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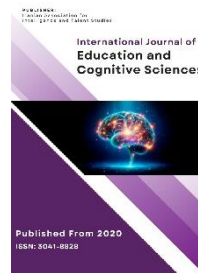
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The Impact of Cognitive Strategies and Graphic Organizers on Kurdish EFL Learners' Language Ego

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ABSTRACT

Purpose: The current research sought to explore the impact of cognitive strategies and graphic organizers on Kurdish EFL learners' language ego.

Methods and Materials: One hundred Kurdish EFL learners from a state university in Iraq's Kurdistan Region participated in this quasi-experimental research. The students were EFL learners in the TEFL field and belonged to two faculties. The learners were between the ages of 18 and 22. There were both males and females, after homogenizing them with the Oxford Placement Test (OPT), a sample of ninety-nine participants from the study were chosen. The study sample was split into three groups: the experimental group on cognitive strategy, the graphic organizer group, and the control group. Each class had 33 learners. Two instruments were used to collect data: the Oxford placement test and the language ego questionnaire as well as pretest and the posttest. They had thirteen sessions of treatment.

Results: Data analysis revealed that both cognitive strategies and graph organizers positively impacted the writing skills of English as a Foreign Language (EFL) learners. However, the group receiving graphic organizer treatment outperformed in its effect on learners' writing performance, and positively impacted learners' perceptions of their writing abilities and contribute to an improvement in language ego.

Conclusion: The current research findings could assist creators of textbooks, educational organizers, materials developers, language institutions, educators, and students create a more effective environment for learning foreign languages and enhancing writing skills.

Keywords: Cognitive Strategies, Graphic Organizers, Language Ego, EFL Learners

1. Introduction

In today's world, which is becoming more interconnected, English is essential for communication and accessing academic and professional prospects. For English as a Foreign Language (EFL) students acquiring English skills, mastering communication is vital. Nevertheless, it is a challenging attempt for many individuals. A lot of students lack the self-assurance to speak the language aloud and experience anxiety when they have to express it. In the field of learning second languages, the concept of ego is often discussed in academic and professional sources. Greater language ego (LE) in students has been linked to lower language performance because of a fear of mockery or ridicule. On the other hand, students with lower language egos are not as worried about feeling embarrassed in front of others. LE is commonly recognized as a major obstacle to acquiring a second language because it links learners' identity to their native language. Krashen (1993) theorizes that learners with strong motivation are more likely to succeed in acquiring the target language, whereas learners with low motivation and high anxiety find it difficult to comprehend the target language due to a high affective filter (Elhamifar et al., 2019; Faramarzi Babadi et al., 2024; Haseli Songhori & Salamti, 2024).

Emotional factors are important in achieving a second language, and English teachers should see language ego as a crucial emotional factor. Learning a new language requires developing a new language ego. Having a positive language ego can help students in their English learning, while a negative language ego, especially inhibition, can impede their progress. Regrettably, numerous English teachers do not acknowledge the significance of language ego, leading to different problems in the classroom (Wang, 2020).

Graphic organizers (GO) are an additional resource students can utilize in the process of improving their writing skills. They play a crucial role in helping students in mastering academic writing. Graphic organizers, as defined by Fisher and Schumaker (1995), are visual representations of key subject matter designed to assist students who struggle with organizing their information. The purpose of concept, cognitive, or content maps is to visually show the organization of concepts in a text (Baxendell, 2003; Pourjaberi et al., 2023; Roghani et al., 2022; Safikhani, 2022). Hall and Strangman (2002) define GO as visual tools that emphasize the relationships among concepts, vocabulary, and information in a learning task, directing students' focus to these relationships. Using GO improves

