Iranian Evolutionary Educational Psychology Journal
IEEPJ
University of Hormozgan
Online ISSN: 2588 - 4395
Homepage: https://ieepj.hormozgan.ac.ir

Exploring the Impact of Scenario-based Assessment and Dialogue Journal Writing Models on Developing Iranian EFL learners' Writing Self-regulation Skills

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Article Info

Article type:
Research Article

Article history:
Received 27 Apr. 2024
Received in revised form 14 Jun. 2024
Accepted 29 Sep. 2024
Published online 01 Mar. 2025

Keywords:
Scenario-Based Assessment, Dialogue Journal Writing, Writing Self-Regulated Learning Skills

ABSTRACT

Objective: Classroom-based assessment techniques like scenario-based assessment and dialogue journal writing aim to evaluate learners' linguistic abilities through hypothetical authentic language use within the assessment's context, fostering confidential and learner-centered interactions. The following study examined the effect of scenario-based assessment and dialogue journal writing on enhancing Iranian EFL learners' writing self-regulation mechanisms.

Methods: For this purpose, the researchers selected 60 EFL learners based on convenience sampling and divided them into two experimental groups and one control group randomly. The first experimental group received treatment through a scenario-based assessment model. The second experimental group underwent the treatment requirements of a dialogue journal writing model. The control group was instructed through the traditional teacher-centered method. All groups received pre-tests and post-tests of writing self-regulation skills. The collected data were analyzed through MANCOVA analysis.

Results: The findings showed that the scenario-based assessment group's participants outperformed dialogue journal writing and control groups in writing self-regulation skills. It also revealed that the scenario-based assessment model more significantly improved motivational self-talk, knowledge rehearsal, and text processing.

Conclusions: The results of this study indicate that the scenario-based assessment can garner greater support and serve as an effective instructional and evaluation framework for instructors, educators, and stakeholders.

Cite this article: Rahimivand, M., Ahangari, S. & Hadidi Tamjid, N. (2025). Exploring the impact of scenario-based assessment and dialogue journal writing models on developing Iranian EFL learners' writing self-regulation skills. *Iranian Evolutionary Educational Psychology Journal*, 7 (1), 21-42.
DOI: https//doi.org/ 10.22034/7.1.21

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Publisher: University of Hormozgan.
DOI: https// doi.org/ 10.22034/7.1.21

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[DOI: 10.22034/7.1.21]

Introduction

Classroom-based assessment (CBA) methods and procedures have an undeniable impact on some learner traits, such as self-regulation (SR). Scenario-based assessment (SBA), as one of the methodologies of CBA is used to evaluate and strengthen written arguments, aiming to address the limitations of previous writing evaluation models. Learners are allocated a reading objective for a collection of works that share a common theme in a standardized assessment. The arrangement of resources, tasks, and activities is designed to facilitate learners' understanding of topics as they engage in more challenging reasoning tasks (Wang, et al., 2017). Engaging in the procdure of submitting, modifying, and evaluating acquisition of a foreign language in SBA can help learners keep focus on their educational objectives. This is due to the SBA design, which views learning as a dynamic cognitive reorganization procedure through interaction with supporting procedures (Earl & Katz, 2006; Coll et al., 2008a, 2008b). SR is necessary for SBA in EFL writing as it pushes learners to utilize their existing linguistic knowledge and analytical skills. It helps learners to address writing issues by practically employing metacognitive methods and implementing particular steps to address writing challenges. SBA model also enables learners to effectively express their existing linguistic knowledge by utilizing cognitive methods.

On the other hand, dialogue journal writing (DJW), as another technique of CBA, is defined by Peyton & Reed (1990) as confidential written exchanges between a teacher and a specific learner concerning matters of mutual interest or concern that continue for a semester or academic year. The curriculum is centered on learners, who have been charged with selecting the writing topics (Peyton, 2000). As a part of "intellectual investigation modeling" (Van Duzer & Florez, 1999), in which students and instructors engage in collaborative critical thinking about relevant texts and events, this kind of writing may additionally have a substantial impact in enhancing learners' writing SR skills. Dialogue journals are beneficial for acquiring writing skills in unfamiliar languages, as they allow one-to-one interactions between instructors and learners. They provide a platform for novices to write personal reports and receive immediate feedback. During the initial phases, dialogue journals facilitate one-to-one interactions between instructors and learners in any educational setting. Hence, they serve as highly beneficial communicative occasions during the initial phases of acquiring writing skills in an unfamiliar language. DJW promotes self-regulated learning by allowing individuals to express their thoughts, fostering intrinsic drive, and reducing

