

Research paper

**The Effect of Using Telegram on Learners' Concrete and Abstract  
Vocabulary Learning, Motivation toward learning, and Academic Enjoyment:  
Teachers' and Students' Attitudes**

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**Abstract**

In recent years, mobile applications have become popular tools for language learning. This study examined the impact of Telegram, a widely used messaging app, on Iranian EFL learners' vocabulary acquisition (concrete and abstract), learning motivation, and academic enjoyment, along with teachers' and students' attitudes toward its use. Ninety-two female EFL learners (aged 15-20) with intermediate proficiency participated, divided into an experimental group (Telegram-based activities) and a control group (traditional instruction). Pre- and post-tests assessed vocabulary, motivation, and enjoyment, using both quantitative and qualitative data. Results showed that the experimental group significantly outperformed the control group in all areas. Interviews with eight teachers and twelve students further emphasized Telegram's role in reducing boredom, increasing motivation, and enhancing enjoyment. The findings support Telegram's effectiveness in improving vocabulary learning, motivation, and the overall academic experience, offering insights for future research on social media integration in language education.

**Keywords:** Abstract Vocabulary, Academic Enjoyment, Concrete Vocabulary, Motivation, Students' Attitudes, Teachers' Attitudes, Telegram

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## **Introduction**

The integration of technology into education has become essential, with computers long serving as valuable tools in EFL classrooms. Computer-Assisted Language Learning (CALL), though not new (Warschauer & Healey, 1998), continues to evolve alongside technological advances (Reinders, 2021). CALL offers various benefits, such as more efficient glossing and improved writing accuracy compared to traditional methods (Taylor, 2013). However, with mobile technology's rapid development, many CALL functions are now accessible via mobile devices, expanding educational access and flexibility.

Among mobile applications, Telegram has gained prominence for its speed, security, and versatility (Durov & Telegram Team, 2013; Lee, 2021). It supports multimedia sharing, large group chats, channels, bots, and encrypted communication, making it useful across personal, professional, and educational contexts (Chen, 2022; Namaziandost et al., 2024; Smith, 2020). In education, Telegram enables teachers to distribute materials, facilitate discussions, and automate tasks through bots that offer quizzes, feedback, and personalized learning (Brown, 2019; Johnson, 2021; Sharma, 2020).

Vocabulary acquisition remains central to language learning, as lexical knowledge supports listening, speaking, reading, writing, and cultural competence (Lessard-Clouston, 1996; McCarthy, 1990; Flynn, 2007). Traditional vocabulary instruction often relies on rote memorization, limiting engagement. Telegram's interactive features may foster active learning, retention, and accommodate various learning styles (Chung, 2022). Beyond vocabulary, motivation and academic enjoyment also significantly affect student outcomes (Liu, 2021). Telegram's user-friendly, interactive design may enhance these aspects, though research on its

influence remains limited. Moreover, teacher and student attitudes play a critical role in successful technology integration (Tan, 2023).

This study investigates the effects of Telegram on EFL learners' acquisition of concrete and abstract vocabulary, motivation, and academic enjoyment, while also examining teachers' and students' perceptions. The findings aim to enrich research on mobile-assisted language learning and offer practical guidance for educators.

### **Statement of the Problem**

The integration of digital tools and mobile applications has rapidly transformed education (Johnson, 2021). Telegram, a widely used messaging app, offers accessibility, ease of use, and multimedia functions, making it a promising platform for educational interaction (Sharma, 2020). However, despite its popularity, limited research has examined its impact on key outcomes such as vocabulary acquisition (both concrete and abstract), learner motivation, and academic enjoyment. Vocabulary acquisition is fundamental to language learning, requiring mastery of both tangible and abstract terms for full linguistic competence (Brown, 2019). While traditional methods offer some effectiveness, they often lack the interactivity needed to fully engage learners. Moreover, motivation and enjoyment are crucial to academic success and sustained engagement (Smith, 2020), yet how Telegram affects these factors remains underexplored. Teachers' and students' attitudes toward using Telegram are also critical to its successful implementation. This study addresses these gaps by investigating Telegram's effects on vocabulary acquisition, motivation, academic enjoyment, and user perceptions, offering insights into its potential to enhance language learning.