structure and promotes comprehension. GO is commonly recommended as an instructional tool in the classroom to tap into students' prior knowledge of a topic or text (Hall & Strangman, 2002). The primary way people learn is through visual cues as the brain is naturally predisposed to seek out patterns. Children use mental processes and language systems to recognize visual patterns when GO is consistently used in various curriculum areas and purposes. GO helps to structure data by illustrating connections, patterns, and relationships, enabling more advanced cognitive processes (Meyen et al., 1996). Improving student learning necessitates a powerful mix of instructors' knowledge and teaching methods (Bashir et al., 2018). Teachers establish the roles, activities, and achievements of students by using methods and approaches that motivate students to take control of their learning process. Multiple studies (McMullen et al., 2009; Shahzad & et al., 2019) have investigated learning techniques that support students in engaging actively in learning and obtaining knowledge.

A recent analysis of literature has detailed the utilization of aspects like CS, GO, and LE within the scope of second language acquisition. For example, Hosseini and colleagues (2020) reported that teaching metacognitive strategies improved the listening skills of Iranian EFL students in elementary, intermediate, and advanced levels. The findings of the study showed that the advanced group had more significant improvement compared to the intermediate and elementary groups, with the intermediate group making more progress than the elementary group. The researchers suggest incorporating metacognitive strategy training into traditional listening teaching programs as a recommendation (Hosseini et al., 2020).

In a recent research conducted by Nath (2021), the influence of deliberate teaching that incorporates understanding of cognition on the general metacognitive awareness of reading techniques among non-native ESL students in higher education was examined. The results showed that students who had lower perceived awareness gained greater benefits compared to students with higher awareness levels. Moreover, the research indicated that this method of teaching can reduce the inequality among students with different levels of metacognitive awareness in reading approaches (Nath, 2021).

Hosseini (2021) conducted a research on how metacognitive strategies affect the writing performance of EFL students in Gachsaran, Iran. Forty intermediate learners were selected to take part, with half of them utilizing metacognitive approaches and the other half learning

traditional writing skills through instruction. Findings indicated that metacognitive tactics had a significant impact on WP (Hosseini et al., 2020). In their study, Cancino et al. (2022) discovered significant connections among LLSs, SE perceptions, and L2 language skills in a group of 47 adult EFL students enrolled at a university in Chile (Cancino et al., 2022). Furthermore, Sun and Jun Zhang (2022) found that metacognitive experiences in EFL writing have a positive impact on lexical complexity and fluency while negatively affecting writing accuracy (Sun & Zhang, 2022).

Idris et al. (2022) observed how learners employ cognitive and metacognitive strategies when learning French as a second language. 189 participants were selected to complete a survey consisting of three sections: demographic information, 19 questions on cognitive factors, and 11 questions on metacognitive self-regulation. The results indicated that both approaches were employed, with cognitive methods utilized for memorization, elaboration, structuring, and analytical thinking, and metacognitive techniques utilized for strategizing and self-assessment (Idris et al., 2022). They recommended examining various learning tactics employed by language learners in the acquisition of a foreign language in future studies. Surprisingly, in their study conducted in 2022, Chanderan and Hashim discovered that 200 first-year students across five departments in a Selangor-based private university utilize their favorite language learning tactics to enhance their language proficiency. Language educators are encouraged to apply the results to support suitable English language learning programs tailored for students' LLS (Chanderan & Hashim, 2022).

Additionally, Wirahyuni and Martha (2023) claimed that acquiring a second language through non-school settings is more effective than learning it within a classroom environment. This research employed deconstruction to uncover hidden meanings and concluded that cognitive strategy is effective for language acquisition by learners. The majority of studies on second language acquisition emphasized metacognitive strategies over cognitive strategies. Also, the skills examined primarily consist of reading, speaking, and listening, with only a small number employing these tactics in writing (Wirahyuni & Martha, 2023).