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emotional obstacles. It encourages vicarious experiences, encouraging learners to mimic peers' linguistic behavior. Learners become more sociable through DJW and interactions with the instructor and peers (Hsu, et al., 2007; Lantolf & Thorne, 2007)

In keeping with scholars, the integration of self-regulated learning has been considered crucial in EFL writing instruction (Zimmerman, 2002). The classroom and educational environment need to be designed in a way that fosters learner autonomy and accountability. It is statistically more advantageous to teach explicit strategies and SR to learners as opposed to grammar instruction (Graham & Perin 2007). In addition, it is necessary to monitor and control the motivational, emotional, and social components of SR (Zimmerman & Bandura, 1994). SR is independently created ideas, attitudes, and behaviors that are organized and constantly altered to achieve individual objectives (Zimmerman, 2000). According to Boekaerts & Corno (2005), to evaluate the learner's SR and the instructional interventions associated with it, it is recommended to utilize a variety of methods. Self-Regulated Learning refers to the conscious organization and regular modification of psychological procedures, affective responses, and behaviors to achieve individual objectives. Education research has established a correlation between self-regulatory abilities, academic achievement, and the desire to accomplish educational objectives (Zimmerman, 2008). According to Vermunt & Donche (2017) self-regulated learning encompasses two distinct strategies: cognitive strategies and regulation strategies. Cognitive strategies are correlated with the capacity to comprehend learning materials, which includes the act of developing an understanding perspective on the materials. Regulation strategies refer to performance, evaluation, and reflection, along with planning. It is generally accepted that SR does foster the innovations of independent, competent learners. SR in writing encompasses a series of phases, commencing with the establishment of objectives and culminating in the adjustment of subsequent approaches. SR is the methodology through which students self-direct their analytical features into higher education capabilities; it is neither a mental ability nor an academic performance skill (Zimmerman, 2002). Self-regulated language learners may be liable for their learning to conduct autonomously in language learning contexts, as noted by Koksal & Dundar (2018). Owens et al., (2020) believed that self-regulated language learners purposefully endeavor to regulate and monitor intricate educational assignments and exercises. According to Zohrabi and Farshbafan Bimesl (2022), learning is a sequential progression that results in relatively stable changes in

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students' actions following the execution of specific recommendations. ELT scholars prioritize the use of effective instructional methods that facilitate learners' self-discovery and awareness of their own progress and growth.

Supplementing the CBA models' efforts, Carroll et al. (2015) demonstrated that an SBA format could be implemented in a web-based environment and proposed employing it to ascertain adult ESL course placement. Topical knowledge in second language learners includes both content and lexical knowledge, according to the results. Still, these types of knowledge serve different purposes when it comes to constructing and distributing knowledge. To facilitate placement, Jang et al. (2016) provided a collection of sequential, mixed-modal SBLA activities to assess the L2 proficiency and mental processing of learners through the use of authentic educational scenarios. The study's findings strongly supported the psychometric features of SBLA tasks, indicating their suitability for pre-instruction placement assessments.

In order to expand the theoretical framework of L2 capability, Purpura (2015, 2016) contends that scenario-based tasks and consideration of the setting, material, ability, and consequences of socio-cognitive and psychological relationships should be incorporated into the framework. Guo et al., (2020) considered the influence of a SBA design on the writing processes of learners. The findings indicated that the single-scenario and producing essays by learners at the end prompted a reduced number of revising stages, but these states were longer in duration compared to the alternative designs. Furthermore, it seems that when combined with a single scenario, this task order allowed for more fluid and effective text output.