### **Objectives of the Study**

This study aims to examine the impact of Telegram on learners' acquisition of concrete and abstract vocabulary, comparing its effectiveness to traditional methods. It also investigates how Telegram influences learners' motivation and academic enjoyment, assessing its potential to foster a more engaging learning experience. Additionally, the study explores teachers' and students' attitudes toward using Telegram in education, identifying their perceptions, preferences, and challenges. The findings intend to offer practical insights and recommendations for effectively integrating Telegram into language learning to enhance vocabulary acquisition and learner engagement.

**RQ1.** Does using Telegram have any significant effect on learners' ability to acquire concrete vocabulary compared to traditional methods?

**RQ2.** Does using Telegram have any significant effect on learners' ability to acquire abstract vocabulary compared to traditional methods?

**RQ3.** Does using Telegram have any significant effect on learners' motivation toward learning?

**RQ4.** Does using Telegram have any significant effect on learners' academic enjoyment?

**RQ5.** What are teachers' attitudes toward the use of Telegram in the teaching process?

**RQ6.** What are students' attitudes toward the use of Telegram in the learning process?

### **Significance of the Study**

This study is valuable for educators, curriculum designers, and researchers in language learning. By examining Telegram's effects on learners' acquisition of concrete and abstract vocabulary, it adds to the literature on mobile-assisted language learning (MALL) and informs strategies for improving vocabulary instruction. The study also highlights how Telegram may enhance learner

motivation and academic enjoyment—key factors in sustaining engagement and improving performance—thus guiding the design of more effective, learner-centered approaches. Additionally, it explores teacher and student attitudes toward Telegram, helping address barriers to technology adoption. The findings offer practical recommendations for integrating Telegram into pedagogy, supporting the creation of dynamic, technology-enhanced learning environments suited for 21st-century education.

## **Literature Review**

### **Telegram as a Digital Learning Tool**

Telegram has gained attention in language learning for its ease of use, versatility, and ability to foster flexible, collaborative learning (Rahimi & Ghanizadeh, 2019). Its instant messaging, file-sharing, and group chat functions allow teachers to deliver vocabulary exercises, multimedia materials, quizzes, and practice activities, supporting both incidental and intentional vocabulary learning (Ally, 2019; Sadeghi, 2020). Frequent exposure to new vocabulary through multimedia formats like images, audio, and video enhances retention, while peer interactions promote authentic language use and active learning (Bower et al., 2020).

Telegram's group chat feature enables real-time communication, allowing students to ask questions, collaborate, and access shared resources, while channels facilitate centralized dissemination of materials and announcements (Basak & Yıldırım, 2021). Its support for both group and private messaging offers flexible teacher-student interaction, promoting a sense of community and engagement crucial for motivation and academic success.

Telegram accommodates diverse learning styles through its multimedia capabilities, including videos, podcasts, infographics, and interactive quizzes (Peterson, 2020; Fitzpatrick, 2022). Its

asynchronous nature allows students to revisit content and learn at their own pace, supporting learners with different schedules or learning needs (Kassim & Ali, 2021). Its free access, minimal technical requirements, and compatibility with various devices make it particularly advantageous for under-resourced educational settings (Jing & Liu, 2021).

Privacy and security are also strengths of Telegram, with encryption and controlled access to groups ensuring safe, focused learning spaces (Rahman, 2020; Nazzal & Brown, 2022). Overall, Telegram's accessibility, cost-effectiveness, and rich features position it as an effective platform for enhancing communication, collaboration, and engagement in language education.

### **Vocabulary Learning: Concrete vs. Abstract Words**

Vocabulary acquisition includes both concrete words (e.g., "dog") and abstract words (e.g., "freedom"). While concrete words are easier to visualize, abstract terms are more challenging due to their conceptual nature (Brysbaert et al., 2014). Telegram's multimedia features (images, videos, quizzes) help facilitate learning of both types (Sadeghi, 2020; Rahimi & Ghanizadeh, 2019). Activities such as flashcards, games, and contextual exercises promote active learning and retention (Ally, 2019). Telegram also supports spaced repetition, which strengthens memory (Ebbinghaus, 1885). According to Cognitive Load Theory (Sweller, 1980s), Telegram's multimodal input reduces cognitive overload, allowing learners to process vocabulary more efficiently.

### **Motivation toward Learning**

Motivation plays a critical role in language learning (Dörnyei, 2001). Telegram enhances motivation through interactive and personalized features, offering learners autonomy, immediate

feedback, and peer interaction, all linked to intrinsic motivation (Deci & Ryan, 2000; Bower et al., 2020; González, 2016). Its multimedia content fosters engagement and enjoyment (Sadeghi, 2020; Ally, 2019). Vygotsky's Social Constructivism emphasizes peer collaboration, which Telegram facilitates via real-time and asynchronous communication. Self-Determination Theory (Deci & Ryan) highlights Telegram's support for autonomy, competence, and relatedness, all contributing to heightened motivation and learning satisfaction.