Saadu and colleagues (2022) carried out research on how the academic performance of elementary school students in Atiba, LGA, Oyo State is influenced by the utilization of graphic organizers. The study utilized a quasi-experimental control design with pretest and posttest measures. Four

institutions, including two public and two private, were selected through a basic random sampling technique. The findings indicated that the use of graphic organizers had a notable impact on the academic achievement of students ($F(1; 176) = 3.544, P < 0.05$). It was recommended that teachers participate in workshops and seminars to learn about the advantages of using graphic organizers to improve students' academic performance (Saadu et al., 2022).

In 2023, Omowumi carried out a research on how Graphic Organizer and Word Wall affect the academic performance of primary school students in English studies in Oyo State. The study employed a quasi-experimental design with pretest, posttest, and control group. All students enrolled in English Studies at primary schools in both public and private sectors in Atiba Local Government Area of Oyo State were included in the study population. Three private and three public schools were chosen through the use of basic random sampling methods. Information was gathered through the use of the Pupils' English Performance Test (PEPT). The researchers utilized two instructional guides - one for the Graphic Organizer Strategy (IGOS) and one for the Word-wall Strategy (IGWS). The results showed that using graphic organizers and word walls enhanced performance more than traditional teaching methods did, with graphic organizers being more successful than word walls (Omowumi, 2023).

The research found that academic performance in Atiba Local Government Area, Oyo State is not significantly affected by gender or school type, suggesting that teaching techniques and student engagement are bigger influences than stereotypes. There was not a notable impact from the combination of graphic organizers and word wall, gender, or school type on academic achievement in Atiba Local Government Area, Oyo State. This indicates that parents should not show bias when selecting public or private schools for their children due to perceived variations in academic achievement.

This part offers precise definitions and clarifications of the variables or concepts being studied, specifically CS and GO. These definitions are backed up by examining prior studies conducted in these areas. The review of literature found that there is a gap in research on how CO and GO affect the language ego of Kurdish EFL learners.

The idea of LE, connected to concepts such as identity or self, has been extensively used and researched across different fields. Finding clear definitions for operations, detailed descriptions of settings and research methods, or discussions of ethical threats and limitations is challenging.

There is no mention to the management of minor variables. It seems that Erhman's (1993) research and the model it proposes do not provide specific guidelines on how to apply the gathered data (Ehrman, 1993, 1998). Other researchers, such as Peirce (1995) and Spielmann & Radnofsky (2001), also concurred that second language learners form a secondary sense of self (Peirce, 1995; Spielmann & Radnofsky, 2001). Because of this, the study has a strong level of predictability and applicability thanks to its basis in psychology and psychoanalysis, as the reader engages with cognitive strategies and the ego. Nevertheless, the researcher finds it to be quite complex. Expanding on this prior information, the current research aims to explore how CS and GO affect the language ego (LE) of Kurdish (EFL) students. With the previous discussion in mind, the study aimed to explore the opinions of Kurdish EFL learners by addressing the following research question:

1. Does applying cognitive strategies have any impact on Iraqi Kurdish EFL learners' language ego?
2. Does applying graphic organizers have any impact on Iraqi Kurdish EFL learners' language ego?

2. Methods and Materials

2.1. Study Design and Participants

This study includes three main components: independent and dependent variables, pretesting and post-testing, and two experimental groups. The effect of interventions was investigated by comparing two groups in an actual experiment design. Two groups receive the intervention (the experimental group, often known as the treatment group). One experimental group was taught CS, and the other experimental one was GO. 100 Kurdish EFL learners from a state university in Iraq's Kurdistan Region participated in the current research. The students were EFL learners in the TEFL field and belonged to two faculties. The students were native Kurdish speakers. Their ages ranged from 18 to 22 years. There were both males and females. After homogenizing them with the Oxford Placement Test (OPT), a sample of 66 participants from the study was chosen. These participants were randomly divided into two groups: the experimental group of CS and the GO group. Each group consisted of 33 participants.

When the research started, 150 students from state universities in Kurdistan, Iraq, took the Oxford placement test (OPT). 66 students were chosen for the study through nonrandom sampling as they belonged to complete classes. This research utilized a pretest/posttest experimental design.