Bardach et al., (2021) studied the potential influences of an online scenario-based learning exercise on inexperienced teachers' self-efficacy and emotional, motivational, and cognitive classroom preparedness before their initial teaching experience. According to the findings, the intervention treatments significantly improved cognitive classroom preparation compared to the control group. Dean et al., (2021) explored a writing method that uses three interim assessment methodologies, including SBAs, to replicate real classroom assignments. The results revealed a more comprehensive and practical method for monitoring and analyzing student progress throughout the school year. Kunnan et al., (2022) developed a scenario-based academic English test for Asian colleges, assessing language abilities, determining placement, and diagnosing language skills. The results revealed that the project would be socially and culturally relevant, sensitive to local context,

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and more sustainable than international test licenses, saving money in the long term. Anani Sarab & Rahmani (2023) developed a Language Assessment Literacy Test with 35 scenarios to create and confirm the accuracy of an evaluation literacy exam. Exploratory Factor Analysis was then used for the test, and the outcomes revealed that the items could be categorized into seven factors. Saeedian & Ghaderi (2023) explored the implementation of a teacher education course utilizing the self-evaluation of teacher talk methodology. The study found that after post-teacher education, novices rationalized their judgments and made wise interactive decisions, despite initial frustration and code switching due to students' reactions.

Meanwhile the primary documented utilization of dialogue journals occurred during the 1980s in California, involving sixth graders who were native and non-native English speakers (Peyton & Reed, 1990; Peyton & Staton, 1993). However, many educators claim to have previously engaged in journal writing as a means of communication with their adult learners. Presently, they are implemented in a wide range of educational contexts, including those involving native and non-native English speakers, adults and children, as well as volunteer and instructor development programmes (Peyton & Staton, 1996). Dabbagh's (2017) study on DJW among 84 intermediate Iranian learners found significant improvement in overall writing performance, with the experimental group receiving feedback and the control group receiving conventional instruction. Rostami Ravari & Fatehi Rad (2021) explored the effects of DJW on the SR and reading comprehension abilities of EFL learners in a language school. The findings demonstrated that Iranian EFL students' reading comprehension and SR were significantly affected by writing in an employment dialogue journal. Yulianawati et al., (2020) studied the utilization of DJW in improving learners' ability in writing argumentative texts. The study revealed that dialogue journals significantly enhance learners' writing skills by facilitating one-on-one conversations with their teachers and allowing them to express their opinions. In their study, Siahaan et al., (2021) examined the impact of DJW on the writing proficiency and motivation of high school learners. The findings showed that learners' writing proficiency and motivation were both significantly enhanced by DJW. Valizadeh (2021) examined the impact of DJW on the descriptive writing abilities of EFL learners in Turkey. Results showed that the experimental group who received instruction according to DJW method outperformed the control group regarding the overall descriptive writing performance. Cahyono & Deliany (2022) explored the potential of

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transforming DJW into Online DJW, focusing on writing productivity and learners' perception of its effectiveness. The results of the study indicated that online DJW has potential to enhance writing output and learners found its adoption beneficial and contentious.

Investigation into writing strategies for SR is still in its early stages. Additional investigation is required to expand upon the existing body of knowledge concerning writing SR strategies, particularly as it regards Iranian EFL learners. This will enable researchers to ascertain the most effective implementation of cognitive, metacognitive, feedback, and emotional components. Consequently, it is anticipated that instructing SR abilities will play a substantial role in enhancing learners' self-efficacy, as well as their academic motivation and achievements. Such general skill instruction requires adequate and essential support. Finding out how well the SBA and DJW models work to improve writing SR techniques is a relevant research gap that needs to be fulfilled, as the literature review background makes clear. To improve the writing SR strategies of Iranian EFL learners, the present study employs SBA and DJW designs in response to the aforementioned research gap.

The purpose of this study was to explore the effect of SBA and DJW on the Iranian EFL learners' writing SR skills. To this end the following research question were asked:

1- Do SBA and DJW have any significant effect on Iranian EFL learners' SR skills?

2-Which components of writing SR skills were mostly affected by the application of SBA model and DJW?

Material and Methods

Design: This research was a quasi-experimental inquiry. The study employed a pretest-posttest design, which involved two experimental groups and a control group. The objective was to examine a potential causal link in the vicinity of the independent and dependent variables. The study's dependent variable was writing SR skills. The independent variables were the SBA model and DJW. Convenience sampling was used to construct intact classes to save time. Pre-test and post-test results have been collected to address the research questions.

