

# Probing the Effect of Concept-based Instruction on EFL Learners' Writing of **Expository Genre: Attention to Transferability of Rhetorical Structure**

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#### **ABSTRACT**

Despite growing interest in concept-based instruction (CBI), its effects on second language (L2) writing development remain underexplored. This study examined the differential impact of three mediational configurations within a CBI framework on EFL learners' expository writing performance and rhetorical genre transfer. The mediational conditions included: (a) explanation, materialized tools (schema of a complete orienting basis of an action [SCOBA]), and writing (EMW); (b) explanation, learner demonstration (verbalization), and writing (EDW); and (c) explanation, materialized tools, learner demonstration, and writing (EMDW). Fifty-seven upper-intermediate EFL learners were randomly assigned to one of the three groups. Instruction focused on expository rhetorical structures and was delivered over three weeks following confirmation of group homogeneity through pre-task assessment. Data were collected through a post-task writing assessment, a delayed post-task administered one week later to measure transfer, and semi-structured interviews to capture learners' perceptions. The findings revealed significant differences in writing performance across the three conditions, with the EMDW group demonstrating the greatest gains, followed by the EMW group. Moreover, rhetorical transfer to a new writing task differed significantly among groups, with the EMDW group outperforming the others. These results suggest that the combined use of SCOBAs and learner demonstration effectively mediates conceptual understanding and supports the transferability of rhetorical knowledge. Participants also reported high levels of satisfaction with the CBI approach.

#### **ARTICLE INFO:**

Received: 2025-10-14 Revised: 2025-12-06 Accepted: 2025-12-14 Published online:2025-12-26

## Keywords:

concept-based instruction, mediation, rhetorical structure, L2 writing, expository genre, online learning

## 1. Introduction

Sociocultural theory (SCT) has reached its momentum in second or foreign language acquisition as a holistic approach since 1990 (Ma, 2017). From the Vygotskian point of

**Article type**: Research Article | **Publisher**: Farhangian University https://elt.cfu.ac.ir ©2025/The author(s) retain the copyright and full publishing rights

Citation: Ghaseminezhad Bahramabadi, M. (2025). Probing the effect of concept-based instruction on EFL learners' writing of expository genre: Attention to transferability of rhetorical structure. Research in English Language Education Journal, 4(2), 170-195. DOI: 10.48210/RELEJ.2025.21197.1181





view, language is the highlighted tool for social and cultural representation. Furthermore, the Vygotskian notion of mediation, elaborated in Lantolf and Poehner(2008), mentions that human activities are mediated activities that modify the environments and regulate humans' negotiation, contexts, and needs through functioning cultural artifacts and concepts.

Many empirical investigations have suggested the positive role of CBI in various aspects of language learning (e.g., Kao, 2018; Kim & Lantolf, 2018; Lantolf & Tsai, 2018; Lavasani, 2016; Van Compernolle, 2014). However, scant attention has been paid to the company of CBI and writing improvement specifically through rhetorical structure awareness of different genres due to the fact that language has been indicated as "a means of improvement" if its formal regards are considered (Martin, 1993).

Texts are different regarding their specific writing styles and how they construct ideas within a distinguishable pattern of structure, which is indicated as a valuable hint for recognition and production of text messages and their design. Furthermore, writing, as one of the most influential skills for learners' competence, has acquired its momentum during the past decade through technology-mediated activities (Selcuk et al., 2021). Much research has investigated writing improvement in ESL/EFL contexts through technology-mediated programs, specifically computer-mediated environments. Nonetheless, many challenges are confronted regarding the creation of a milieu for writing skill acquisition, such as expository writing.

Consequently, there is a gap regarding the impact of CBI on the enhancement of writing skills in the expository genre via a computer-mediated, at-home program. In essence, expository writing may occur in different atmospheres and varies considerably among programs, as do methods, mediations, tools, artifacts, and learners' readiness toward otherness. It is these variances that lie at the heart of the problem areas proposed for this study. Consequently, with regard to the high demand for expository writing ability through texts and exams, probing the impacts of CBI on expository genre writing skill through computer-mediated environments might be beneficial to fill the abovementioned gap and be considered as a great contribution to the body of literature for CBI and genre literacy.

#### 2. Review of Literature

In recent decades, the learner-centered classroom has been associated with the mediation of sociocultural theory and is framed as problem-solving skills through transactional orientation (Kinginger, 2002). Consequently, the dialectical relation between the learner and mediational artefacts, as the opposition for the dualism of mind and body (Lantolf & Poehner, 2014), leads to learning through experienced mediational mechanisms (Gutiérrez, 2008).

By considering the notions of self-help and otherness along with societal factors that are dealt with in such an ecological approach, researchers have widely investigated the potentiality of semiotic concepts and their intercourse with learners' construction of meaning, control, internalization, and use of language introduced by Galperin (1992) as a systemic theoretical instruction model.

Considering the above-mentioned social aspect of language learning, concept-based instruction (CBI) turned into a focus in L2 pedagogy research. According to Knouzi et al. (2010), learning as a social goal-oriented procedure is carried out by both "expert" and "novice" to create and administer various mediational tools operating as psychological human constructions, which is carried out through concept-based

language pedagogy (Mansouri & Mantero, 2019). Various studies have been conducted to testify to the role that CBI plays in skill acquisition (Chien, 2025; Erfanrad et al., 2019; Fazilatfar et al., 2017; Fu & Liu, 2025; Negueruela, 2003; Tsai, 2014; Van Compernolle & Henery, 2014); nevertheless, attention to writing improvement with regard to genre literacy through CBI needs to find its optimal model and emphasis due to a lack of empirical evidence. Lavasani (2016) examined the varying impact of mediational artifacts on the enhancement of listening skills through systemic theoretical instruction (STI) among TEFL students.