The participants were separated into two groups with around thirty-three learners each in the first and second experimental groups. The class for students includes 32 hours per semester. The researcher visited university classrooms and handed out the survey. Initially, the students were given the language ego questionnaire by the researcher as a pretest. Following the treatments, the researcher gave the posttest questionnaire to participants who had completed the personality questionnaire.

2.2. Measures

2.2.1. Oxford Placement Test (OPT)

Initially, an OPT elementary cut-off score was used to confirm that all participants have a intermediate level of proficiency in general English. Based on the study's objective, the researcher required intermediate EFL students. Therefore, this exam evaluates students who are at an intermediate level of English as a Foreign Language (EFL). The OPT consists of two separate parts. Part one covers questions 1 to 40, while part two covers questions 41 to 60. Sections one and two include questions in a multiple-choice format. Questions 1–5 are about visual comprehension. In addition, questions 6–60 cover both grammar and vocabulary. In 2001, Oxford University Press and the University of Cambridge Local Examinations Syndicate worked together to develop this product. The exam consists of 60 questions and takes 50 minutes to finish. The researcher chose about one hundred individuals from the entire group of learners who had scores within one standard deviation (1SD) above and below the average for convenience.

2.2.2. Language Ego Permeability Scale

The researchers employed the Language Ego Permeability Scale to assess the ego boundaries (specifically the permeable language-related ego boundaries) of Kurdish students learning English. A higher score in Language Ego Permeability is connected to a greater chance of success in acquiring a second language. Learners who score higher in Language Ego Permeability are thought to be more at ease in creating new language and cultural identities. These learners are also known for being empathetic learners who can imitate the target language's native speakers with ease. They are also adequately confident in their capacity to acquire the new language. Consequently, a survey was created with questions ranked on a 5-point Likert Scale

where 1 represents strongly disagree and 5 represents strongly agree. Originally developed by Zakarneh (2018) this questionnaire was modified for a study on the impact of cognitive strategies and graphic organizers on language ego. Three university professors verified its reliability and validity before piloting it to ensure clarity for learners, confirming its reliability and validity (Zakarneh, 2018).

2.3. Data Analysis

The data gathered was analyzed using the Statistical Package for the Social Sciences (SPSS). Next, the researcher utilized descriptive statistics to calculate the Mean and Standard deviation, and conducted an independent samples t-test to determine the presence or absence of a significant difference between CS and GO.

3. Findings and Results

3.1. Participants Selection

To begin the study, the first step was to choose a sample that aligned with the study's objectives. The researcher gave the Oxford Placement Test (OPT) to 150 learners with an intermediate language ability level in order to standardize the participants. Participants' performance was evaluated on a scale of 60, with individuals falling within the intermediate range (scoring between 28 to 47) being chosen as the targeted participants for this research. The descriptive statistics results for OPT given to the participants are shown in Table 1.

In Table 1, it was shown that the starting group of 150 individuals had an average of 37.81 and a standard deviation of 6.35 in their OPT. Those individuals with scores between 28 and 47 were chosen as intermediate learners. Descriptive statistics results revealed that the participants scored a minimum of 28.00 and a maximum of 47.00, with an average score of 37.43 and a standard deviation of 3.84.

Table 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Initial Participants	150	24.00	55.00	37.8133	6.35566
Selected Participants	99	28.00	47.00	37.4343	3.84167
Valid N (listwise)	99				

3.2. Addressing the First Research Question

To answer the first research question exploring the value of applying cognitive strategies on Kurdish EFL learners'

language ego, Paired t-test was run. Firstly, Kolmogorov-Smirnov Test was run to check the normal distribution of score (Table 2).