Participants: The participants of this study consisted of 60 female EFL learners. They attended the classes of a language center in Tabriz to learn English. They ranged in age from 19 to 32 years old. Being bilingual speakers of the Turkish language, they were learning EFL simultaneously.

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Despite having the same linguistic background and participating in English classes at language centers for some time, the participants' initial homogeneity was evaluated by administering an Oxford

PlacementTest.Participantsin the study was those whose scores corresponded to an intermediate l evel of language proficiency (B1.2). The participants were divided into three groups: the first experimental group, or SBA model group; the second experimental group, or DJW group; and the control group. Each group included 20 learners. In all three groups, the researcher acted as the teacher. She is teaching EFL in language institutes, Ministry of Education and a number of universities for several years. In addition, it is important to point out that the researcher gave the participants the assurance that their responses to the questionnaire's confidentiality would be maintained private and would only be utilized for the aim of investigating the research.

Instruments: This study used two instruments, the Oxford Placement Test and the Self-Regulated Learning Questionnaire, to collect the necessary data.

Oxford Placement Test: To determine the homogeneity of participants, the current study utilized the Oxford Placement Test. This placement examination assesses proficiency in four key areas: speaking, listening, reading, and writing. The speaking section of this exam was omitted as it was not considered a relevant component of this study. The test consisted of 60 multiple-choice items. Using Cronbach's alpha coefficients to confirm the reliability of all elements, the results showed an index of 0.7 or higher. Experts have also confirmed the test's content validity.

Writing Strategies for Self-Regulated Learning Questionnaire: The impact of the SBA and DJW models on enhancing Iranian EFL learners' writing SR skills were investigated by using the original Writing Strategies for Self-Regulated Learning Questionnaire in English. The Writing Strategies for Self-Regulated Learning questionnaire developed by Teng & Zhang (2016) was utilized in this study. The questioner investigates four facets of SR strategies: cognitive, metacognitive, social behavior, and motivation. Cognitive strategies component includes text processing (TP), knowledge rehearsal (KR) and idea planning (IP). Metacognitive strategies component involves goal-oriented monitoring and evaluation (GME). Social behavior strategies component consists of feedback handling (FH) and peer learning (PL). And finally, motivation strategies component contains motivational self-talk (MS), interest enhancement (IE), and emotional control (EC). The questioner involves a total of 40 items. It utilizes a seven-point Likert

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scale, ranging from 1 (indicating completely untrue of me) to 7 (indicating totally correct of me.). Its objective is to assess task-specific, context-dependent SR strategies in EFL writing. A total of sixty minutes were spent on the questioners' completion. The reliability of this instrument was checked through Cronbach's alpha coefficients for all components, which ranged from 0.89 to 0.96. Additionally, an evaluation team of language teaching and testing specialists evaluated this test's content validity and determined that the assessment items corresponded in line with the content area.

Procedure: The curriculum consisted of 20 sessions of treatment. The first and the last sessions were designated for completing pre-test and post-test. The initial session was dedicated to administering the Self-Regulated Learning Strategies Questionnaire. Additionally, during the final session, learners again completed the questionnaire of Self-Regulated Learning Strategies for the second time.

The first experimental group underwent a learning intervention according to a lesson plan that involved individual, pair, and group tasks, with scaffolding and feedback provided by the teacher. The topic was selected from the works of Zhang et al. (2019), Dean (2019), Banerjee (2019), and Malyn-Smith (2022). The introductory phase involved lead-in tasks, followed by analysis and production of reasonings and texts. Each week's initial session introduced scenarios and their topical settings, followed by the execution of each scenario's lead-in tasks. Lead-in tasks comprised three primary components: 1. analyzing and condensing the reasonings; 2. assessing the reasonings in a hypothetical scenario; and 3. examining the reasonings. The established time for completing each of these preliminary tasks was around 30 minutes.

