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**The Role of Digital Tools in Enhancing Creative Thinking in Learning  
English as a Foreign Language**

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**Abstract**

This study aimed to explore to what extent digital media can support students' creative thinking when they are using a foreign language at a university and how effective these tools in comparison to other forms of teaching. The study specifically seeks to find out whether by using digital tools in their teaching and learning, instructors can create a more original, flexible, and problem-solving language experience for students, and therefore provide evidence of the educational benefits of using technology in higher education settings. The research methodology is quantitative. The sample consisted of 90 university students who are studying English as a foreign language at Mustansiriyyah University. The participants divided into two groups (Control and experimental). Every group included 45 students (25 females and 20 males). The duration of instruction for university students is four weeks, and their age is between 18 and 24. This study is grounded in Constructivist Learning Theory. The results showed that in comparison to students who have been instructed using a non-digital approach, students who are instructed with digital media tools for their foreign language education are able to achieve substantially greater creative thinking skills.

**Keywords:** *creative thinking skills, digital education, digital methods, learning English as a foreign language, media tools, non-digital learning.*

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## **Introduction**

Learning tools on the digital level represent all of the applications, software, and online resources. These learning tools, according to Meirbekov et al. (2022), can be used for enhancing and advancing learning and instruction using digital technologies to make educational material interactive, facilitate collaboration between students and teachers, provide a customized learning experience for each student based on their individualized needs, and increase accessibility to vast amounts of information available. Danca et al. (2023) note that digital learning tools include simple educational gaming applications (such as Quizlet), to complex Learning Management Systems (LMS) (such as Canvas). Digital tools promote active engagement and meet the needs of multiple types of learners via numerous tools and media such as video, interactive maps, assessment tools, and communication platforms. Garcia Martinez et al. (2020) indicate that there are many key functions of technology in education; interactive learning allows for a variety of interactive digital materials (simulations, games, etc.) above and beyond what is available from static texts. Collaborative communication via platforms, forums, and shared documents (Google Docs, etc.) allows for communication between teachers and students, while personalization allows for individualized instruction to accommodate different learner paces using digital materials (customized assignments, etc.) and features such as text-to-speech. Bajuzova and Hrmo (2024) indicated that assessment and tracking allow teachers to utilize dashboards to track their students' progress and use digital quiz tools (Kahoot!, etc.) to assess their students' knowledge. Accessibility by definition provides for equitable learning opportunities and removes barriers for students who may have varying levels of ability or need (via assistive technologies and flexible accessibility options).

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Concerning the education at universities, creative thinking merely plays an important role in improving knowledge. Ramalingam, et al. (2020) define creative thinking in education as the ability to create original, relevant solutions to issues; to develop problem-solving skills that utilize imagination and a willingness to question the status quo; to link concepts and innovatively identify relationships between them; to expand on what is known about an issue or problem to develop original solutions that support innovation and adaptation in education. Potur and Barkul (2009) state that creative thinking in education encompasses creating numerous alternatives to issues/problems; evaluating those alternatives; and developing refined alternatives that can be applied effectively to real-world issues/problems. The development of creative thinking skills through education supports students' development of skills related to curiosity, resourcefulness, and tolerance for ambiguity; skills necessary to develop solutions to complex problems/issues. Daskolia et al. (2012) identify specific components of creative thinking in education, including idea generation. For example, when engaging in creative thinking, an individual may be able to develop numerous original ideas, possibilities, and hypotheses (for example, brainstorming; "what if" questions). Kamylyis (2010) indicated that creative thinking requires two important factors to be present: the creation of something new (novelty) and the potential use/efficacy of that new solution (value). Divergent thinking is a component of creative thinking in which numerous possible solutions are explored and an individual identifies alternative explanations for a particular situation/problem, and can view a particular situation from different perspectives.