Table 2

One-Sample Kolmogorov-Smirnov Test Checking the Normality of Pre and Post- Administration of Language Ego for Question One

		Pre-administration language ego	Post-administration language ego
N		33	33
Normal Parameters ^{a,b}	Mean	21.7273	24.5455
	Std. Deviation	2.56506	2.75103
Most Extreme Differences	Absolute	.088	.141
	Positive	.083	.117
	Negative	-.088	-.141
Test Statistic		.088	.141
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.092 ^c

a. Test distribution is Normal. b. Calculated from data. c. Lilliefors Significance Correction. d. This is a lower bound of the true significance.

The results showed that cognitive strategy groups' score on pre and post administration of Language Ego

Questionnaire were normally distributed ($p = .200, .09, p > .05$).

Table 3

Paired Samples Statistics for Question One

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre-test of language ego	21.7273	33	2.56506	.44652
	post-test of language ego	24.5455	33	2.75103	.47889

As shown in Table 3, the mean score on language ego questionnaire for cognitive strategy group before the intervention was 21.72, with a standard deviation of 2.56. After the intervention, the mean score for cognitive strategy

group increased to 24.54, with a standard deviation of 2.75. This analysis suggests that the cognitive strategy intervention had a positive effect on writing skill, as the mean score increased from before to after the intervention.

Table 4

Paired Samples Test for Question One

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower	Upper		
Pair 1	pre-test of language ego - post-test of language ego	-2.81	.95048	.1654	-3.155	-2.481	-17.03	.000

Table 4 displays the results of a paired samples test on the paired differences between pre-test and post-test administration. The t-value is -17.03 with a corresponding p-value of .00, <.05 indicating a significant difference between the two administration. The mean difference is -2.81, with a standard deviation of .95 and a standard error mean of .16. The 95% confidence interval of the difference ranges from -3.15 to -2.48. These results suggest that there is a significant difference between the pre and post administration of language ego questionnaire.

3.3. Addressing the Second Research Question

To answer the second research question exploring the effectiveness of applying graphic organizers on Kurdish EFL learners' language ego, Paired t-test was run. Firstly, Kolmogorov-Smirnov Test was run to check the normal distribution of score Table 5.

Table 5

One-Sample Kolmogorov-Smirnov Test Checking the Normality of Pre and Post- Administration of Language Ego for Question Two

		Pre-administration language ego	Post-administration language ego
N		33	33
Normal Parameters ^{a,b}	Mean	21.8788	26.7576
	Std. Deviation	2.23268	2.33225
Most Extreme Differences	Absolute	.108	.156
	Positive	.108	.156
	Negative	-.086	-.130
Test Statistic		.108	.156
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.061 ^c

a. Test distribution is Normal. b. Calculated from data. c. Lilliefors Significance Correction. d. This is a lower bound of the true significance.

The results showed that graphic organizer groups' score on pre and post administration of Language Ego

Questionnaire were normally distributed ($p = .200$, $.06$, $p > .05$).

Table 6*Paired Samples Statistics for Question Two*

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre-test of language ego	21.8788	33	2.23268	.38866
	post-test of language ego	26.7576	33	2.33225	.40599

Table 6 displays the language ego scores for the graphic organizer group. The mean pre-intervention score on the language ego questionnaire was 21.87 (SD = 2.23). After the intervention utilizing graphic organizers, the mean score

increased to 26.75 (SD = 2.33). This rise in mean scores suggests that the graphic organizer intervention might have had a positive effect on language ego.

Table 7*Paired Samples Test for Question Two*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre-test of language ego - post-test of language ego	-4.87	1.166	.203	-5.29	-4.465	-24.03	32	.000

An analysis of Table 7 shows the outcomes of a paired-samples t-test comparing the language ego questionnaire before and after the tests. The t-value of -24.03, with a p-value of .00 (below .05), shows a significant difference between the two administrations. The average score decrease between pre-test (M) and post-test (M) is -4.87. This discrepancy comes with a standard deviation of 1.16 and a mean standard error of .20. The range of the 95% confidence interval for the difference is between -5.29 and -4.46. These results indicate a notable difference in language ego scores from the pre-test to the post-test.

