

Learning-Oriented Assessment in L2 Writing: Effects on Iranian EFL Learners' Overall Writing Performance and the Development of Complexity, Accuracy, and Fluency**Abstract****Article Type:****Original Research****Authors:****Mohammad Khodadadi**¹ORCID: [0009-0001-1896-2318](#)**Masoomeh Salehi**²ORCID: [0000-0002-5198-4172](#)**Nooshin Azin**³ORCID: [0000-0002-0217-6136](#)**Article History:****Received:** 2026.02.25**Accepted:** 2026.06.11**Published:** 2026.06.15

Developing second language (L2) writing proficiency remains a major challenge for many English as a Foreign Language (EFL) learners, highlighting the need for effective instructional and assessment approaches that can enhance writing development. The present study examined the impact of learning-oriented assessment (LOA) on minimizing learners' writing difficulties and improving their L2 writing performance. To this end, 70 homogenized upper-intermediate EFL learners from a language school in Tehran participated in a quasi-experimental study. Using convenience sampling, the participants were assigned to an experimental group ($n = 33$) and a control group ($n = 37$). The data were analyzed using one-way ANCOVA and one-way MANCOVA. The results revealed that LOA had a significant positive effect on learners' writing development, particularly in the components of complexity, accuracy, and fluency (CAF). The findings suggest that incorporating learning-oriented assessment into writing instruction can effectively support L2 writing development and reduce learners' writing difficulties. The study offers important implications for L2 writing pedagogy, language assessment, and the implementation of learning-oriented instructional practices.

Key Words: Accuracy, Complexity, Fluency, Iranian EFL Learners, L2 Writing, Learning Oriented Assessment

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1. Introduction

Second language assessment literacy (LAL) has become an essential component of effective language teaching and learning, as it enables teachers and learners to make informed decisions about assessment practices that support learning (Vogt et al., 2024). In the Iranian EFL context, considerable attention has been devoted to teachers' assessment literacy, assessment beliefs, and assessment knowledge, reflecting the growing recognition of assessment as an integral part of language education (Gholam-Shahbazi et al., 2026; Jalilzadeh et al., 2022; Tajeddin et al., 2022; Watmani et al., 2020).

Among the contemporary approaches to assessment, Learning-Oriented Assessment (LOA) has received increasing attention because of its potential to integrate assessment with instruction and promote learners' language development. Jalilzadeh and Coombe (2023) emphasized the value of LOA in EFL classrooms by highlighting how different forms of alternative assessment can be combined to improve learners' second language abilities. Similarly, Purpura (2024) defined LOA as "the process of gathering and analyzing data on students' performance in a way that promotes language development through the decisions made" (p. 22). Rather than viewing assessment solely as a means of measuring achievement, LOA emphasizes the role of assessment in facilitating learning through continuous feedback and learner engagement.

Accordingly, LOA acknowledges the importance of assessment at both the macro and micro levels in improving learning effectiveness and evaluating learning outcomes (Carless et al., 2006; Davidson & Coombe, 2022). Jalilzadeh and Coombe (2023) further argued that "student learning is promoted by quality assessment techniques" (p. 2), as LOA encourages learners to engage more actively in the learning process. Likewise, Gholam-Shahbazi et al. (2026) employed ipsative assessment, a form of self-assessment, in L2 writing instruction and demonstrated how continual self-evaluation can foster learners' cognitive and metacognitive development.

Within this assessment framework, second language writing has increasingly been regarded as a form of performance assessment. Consequently, researchers have examined writing as both a process and a product of language learning (Atak, 2019). In addition, writing assessment has gradually shifted from holistic and subjective evaluation toward more analytic and objective approaches (Bachman, 2014). This shift reflects the distinction between a testing culture, which primarily emphasizes examination scores and achievement, and an assessment culture, which focuses on learners' actual writing performance using criterion-referenced assessment practices (Bakir et al., 2026; Hyland, 2019; Shepard, 2013).

Consistent with this perspective, previous studies have demonstrated the effectiveness of LOA in enhancing L2 writing. For example, Er and Farhady (2023) reported positive effects of LOA on EFL learners' argumentative writing. Similarly, Xu and Zheng (2024) argued that, in addition to language proficiency, learners need sufficient writing assessment literacy to understand the assessment criteria by which their writing is evaluated.

The theoretical foundation for understanding the effects of LOA on writing development can be explained through Skehan's (1998) Limited Attentional Capacity (LAC) model, which refers to "the constraints on the brain's ability to process information, which necessitates the selection of specific stimuli for access to capacity-limited cognitive processes" (p. 89). Building upon this framework, Skehan (2014) maintained that second language writing is a cognitively demanding activity that develops within learners' limited attentional resources. Traditional assessment often requires learners to prioritize one aspect of performance, such as accuracy or fluency, at the expense of other dimensions. In contrast, LOA functions as both a cognitive and behavioral scaffold that helps learners allocate their attentional resources more effectively during the writing process (Coombe et al., 2020). Consequently, because different components of LOA engage different cognitive processes, they are likely to influence the dimensions of complexity, accuracy, and fluency (CAF) in different ways (Ghaneiarani et al., 2024).

