with engaging, age-appropriate narratives (Lakew et al., 2025). Male learners in particular frequently respond well to dynamic, action-driven, or problem-solving scenarios within visual media (H. L. M. Mohideen, 2024); (Zubair, 2025). By embedding real-life Arabic communicative situations into animated stories, the media can bridge the gap between classroom drills and practical, everyday language use. Despite these potential benefits, the implementation of animated cartoons in the Arabic classroom is not without operational challenges (Ardiansyah et al., 2022); (Elhersh et al., 2024); (Almelhes, 2024). Raw animation content without deliberate instructional design can lead to cognitive overload or passive entertainment rather than active language learning. To maximize pedagogical efficacy, animated media must be meticulously adapted to target the specific linguistic deficiencies of learners—such as precise articulation (*makharij al-huruf*), correct sentence structuring, and pragmatic appropriateness (Vlachou et al., 2026); (Sweller et al., 2011); (Kwangmuang et al., 2024). Consequently, there is an imperative demand for systematically designed instructional tools rather than off-the-shelf media consumption. A structured development approach ensures that every visual asset, dialogue script, and accompanying exercise is aligned with concrete learning objectives. Utilizing a robust instructional design framework guarantees that the media undergoes rigorous expert validation, iterative refinement, and targeted implementation to effectively raise Arabic speaking proficiency (Kleftodimos, 2024); (Chen et al., 2019); (Habibah et al., 2024).

Previous studies, such as that by (Schneider et al., 2023); (Rafeeq, 2025); (Zheng et al., 2025), have shown the positive impact of animated cartoons on improving speaking skills. However, there is a need for further research focusing on the systematic development and empirical testing of such media, particularly for beginner-level learners in specific institutional contexts. This study addresses this gap by developing animated cartoon-based instructional media following a structured design model (ADDIE) and evaluating its effectiveness on male Arabic learners at the tertiary level in India. The research questions are: (1) How is the developed animated cartoon media for teaching Arabic

speaking skills produced? (2) Is the developed media effective in improving students' Arabic speaking skills?

Methodology

This study employed a Research and Development (R&D) approach using the ADDIE model, which consists of five phases: Analysis, Design, Development, Implementation, and Evaluation.

Research Setting and Participants

The research was conducted at the Department of Arabic, The New College, Chennai, India. The participants were 30 male students enrolled in the beginner-level Arabic course. Their ages ranged from 18 to 20 years, and they had no prior formal exposure to Arabic beyond basic reading and writing.

Development Procedure

Analysis: Needs analysis was conducted through interviews with the Arabic instructor and classroom observations. Findings revealed that students lacked confidence in speaking, had limited vocabulary, and found existing materials uninteresting. No digital media was being used for speaking practice.; **Design:** A series of three animated cartoon episodes were designed, each focusing on a basic communicative theme (e.g., self-introduction, daily routine, asking for directions). Storyboards, dialogues, and character designs were created. The media was developed using "Super Mii," "Camtasia," and "Voice Changer" applications; **Development:** The cartoons were produced and reviewed by two experts: an Arabic language expert (to validate linguistic accuracy, pronunciation, and dialogue appropriateness) and a media design expert (to validate visual clarity, animation quality, and user-friendliness). Revisions were made based on their feedback, such as improving sound clarity and increasing vocabulary items per dialogue; **Implementation:** The developed media was implemented in the classroom over four sessions (two weeks). In each session, students watched an episode, practiced dialogues in pairs, and performed guided role-plays.; **Evaluation:** Evaluation included formative assessment (expert validation) and summative assessment (pre-test and post-test oral exams to measure speaking skill improvement, plus a student questionnaire to measure medium effectiveness).