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**Problem Statement**

Though creative thinking is becoming increasingly important for language learners, most traditional instructional methods focus on rote memorization and repetitive, standard exercises. Therefore, language learners are limited in creating new ideas or using a language in an entirely new way. With the increasing integration of technology (such as interactive platforms, multimedia applications, and collaborative online spaces) into educational environments, the potential for these technologies to support creative thinking processes has yet to be fully explored. Consequently, there exists a knowledge gap with respect to the use of digital tools for supporting creative thinking in language learning due to a lack of empirical research and conceptual models that illustrate how technology may be used to support creative thinking in language learning. The study investigates the knowledge gap by identifying the point in which digital tools can support the enhancement of creative thinking fields in learning foreign language environments.

**Research Objective, Question, and hypothesis**

The purpose of this research project is to find out how much digital tools can help university students' creative thinking when it comes to learning a foreign language, and if there is a difference in comparison to traditional methods of teaching. This study intends to assess whether teaching foreign languages with digital tools can increase the amount of time a learner uses creative thinking and problem-solving while writing or speaking in another language. Data from this study can help demonstrate an educational advantage to using digital tools within higher education. The study question: is: To what extent do digital tools improve the ability of university students to creatively think when studying a foreign language, as compared with when using traditional teaching methods? The alternative hypothesis is: The creative thinking scores of foreign language learners who

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were instructed using digital tools will be statistically greater than the creative thinking scores of those foreign language learners who were instructed using traditional teaching methods.

### **Research Significance**

The study's significance emanates from addressing the difference between the large amount of educational digital tools being used and a lack of understanding as to whether they are actually affecting students' ability to think creatively while studying English as a foreign language, through comparison of the two. This research can provide evidence of how technology may enhance students' originality, flexibility, and problem-solving in language learning. It supports both practice and theory and assists policymakers and educators in developing new, creativity-focused, environment and foreign language learning programs.

### **Literature Review**

#### **Theoretical Framework**

The Constructivist Learning Theory (CLT) was developed by Jean Piaget in the 1950s and 1960s. It provides the framework for this study. It has an emphasis on student participation in constructing their own knowledge, and the development of that knowledge based on experiential learning and learning through meaningful experiences. CLT is supported by other creative thinking frameworks, such as Torrance's four dimensions of flexibility, fluency, and elaboration. It is positioned as providing important results of foreign language learning (Ghonsooly and Showqi, 2012). The use of E-Tools is studied using the technology adoption models to demonstrate how multimedia, interactive, and collaborative learning platforms can enhance opportunities for students' creative expression. The collective frameworks of Dewey et al. (1997), Vygotsky and Cole (2018), and others create a basis of theory for studying how digital learning instructions can create a new environment for foreign language education

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and open up creative possibilities beyond those available through traditional educational methods.

The digital instructions for learning English language have greatly increased students' ability to think creatively. As stated by Selfa-Sastre et al. (2022), the digital instructions have the potential to support collaborative work with digital tools, such as blogs, wikis, etc, multimodal creations, such as videos via PowerPoint, YouTube, etc., and interactive practice with digital tools such as games, apps, and artificial intelligence. Yang et al. (2022) noted that Technology-based learning aids can support the generation of new ideas, individualized learning, and confident self-expression across multiple platforms. Digital tools are able to meet many of the learning style needs and abilities of learners, turning static processes into dynamic, co-creative processes. As Boychuk et al. (2024) noted that use of digital tools can be seen as a catalyst in generating an environment in which new ideas may be generated, remixed, and creative solutions found to solve problems effectively in order to develop successful 21st-century communications.

The generation and expression of ideas is a primary focus in the development of the education process through digital technologies and the ability to foster creative thought. Technologies that stimulate the expression of ideas are most beneficial in this area. Wang & Li (2024) suggested that digital tools such as digital mind maps, video software, and PowerPoint presentation software allow students to have the opportunity to visually express and communicate their thoughts and ideas beyond just writing in text form. Huh and Lee (2020) indicated that digital tools can also support co-creation and collaboration. An example of co-creating would be the use of wikis, which allow revisions to the same document by multiple users and create documents collaboratively. Additionally, social messaging apps such as WhatsApp can aid in developing group identity and enhance

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understanding among students when they work together to develop their own identities.