The study included three mediational groups: the STI-EM group, which was provided with teachers' oral explanation and materialized tools; the STI-EV group, which was provided with teachers' oral explanation and an individual form of verbalization; and the STI-EMV group, which was provided with all sorts of mediational artifacts. She mentioned that participants of the STI-EMV group who were exposed to all sorts of mediational artifacts could outperform the other two groups in their post-test on listening skills. Nonetheless, in contrast with this study, the STI-EV and STI-EM groups had approximately the same performance on the listening post-test, considering the fact that each of the groups received only two of the mediational artifacts during the two-month listening improvement course.

# 2.1. Rhetorical Structure and Expository Genre

According to Mayer (1996), learners are engaged through three cognitive processes of selecting, organizing, and integrating information. However, not all passages and texts have the same affordances. In recent years, genre literacy has been stressed due to the differential needs of students regarding the production of texts in various contexts. As Bawarshi and Reiff (2010) defined:

Genre knowledge is inextricably linked to procedural knowledge (knowledge of when and how to use certain disciplinary tools, how and when to inquire, how and when to frame questions, how to recognize and negotiate problems, and where, how, and when to produce knowledge within disciplinary contexts). Genre knowledge is also linked to background knowledge – both content knowledge and knowledge of shared assumptions, including knowledge of *kairos*, having to do with rhetorical timing and opportunity. As forms of situated cognition, thus, genres enable their users not only to communicate effectively, but also to participate in (and reproduce) a community's norms, epistemology, ideology, and social ontology. (p. 79-80)

An influential activity for genre literacy introduced in the literature is mentioned as instruction on rhetorical structure. Rhetorical structure is regarded as the way information and ideas are embedded together within a specific design. Organizing the main ideas and particular information might be assimilated as if the students are aware of the rhetorical structure of the text. Ornstein (1994) defined rhetorical structure as the way in which textual information is organized to bring coherence to the text and the moves that aim to build the main idea of the text. Meyer and Rice (1982) define rhetorical structure as a means for a writer to make the discourse and convey the main ideas and meanings appropriately to the reader. Rhetorical organization, discourse pattern, discourse structure, text type, and top-level structure are provided by Jiang and Grabe (2007) as instances of various key terms that can be substituted for rhetorical structure. Many investigations have concerned how this rhetorical structure, as a means of improvement, can be directly or indirectly acquired by second or foreign language learners (Grabe, 2003).

Meyer et al. (1980) suggest the relation between rhetorical structure awareness and language competence in various skills. Furthermore, various prevailing studies in ESL/EFL contexts supported the effectiveness of rhetorical structure analysis on the writing of texts through awareness-raising activities, practices, and tasks that were linked with higher performances and scores on valid writing tasks and of text information in general (e.g., Meyer & Poon, 2001; Trapman et al., 2014; Wijekumar et al., 2013; Williams et al., 2004; Williams et al., 2009).

Although the above-mentioned theories and dissections have provided insightful considerations regarding the awareness and knowledge that a learner needs for the production of a text, genre literacy still feels the gap for pedagogical requirements and momentum for specific genres, specifically through differential instructional methods. For a learner, the overall organization or rhetoric of the texts with different genres seems necessary to prove his/her production of text with a specific genre. According to Montelongo et al. (2010), the rhetorical structure of almost all expository texts can be generalization, sequence, comparison and contrast, cause and effect, and problem and solution. If a text is organized through rhetorical moves, we suppose that learners with rhetorical structure awareness can strengthen their writing skills better than learners who do not. In line with what Meyer et al. (1980) suggested, learners who have the ability to infer the rhetorical structure of a text can enhance their aptitude to construct a coherent image of the text and organize its main ideas. That is, once a rhetorical structure is understood through instruction, it is assumed that a learner will use this schema as a guiding principle accordingly.

# 2.2. L2 Writing

Writing, as one of the most influential skills for learners' competence, has acquired its momentum during the past decade through various methods (Selcuk et al., 2021). Much research has investigated writing improvement in ESL/EFL contexts through technology-mediated programs (Li, 2018). According to Hillocks (2002), instruction of writing was traditionally based on forms. However, the concept-based approach has recently been focused on writing instructions. Moreover, differential mediations such as explicit instruction, instructors' explanations, verbalization, and materialized objects are testified and suggested for writing improvement courses by mediated social tools (Lavasani, 2016).

As a result, a rich literature is available regarding the investigation of writing improvements, methods, and procedures through various environments (e.g., Li, 2018; Wang, 2014; Yang, 2018; Zou et al., 2016). For instance, Amiryousefi (2017) testified to the differential effect of prewriting planning on the expository genre through an online environment L2 writing program and suggested that all conditions could improve

L2 learners' writing ability and that teachers' instruction led to ability transfer in writing tasks. However, the expository genre and writing are being neglected through concept-based instructions as we survey the previous investigations to fulfil the gap in genre literacy.

#### 2.3. Online Learning

The emergence of the internet required learners to study and produce texts through online computer-mediated writing (Li, 2018). Online L2 writing has introduced the integration of various facilitative mediational mechanisms to provide a more impressive affordance for students' mediation of semiotic tools. Computer-mediated learning has

navigated its attentional consideration in language education (Tu et al., 2020). According to Golonka et al. (2014), by the beginning of 1990, as a starting point of its history, computer-mediated enrichment had shed light on many beneficial aspects of language learning, such as learners' motivation, efficiency, and language knowledge, along with enrichment of input sources. Many studies have suggested the positive effects of computer-mediated learning on self-direction, autonomy, and individual differences (Benson, 2013; Kessler & Bikowski, 2010; Spratt et al., 2002).