Regarding complexity, LOA encourages learners to move beyond superficial writing by engaging in deeper analysis, synthesis, and interpretation of ideas, thereby promoting more sophisticated written production (Er & Farhady, 2023; Zeng et al., 2018). Since complex writing requires greater cognitive effort, LOA is more likely than traditional assessment to reveal learners' deeper understanding and higher-order thinking skills (Coombe et al., 2020).

Similarly, LOA can improve accuracy by encouraging learners to pay closer attention to their lexical choices, grammatical structures, and supporting evidence during writing (Carless, 2015). Because accurate writing demands greater cognitive control and careful monitoring, LOA provides a more effective framework for identifying and developing learners' precision in language use (Davidson & Coombe, 2022; Gholam-Shahbazi et al., 2026).

With respect to fluency, LOA extends beyond measuring writing speed by emphasizing learners' ability to express ideas coherently and effectively. Fluency therefore reflects not only the quantity of language produced but also the quality of idea generation and organization. Through continuous feedback and learner reflection, LOA can foster this dimension of writing development more effectively than traditional assessment approaches (Derakhshan & Ghiasvand, 2022; Estaji & Safari, 2023).

Despite the growing body of research on writing assessment, several gaps remain. Recent studies involving Iranian EFL learners have primarily examined dynamic assessment and writing performance (Etemadi & Abbasian, 2023; Mohammadzadeh, 2024) or the development of writing assessment literacy among teachers and learners through instructional interventions (Rad & Alipour, 2024). However, little attention has been paid to learners' and teachers' perceptions of the writing difficulties experienced by EFL learners. More importantly, few studies have investigated the extent to which Learning-Oriented Assessment literacy can contribute to minimizing these writing difficulties while simultaneously improving learners' writing performance. Addressing this gap constitutes the primary objective of the present study.

2. Review of the Related Literature

2.1. Learning Oriented Assessment (LOA)

Learning-Oriented Assessment (LOA) is an assessment approach that prioritizes learning by emphasizing how students develop over time rather than merely identifying their strengths and weaknesses (Fazel & Ali, 2022). Similarly, Carless (2015) described LOA as a process-oriented approach that supports instructional planning, monitors learning progress, identifies areas requiring improvement, and facilitates meaningful learning gains. The underlying assumption of LOA is that assessment should primarily promote learning by integrating teaching, learning, and assessment into a unified process (Turner & Purpura, 2016). Consequently, both formative and summative assessments can serve learning purposes when they are designed to enhance students' learning rather than simply measure achievement (Carless, 2015). Although LOA shares certain features with other alternative assessment approaches, such as diagnostic and dynamic assessment, it remains conceptually distinct because of its explicit focus on learning enhancement (Lantolf & Poehner, 2008).

According to Carless et al. (2006) and Carless (2015), LOA is characterized by three interrelated principles: assessment tasks that promote deep learning, active learner involvement in self- and peer-assessment, and the provision of forward-looking feedback. First, assessment activities should be designed to encourage authentic learning experiences rather than simply evaluate students' readiness for examinations. Such tasks emphasize higher-order thinking, meaningful communication, and authentic language use while aligning assessment with intended learning outcomes (Carless et al., 2006; Fazel & Ali, 2022). Second, LOA requires learners to actively evaluate both their own work and that of their peers using clearly defined assessment

criteria. This process enables learners to develop a better understanding of quality performance and to identify their own learning needs (Benraghda et al., 2022; Carless, 2015; Fazel & Ali, 2022; Jalilzadeh & Coombe, 2023). Exposure to assessment criteria and sample performances further strengthens learners' assessment literacy and self-regulatory abilities.

The third defining feature of LOA is the provision of constructive feedback that supports future learning. Rather than focusing solely on past performance, effective feedback should be timely, specific, and future-oriented (Duncan, 2007). This concept, commonly referred to as feedforward, encourages learners to apply received feedback to subsequent learning tasks (Fazel & Ali, 2022). Because assessment activities are designed around learners' needs, LOA enables students to receive individualized feedback that promotes continuous improvement and active engagement in the learning process (Abdeta et al., 2026; Lam, 2021).