There were also three steps to the first task. The first step was giving learners an essay to read through and a checklist of requirements for creating a summary. To ascertain the essay's primary idea along with supplementary details, learners responded to a series of selected response items. This task aims to improve the test-takers' linguistic and content knowledge about the subject matter. The second step comprised a hypothetical summary of the first-step article and a series of selected-response items. The learners were instructed to evaluate if they met the requirements for summary writing. The goal of this section is to understand the text, clarify its significance, and provide alternative information. The third step tasked each participant with composing summaries

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of the two articles provided in previous stages. The aim of this step is to exchange knowledge and generate a well-organized and accurate draft of the text.

The second task was divided into two sections. Initially, learners were granted permission to peruse a theoretical article about the subject matter. Subsequently, they wrote a concise composition addressed to their classmates to ascertain and elucidate the validity, logic, and evidential support of the former essays. Task two's objective was to expand learners' written outputs. Task 3 consisted of two phases. The learners categorized the reasonings developed from the previous activity as either supportive or opposing. Subsequently, a set of reasonings and evidence was provided to the learners, who were then instructed to assess their validity and adequacy. The primary objective of this work is to analyze the material, acquire critical thinking methods, and draw inferences.

The second session of each week was set to execute task 4. As part of the preceding steps, the learners were instructed to generate their arguments and compose an article on the given topic. By actively constructing and exchanging information, learners should have acquired knowledge in both the subject matter and language skills at this stage. Their writing would consist of approximately 250 words. The teacher assessed the learners' writings based on fundamental aspects of writing and content, such as proper organization, logical flow, eloquent expression, and proficiency in Standard Written English; understanding of logical reasoning; soundness and progression of arguments; consideration of the audience; appropriate tone; and alignment with the writing objectives. The treatment included writing 9 essays based on a SBA model.

The second experimental group was treated through the DJW model, where participants wrote one entry per session on a specific topic. They were offered the opportunity to write about their experiences, insights, and opinions, and associate their ideas with the educational experiences. The study required participants to submit 18 diary entries.

Participants in the control group were also expected to write compositions. They were instructed to cooperate on their tasks and share their insights through written communication. The individuals were simply instructed to focus on essential aspects such as accurately presenting the information, effectively managing paragraphs, and employing a diverse range of lexical and structural elements. The data collection procedure endured for three months. Additionally, during the final session, learners in all groups took part in the posttest and completed the questionnaire of Self-Regulated Learning Strategies for the second time.

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Results

After considering the reliability and validity of the instrument, the descriptive statistics, which comprise the mean and standard deviation of the respondents' test results in the pre and posttest were calculated. The results revealed that the DJW group outperformed the SBA group (M = 2.63, SD = 0.0645) and the control group (M = 2.347, SD = 0.0489) in the pre-test of SR strategies. It also indicated that the SBA group with a (M = 5.933, SD = 0. 0632) outperformed the DJW group (M = 3.951, SD = 0.0065) and the control group (M = 3.445, SD =0.0071) in the post-test administration. Before doing the main analysis, the needed assumptions were considered. To determine the normality distribution of the given data, one-Sample Kolmogorov-Smirnov and Skewness and Kurtosis tests were used.

Table 1. One-Sample Kolmogorov-Smirnov test of writing SR components

Pre-test score	TP	KR	I P	G M E	P L	F H	I E	MS	EC
Test Statistic	0.122	0.186	0.175	0.161	0.134	0.165	0.176	0.109	0.182
Asymp. Sig. (2-tailed)	0.026	0.000	0.000	0.001	.010	0.000	0.000	0.072	0.000
Post-test score	T P	KR	I P	G M E	PL	F H	I E	MS	EC
Test Statistic	0.236	0.190	0.249	0.191	0.230	0.195	0.203	0.213	0.219
Asymp. Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000

Table 2. Skewness and Kurtosis of writing SR components

Pre-test score	T P	KR	I P	G M E	P L	F H	I E	M S	E C
Skewness	0.290	0.834	0.255	0.268	0.145	0.483	0.458	0.232	0.302
Kurtosis	-0.188	0.635	-0.732	-0.965	-0.721	-0.440	-0.467	-0.113	-0.475
Post-test score	T P	KR	I P	G M E	P L	F H	I E	M S	E C
Skewness	0.538	0.446	0.549	0.413	0.328	0.447	0.391	0.550	0.479
Kurtosis	-1.359	-1.455	-1.345	-1.479	-1.527	-1.364	-1.493	-1.472	-1.347

The analysis of the data presented in Tables 1 and 2 reveals that the probability value derived for the validity of the null hypothesis for the distribution of writing SR components in the pre-test and post-test is 0.000. Based on this, we cannot assume that the probability distribution of these variables is normal. However, the absolute values of the Skewness and Kurtosis coefficients for all variables in the pre-test and post-test are all less than 2. It indicates no significant deviation from the normal distribution for the probability distribution of the variables. Once normality was verified, a MANCOVA analysis was performed to address the research questions.