### **Academic Enjoyment**

Academic enjoyment—students' pleasure in learning—enhances engagement and achievement (Fredricks et al., 2004; Dörnyei, 2001). Telegram promotes enjoyment through interactive quizzes, peer interaction, and multimedia, making learning dynamic and less monotonous (Bower et al., 2020; Rahimi & Ghanizadeh, 2019). Gamification elements like badges and leaderboards further stimulate engagement (Anderson & Whipple, 2023). Flexible, self-paced learning also increases autonomy and satisfaction (Garris et al., 2002; Sailer et al., 2017). Social interactions via Telegram foster a sense of belonging, contributing to positive emotions toward learning (Kimmons, 2016). Csikszentmihalyi's Flow Theory suggests that Telegram's balanced challenges help students enter a state of flow, enhancing academic enjoyment.

### **Teachers' and Students' Attitudes toward Telegram**

Teachers' and students' positive attitudes are critical for Telegram's effective use (Ertmer, 2005; Bower et al., 2020). Teachers with digital confidence and proper training are more likely to adopt Telegram (Rahimi & Ghanizadeh, 2019), while students appreciate its flexibility, immediacy, and collaboration opportunities (Sadeghi, 2020; González, 2016). According to Ajzen's Theory of

Planned Behavior (1991), attitudes, norms, and perceived control influence adoption intentions. Teachers' prior experiences and openness, along with students' familiarity with Telegram, shape their engagement with the platform. Ultimately, Telegram's success depends on both groups' willingness to embrace it, alongside contextual factors like digital literacy and institutional support.

All in all, Telegram offers significant potential to improve vocabulary learning (both concrete and abstract), boost motivation, and foster academic enjoyment by providing an interactive, flexible, and collaborative environment. While its features support cognitive and emotional aspects of learning, teacher and student attitudes, training, and the learning context ultimately determine its effectiveness. Further research should explore how Telegram influences learning outcomes and address its challenges in educational settings.

## **Method**

### **Participants**

The study involved 92 female Iranian EFL learners aged 15–20, all at an intermediate English proficiency level based on a standardized placement test. Participants were randomly assigned to an experimental group (EG) and a control group (CG), with 46 students in each. Both groups were comparable in age, gender, and proficiency. Ethical standards were upheld: participants provided written consent after being informed of the study's purpose and procedures, and confidentiality was strictly maintained.

### **Instruments**

The vocabulary pretest and posttest aimed to assess participants' proficiency in learning concrete and abstract vocabulary. Each test consisted of 40 items, equally divided between concrete and

abstract vocabulary: 20 items assessed concrete vocabulary and 20 assessed abstract vocabulary. The vocabulary items were selected from high-frequency word lists appropriate for intermediate-level EFL learners, guided by the General Service List (GSL) and the Academic Word List (AWL). The selection process also included a review of vocabulary items commonly found in national English textbooks used in Iranian high schools. This ensured both the contextual relevance and cognitive appropriateness of the vocabulary for the target learner group.

The test items included the following formats, which were used to capture a range of vocabulary knowledge and skills, such as recognition, recall, and contextual application:

1. **Multiple Choice Questions (MCQs):** 20 items (10 concrete, 10 abstract) required participants to select the correct word from four options. This format was used to measure recognition-based vocabulary knowledge efficiently.
2. **Matching Items:** 10 items (5 concrete, 5 abstract) required participants to match words with their corresponding definitions or images. This type was included to assess learners' ability to connect lexical meaning to visual or definitional cues.
3. **Sentence Completion:** 10 items (5 concrete, 5 abstract) asked participants to fill in blanks with the appropriate vocabulary word. This format assessed learners' productive and contextual vocabulary usage.

Each correct answer was awarded 0.5 point, resulting in a total possible score of 20 points per test. This scoring system ensured an equal emphasis on concrete and abstract vocabulary learning. The content validity of the test was established through expert reviews. A panel of three experienced EFL educators reviewed the items to ensure alignment with the study objectives and the appropriateness of vocabulary selection for intermediate learners. The reliability of the test was

determined through a pilot study with 20 participants from a similar demographic. The Cronbach's alpha coefficient was calculated to be 0.83, indicating high internal consistency.