Many empirical investigations have suggested the role of computer-mediated programs for improving the writing of EFL learners (Li, 2018; Wang, 2014; Yang, 2018; Zou et al., 2016). For instance, many mediational mechanisms such as concept mapping, inferencing, summarizing, and transfer, along with developed computer-supported instructions implemented through a computer-mediated course, have paved the way for writing skill improvement of EFL/ESL learners (Alghasab & Handley, 2017; Li & Kim, 2016; Nami & Marandi, 2014; Zou et al., 2016). However, some affective variables, such as computer anxiety experienced by some individuals, are characterized by intractability with computers (Matsumura & Hann, 2004).

# 2.4. Objectives of the study

The effect of CBI on the genre rhetorical awareness of the students and its transferability through pedagogical tasks has received scant attention. Therefore, this study aimed to examine the effect of CBI through three different types of mediation based on explicit instruction of expository rhetorical structure on EFL students' writing advancement. Furthermore, it aimed to investigate differentials caused by three types of mediation on students' learning transfer of expository rhetorical structure from a writing task to a new writing task with the same difficulty. Finally, the study aimed to reflect students' insights, feedback, and preferences on the experienced concept-based instruction program and materialized artifacts through the three mediational groups.

#### 2.5. Research questions

**Research Question 1:** What are the effects of three types of mediations (EMW<sup>1</sup>, EDW<sup>2</sup>, and EMDW<sup>3</sup>) through CBI on Iranian EFL learners' expository writing regarding the rhetorical structure of the genre?

**Research Question 2:** Is there a meaningful difference between the three groups (EMW, EDW, and EMDW) in terms of the transferring ability of rhetorical structures in writing tasks?

**Research Question 3:** What are learners' perceptions towards CBI in different mediating groups?

#### 3. Methods

#### 3.1. Research Design

In alignment with the methodological framework, to enhance complementarity and expansion, the study employed a convergent mixed-methods design. The application of this mixed research paradigm offered further benefits by combining quantitative and qualitative data gathered in distinct phases.

<sup>&</sup>lt;sup>1</sup> EMW: explanation + materialized tools (SCOBAs) + writing

<sup>&</sup>lt;sup>2</sup> EDW: explanation + demonstration (verbalization) + writing

<sup>&</sup>lt;sup>3</sup> EMDW: explanation + materialized tools + demonstration + writing

## 3.2. Participants

All participants in this research were a group of EFL students studying English through online programs in schools and language institutes in Rafsanjan, aged between 17 and 22. The participants were all male and native speakers of Persian. The participants were selected based on availability and ease of accessibility. A total of 57 participants were drawn from a pool of 108 students in ten intact classes, each of which was randomly assigned to one of three experimental groups. The participants were informed about the research objectives.

#### 3.3. Data Collection Instruments

The eliciting instruments employed were as follows:

- 1) A Cambridge English B2 (FCE) writing part was used for selecting the participants, including two opinion paragraph writings.
- 2) An expository writing task was administered before and after the instruction. In the pre-task, post-task, and delayed post-task on expository writing, all the participants were asked to choose one of the topics provided and write a five-paragraph essay. All the tasks on writing in the expository genre were according to different expository topics from each other (three expository writing topics for each phase). Topics were adopted from the book *Barron's How to Prepare for TOEFL Essay* by Lougheed (2006). The papers were assessed according to rhetorical moves and implemented text structure of the genre by the participants using a scoring rubric and scored out of 30. The reliability of all developed tasks was calculated and found to be .74 for pre-task, .72 for post-task, and .78 for delayed post-task.
- 3) A semi-structured online interview was used after the post-task to get the insights, opinions, and feedback of 18 students in three different groups toward the instruction they were exposed to and their preferences within the course through a qualitative content analysis. Approximately 15 minutes were allotted for each interview.
- 4) Instructional materials implemented for the three independent mediational groups included:
  - a) Teachers' explanation of the concept of structure of expository texts typical of five formats (cause and effect, compare and contrast, description, problem and solution, and sequence), moves, and relations between ideas
    - b) SCOBAs artifacts, which generally take the form of a model, diagram, picture, or some other non-linguistic representation of the relevant concept. They serve as materialized reminders of the knowledge required to engage in a particular action.
  - c) Verbalization practices
  - d) Writing tasks

## 3.4. Data Collection Procedure

Firstly, before the implementation of the mediational mechanism through CBI, the Cambridge English B2 (FCE) writing part was administered to choose the participants based on students' writing scores on two opinion paragraphs, considering mean and standard deviation. Among all 108 students, 57 students were chosen for the three

experimental groups: group I (EMW, n = 20), group II (EDW, N = 19), and group III (EMDW, N = 18).

In step 1, one day prior to the onset of the instruction, all the participants were given the pre-task on expository writing. The scores of the pre-task were used to indicate the performance of the participants on expository writing regarding the rhetorical structure of the genre before the CBI treatment. In addition, homogeneity of the groups at the beginning of the study was indicated as the essential assumption for moving forward through the study.