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Table 3. Covariance matrix equality as determined by Box's Test

Box's M	F	df1	df2	Sig.
150.73	1.27	90.00	8121.67	0.04

Table 4. Levene's equality test for error variances of SR components

Variables	F	df1	df2	Sig.
TP	0.36	2	55	0.70
KR	2.38	2	55	0.10
IP	0.79	2	55	0.46
GME	0.73	2	55	0.49
PL	3.77	2	55	0.03
FH	1.04	2	55	0.36
IE	1.05	2	55	0.36
MS	1.49	2	55	0.23
EC	1.40	2	55	0.25

Tables 3 and 4 provide the findings of Box's M test for assessing the equality of covariance matrices and Levene's test for testing the equality of variances. It is apparent that p is greater than 0.01, indicating that all variables have equal variances.

Table 5. A multivariate variance analysis

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	0.008	41.659	18.000	76.000	0.000	0.908

Table 6. Tukey post-hoc test results for the writing SR strategies post-test

Groups		Mean Difference (I-J)	Std. Error	Sig.
SBA Group	DJW	.3500*	0.1199	0.014
	Control Group	.4250*	0.1199	0.002
DJW Group	SBA Group	-.3500*	0.1199	0.014
	Control Group	0.0750	0.1199	0.807
Control Group	SBA group	-.4250*	0.1199	0.002
	DJW Group	-0.0750	0.1199	0.807

Table 5 shows that the difference among the groups' mean scores in the posttest subsequent to regulating the impact of pre-test scores has reached a significant level (F = 41.659, p=0.000, Wilk's Lambda = 0.008, Eta Square = 0.908). Tukey post-hoc test in Table 6 also shows that the performance of the participants in the SBA group significantly differed from DJW and control groups ($p<0.05$). On the other hand, according to the results of descriptive statistics, the SBA group with a (M= 5.933, and SD = 0. 0632) outperformed the DJW group (M = 3.951, SD = 0.0065) and the control group (M = 3.445, SD = 0.0071) in the post-test administration. In other words, with utilizing SBA model, the learners' writing SR strategies improved by up to 90%. Furthermore, the

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current study aimed to ascertain which aspects of the composing SR instruments were most significantly impacted by using the treatments.

Table 7. Tests of between-subjects effects for writing SR strategies and its components

Variables	Sum of Squares	DF	Mean Square	F	Sig.	Partial Eta Squared
TP	52.15	2	26.08	348.39	0.00	0.94
KR	69.50	2	34.75	380.77	0.00	0.94
IP	59.87	2	29.94	208.03	0.00	0.90
GME	52.51	2	26.25	136.75	0.00	0.86
PL	58.70	2	29.35	181.16	0.00	0.89
FH	66.37	2	33.19	233.00	0.00	0.91
IE	57.07	2	28.54	284.28	0.00	0.93
MS	59.66	2	29.83	609.05	0.00	0.96
EC	52.95	2	26.47	221.83	0.00	0.91