The use of different item types—Multiple Choice Questions, Matching Items, and Sentence Completion—in the vocabulary pretest and posttest was intended to provide a comprehensive assessment of learners' vocabulary knowledge by targeting various dimensions of word acquisition. Each format served a distinct purpose: MCQs evaluated learners' ability to recognize and distinguish vocabulary items; matching items assessed their associative knowledge by linking words to definitions or images, particularly useful for concrete vocabulary; and sentence completion tasks measured learners' ability to use vocabulary contextually, which is crucial for abstract terms. This multi-format approach not only enhanced the construct validity of the test but also engaged different cognitive processes, reduced format bias, and maintained participant engagement by varying task demands.

To assess participants' enjoyment of learning English, the Foreign Language Enjoyment Scale (FLES), developed by Dewaele and MacIntyre (2014), was employed. The FLES consists of 21 items that measure various dimensions of foreign language enjoyment. Upon preliminary analysis, the 21 items were divided into three distinct categories: Self-related Enjoyment: Items 1 & 3–12 measure students' appreciation of their own interest, ability, and achievements in English learning. This subscale captures how learners feel about their personal progress and success in language acquisition. Others-related Enjoyment: Items 14–21 assess participants' satisfaction with their relationships with others, including teachers and classmates, and how these social interactions influence their enjoyment of language learning. Mistake-related Enjoyment: Items 2 & 13 measure learners' positive attitudes toward making mistakes in language learning, reflecting their ability to view errors as part of the learning process rather than sources of frustration. The FLES uses a 5-

point Likert scale, where responses range from 1 (strongly disagree) to 5 (strongly agree). In terms of reliability, the scale demonstrated strong internal consistency, with a Cronbach's alpha coefficient of 0.93, indicating a high level of reliability in measuring enjoyment among EFL learners.

Motivation was assessed using a 16-item scale developed by Mehdiyev et al. (2017). This instrument was administered both at the start and the end of the study to measure changes in participants' motivation over time. The scale consists of three key components: Attitude towards Learning English: This subscale contains 4 items (e.g., "I find learning English more difficult than other subjects") that gauge participants' attitudes and perceptions of English as a subject. Self-confidence in Language Learning: This component consists of 5 items (e.g., "Learning English makes me happy") that measure the learners' confidence in their language abilities and the emotional satisfaction they derive from the learning process. Personal Use of English: The 7 items in this subscale (e.g., "I want to learn English so that I can keep up with world events") focus on the practical and personal reasons students have for learning English. Responses were recorded on a five-point Likert scale, ranging from "Totally agree" to "Absolutely disagree." The overall reliability of the scale was high, with a Cronbach's alpha of 0.82.

The qualitative component of this study involved semi-structured interviews conducted to explore teachers' and students' attitudes toward the effect of using Telegram on learners' English learning in general and learning concrete and abstract vocabulary learning, motivation toward learning, and academic enjoyment in particular. All participants were invited to participate in the interview process. However, data saturation was reached, and consequently, interviews were conducted with 8 teachers and 12 students. The interviews were conducted in a quiet setting to ensure participants felt comfortable sharing their thoughts. Each session was audio-recorded with

participants' consent to capture detailed responses. The average duration of each interview was 17–25 minutes. The recorded interviews were transcribed carefully to ensure accuracy in capturing participants' responses. Transcriptions were carefully reviewed to ensure fidelity to the original recordings. The transcribed data underwent coding to identify patterns and recurring ideas. An open coding process was initially applied, followed by axial coding to group related codes into categories. Subsequently, themes were derived from the categories, reflecting teachers' and students' perspectives on the following aspects:

1. Decreasing Boredom
2. Boosting Motivation
3. Increasing Academic Enjoyment
4. Developing General English Proficiency
5. Improving Collaboration and Engagement