E-Tools can encourage student engagement and build confidence. According to Selfa-Sastre et al. (2022), the characteristics of digital technology have the potential to offer a number of new learning opportunities in language education and are able to perform three possible functions in encouraging collaborative creativity in student: (1) As a tutoring tool which assists students in the application of their fundamental co-creation skills; (2) As a tool that supports and facilitates the development of co-creative thought and thinking processes; (3) As an environment that provides resources and stimulates the emergence of group creative processes. Interactive tools like Kahoot, YouTube, and game-based apps transform learning into dynamic experiences, increasing student confidence and participation.

Consequently, the study further explains that the roles described for E-Learning resources, can be completed by a variety of interactive technologies that allow students to participate in a rich, co-creative experience of language learning and provide them with important abilities that will assist in dealing with difficult problems in a globalized, hyper-connected world. This study is believed to have the potential to inform the design and development of future language technology-based learning projects which support collaborative and creative processes.

### **Previous Studies**

The following previous studies clarify the content of this topic. Writing in a foreign language can trigger feelings of frustration, anxiety, and lack of confidence, which may affect students' progress. Mleiki (2025) studied digital tools that enabled EFL students in Saudi Arabia to write freely and without fear of judgment by assisting students to write within a safe space. The results from a survey conducted with 49 EFL students indicated that

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utilizing digital tools to support their writing was a significant way to reduce students' writing anxiety and increase their self-confidence while making writing less stressful. Students showed improvement in all areas of their writing with the assistance of digital tools; these include grammar, vocabulary, and sentence structure. Thus enabling students to focus on producing clear and coherent writing. However, there are many limitations to digital writing tools, most notably, the inability of digital writing tools to replace human interaction between student and teacher to develop critical and creative thinking skills. Lastly, the findings of this study clearly indicate the necessity for teachers to find a balance between using digital tools and traditional teaching methods to effectively support the emotional and linguistic needs of EFL students. Future studies will need to investigate the long-term effects of using digital tools, the ability of the tools to be culturally adaptable, and the ability of artificial intelligence to develop personalized learning experiences for EFL students.

A survey using the descriptive survey approach, Alzubi et al. (2025), examined the ways AI-generative tools like ChatGPT can contribute to educational creativity generally and to second-language education in particular. While prior research suggests that these tools have the potential to make a significant contribution to educational creativity, current literature has also shown that there is a need to identify the precise manner in which they will do so with regard to undergraduate English as a Foreign Language (EFL) students who utilize ChatGPT. The primary objective of the study was to determine the perceptions of EFL undergraduates regarding how AI can contribute to creativity in the context of EFL learning. In order to achieve this objective, a descriptive-survey methodology was used. According to a perceptual closed-item questionnaire survey of 533 university students responding to the question of how AI-generative tools contribute to creativity in an EFL learning

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context, the results of the study clarify that ChatGPT can generate unique ideas that contribute to creativity for use in EFL education. This research demonstrates the potential of AI-generative tools to be used responsibly to facilitate creative learning experiences for students learning English as a foreign language, through educator guidance, monitoring, collaboration, and continuous support of students using these tools appropriately. This study can contribute to the knowledge base regarding the positive effects on EFL students' learning experiences resulting from the incorporation of AI-generative tools.

Sulaiman (2025) conducted a study to investigate the attitudes of English as Foreign Language teachers towards the integration of Information and Communication Technology in their teaching practices. Published in the *Journal of the College of Basic Education* at Mustansiriyah University, the researcher used a quantitative methodology, utilizing a questionnaire with 50 EFL teachers to assess their views on the importance of ICT, the difficulties associated with its use, and its overall impact. The results showed that most teachers hold positive attitudes toward information and communication technology usage, recognizing it as an important and effective tool for creating a quality and motivating learning environment. Though, the study also recognized important obstacles, including a lack of adequate training, insufficient technological infrastructure, and traditional pedagogical beliefs that hinder the adoption of new technologies. The researcher recommended ongoing professional development and infrastructure upgrades to foster a culture of innovation. This study is directly relevant to the present research as it provides essential context on teacher readiness and the institutional challenges within the same academic setting (Mustansiriyah University), which are important factors to consider when implementing e-tools aimed at enhancing creative thinking in foreign language teaching and learning.