The MANCOVA analysis of the constituents of writing SR skills for all groups is presented in Table 7. It indicates significant differences in motivational self-talk ($F = 609.05$, $p < 0.000$, Eta Square = 0.96), Knowledge-Rehearsal ($F = 380.77$, $p = 0.00$, Eta Square = 0.94), Text Processing ($F = 348.39$, $p = 0.00$, Eta Square = 0.94), Interest Enhancement ($F = 284.28$, $p = 0.00$, Eta Square = 0.93), Feedback Handling ($F = 233.000$, $p = 0.00$, Eta Square = 0.91), Emotional control ($F = 221.83$, $p = 0.00$, Eta Square = 0.91), Idea Planning ($F = 29.94$, $p = 0.00$, Eta Square = 0.90), Peer Learning ($F = 181.16$, $p = 0.00$, Eta Square = 0.89), and Goal-oriented monitoring and evaluation ($F = 136.75$, $p = 0.00$, Eta Square = 0.86). The SBA methodology significantly improved learners' writing SR skills performance in motivational self-talk 0.96%, knowledge-rehearsal 0.94%, text processing 0.94%, interest enhancement 0.93%, feedback handling 0.91%, emotional control 0.91%, idea planning 0.90%, peer learning 0.89%, and goal-oriented monitoring and evaluation %0.86.

Discussion

SR is portrayed as a variable that fosters the development of independent learners who take governance for their learning. SR in writing involves several steps, beginning with goal-setting and ending with the adaptation of future skills. EFL writing training has viewed the incorporation of self-regulated learning as a crucial ingredient. This study attempted to examine the effect of SBA and DJW on Iranian EFL learners' writing SR skills and its components. The findings appeared that the SBA group outperformed the DJW and control groups in terms of improving

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their writing SR skills. The findings of this study provide further extra evidence to demonstrate the favorable benefits that utilizing a SBA design has on the writing SR skills of Iranian EFL learners. The findings indicate that the preliminary tasks and final essays facilitate the advancement of self-regulated learning skills in students' writing. This has been supported by studies conducted by Brock (2003), Naidu (2010), and Parrish (2004), who claim that scenarios offer learners the opportunity to engage in contextual learning, where they are exposed to relevant problems within the context of their studies. These illuminating viewpoints appear to support those of Naseri & Motallebzadeh (2016), who found that after engaging in more active, hands-on, learner-centered learning activities, a significant portion of Iranian EFL learners had significantly enhanced their reading comprehension, critical thinking abilities, and self-regulated learning behavior. This discovery is closely connected to the previous discovery on SR, as revealed by Sholeh (2019). The study's results show that Indonesian EFL educators should concentrate not only on developing their learners' target language abilities but also on fostering their self-regulatory skills. This approach can lead to more successful learning outcomes. The key findings of Wijaya's (2022) study also revealed that a greater extent of SR allowed EFL learners to transition into individuals who actively seek information throughout their lives, resulting in more successful language learning outcomes.

The results show the positive impact of contextual learning through the SBA model in developing learners’ SR. This is achieved by providing structured practice and tools for creating contexts at various phases of the process of executing and creating lead-in tasks and scenarios. It is in accordance with Lave & Wenger (1991), who found the contextual learning theory highlights the need to learn within a specific environment to achieve an extensive degree of proficiency. It also confirms the findings of Steeves (2012), who stated that the utilization of situated scenarios has been found to enhance problem-solving processes. According to recent research, learners can improve their writing SR strategies by integrating appropriate autonomous learning behavior in SBA design, cooperating with their classmates, and being supported by the instructor. This research clarifies that the SBA model promotes learners' self-assurance, participation, and autonomy by providing explicit and implicit feedback that supports their writing SR strategies. This finding aligns with the results of the study conducted by Seker (2016), which demonstrated

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that scenario-based instruction was more efficient in promoting consciousness and documented more utilization of self-regulated learning strategies.

This investigation also offers the beneficial effects of presenting authentic materials through a SBA model on enhancing learners' SR. These results confirm the finding of Pernice (2003) who suggests placing learners in real-life situations that mimic actual life may often assist them in developing empathy towards other persons in the scenarios, examining numerous views on the presented situations, and feeling inspired to actively participate in the learning process. Observations have shown that learners naturally exhibit interest and engagement in scenario-based learning activities. It also verifies the findings of Van der Heijden (2002), who stated that the advantageous reasons for presenting authentic materials are humans' innate willingness to plan scenarios as a means of understanding the world and determining suitable programs for participating in daily life. It is also in line with Hemmati et al., (2018), who argue that the improvement of effective self-regulatory learning skills in EFL heavily relies on the ability of teachers to create engaging, enjoyable, and positive language environments that support their learners' emotions, motivation, and confidence. This finding is reinforced by previous research conducted by Amini et al., (2020), which asserts that when EFL learners possess a comprehensive understanding of self-regulatory learning aspects encompassing motivation, emotions, and social factors, they are prepared to effectively regulate how they learn resources, environment, time, and energy for optimal outcomes.