In step 2, the intervention was included. The instruction was held over a three-week (nine sessions) online course through a Skype environment. The three independent experimental groups were provided with different quantities of mediational artifacts and mechanisms channelling through different CBI phases. To clarify more, mediational artifacts and mechanisms included instructors' oral deductive explanation of concepts, SCOBAs material, students' demonstration of their understanding, and writing practice that were administered among three groups in different quantities. Teachers' deductive explanations of concepts and pedagogical writing practices were included in all three groups regarding the CBI experience for all the groups. However, only group 1 (EMW) and group 3 (EMDW) were exposed to various forms of SCOBAs artifacts developed by the researcher and students' demonstration of their understanding, as verbalization was only carried out in group 2 (EDW) and group 3 (EMDW). Table 1 displays differential mediational artifacts and mechanisms that were provided for the three groups in the study through the CBI course.

**Table 1**Different Quantity Types of Mediation for Experimental Groups

Experimental Groups	Mediating Type	N	Number of Artifacts
EMW	<ul> <li>Teacher's deductive explanation</li> <li>SCOBAs material</li> <li>Writing practice</li> </ul>	20	3
EDW	<ul> <li>Teacher's deductive explanation</li> <li>Students' demonstration of their understanding</li> <li>Writing practice</li> </ul>	19	3
EMDW	<ul> <li>Teacher's deductive explanation</li> <li>SCOBAs material</li> <li>Students' demonstration of their understanding</li> <li>Writing practice</li> </ul>	18	4

At the beginning of instruction in each session, a collaborative discussion was held with regard to the warm-up phase. Then, the predetermined rhetorical structure concepts and their main points were deductively explained to the student through oral mode for all groups by the instructors through a lecture-based presentation. In the next stage, SCOBAs material and students' demonstration of concepts took place. On one side, SCOBAs of the expository genre, five-paragraph essays, and different types of expository structures, namely cause and effect, compare and contrast, description, problem and solution, and sequence (see Appendix A), were provided for students in EMDW and EMW groups. For instance, as Figure 1 depicts for the problem and

solution type of structure, a schematic representation of COVID-19 as a problem and protective equipment as the solution, along with its keywords, was presented.

On the other side, EDW and EMDW groups demonstrated their understanding of concepts both individually and collaboratively as a verbalization mechanism for internalization (see appendix B). Finally, pedagogical writing practices, including topics of related concepts instructed, were given to students in all three groups as homework (see Appendix C). It's worth mentioning that feedback on writing practices was provided before the post-task on expository writing.

**Figure 1**Schematic Presentation of Problem and Solution Concept



In step 3, all the participants in the three groups were tested on the post-task of expository writing after the CBI implementation. The scores of the post-task on expository writing were used to indicate the differential improvements of the three groups according to their performance regarding the different mediational conditions they experienced. Furthermore, in this phase, a group of 13 of participants in three mediational groups also participated in a semi-structured online interview and reflected their opinions, preferences, and feedback on the experienced CBI course and type of mediational artifacts and mechanisms.

In the final step, one week after the post-task administration, a delayed post-task on expository writing without any pre-practice was administered to measure the amount of learning transfer by the participants regarding the rhetorical structure of the expository genre.

#### 3.5. Data Analysis

This study benefited from both qualitative and quantitative data. Firstly, after collecting quantitative data on pre-task, homogeneity of the groups regarding expository rhetorical structure awareness and use was assured using ANOVA. Regarding the first question, a

one-way between-groups ANOVA was used to compare the three experimental groups regarding the differential effectiveness of the three types of CBI mediational conditions on learners' improvement of expository writing according to their performances on the post-task.

Furthermore, another one-way between-groups ANOVA was used to investigate the differential effectiveness of the three types of CBI mediational conditions on learners' amount of learning transfer according to the performances of the three groups on the delayed post-task. The study's parametric statistical test, which presupposes normally distributed scores, demonstrated that the kurtosis and skewness statistics for pre-task, post-task, and delayed post-task assessments of expository writing ranged from -1 to +1, indicating distributional normality. Furthermore, the prominent bell-shaped curves confirm the normality of the data distribution across all tasks. Finally, a qualitative content analysis was carried out to answer the last question.

#### 4. Results

Table 2 displays the descriptive statistics for participants' performances and scores on pre-task, post-task, and delayed post-task on expository writing experienced differential quantity CBI through mediated artifacts and mechanisms, namely EMW, EDW, and EMDW groups.

 Table 2

 Descriptive Statistics of Entire Tests for All Groups

	Groups						
	EMW		EDW		<b>EMDW</b>	EMDW	
	M	SD	M	SD	M	SD	
Pre-test	11.25	2.42	10.68	1.66	11	2.02	
Post-test	21.35	1.95	19.58	1.53	25.33	2.19	
Delayed Post-test	16.65	2.45	15.53	2.29	21.94	3.53	

At the outset, all participants in three independent experimental groups were provided with the pre-task on expository writing to evaluate their performance and to assess the homogeneity of the groups on L2 writing of the expository genre before the computer-mediated instruction. A one-way between-groups ANOVA was run to ensure that there was no significant difference among the three groups before the instruction and that the differential effects were due to CBI provided. Table 3 shows the results of Levene's test regarding participants' scores on the expository writing pre-task.