4. Discussion and Conclusion

The purpose of this research was to determine the impact of cognitive strategies and graphic organizers on the ego of Iraqi Kurdish EFL learners. Data analysis showed that the use of cognitive strategies positively impacted the ego development of second language learners. In line with this study, Berzonsky (1990) proposed three aspects of identity development that support these results: the environmental aspect, the personality aspect, and the cognitive aspect. How people respond to external events is influenced by the way these variables interact. LE, associated with concepts such as identity and self, has been extensively utilized and researched in various fields like Freudian psychoanalysis,

education, and social psychology (Ehrman, 1993, 1998). The idea has been utilized as a general term to illustrate human communications and self-representation. LE was originally described by Alexander Guiora as a condition in which the individual using a foreign language behaves and experiences emotions distinctly from their native language (Guiora & Acion, 1979).

The results of the initial research question, which aimed to determine the impact of using cognitive strategies on Iraqi Kurdish EFL learners' ego, showed that the learners' language ego in their first language weakened and their ego in the second language improved, leading to enhanced learning. According to observations, students who learned choice theory techniques showed more enthusiasm in taking part in classroom activities. When students find the learning environment encouraging and the materials relevant to their interests and identities, they are more likely to take on challenges and engage fully in tasks. The growing readiness to interact with educational materials results in concentrated concentration on the current activity, improved cooperation with educators and classmates, and a stronger inclination towards creativity.

This is how cognitive techniques could impact language tasks by aiding in effective planning, organization, and self-monitoring, resulting in a feeling of accomplishment. The

sense of achievement can slowly enhance a learner's self-assurance in their language skills.

Cognitive strategies can assist learners in dealing with challenges and conquering obstacles, ultimately preventing them from becoming disheartened or agitated while learning. This promotes a mindset that is more positive and capable of persevering when it comes to learning a new language. **Emphasis on advancement:** Tactics usually include establishing attainable objectives and monitoring improvement. Cognitive strategies empower learners to actively participate in their language learning journey, enabling them to see their progress and stay motivated to keep learning.

Feeling in control and witnessing real progress can boost one's language ego positively and make it stronger. Different cognitive strategies used can affect language ego in different ways. Techniques that encourage individuals to reflect on themselves and evaluate their own performance can be very advantageous. Although cognitive strategies are important, language ego is also influenced by factors such as cultural background, personal motivation, and learning environment. Hence, it is important to keep in mind that cognitive strategies are only a part of what contributes to a healthy language ego.

Did the use of graphic organizers affect the language confidence of Kurdish EFL students in Iraq?

Data analysis showed that graphic organizers had a beneficial impact on language self-esteem. Using graphic organizers could help improve one's language self-esteem. Visual aids like graphic organizers assist learners in visually arranging information, simplifying understanding of intricate concepts. Enhanced comprehension can increase their confidence in learning and utilizing the language. Completing graphic organizers typically includes examining data, pinpointing important details, and establishing connections. Engaging in the learning process can help cultivate a feeling of ownership and success, resulting in a more favorable self-image.

Graphic organizers assist students in organizing their thoughts and ideas in an efficient manner. This could result in more clear communication, both in writing and speaking, which can also boost their confidence in their language abilities.

Understanding new information easily, actively engaging in learning, and having clear organization of thoughts naturally boosts confidence and competence in language use. It is crucial to remember that this is just one discovery, and

more research is necessary to fully comprehend the influence of graphic organizers on language ego.

The effectiveness of boosting language ego can be influenced by the particular graphic organizers and learning context utilized. Although graphic organizers are important, a learner's confidence in using a language is also influenced by the teacher's approach, the learning environment, and individual learning styles.