### **Data Collection Procedures and Analyses**

To do this study, 92 EFL learners were selected and divided into two groups: an EG and a CG. To assess the participants' proficiency in concrete and abstract vocabulary, as well as their motivation and academic enjoyment, three pretests were administered to both groups. Following the pretest, the treatment phase began, consisting of 14 sessions, each lasting between 45 to 60 minutes. During this phase, the EG engaged in English language instruction through Telegram-based activities, while the CG received traditional face-to-face instruction without Telegram. The EG's treatment included vocabulary learning activities delivered via Telegram, such as quizzes, flashcards, and vocabulary games. Telegram's group chat features were also used to provide motivational prompts and encourage student participation. Furthermore, multimedia content (videos, images) related to

the language topics was shared to increase academic enjoyment. The CG followed the same syllabus and content but without the use of Telegram, relying solely on conventional classroom methods. At the conclusion of the 14 sessions, both groups were administered the posttests to assess changes in vocabulary proficiency (both concrete and abstract), motivation toward learning English, and academic enjoyment. The quantitative data were analyzed using independent samples t-tests and ANCOVA to compare the pretest and posttest scores of the experimental and control groups. ANCOVA was employed to control for any pretest differences between the groups and to assess the effects of the treatment on vocabulary learning, motivation, and academic enjoyment.

To gain qualitative insights into the impact of using Telegram, semi-structured interviews were conducted with a subset of participants. A total of 8 teachers and 12 students participated in these interviews, which focused on their attitudes toward the use of Telegram for vocabulary learning, motivation, and enjoyment. The interview recordings were transcribed, and the transcriptions were reviewed for accuracy. The qualitative data were analyzed using thematic analysis, where the transcriptions were coded to identify recurring themes and patterns related to the effects of using Telegram. These themes included decreasing boredom, boosting motivation, increasing academic enjoyment, developing general English proficiency, and improving collaboration and engagement.

## **Results**

### **Quantitative Results**

**Table 1:**  
*Pretests' One-Sample Kolmogorov-Smirnov Test*

		EGvocabulary	ENjoyment	EMotivation	CGvocabulary	CGenjoyment	CGmotivation
		ry	nt	on	ry	nt	on
N		46	46	46	46	46	46
Normal	Mean	12.53	43.39	30.63	11.66	44.26	31.58
Parameters	Std.	2.81	4.85	4.72	2.53	4.9	4.60
<sup>a,b</sup>	Deviation						
Most	Absolute	.09	.11	.11	.12	.10	.12
Extreme	Positive	.09	.10	.10	.12	.09	.08
Differences	Negative	-.09	-.11	-.11	-.07	-.10	-.12
Test Statistic		.09	.11	.11	.12	.10	.12
Asymp. Sig. (2-tailed)		.20 <sup>c,d</sup>	.15 <sup>c</sup>	.16 <sup>c</sup>	.08 <sup>c</sup>	.20 <sup>c,d</sup>	.08 <sup>c</sup>

The test shows that the pretest scores for vocabulary, enjoyment, and motivation for both EG and CG are normally distributed. This is indicated by the non-significant p-values (all > 0.05), confirming the assumption of normality.

**Table 2:**  
*Group Statistics for Pretest Vocabulary, Enjoyment, and Motivation*

groups		N	Mean	Std. Deviation	Std. Error Mean
Vocabulary	EG	46	12.53	2.81	.41
	CG	46	11.66	2.53	.37
Enjoyment	EG	46	43.39	4.85	.71
	CG	46	44.26	4.94	.72
Motivation	EG	46	30.63	4.72	.69
	CG	46	31.58	4.60	.67

Both groups show similar means and standard deviations in vocabulary, enjoyment, and motivation. For example, the vocabulary mean for EG (12.53) is slightly higher than CG (11.66), but the difference is not substantial.

**Table 3:**

*Comparison of Pretest Means for Vocabulary, Enjoyment, and Motivation*

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference
Vocabulary	.96	.33	1.55	90	.12	.86	.55
			1.55	89.06	.12	.86	.55
Enjoyment	.21	.64	-.85	90	.39	-.86	1.02
			-.85	89.96	.39	-.86	1.02
Motivation	.15	.69	-.98	90	.32	-.95	.97
			-.98	89.94	.32	-.95	.97

The t-tests indicate no statistically significant differences in pretest scores between the experimental and control groups across vocabulary ( $p = .12$ ), enjoyment ( $p = .39$ ), and motivation ( $p = .32$ ). This suggests that the groups were equivalent before the intervention.