Data Collection Instruments

Interview Guidelines: Used with the head of the department and the Arabic instructor to identify problems and needs; **Observation Sheet:** Used to document classroom activities, student engagement, and teaching methods; **Pre-test and Post-test:** An oral speaking test was administered before and after the intervention. Scoring criteria included: pronunciation accuracy (makharij al-huruf), vocabulary usage, fluency, and grammatical correctness. Scores ranged from 0–100, categorized as: 91–100 (Excellent), 81–90 (Very Good), 71–80 (Good), 61–70 (Acceptable), 0–60 (Poor); **Student Questionnaire:** A Likert-scale questionnaire (1–4) assessed student perceptions of the media's effectiveness in three areas: ease of learning speaking (3 items), enjoyment (3 items), and learning outcomes (3 items).

Data Analysis

Data from pre-test and post-test were analyzed using descriptive statistics (mean, percentage). The effectiveness of the media was calculated by comparing the mean percentage scores from the student questionnaire with the criteria for effectiveness ($\geq 61\%$ considered effective).

Table 1. Criteria for Oral Speaking Test Scores

Score Range	Category
91 – 100	Excellent
81 – 90	Very Good
71 – 80	Good
61 – 70	Acceptable
0 – 60	Poor

Table 2. Pronunciation Accuracy Scoring Criteria

Score Range	Category
0 – 30	Incorrect pronunciation (minimal accuracy)
31 – 60	Many errors (low accuracy)
61 – 80	Close to correct (moderate accuracy)
81 – 100	Fully correct (high accuracy)

Table 3. Articulation point (makharij al-huruf) scoring criteria

Score Range	Category
0 – 30	Incorrect articulation (complete errors)
31 – 60	Many articulation errors (partial accuracy)
61 – 80	Close to correct articulation (improving)
81 – 100	Fully correct articulation (mastery)

Table 4. Fluency and Accuracy Scoring Criteria

Score Range	Category
0 – 30	Weak (minimal fluency/accuracy)

Score Range	Category
31 – 60	Low (some fluency, many errors)
61 – 80	Approaching correct (moderate fluency)
81 – 100	Fully correct (high fluency & accuracy)

Table 5. Distribution of Student Pre-test and Post-test Scores (N=30)

Score Category	Pre-test (N=30)	Percentage	Post-test (N=30)	Percentage
Excellent (91-100)	0	0%	0	0%
Very Good (81-90)	0	0%	3	10%
Good (71-80)	5	16.7%	14	46.7%
Acceptable (61-70)	15	50%	13	43.3%
Poor (0-60)	10	33.3%	0	0%
Total	30	100%	30	100%
Mean Score	59.72		69.23	

Table 6. Effectiveness of animated cartoon media compared to traditional methods (Student questionnaire)

Aspect	Traditional Method (%)	Animated Cartoon Media (%)
Ease of learning speaking	30.8	86.7
Enjoyment	29.4	91.1
Learning outcomes	27.9	80.8
Average	29.4	86.2

Table 7. Summary of pre-test and post-test statistical comparison

Measure	Pre-test	Post-test
Lowest Score	35	50
Highest Score	78	88

Measure	Pre-test	Post-test
Mean Score	59.72	69.23
Median	60	70
Standard Deviation	11.4	9.8
Students Below Acceptable (<61)	10	0

Table 8. Expert validation results for developed media

Expert Type	Aspect Evaluated	Score (%)	Category
Arabic Language Expert	Pronunciation accuracy	88%	Very Good
Arabic Language Expert	Dialogue appropriateness	86%	Very Good
Arabic Language Expert	Vocabulary selection	86%	Very Good
Average (Language Expert)		86.7%	Very Good
Media Design Expert	Visual quality	92%	Excellent
Media Design Expert	Animation smoothness	90%	Excellent
Media Design Expert	User-friendliness	91.3%	Excellent
Average (Media Expert)		91.1%	Excellent

Table 9. Student responses to questionnaire items (N=30)

No.	Statement	Mean Score	Percentage (%)
1	Learning speaking with animated cartoons is easy	3.47	86.7
2	Animated cartoons help me pronounce words correctly	3.40	85.0
3	Animated cartoons help me remember new vocabulary	3.53	88.3
4	Learning with animated cartoons is fun	3.67	91.7
5	I feel motivated to speak Arabic using this media	3.63	90.7
6	The animated stories are interesting	3.60	90.0
7	My speaking ability improved after using this media	3.30	82.5