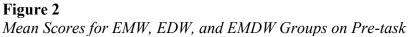
 Table 3

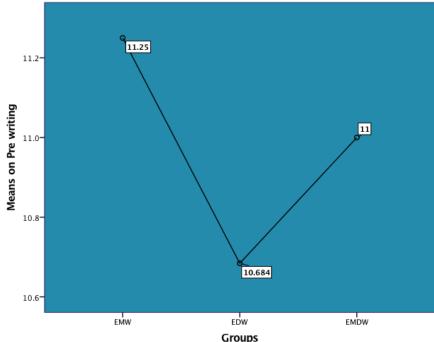
 Levene's Test for scores on pre-task

Levenes Statistic	df1	df2	Sig.
1.661	2	54	.199

The results of ANOVA analysis and Levene's test indicated that there was no statistically significant difference between the EMW, EDW, and EMDW groups with regard to the prerequisite condition required. Therefore, the homogeneity of variance assumption was not violated, and the three groups were comparable before the implication of the treatment. Figure 2 displays the mean scores for the EMW, EDW,

and EMDW groups on the pre-task of expository writing, which signifies small differences between the groups.





To answer the first research question inquiring about the differential effect of EMW, EDW, and EMDW mediational methods on expository writing with regard to the rhetorical structure of the genre, a one-way between-groups ANOVA was run to compare performances and scores of three groups on post-task writing after the instruction. Table 4 depicts the results of a one-way between-groups ANOVA on the expository writing post-task.

**Table 4**Results of Statistical Analysis for Post-task Scores on Expository Writing

Post-task									
	EM	EMW EDW EMI			OW				
Post-	M	SD	M	SD	M	SD	$\eta^2$	Sig.	Post-hoc results
task	21.35	1.95	19.58	1.53	25.33	2.19	.87	.003	EMDW> EMW>
scores									EDW

The results from one-way between-groups ANOVA on post-task reveals that there was a significant difference at the p < .05 level in post-task scores for the three CBI groups: F (2, 54) = 43.7, p = .003,  $\eta p = .87$ . Furthermore, post-hoc comparisons using Tukey HSD test indicated that EMDW (M = 25.33, SD = 2.19) performance was significantly different from EMW (M = 21.35, SD = 1.95) and EDW (M = 19.58, SD = 1.53) groups in terms of expository writing scores after the instruction. In other words,

the EMDW group score was statistically higher than the EMW and EDW groups. In addition, it was indicated that the EMW group (M = 21.35, SD = 1.95) did differ significantly from the EDW group (M = 19.58, SD = 1.53).

The second research question inquired if there is any significant difference between the three independent experimental groups, namely EMW, EDW, and EMDW, in terms of learning transfer of expository rhetorical structure from a writing task to a new writing task with the same difficulty in the post-delayed task with regard to three types of CBI experienced by participants. Another one-way between-groups ANOVA was run to compare the score means among the three groups on the post-delayed task of expository writing ten days after the post-task. Table 5 displays the results:

 Table 5

 Results of Statistical Analysis for Post-Delayed Task Scores on Expository Writing

		Pos	st-delayed						
	EM	IW	ED	W	EMI	OW			
Post-	M	SD	M	SD	M	SD	$\eta^2$	Sig.	Post-hoc results
delayed									
task scores	16.65	2.45	15.53	2.29	21.94	3.53	.71	.001	EMDW> EMW>
									EDW

As presented in Table 5, the conducted one-way ANOVA on delayed post-task reveals that there was a significant difference at the p < .05 level in delayed post-task scores for the three quantity-mediated groups: F  $(2, 54) = 27.6, p = .001, \eta p2 = .71$ . Furthermore, post-hoc comparisons using Tukey test demonstrated that the EMDW group's (M = 21.94, SD = 3.53) performance was significantly different from the EMW group (M = 16.65, SD = 2.45) and the EDW group (M = 15.53, SD = 2.29) with regard to learning transferability in a new writing task of the same difficulty. Moreover, it was indicated that the EMW group (M = 16.65, SD = 2.45) scores were different in a statistically significant way from the scores of the EDW group (M = 15.53, SD = 2.29). In other words, the EMDW group had better transferability and could outperform the other two groups in the delayed post-task.

Finally, in order to answer the third question regarding participants' reflections, opinions, and feedback on the three types of CBI they experienced for expository writing improvement, 18 voluntary participants from the EMW, EDW, and EMDW groups shared their ideas in a fifteen-minute semi-structured interview. Content analysis through a qualitative approach was run to provide the following results and judgments about the experienced instructions.

# 4.1. Reflections on EMW, EDW, and EMDW Systemic Theoretical Instruction

The 18 participants in the EMW, EDW, and EMWD groups were generally satisfied with the instruction they experienced. Moreover, they stated that the whole nine-session program on the expository genre was greatly organized and made them more interested in writing skills. Participants in the EMW group indicated that materialized objects (SCOBAs) were highly motivating and reduced their anxiety. According to them, the provided concepts and the instructors' explanations were indicated as the core

beneficiary points in their improvement. Participants in the EDW group stated that verbalization was entirely new to them and that they enjoyed individual and pair work for sharing their understanding and ideas about the concepts and the instructors' explanation. In addition, they appreciated and acknowledged the important role that the worksheets and elaborated feedback played in their improvement. However, participants in the EDW group suggested Farsi explanations of concepts. Volunteer participants in the EMDW group were highly satisfied and elaborated on how explanations, materialized objects, and worksheets, along with retelling and sharing ideas (demonstration), could result in their outstanding improvements.