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Digital Technology and Creative Thinking Development is an important subject for Boychuk et al. (2024), who wanted to determine the impact digital technology has on developing creative thinking. The authors stated how Digital Technology is an important tool for achieving success in today's world through Collaborative Platforms, Virtual Learning Environments, and Interactive Apps that enable students to engage with new ideas and thoughts at a much higher level than before. This study identified several ways in which Educational Methods can utilize digital technology platforms (such as Gamification, Active Learning, Project-Based Learning, and Virtual Reality Technologies). The authors noted not only the educational benefits of using these methodologies, but also indicated it would be advantageous to consider each student's unique characteristics, as well as their level of Digital Literacy. They concluded that the use of Digital Technology will enhance the quality of Education and prepare our Youth for success in today's world.

According to the effectiveness of digital tools in language teaching Jasim (2023) conducted a study aimed to investigate the importance of a hybrid flipped-classroom model in online teaching environments. The researcher used a mixed-methods approach with undergraduate students from the department of English language, the results showed that the hybrid flipped-classroom approach significantly improved student participation, engagement, and academic achievement compared to traditional methods. The researcher recommended integrating this strategy into online teaching practices. This study is relevant to the present study as it demonstrates the successful implementation of an e-learning approach within the same institutional context (Mustansiriya University) and provides a foundation for investigating how e-tools can improve creative thinking in foreign language teaching and learning.

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Selfa-Sastre et al. (2022) have shown that the development of creativity in language learning has great potential to influence the area of the development of creativity in language education, which is becoming more important for researchers. This educational objective can be achieved by digital technology. Creativity in socio-cultural terms involves communication and collaboration among learners as part of the process of expressing their creative ideas through language. The purpose of this paper was to analyze the literature on how technology could be used to develop collaborative creativity in language education by conducting a systematic review of recent literature and selected articles, including 26 empirical studies, all selected randomly and blind reviewed from multiple databases, which responded to the authors' principal question: What are the specific roles and types of digital technologies in the literature that support collaborative creativity in language education? Results indicated that digital technology can provide a variety of opportunities for learning in language education and can facilitate collaborative creativity in at least two ways: (1) as a tool that assists the development of key co-creation skills; (2) as an environment that stimulates and encourages the creation of collective creative processes. The final contribution of this paper may be to assist in the development of potential future language technology-enhanced learning projects to promote key collaborative and creative processes.

A descriptive study by Hamzah (2021) entitled "Attitudes Towards The Use of E-learning Platform among Lecturers in Al-Mustansiriya University during Pandemic Corona Time". The study aimed of to assess the attitudes of university lecturers toward the use of e-learning platforms following the sudden shift to digital education necessitated by the COVID-19 pandemic. The sample consisted of 150 academic staff selected from different colleges at Mustansiriya University. The researcher developed a questionnaire designed to measure attitudes toward e-learning platforms,

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covering dimensions such as ease of use, perceived usefulness, and willingness to continue using digital tools in teaching. The results showed that participants have positive attitudes towards using e-learning platforms, indicating a general acceptance of digital tools in the educational process. Moreover, the study found statistically significant differences in attitudes based on gender, with variations in how male and female lecturers perceived the effectiveness of e-learning. The researcher recommended providing continuous technical support to faculty members and integrating e-learning more systematically into higher education curriculum. This study is relevant to the present study as it confirms the institutional readiness and positive disposition of faculty members at Mustansiriyyah University toward e-tools. Such findings provide a supportive context for investigating how specific e-tools can be employed not only for content delivery but also for enhancing higher-order thinking skills, such as creative thinking, in foreign language learning aspects.

The study of Abbasova and Mammadova (2019) was about digital tools for teaching and learning the English language. Digital tools, particularly as an example of an integrated data management system, have made a big difference with regard to systematic organization, analysis, and retrieval of the data. This provides a timely submission, compliance with the data needs of all regulatory bodies, and a reduced probability of data-based non-compliance. The advantages of the advancement of technology have contributed to the improvement of the classroom of language classroom. English teachers need to welcome the advancement of technology and utilize it as a tool to achieve their objectives. Students show greater enthusiasm and eagerness to learn in this new method. Training has also changed from teacher-centered to student-centered. One of the ultimate objectives of using current technology is to encourage students' active participation in the language acquisition process and inspire students to

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practically develop English language skills. The study findings indicated that the quality of teaching and training students in modern education frameworks will benefit from a comprehensive assessment of the English language proficiency to improve general communication skills. The study of the use of various digital tools to facilitate the learning and teaching of English is explained in detail.