**Table 4:**

*Posttests' One-Sample Kolmogorov-Smirnov Test*

		EGvocabulary	EGenjoyment	EGmotivation	CGvocabulary	CGenjoyment	CGmotivation
		ry	nt	on	ry	nt	on
N		46	46	46	46	46	46
Normal	Mean	15.28	58.08	52.93	13.07	41.00	38.78
Parameters	Std.	2.70	13.60	11.73	3.08	11.11	9.07
a,b	Deviation						
Most	Absolute	.11	.07	.09	.08	.09	.09
Extreme	Positive	.08	.05	.06	.08	.08	.08
Differences	Negative	-.11	-.07	-.09	-.08	-.09	-.09
Test Statistic		.11	.07	.09	.08	.09	.09
Asymp. Sig. (2-tailed)		.20 <sup>c,d</sup>	.20 <sup>c,d</sup>	.20 <sup>c,d</sup>	.20 <sup>c,d</sup>	.20 <sup>c,d</sup>	.20 <sup>c,d</sup>

The posttest scores for vocabulary, enjoyment, and motivation for both groups are normally distributed, as all p-values are non-significant ( $> 0.05$ ).

**Table 5:**  
*Vocabulary Posttest - Descriptive Statistics*

Groups	Mean	Std. Deviation	N
EG	15.28	2.70	46
CG	13.07	3.08	46
Total	14.17	3.08	92

The descriptive statistics for vocabulary in the posttest reveal that the EG achieved a higher mean score (15.28) than the CG (13.07), indicating better performance in the EG. The standard deviation values (2.70 for EG and 3.08 for CG) show moderate variability in the scores.

**Table 6:**  
*Vocabulary Posttest - Tests of Between-Subjects Effects*

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	213.59 <sup>a</sup>	2	106.79	14.51	.00	.24
Intercept	370.86	1	370.86	50.41	.00	.36
pretest	101.61	1	101.61	13.81	.00	.13
groups	77.62	1	77.62	10.55	.00	.10
Error	654.69	89	7.35			
Total	19365.25	92				
Corrected Total	868.29	91				

The results of the between-subjects effects analysis confirm a significant effect of group membership on vocabulary posttest performance, with a statistically significant difference between the EG and CG ( $F(1,89)=10.55, p<.05, \eta^2=.10$ ). The partial eta squared value indicates a small to moderate effect size, suggesting that the intervention contributed meaningfully to the improvement in vocabulary skills among the EG.

**Table 7:**  
*Motivation Posttest - Descriptive Statistics*

groups	Mean	Std. Deviation	N
EG	52.93	11.73	46
CG	38.78	9.07	46
Total	45.85	12.62	92

The descriptive statistics for the motivation posttest show that the EG had a higher mean score (52.93) compared to the CG (38.78), with a greater standard deviation in the EG (11.73) than in the CG (9.07).

**Table 8:**  
*Motivation Posttest - Tests of Between-Subjects Effects*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	4606.71 <sup>a</sup>	2	2303.35	20.70	.00	.31
Intercept	4109.15	1	4109.15	36.93	.00	.29
Pretest	.18	1	.18	.00	.96	.00
Groups	4563.45	1	4563.45	41.01	.00	.31
Error	9902.45	89	111.26			
Total	207987.00	92				
Corrected Total	14509.16	91				

a. R Squared = .318 (Adjusted R Squared = .302)

The between-subjects effects analysis indicates a statistically significant difference between the two groups in motivation posttest scores ( $F(1,89)=41.01, p<.05, \eta^2=.31$ ). The large effect size ( $\eta^2=.31$ ) suggests that the intervention had a strong impact on enhancing motivation in the EG. Notably, the pretest scores did not significantly influence the posttest results ( $p=.96$ ), highlighting the primary role of the intervention in shaping motivation.

**Table 9:**

*Enjoyment Posttest - Descriptive Statistics*

Groups	Mean	Std. Deviation	N
EG	58.08	13.60	46
CG	41.00	11.11	46
Total	49.54	15.05	92

The posttest results for enjoyment reveal that the EG outperformed the CG, with a mean score of 58.08 compared to 41.00, and higher variability in the EG (SD = 13.60) than in the CG (SD = 11.11).

**Table 10:**

*Enjoyment Posttest - Tests of Between-Subjects Effects*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	7034.27 <sup>a</sup>	2	3517.13	23.05	.00	.34
Intercept	4899.65	1	4899.65	32.11	.00	.26
pretest	319.10	1	319.10	2.09	.15	.02
groups	6403.63	1	6403.63	41.97	.00	.32
Error	13578.55	89	152.56			
Total	246432.00	92				
Corrected Total	20612.82	91				

a. R Squared = .341 (Adjusted R Squared = .326)

The analysis of between-subjects effects shows a statistically significant group effect on enjoyment ( $F(1,89)=41.97, p<.05, \eta^2=.32$ ), with a large effect size indicating the intervention's strong influence on enjoyment levels. Pretest scores were not a significant predictor of posttest outcomes ( $p=.15$ ), further supporting the conclusion that the intervention was the main contributor to the observed improvement in enjoyment among the EG.