Volunteer participants were coded for qualitative content analysis due to the assurance of confidentiality to provide utterances from three of the participants, each of whom experienced one type of CBI. The following quotations from three interviewed participants represent ideas on three types of instruction (P[n] stands for participant and their code):

- **P4 (EMW group):** "Previously, I had no idea of how parts in a text are related to each other. Concept explanation, pictures and homework were really great and that emphasis was on our own understanding which was really motivational and enthusiastic. Now we have a plan in our mind and we can write in a more attractive and confident way."
- **P9 (EDW group):** "It was really interesting that we shared our ideas and understanding with each other. I think explanation of concepts are really interesting for learning but also we had better to be provided by Farsi explanation and of the ideas. The next point I want to mention is the great feedbacks provided for practices and writings."
- P16 (EMDW group): "I am really interested into the writing now. I haven't ever thought that how a text might that much complicated and I think I feel like I made a big difference in my writing. The course was really organized and everything was in relation to each other and led us to acquire a good understanding of rhetorical structure by telling what we understood, explanations, complicated pictures, and homework provided. The pictures were really interesting and we can remember them and use them whenever we want to write an essay."

#### 5. Discussion

This study investigated the differential effect of three mediational rhetorical analysis conditions based on CBI on the expository writing of EFL learners. The study also explored learning transfer regarding the rhetorical structure of the expository genre on the same level of difficulty tasks between the three groups, and finally, participants' opinions on the provided instructional course were reflected. The provided results were used to answer the three research questions.

With regard to the first question, the results indicated that there were statistically significant differences among the three groups regarding their scores on the expository writing post-task; it was shown that the EMDW group had higher scores in comparison to the other two groups on the measure of rhetorical structure used, and the EMW group had higher scores than the EDW group. These results indicated that the mentioned three mediational conditions based on instructors' oral deductive explanation of concepts, SCOBAs material, students' demonstration of their understanding, and writing practice through CBI have the potential to channel students' performance on EFL students'

learning and using the rhetorical structure of the expository genre. Consequently, in other words, the reason that the participants in the three groups performed differently on the post-task of expository writing might be due to differential mediational mechanisms provided for them through the CBI approach. Many instructors in Iran pay attention to explicit instruction of concepts and pedagogical practices; however, SCOBAs material and students' demonstration of their understanding might receive scant attention in language classrooms.

The results concerning the effect of CBI on rhetorical structure awareness of genre support findings mentioned in Kao (2018) as he explored the effect of CBI administering conceptualized materials, verbalization, and written productions on academic rhetorical awareness among Chinese EFL learners. In addition, the results are comparable with Serrano-Lopez and Poehner's findings (2008) about the role of materialized tools in skill acquisition of learners. The demonstrated results are also in line with what Lavasani (2016) concluded regarding the differential effect of mediational artifacts on learners' improvement of listening skills through systemic theoretical instruction (STI) among TEFL students.

Answering the second research question, the results showed that all three groups, EMDW, EMW, and EDW, could retain their learning ability of rhetorical genre to a new writing task with the same level of difficulty after one week, with a statistically significant difference from each other. Thereupon, once more, the EMDW group could gain higher scores in expository writing in the delayed post-task in comparison to the other two groups. In other words, learning retention was more detected in the EMDW group that received all sorts of mediational mechanisms through CBI. Furthermore, it was mentioned that although EMW and EDW groups could retain their good performance on a new task, participants in the EMW group displayed better ability in transferring the rhetorical structure of expository writing in comparison with participants in the EDW group. Accordingly, providing SCOBAs material and students' demonstration of their understanding can lead to differential learning retention among EFL learners for their writing performances. Thus, three mediational conditions afforded by the students in the EMDW, EMW, and EDW groups are supported to have impacts on the learning durability of rhetorical awareness and might canalize learners' retention ability regarding the rhetorical structure of the expository genre.

The incorporation of SCOBAs and chances for learner demonstration seems to enhance higher-order cognitive involvement, fostering more substantial knowledge reconstruction. The findings confirm the influence of diverse mediational settings on the development of learners' rhetorical awareness and the transferability of writing skills. The EMDW group's advantage highlights the educational significance of using various interactive mediational processes to improve sustainable learning transfer in EFL writing environments.

The findings with respect to the second research question support what Amiryousefi (2017) specified about differential learning durability in three different conditions. He concluded that differential pedagogical tools and instructional conditions can result in distinguishing the learning durability of abilities through pedagogically complex tasks. In his study, students' learning durability was explored as students experienced differential individual and collaborative activities and tasks for their writing improvement in EFL contexts. Nonetheless, Benson (2016) argued for the need for more empirical studies to understand and come up with a true interpretation of learning retention. Ultimately, almost all students in three mediational CBI groups were satisfied

with the expository writing course they experienced and provided positive feedback on organization, materials, and supervision during the course. Furthermore, experiencing new mediational mechanisms such as SCOBAs and demonstrating their understanding was mentioned as a core striking point for their writing improvement.

The results claim that varied educational and mediational contexts promote distinct learning transfer in intricate writing assignments. Within the Content-Based Instruction (CBI) framework, differences in mediation significantly impacted learners' rhetorical awareness and the transferability of writing skills in EFL situations. This work offers evidence that structured mediational mechanisms, specifically SCOBAs and learner demonstrations, augment engagement and promote lasting transfer of learning, aligning with Benson's (2016) request for additional empirical confirmation. The students' overall pleasure with the course highlights the educational significance of incorporating multimodal mediation to facilitate successful and sustained learning transfer in second language writing teaching.

#### 6. Conclusion

The findings of the present study claim the differential effect of three types of mediation (EMW, EDW, and EMDW) through CBI on Iranian EFL learners' expository writing regarding the rhetorical structure of the genre. It also investigated if CBI, through differential mediations (EMW, EDW, and EMDW), had any statistically significant impact on the three groups in terms of the transferability of rhetorical structures in expository writing tasks with the same difficulty level after a while. Furthermore, the study reflected participants' opinions and feedback on the instruction provided for them in three groups.