### **Methodology**

#### **Research Design**

This study aimed to explore how digital tools support creative thinking for students when they are learning English as a foreign language in Iraq. A quantitative approach was used by this study. Quantitative approaches often involve collecting and analyzing numerical data to identify patterns and determine if there is a relationship between variables, according to Kas et al. (2019). This study used objective, measurable tools such as an achievement test, experiments, and statistical analyses to ensure both accuracy and reliability. The multiple-choice questions were developed around themes of: Creative Thinking using Digital Tools and Traditional Methods; Creative Use and Generation of Language; and aspects of creative language expression, including flexibility of expression, elaboration, originality in language use, problem-solving through English language, and fundamental language skills (reading, grammar, vocabulary, etc.).



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### Data Collection Methods, Data Analysis, Research Tool, and its Procedures

After building and judging the achievement test, it was distributed to the participants who were randomly chosen from the English language college in Mustansiriyyah University. This test was directly distributed to the participants by their instructor to examine their pre-test to be sure that all the participants have the same level in English language. The achievement test consisted of 16 questions (**See Appendix A**). The aim of conducting this pre-test was to be sure that they have nearly the same level in acquiring the English language. The researcher asked two instructors to teach the two groups. The first instructor used digital tools in teaching the students of the experimental group, while the second instructor used traditional methods in teaching the students of the control group. After four weeks of teaching the participants the materials, they were asked to answer the same questions on the achievement test as a post-test. The participants' responses are collected and studied carefully by the researcher. Then, their answers are analyzed statistically by using the SPSS program. The required tests were used to elicit the final results of this study.

After judging this achievement test by a set of assistant and associated professors, the 2 groups are asked to answer its 16 questions (**See Appendix A**) as a pre-test. Beyond content-related validation through expert opinions, the researcher assessed the tool's internal consistency using a reliability assessment. He achieved this through calculating Cronbach's Alpha coefficients for the whole tool as well as its sub-questions. The results showed that the tool had a high level of reliability, ranging from "excellent" to "perfect", with all Cronbach's Alpha coefficients exceeding 0.8, which demonstrated the consistent measurement of the same construct for each of the tool's individual items. In addition to providing qualitative evidence of the tool's reliability, this also demonstrated the strength of the



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data collection method. An exploratory factor analysis was conducted to establish the underlying structural element of the size. Following this, a confirmatory factor analysis was conducted to evaluate whether or not the proposed model fit the data collected. The two analyses were used to test the construct validity and dimensionality of the tool for measuring the role of digital tools in improving creative thinking while acquiring knowledge of a foreign language in Iraq. Ninety students took the achievement test and answered the test questions. Their answers were then analyzed statistically.

#### Pre-Test

To be sure that all the participants' ability in English language has the same level. A pre-test was conducted for the two groups (control and experimental). The scores of the control group are found in **Appendix B.:**

**Table 2:** pre-test for the control group

N	Valid	45
Mean		38.4000
Std. Deviation		1.59977E1
Range		66.00
Minimum		12.00
Maximum		78.00

The above-mentioned table (2) showed that the Mean of their scores is 38.40 with a standard deviation 1.59977E1.

Here is also the pre-test of the experimental group. The scores of this group are found in **Appendix C.**



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**Table 3:** Pre-test for the experimental group

N	Valid	45
	Mean	36.4000
	Std. Deviation	1.77897E1
	Range	72.00
	Minimum	6.00
	Maximum	78.00

**Table 3** showed that the Mean of their scores is 36.40 with a standard deviation 1.77897E1.

As a result, the Means of tables 2 and 3 are close to each other and can be applied to this study. It is therefore valid for conducting this study.