## **Qualitative Results**

### **Students' Attitudes**

In this section, the students' attitudes toward the effects of using Telegram in learning are presented:

#### **Decreasing Boredom**

**Codes:** Interactivity, Engagement, Feedback, Media Variety, Gamification, Pacing

Learners reported reduced boredom due to AI-based instruction's interactive features, including gamified elements, dynamic multimedia content and varied tasks. The immediate feedback and personalized pacing kept students engaged and attentive, making lessons feel less repetitive and more enjoyable.

#### **Boosting Motivation**

**Codes:** Personalization, Progress Awareness, Control, Confidence, Achievement

Participants felt more motivated as AI tools offered immediate, personalized feedback and progress tracking, giving them a sense of control and accomplishment. The interactive nature and variety of AI-based exercises enhanced their confidence and willingness to participate actively in learning tasks.

#### **Increasing Academic Enjoyment**

**Codes:** Interactivity, Fun, Involvement, Feedback, Challenge

Students expressed heightened academic enjoyment due to AI's engaging, game-like features and interactive tasks. Enjoyment stemmed from being actively involved in learning, receiving real-time feedback, and experiencing the process as a stimulating challenge rather than a routine task.

### **Teachers' Attitudes toward Using Telegram in Teaching**

#### **Developing General English Proficiency**

**Codes:** Language Skills, Exposure, Practice, Informal Learning, Feedback

Teachers observed that Telegram supported students' overall English proficiency by offering continuous, informal practice across all language skills. Its diverse content and instant feedback facilitated vocabulary growth, grammar acquisition, and improved listening, reading, and writing abilities.

#### **Improving Collaboration and Engagement**

**Codes:** Interaction, Group Work, Communication, Participation, Community Building

Telegram was credited for enhancing student collaboration and engagement through real-time communication, multimedia sharing, and group interactions. Teachers noted an increase in peer-to-peer learning, out-of-class discussions, and student willingness to contribute to group tasks, promoting a collaborative learning environment.

### **Discussion**

The results showed that the EG outperformed the CG in all post-tests, with Telegram enhancing vocabulary acquisition (both concrete and abstract), motivation, and academic enjoyment. Teachers and students also expressed favorable attitudes toward its use. These findings align with prior research: Zarei et al. (2017) and Tabrizi and Onvani (2017) confirmed Telegram's positive

effects on vocabulary development; Shirinbakhsh and Saeidi (2018) demonstrated its usefulness for teaching IELTS reading strategies; Zheng et al. (2023) reported improvements in academic buoyancy, emotion regulation, anxiety, and achievement; and Naderi and Akrami (2018) and Aghajani and Adloo (2018) found Telegram facilitated reading comprehension.

Further support for our findings comes from Alodwan (2021), who found that Telegram improved students' writing skills, and Meilia Rasiban (2021), who reported increased engagement and motivation in Japanese language learning. Similarly, Barton et al. (2018) confirmed social media's positive effects on motivation, attention, and performance, while Zhao et al. (2022) demonstrated Telegram's benefits for foreign language motivation, anxiety reduction, and learning attitudes.

The positive attitudes of Iranian EFL students toward Telegram are consistent with prior studies. Abu-Ayfah (2019) reported favorable perceptions of Telegram for English learning, while Moulisree et al. (2020) and Zarei et al. (2017) found similar positive attitudes toward social media in language learning. Sharma (2019) noted Saudi EFL learners viewed social media as effective for improving English skills, and Shirinbakhsh and Saeidi (2018) found students preferred Telegram over traditional methods for reading skills.

Our findings align with collaborative learning theory, which posits that social media fosters interaction, feedback, and engagement between students and teachers (Eid & Al-Jabri, 2016; Raza et al., 2020). They are also supported by Vygotsky's sociocultural theory (1978), which emphasizes knowledge construction through social interaction. Social media platforms like Telegram facilitate information sharing, collaboration, and active learning within these social contexts.

Social presence theory (Short et al., 1976) suggests that social media enhances communication and learning by increasing social presence. The positive attitudes toward Telegram support this, as greater presence fosters engagement, motivation, and improved outcomes (Richardson & Swan, 2003). Similarly, constructivist learning theory (Piaget, 1973; Bruner, 1996) emphasizes that learners build knowledge through active interaction. Telegram's interactive features enabled learners to co-construct knowledge, enhancing vocabulary acquisition and academic enjoyment through meaningful engagement with peers and content.