The obtained results alluded to the fact that CBI, through implementing concept explanations, various SCOBAs, verbalization, and writing practices, could significantly improve all groups with regard to their expository essay writing. However, the EMDW group that received all the mentioned sorts of mediations could outperform the EDW and EMW groups, so it was indicated that providing all mediational mechanisms through the CBI framework can provide students with a better opportunity for expository writing improvement. The study also indicated that all groups showed a transferring ability of structure through writing tasks; although, again, considering that the EMDW group could transfer the structure to a new task with a higher performance in comparison to the other two groups, regarding the differential mediational mechanisms they received. Finally, utterances and quotations from participants were provided based on content analysis of semi-structured interviews.

The results indicate that Content-Based Instruction (CBI), executed via concept elucidation, SCOBAs, verbalization, and writing exercises, significantly improved students' expository writing abilities across all cohorts. The EMDW group, which utilized the complete set of mediational processes, attained higher results compared to the EMW and EDW groups, thus affirming that extensive mediation within the CBI framework produces enhanced writing improvement. Moreover, all groups demonstrated the capacity to transfer rhetorical structures across writing tasks; however, the EMDW group exhibited superior transferability, indicating the influence of multimodal mediation. Qualitative insights from semi-structured interviews further corroborated these findings, emphasizing learners' positive engagement with mediational tools and their perceived function in enhancing rhetorical awareness and writing development.

All in all, the results of this study can demonstrate the important role that CBI can play in writing improvements of EFL learners, along with the consequential consideration of teachers regarding awareness of text structure while writing. The function of text structure inference skill in expository essay writing should not be neglected, but should be instructed as a means of improvement. The CBI made the students able to organize ideas in order to establish rhetorical organization. Consequently, the teacher should take the responsibility of introducing the text structure of genres specifically through mediational tools as a way of L2 writing improvement while dealing with expository essays. These activities can be combined with technology-mediated programs. It can provide EFL learners with ways to produce well-planned five-paragraph essays on a theme. In conclusion, instead of focusing too much on vocabulary and grammar through traditional methods, we had better focus on differential mediations such as materialized objects, verbalization, and concept-explicit explanation to allow students to construct their own understanding for L2 writing refinement.

Various presumptive implications can be induced by the findings of the present study. First, all EFL teachers, learners, course and syllabus designers, language institutes, managers, SLA ideologists, and researchers interested in L2 writing, CBI, genre literacy, mediational tools and mechanisms, and technology-mediated instructions can benefit from the results of the study. The demonstrated effectiveness of SCOBAs in enhancing L2 writing offers substantial pedagogical and theoretical implications. SCOBAs function as clear mediational instruments for practitioners, guiding learners in rhetorical structure, coherence, and genre awareness, thus promoting independent and strategic writing proficiency. For curriculum and syllabus designers, using SCOBAbased activities inside Content-Based Instruction (CBI) frameworks guarantees the integration of conceptual, linguistic, and procedural information vital for genre development. Integrating mediation-driven pedagogies at the institutional level can improve instructional consistency and learning outcomes. SCOBAs illustrate Vygotskian mediation by transforming abstract notions into practical cognitive schemas, facilitating internalization and transfer. Their digital adaptation further broadens their relevance to technology-enhanced and multimodal learning contexts. SCOBAs serve as a dynamic, research-based framework that connects conceptual comprehension, metacognitive regulation, and transferable writing proficiency in L2 environments.

In addition, the observed results can inform language instructors about the role of rhetorical structure awareness of the expository genre in essay writing. Furthermore, various underpinnings for concept-based instruction and task-based pedagogy can be brought through genre structure implementation. Moreover, the results of the present investigation make significant contributions to teaching as well as learning. As a result, the findings suggest that language instructors should particularly pay attention to the concept of text structure as they try to incorporate it into teaching. Material developers and syllabus designers would also benefit from the outcomes indicated in this study, as they may consider the administration of SCOBAs input in their syllabus designing for instance.

The importance and effectiveness of CBI, along with rhetorical structure and awareness raising of genres for analysing and producing, might receive more attention and play a prominent role in language courses. The majority of EFL learners in Iran pursue the expository genre during their education. Therefore, plentiful attention and

awareness of rhetorical structure in writing skill and instructors' awareness of CBI salutariness would guarantee better command of English and success for students in their education. Here is hoping that this study could create a new perspective for further investigation of CBI and L2 writing.

## 7. Limitations and Future Research

Like any other study, this study also suffered from some limitations. First of all, the sample size was a limitation based on the low number of schools and institutes with enough proficient students to participate in this study. Second, not all the participants provided complete five-paragraph essays in their pre-, post-, and delayed-post writing tasks. Third, due to the limitation of time, the delayed post-task was administered one week after the post-task to explore the second research question, which may not be enough for assessing such an issue. Furthermore, the sample is characterized as exclusively male.

The homogeneous gender sample raises doubts regarding the applicability of the findings to female learners, hence affecting the generalizability of the conclusions. Finally, the feedback regarding writing practices was provided through participants' presence context. Consequently, in terms of future investigations, studies can be conducted with larger samples to ensure the results are not influenced by incomplete essays as an outlier. Moreover, long-term investigation can be conducted to test the true detection of learning transfer. Eventually, studies can be carried out through a fully computer-mediated L2 writing program.

#### **Conflict of Interest**

The author states that he has no conflicts of interest.