#### Post-test

After building and validating the achievement test (**See Appendix A**), it was distributed to the participants of the control and experimental groups (90 participants). This test included 16 questions, and it was judged by a set of assistant and associated professors who are specialized in the same major.

#### Population and Sample

The population of this study includes all students who are currently studying English as a foreign language in Iraq. The sample consisted of 90 university students who are studying English as a foreign language at Mustansiriya University. It is divided into 2 groups (Control and experimental groups). The number in each group is 45 participants (20



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males and 25 females). The duration of teaching university students is 4 weeks, and their age is between 18 and 24.

**Table 4:** Demographic Characteristics of the Participant Sample of the two groups

Characteristic	Category/Range	Frequency (n)	Percentage (%)
No. of Participants	90	90	100.0 %
Gender	Female	50	55.5 %
	Male	40	44.5 %
Learning Level	1– 6 years	90	100.0 %
Academic Qualification and Place	Students at Mustansiriyah University	90	100.0 %
Age	Between 18 and 24 years	90	100.0 %

### Research Results

The research question is: How much can digital tools enhance the way University students think creatively when they are learning a foreign language as opposed to traditional ways of teaching? To find out the answer of this research question, a post-test is conducted for the control and experimental groups. **Appendix D** shows the participants' responses of the control group to the achievement test. The following table (5) clarifies the participant's results:



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Table 5: Post-test for the control group

N	Valid	45
	Mean	45.9556
	Std. Deviation	1.85300E1
	Range	68.00
	Minimum	12.00
	Maximum	80.00

In the participants' post-test, table 5 shows that the Mean of the participants' responses of the control group is 45.9556 with a standard deviation 1.85300E1. Their scores are between 12.0 % and 80.00 %. The range of their answers is 68.00 %.

Appendix E shows the participants' responses of the experimental group to the achievement test. The following table (6) clarifies the participant's results:

Table 6: Post-test for the experimental group

N	Valid	45
	Mean	63.5556
	Std. Deviation	1.95768E1
	Range	66.00
	Minimum	24.00
	Maximum	90.00



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In the participants' post-test, table 6 shows that the Mean of the participants' responses of the experimental group is 63.5556 with a standard deviation 1.95768E1. Their scores are between 24.0 % and 90.00 %. The range of their answers is 66.00 %.

According to the above-mentioned results, the final results are clarified and summarized in the following table (7):

Group	No. of participants	Pre-test The Mean	Post-test The Mean
Control Group	45	38.40 %	45.95 %
Experimental Group	45	36.40 %	63.55 %

**Table 7** showed that the average Mean of the participants' responses in the control group is 45.95 %. While the average Mean of the participants' responses in the experimental group is 63.55%. This difference is for the sake of experimental group. It means that in comparison to students who have been instructed using a non-digital approach, students who are instructed with digital media tools for their foreign language education are able to achieve substantially greater creative thinking skills.

### Discussion

The outcome of this study was that students taught with digital media tools for their foreign language education were able to obtain significantly higher quality results on their ability to demonstrate creative thinking in comparison to those students who were taught with traditional non-digital methods. This finding is consistent with Alzubi et al (2025) study about how artificial intelligence-generative models can be used in English as a Foreign Language learning to promote students' ability to create through promoting divergent thinking and new ways of using language, and to help them to go beyond just memorizing and doing drills, supporting the findings of this study that digital media tools will produce higher levels of

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creative thinking. The study is also consistent with the findings of Pikhart et al (2024) study comparing the satisfaction, motivation, and creative engagement of foreign language learners utilizing traditional teaching methods versus digital applications such as Duolingo, Google Translate, and ChatGPT. The digital tools offer interactive, adaptable, and personalized educational experiences that encourage the development of creativity more so than traditional classroom instruction practices. Alkhaldi's research (2023) on Jordan in addition to this it is indicated that foreign language learning through technology has an impact on students to be able to create their own writing as one of the skills which are very much in line with creative thinking. Unlike traditional educational approaches, which do not allow students to express themselves freely and have structured education and learning activities, digital educational tools give students the opportunity to create their own learning experiences and express their own creativity and imagination by using digital forms of expression.