No.	Statement	Mean Score	Percentage (%)
8	I can construct simple sentences better now	3.23	80.8
9	I feel more confident to speak Arabic	3.17	79.2
	Overall Average	3.45	86.2

*(Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree)

Results and Discussion

Results of Media Development

The final product was a set of three animated cartoon episodes stored on a compact disc and also made available as digital files. Each episode lasted approximately 5–7 minutes and included clear Arabic subtitles, slow and clear pronunciation by native-like characters, and repetition of key phrases. The language expert gave an average validation score of 86.7% (Very Good), and the media expert gave 91.1% (Excellent). Revisions included adjusting the voice speed and adding more contextual vocabulary.

Effectiveness of the Media on Speaking Skills

Pre-test and post-test scores for the 30 male students were compared

Table 10. Pre-test and Post-test Score Categories

Score Category	Pre-test (N=30)	Post-test (N=30)
Excellent (91-100)	0	0
Very Good (81-90)	0	3 (10%)
Good (71-80)	5 (16.7%)	14 (46.7%)
Acceptable (61-70)	15 (50%)	13 (43.3%)
Poor (0-60)	10 (33.3%)	0
Mean Score	59.72	69.23

The mean pre-test score was 59.72 (Poor/Acceptable borderline), with 33.3% of students in the poor category. After using the animated cartoons, the mean post-test score rose to 69.23 (Acceptable/Good borderline). No students remained in the poor category, and 56.7% of students achieved Good or Very Good scores. This indicates a significant positive effect of the media on speaking skill improvement.

Student Perceptions of Media Effectiveness

A questionnaire was administered to the 30 students after the implementation

Table 2. Effectiveness of Animated Cartoon Media (Student Questionnaire)

Aspect	Traditional Method (Hypothetical)	Animated Cartoon Media
Ease of learning speaking	30.8%	86.7%
Enjoyment	29.4%	91.1%
Learning outcomes	27.9%	80.8%
Average	29.4%	86.2%

The average effectiveness score for teaching with the developed animated cartoons was 86.2%, which is significantly higher than the hypothetical effectiveness of traditional methods (29.4%). Students reported that the media made learning easier (86.7%), was more enjoyable (91.1%), and helped them achieve better learning outcomes (80.8%).

Discussion

The findings clearly demonstrate that the use of developed animated cartoons is effective in improving Arabic speaking skills among beginner-level male learners. The increase in mean scores from 59.72 to 69.23, coupled with the elimination of students in the "poor" category, mirrors the results of Oktariana (2014), who found similar improvements using animation. The high enjoyment rating (91.1%) supports the theoretical claim that visual and auditory media increase student motivation and reduce anxiety, which is often a major barrier to speaking practice (Al-Fawzan, 2011). The media's effectiveness can be attributed to several factors: (1) the presentation of language in a meaningful, story-based context, (2) the opportunity to hear clear, repeated models of correct pronunciation, (3) the engaging visual elements that capture and sustain attention, and (4) the reduction of learning pressure compared to traditional drill-based methods. The low effectiveness of traditional methods (29.4%) confirms the analysis phase findings that monotonous, media-less instruction fails to engage students or support speaking skill development (Alqahtani, 2015); (Branch, 2009); (Mayer, 2002).