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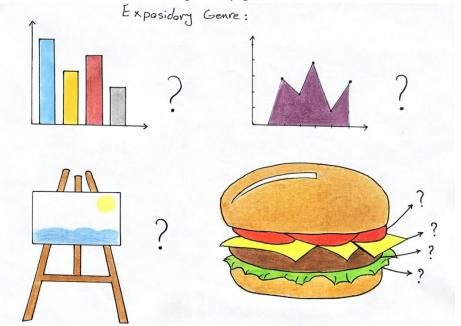
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# **Appendices**

# Appendix A

SCOBAs Used in the Present Study

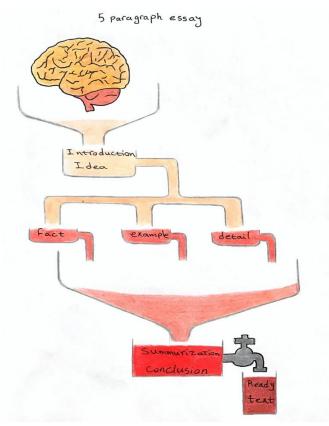
1) Sample of SCOBAs used for the expository genre:



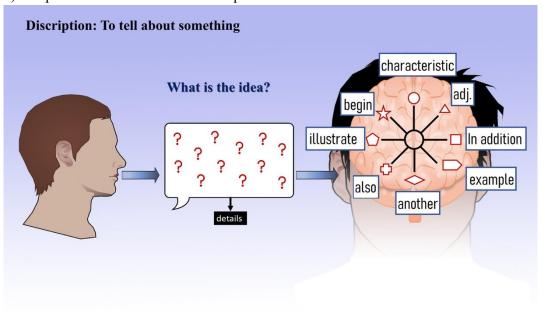
2) Samples of SCOBAs used for 5-paragraph essay:

## 5 Paragraph Essay

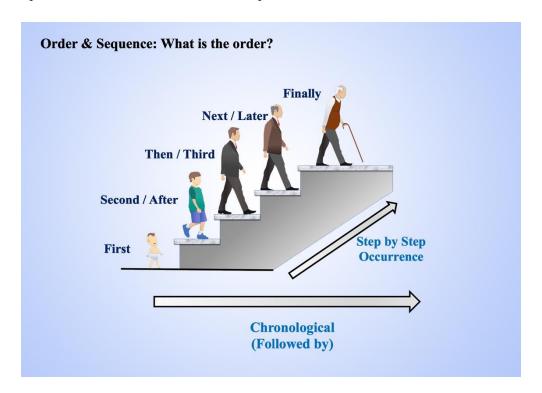




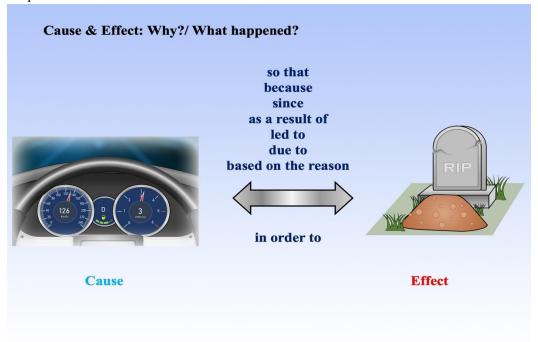
3) Samples of SCOBAs used for description rhetorical structure:



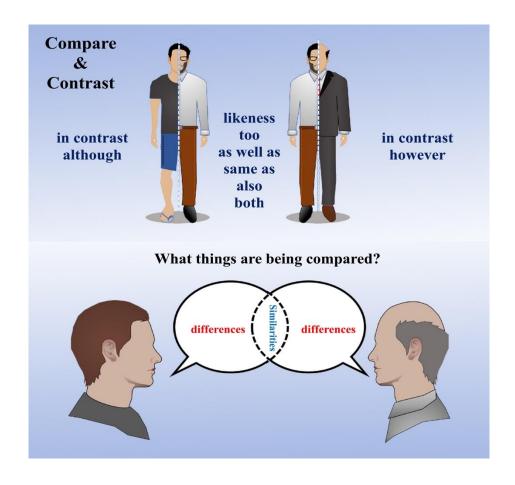
4) Samples of SCOBAs used for order and sequence rhetorical structure:



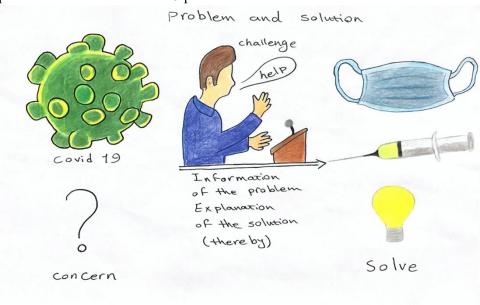
5) Samples of SCOBAs used for cause and effect rhetorical structure:



6) Samples of SCOBAs used for comparison and contrast rhetorical structure:



7) Samples of SCOBAs used for the 5 problem and solution rhetorical structure:



# Appendix B

Sample of Verbalization Task Provided in the Present Study

# **Text Structure**

- How would you use each of these structures as a proficient writer?

- What are the key words for each?
Description:
Cause and Effect:
Order and Sequence:
Comparison and Contrast:
Problem and Solution:

# Appendix C

# **Essay Graphic Organizer**

Paragraph 1 (Introduction)  Attention Grabbing  Thesis Sentence								
Paragraph 2 (Body)	Paragraph 3 (Body)	Paragraph 4 (Body)						
Reason 1	Reason 2	Reason 3						
	Paragraph 5 (Conclusion)							
Restate Opinion								
Summarize 3 Supports								
Closing Statement								