This research aimed to explore how cognitive strategies and Graphic organizers impact the ego of Iraqi Kurdish EFL learners. In order to achieve this goal, 150 Kurdish students registered for English as a Foreign Language (EFL) courses at a public university in Iraqi Kurdistan. Participants were asked about their language ego before and after the intervention. One of the results of this study was that the cognitive strategy intervention had a beneficial impact on language ego; there are various explanations for why this intervention was successful in enhancing language ego. By providing students with cognitive tactics for writing, they may feel more skilled and sure in their capability to clearly communicate in English. The heightened self-confidence can have a positive effect on their language confidence, resulting in more motivation and involvement in the learning journey. As students use mental tactics and see enhancements in their writing abilities, they feel a sense of success and fulfillment. Acknowledging their improvement can strengthen their belief in their language skills, leading to a positive self-perception related to language.

Taking ownership of learning involves cognitive strategies that enable learners to control their own learning journey. Through actively participating in the planning, monitoring, and revising of their writing, students gain a feeling of empowerment in their language growth. This independence enhances language learners' self-perception, promoting a positive identity. Enhanced writing abilities from the cognitive strategy intervention allow students to express themselves better in English. By effectively expressing their thoughts and ideas, individuals may view themselves as proficient in language, resulting in a boost in their language ego. The intervention stresses the significance of employing deliberate learning strategies and putting in effort to enhance writing skills.

By dedicating time and effort towards using cognitive strategies, learners appreciate the importance of their commitment and hard work, ultimately boosting their self-image as language learners and impacting their language confidence positively.

Another discovery from the study indicates a notable transformation when using graphic organizers for language ego. Several factors can explain the notable shift in language ego resulting from the use of graphic organizers. Graphic organizers offer an organized structure for arranging thoughts and ideas, assisting learners in feeling more self-assured in their writing expression. When students use visual aids to organize and arrange their writing, they can feel more empowered and confident in their abilities, resulting in a boost to their language self-esteem. Graphic organizers help with organizing and maintaining coherence in written assignments by visually displaying connections between ideas. The clear and organized writing can improve how learners view their own language skills, as it helps them effectively express their thoughts. The clarity and coherence achieved in their writing can help improve their language ego. When students use graphic organizers to draft and arrange their writing, they might feel a sense of achievement when they observe their ideas coming together in an organized way.

Feeling accomplished can enhance students' opinions about their writing skills and help boost their confidence in language learning. Using visual aids helps students think about how they write and decide how to arrange their thoughts effectively. Engaging in self-reflection can enhance self-awareness and provide insight into writing strengths and areas needing improvement, ultimately leading to a positive transformation in language identity. Graphic organizers in the classroom help establish a supportive learning atmosphere that encourages students to explore various writing techniques and strategies. This encouraging environment can cultivate feelings of inclusion and self-assurance in students, resulting in a beneficial impact on their sense of language identity.

It is reasonable to suggest language teachers from an educational perspective. Take into account various learning circumstances, the function of visual aids, and previous knowledge. Since the results indicate that they indeed hold importance for educational use. Educators can incorporate these crucial elements into their writing instruction to assist students. The students show considerable progress. In a classroom setting, teachers have the ability to reduce students' stress and anxiety by incorporating graphic organizers and creating a more welcoming and relaxed classroom environment. This can enhance their willingness to take risks and motivate students to engage in classroom activities. The current research was aided by adolescent language learners aged 13 to 18.

Gathering the information. Adults as well as young language learners can be studied to assess the situation. Determine the impact of Graphic organizers on EFL students' writing complexity and identify which group can gain the most from this type of teaching.

New researchers are advised to study the long-term impacts: Even though this study looked at short-term results, future studies could examine how utilizing cognitive strategies and graphic organizers for longer durations affects writing skills and language confidence. Research should be carried out to compare various learner groups, such as the focus on Kurdish students learning English as a foreign language. Fresh research could evaluate how well these methods work with different linguistic groups or levels of proficiency.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

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