Piaget's (1969) The Constructivist Learning Theory indicates that children build their learning by being actively engaged in their learning environment and through their own participation in their learning as well as through an autonomous/controlled learning environment. The theory has a significant impact on children's learning in this modern technological world; it allows them to develop their own learning/knowledge instead of having it given to them (Ghonsooly & Showqi, 2012). Thus, this finding also reinforces another key tenet of CLT: students who have access to dynamic tools and resources will achieve a higher level of understanding and generate more innovative ideas than would be possible within a traditional, teacher-centered classroom setting.

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**Research Implications, Limitations, and Future Recommendations**

Regarding possible impacts on future study, using digital aids can greatly enhance students' creative thinking when studying a foreign language, thus giving universities an opportunity to be forward-thinking in how they teach their students; therefore, curriculum designers and policy makers at the universities of Iraq need to work on creating learning environments supported by technology.

The study's focus on one specific group of people — Iraqi university students — will reduce the study's ability to be used in other educational or culturally diverse contexts. Additionally, due to its focus on the immediate impact of digital tools on creative thinking, this study does not address what the long-term impacts of digital tools will be on learners' creative thinking in a foreign language classroom.

This study recommends that future studies could provide greater validation and support for the study's findings by investigating a larger number of universities and student populations. It also suggests that researchers conduct additional studies to assess long-term impacts and identify those specific digital tools and instructional approaches that promote the greatest development of creative thinking among foreign language learners.

**Conclusion**

This study shows that digital tools have an important role in supporting creative thinking in language learning for students attending universities in Iraq. The students who received instruction through the use of technology-based teaching strategies demonstrated greater creativity in comparison to students who received instruction based on traditional methods of instruction. Therefore, this demonstrates an argument for the inclusion of digital media into the foreign language classroom, which can provide students with a more interactive and, therefore, more engaging and



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cognitively stimulating learning environment. Therefore, it is shown that the application of digital media can significantly affect the growth of creative thought; in this way creating an even better foreign language instruction strategy.

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## دور الادوات الرقمية في تعزيز التفكير الابداعي في تعلم اللغة الانجليزية كلغة اجنبية

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### مستخلص البحث:

هدفت الدراسة الى استكشاف مدى قدرة الوسائط الرقمية على دعم التفكير الابداعي عند استعمالها كلغة اجنبية في التعلم الجامعي، ومدى فعاليتها مقارنة بأساليب تدريس اخرى. وتسعى الدراسة خصوصاً الى معرفة ما اذا كان بإمكان المدرسين من خلال استعمالهم للادوات الرقمية في التدريس والتعليم خلق تجربة لغوية اكثر اصالة، ومرونة، وتفاعلية، وحل المشكلات، ومن ثم تقديم دليل على الفوائد التعليمية لاستعمال التكنولوجيا في مؤسسات التعليم العالي. اعتمدت الدراسة المنهج الكمي، وشملت عينة الدراسة 90 طالباً جامعياً يدرسون اللغة الاجنبية كلغة اجنبية في الجامعة المستنصرية، تم تقسيمهم الى مجموعتين (مجموعة ضابطة ومجموعة تجريبية). ضمت كل مجموعة 45 طالباً (25 طالبة و 20 طالباً). استمرت الدراسة لمدة 4 اسابيع، وتراوحت اعمار الطلبة بين 18 و 24 عاماً. تستند نظرية التعلم البنائية لبياجيه الى فكرة ان التعلم يتحقق من خلال المشاركة الفعالة للطلاب واستقلاليته. اظهرت النتائج انه بالمقارنة مع الطلاب الذين تم تعليمهم باستعمال اسلوب غير رقمي، فإن الطلاب الذين تم تعليمهم باستعمال ادوات رقمية لتعليمهم اللغة الانكليزية كلغة اجنبية قادرون على تحقيق مهارات تفكير ابداعي اكبر بكثير.

**الكلمات المفتاحية:** مهارات التفكير الابداعي، التعليم الرقمي، الاساليب الرقمية، تعلم اللغة الانجليزية كلغة اجنبية، الوسائط، التعلم غير الرقمي.