Several factors help explain the EG's superior outcomes. Telegram's interactive, collaborative features allowed more frequent, dynamic engagement with content and real-time feedback, promoting deeper learning. Collaborative learning theory emphasizes that peer interaction enhances retention and knowledge application, as supported by Eid and Al-Jabri (2016). The CG, lacking such collaboration, likely experienced lower engagement. Additionally, Telegram boosted the EG's motivation and enjoyment. According to social presence theory (Richardson & Swan, 2003), greater online presence fosters communication, motivation, and engagement. The EG's active participation, driven by Telegram's interactive features, contributed to their higher post-test scores.

The positive attitudes of both teachers and students toward Telegram further explain the EG's success. According to sociocultural theory (Vygotsky, 1978), the EG's collaborative use of Telegram promoted knowledge sharing, feedback, and interaction, enriching learning. Familiarity with the platform likely increased student engagement (Md Yusof & Abdullah, 2024). Telegram's flexibility, allowing asynchronous communication and content review, also supported self-paced, continuous learning (Zhao et al., 2022; Sevnarayan, 2023). In contrast, the CG's more rigid learning environment may have limited their engagement and performance.

Teachers' positive attitudes toward Telegram can be explained both theoretically and practically. Vygotsky's sociocultural theory emphasizes learning through social interaction, which Telegram supports via real-time messaging and collaboration. Similarly, connectivist learning theory (Siemens, 2005) highlights digital platforms' role in creating distributed knowledge networks, aligning with teachers' views of Telegram as expanding learners' language exposure. Practically, Telegram complements formal instruction by offering continuous communication, immediate material access, and formative assessments through quizzes and feedback. In EFL contexts like Iran, where access to authentic input is limited, Telegram bridges classroom learning with real-world language use. Its user-friendliness and minimal technical demands further ease adoption. These attitudes align with previous research (Alahmad, 2020; Faramarzi et al., 2019; Prokopyev et al., 2021), which shows that mobile-assisted tools like Telegram enhance motivation, reduce affective filters, and support language development.

### **Conclusions and Implications**

The findings indicate that integrating Telegram into EFL instruction enhances vocabulary acquisition, motivation, and academic enjoyment. Its interactive features, such as peer collaboration, real-time discussions, and asynchronous learning, foster engagement, deeper understanding, and learner autonomy. Both teachers and students expressed positive attitudes toward its use, highlighting its value in creating dynamic, learner-centered environments aligned with collaborative learning, sociocultural theory, and social presence theory.

For learners, Telegram supports vocabulary development by providing authentic, context-rich interactions and enabling flexible, self-paced study. Its enjoyable and interactive environment

promotes sustained motivation and greater retention, contributing to long-term language proficiency.

For teachers, Telegram offers opportunities to design collaborative tasks, facilitate peer-to-peer interaction, and provide timely, individualized feedback. Its flexibility allows educators to extend learning beyond the classroom, personalize instruction, and foster stronger teacher-student relationships.

For material developers, the study underscores the need for interactive, technology-compatible resources suited for platforms like Telegram. Materials should include multimedia content, discussion prompts, and collaborative activities that encourage active participation and peer learning. Incorporating digital tools into materials design can better meet the needs of tech-savvy learners and enhance language acquisition.

Overall, this study demonstrates Telegram's potential to enrich language learning by combining effective pedagogy with innovative technology, offering practical insights for educators and curriculum developers.

### **Limitations and Suggestions**

Despite its contributions, this study has several limitations. The sample size (92 Iranian EFL learners) was relatively small and homogeneous in terms of age, gender, and proficiency, limiting the generalizability of the findings. Future research should involve larger, more diverse populations across different cultural, age, and proficiency groups to assess broader applicability.

The study's focus on intermediate-level Iranian learners also restricts its contextual scope. Replicating the study in varied educational settings, including online and face-to-face classrooms, and with learners at different proficiency levels, could offer more comprehensive insights.

Additionally, the short intervention period may not fully reflect the long-term effects of Telegram on vocabulary learning, motivation, and enjoyment. Extended longitudinal studies are recommended to examine sustained impacts over time.

Finally, this study focused solely on vocabulary acquisition. Future research should explore Telegram's effects on broader language skills, such as speaking, writing, and listening, to provide a more complete understanding of its role in language learning.

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