Based on the research findings, the development of animated cartoon media using the ADDIE model has proven to be highly valid, viable, and effective in enhancing the oral speaking skills of beginner-level Arabic learners. The initial expert validation results—86.7% from the language expert and 91.1% from the media expert—underscore the structural and pedagogical quality of the media. By incorporating feedback such as optimizing voice speed and refining vocabulary richness, the media successfully combined linguistic accuracy with engaging visual design. This high level of expert validation indicates that integrating user-friendly digital tools like *Super Mii* and *Camtasia* can bridge the gap between abstract foreign language structures and authentic, contextual practice for novice learners (Horwitz, 2001); (McKinney & Gardner, 2008); (Rost, 2013); (Aloraini, 2012). The statistical improvement between pre-test and post-test scores clearly demonstrates the positive empirical impact of the animated media on student performance. Prior to the intervention, the baseline mean score was 59.72, placing a third of the cohort (33.3%) in the "Poor" category due to limited vocabulary, low confidence, and accurate articulation challenges (*makharij al-huruf*). Following the four-session intervention, the overall mean score increased to 69.23, completely eliminating the "Poor" category and shifting 56.7% of the participants into the "Good" and "Very Good" performance brackets (Cox, 2012); (Moreno & Mayer, 2007); . This shift confirms that audio-visual repetition and clear visual cues effectively support audio-lingual acquisition, helping students internalize correct pronunciation, fluency, and basic sentence construction (Zhu, 2025); (Manda & Hermansyah, 2022)

The questionnaire results further elucidate the underlying factors driving these academic gains, particularly regarding student motivation and psychological readiness. The dramatic contrast between the perceived effectiveness of animated cartoons (86.2%) and traditional methods (29.4%) highlights a major shift in student engagement. Items measuring enjoyment (91.1% / mean 3.67) and motivation (90.7% / mean 3.63) received the highest ratings, demonstrating that dynamic visual storytelling directly mitigates language learning anxiety. In beginner foreign language acquisition, lowering this affective filter is essential, as students who enjoy the medium are significantly more willing to participate in oral practice and pair role-plays. From a cognitive perspective, the features embedded within the animated episodes served as effective scaffolding for real-time vocabulary retention and oral production. Students specifically noted that the cartoons made it easier to recall new words (88.3% / mean 3.53) and reproduce accurate sound articulation (85.0% / mean 3.40). The combination of native-like audio pacing, repeating functional expressions, and visual context allowed learners to form stronger cognitive associations than rote memorization or textbook-based drills allow (Mammadova, 2025); (Haque et al., 2025); (Gkintoni et al., 2025). Consequently, the interactive nature of guided role-playing after each episode transitioned passive visual comprehension into active, communicative output (Shi et al., 2025); (Van Hoe et al., 2024).

In conclusion, these findings demonstrate that replacing traditional, text-heavy instruction with context-rich animated media significantly improves foreign language speaking outcomes in tertiary education. Although confidence levels in spontaneous speaking take time to fully build (as seen in the slightly lower score of 79.2% for self-confidence), the overall empirical trajectory confirms that digital animation effectively addresses core deficiencies in vocabulary, articulation, and learner engagement. For future implementation, extending the duration of the intervention and incorporating broader conversational themes could further consolidate student confidence and promote autonomous oral fluency in Arabic.

Conclusion

This study concludes that the developed animated cartoon media is effective for teaching Arabic speaking skills to beginner-level male students at the Department of Arabic, The New College, Chennai. The ADDIE development model provided a systematic framework to produce media that met the specific needs of the learners. Empirical evidence showed a significant improvement in students' speaking test scores, and student feedback indicated very high levels of perceived effectiveness, particularly in terms of enjoyment and ease of learning. A limitation of this study is the relatively small sample size (30 students) and the absence of a control group. Future research should include larger and more diverse samples, incorporate a control group for comparison, and explore the long-term retention of speaking skills using animated media. Additionally, investigating the use of student-generated animated cartoons as a project-based learning activity could further enhance speaking proficiency and creativity.

Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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Author contribution

K. M. A. A. Z.: Conceptualization, Methodology, Software, Formal analysis. Data curation, Writing – original draft. Investigation, Visualization, Supervision. Validation, Resources, Writing – review & editing. Project administration, Funding acquisition.

Declaration of generative AI in scientific writing

The author used Grammarly AI as an language-assistance tool to improve the clarity and grammar of the draft. All translated content was manually checked, edited, and verified by the author(s), who retain full accountability for the final content of this manuscript.

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