Accordingly, another objective of this investigation was to illuminate which aspects of writing SR were most significantly influenced by the effective paradigm. It can be argued that the application of the SBA model has been shown to be effective in improving almost all of the writing regulated-learning skills components. The study found significant improvement in motivational self-talk by 96%, knowledge rehearsal, and text processing by 94% in comparison to other writing self-regulated learning components (Table 7). In light of the findings, it was determined that the most significant impact centered on the component of motivational self-talk. This correlates with the discoveries of Seker's (2016) study, which found that scenario-based training had a significant effect regarding the documented utilization of emotional and sociological techniques such as motivational needs. It supports the assumption of Zahra (2020), who revealed that EFL learners who invested more SR would be better able to fully manage the environments, resources, and time

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they used to learn a second language than learners who invested less SR too. The findings are in agreement with the findings of Teng et al., (2022), who stated that active engagement in writing is positively impacted by emotional control. It also goes in accordance with the findings of research conducted by Wang & Troia (2023), who claimed that motivated learners approach writing constructively and methodically. The findings also verify those of Steeves (2012) and Abrandt Dahlgren et al., (2016), who suggested that utilizing scenarios aid in problem-solving strategies and help learners to use strategies for managing learning difficulties.

Conclusions and implications

This study aimed to apply SBA and DJW methodologies to develop Iranian EFL learners writing SR strategies. The results revealed that executing the SBA model improved Iranian EFL learners' writing SR skills. The results also identified that the SBA methodology developed all component parts of writing SR skills, especially motivational self-talk and knowledge-rehearsal. The SBA has the potential to attract more support and function as a proficient instructional and evaluative framework for teachers, educators, and stakeholders. The aforementioned research's favorable results serve as evidence of the SBA model's choice and implementation. Curriculum planners and syllabus designers for EFL learners have the option to incorporate purposeful writing courses into their programs, which can effectively facilitate this specific style of instruction and learning.

This investigation has encountered numerous limitations and shortcomings. As such, it appears that extra caution must be used when generalizing the findings. Initially, due to the demanding rules of the target language institute, the sessions designated for data gathering were restricted. Additional research may be undertaken to examine the short-term and long-term impacts of diverse instructional methodologies with an appropriate number of sessions. The results will undoubtedly enhance our comprehension of the effects of SBA and DJW approaches over various time intervals. Second, the courses were not selected using true random sampling. The researcher studied the available classes due to limited access to several intermediate-level language learners. Therefore, researchers interested in this topic are encouraged to select learners from a random sampling base. Furthermore, to enhance the study's manageability, participants were exclusively chosen from a single language institute, and data collection was confined to that institution. Conducting a comparable study with diverse language learners and various language institutes may provide different outcomes, which could be advantageous. The strategies were also evaluated

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in courses with just intermediate skill levels; additional study is necessary to assess the effectiveness of SBA and DJW methods across different levels. The validity of the findings may be enhanced by the integration of additional levels. Finally, this study exclusively focuses on only two types of assessment conducted in a classroom setting, specifically SBA based and DJW designs. Furthermore, the assessment consists solely of argumentative forms of writing. This study's findings recommend that further investigation is necessary to obtain a greater awareness of the causal issues of SBA models, particularly in narratives, persuasive, expository, and descriptive writing, to better understand their impact. Additional investigation may be conducted by altering the sequence of tasks and presenting the elements of the SBA model in different formats to determine whether there is any alteration in the outcomes. This will lead to a better understanding of how SBAs influence Iranian EFL learners' writing SR skills.

In conclusion, despite the aforementioned limitations, this study contributes to the expanding corpus of research investigating the effects of various teaching approaches on teaching writing. The findings have the potential to widen the scope of writing instruction research and provide multiple possibilities of investigation for future study.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Islamic Azad University.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis. All authors contributed to the article and approved the submitted version.

Funding

The authors did (not) receive support from any organization for the submitted work.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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[DOI: 10.22034/7.1.21]

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