Learning-Oriented Assessment has evolved from both formative and summative assessment traditions by integrating the concepts of assessment for learning, assessment as learning, and assessment of learning (Sambell et al., 2012; Zeng et al., 2018). Carless's (2007) framework emphasizes that assessment should encourage productive learning behaviors through authentic assessment tasks, active learner participation, collaborative evaluation, and meaningful feedback. Consequently, assessment should not only evaluate current performance but also support learners' future development (see Figure 1). Reflecting this perspective, numerous studies have successfully implemented LOA in language learning contexts (Derakhshan & Ghiasvand, 2022; Estaji & Safari, 2023; Fazel & Ali, 2022; Ghaneiarani et al., 2024; Golzar et al., 2022; Jalilzadeh & Coombe, 2023; Kim & Hyun Jung, 2017; Salamoura & Unsworth, 2016).

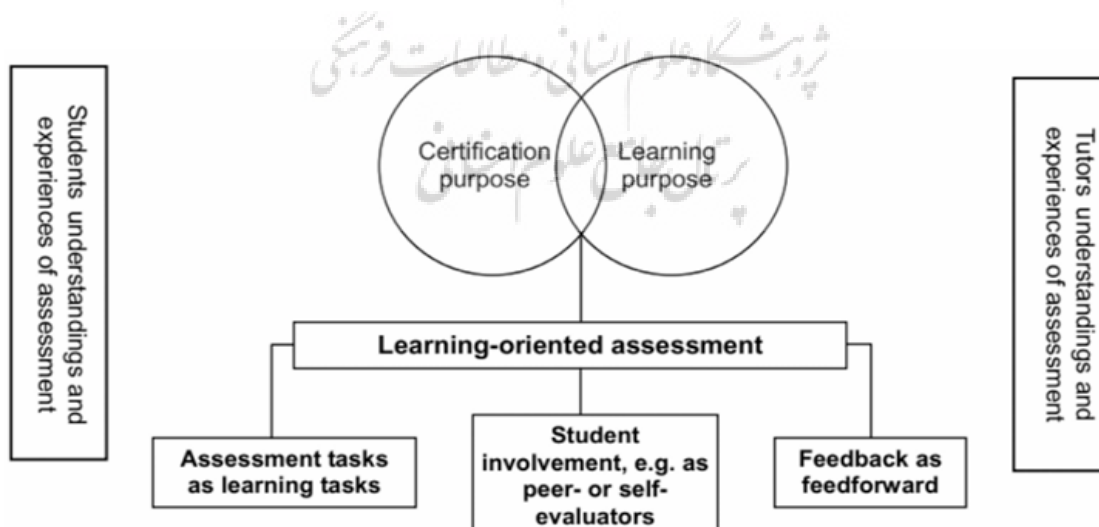


Figure 1. Framework Learning-Oriented Assessment (LOA) (Carless, 2007, p.59)

Beyond language education, LOA has been widely adopted in other educational disciplines. Gomez et al. (2009), for example, examined LOA in engineering education and demonstrated how integrating self-assessment and peer assessment can improve instructional design. Similarly, vocational education research has emphasized the importance of authentic assessment tasks that evaluate students' ability to apply theoretical knowledge in real-world situations (Riswanto et al., 2022). Such assessment practices help learners acquire both professional competencies and lifelong learning skills.

More recently, LOA has attracted increasing attention in English language education because of its potential to enhance learners' competencies while fostering continuous learning and self-improvement (Wakid et al., 2024). However, recent scholars argue that LOA should be viewed not merely as an alternative assessment framework but as a form of cognitive scaffolding that actively supports language learning (Ghaneiarani et al., 2024). Traditional L2 writing instruction often separates formative learning from summative evaluation, creating an assessment gap that may increase learners' cognitive anxiety and encourage reliance on familiar, fossilized language forms (Er & Farhady, 2023). By embedding assessment within the instructional process through continuous micro-feedback cycles, LOA helps bridge this gap and supports learners' writing development (Estaji & Safari, 2023).

Despite the growing body of research demonstrating the overall benefits of LOA for language learning, most previous studies have treated writing development as a single, unified construct. Consequently, relatively little is known about how specific components of LOA such as self-assessment, peer assessment, rubric awareness, and feedforward practices independently contribute to the development of the three fundamental dimensions of second language writing performance, namely complexity, accuracy, and fluency (CAF). This represents an important gap in the literature.

To address this gap, the present study operationalized LOA through a researcher-developed instructional syllabus incorporating peer assessment, self-assessment, rubric awareness, and dynamic assessment. These assessment practices were integrated to investigate their effectiveness in enhancing EFL learners' writing performance while minimizing their second language writing difficulties.

2.2. Writing Complexity, Accuracy, and Fluency (CAF)

Second language performance has long been recognized as a multidimensional construct comprising the interrelated dimensions of complexity, accuracy, and fluency (CAF) (Ellis, 2008;

Ellis & Barkhuizen, 2005; Skehan, 1998). These dimensions have been widely used to evaluate both oral and written language performance, monitor learners' proficiency, and measure language development over time. Ellis and Barkhuizen (2005) proposed that CAF provides a comprehensive framework for assessing learners' writing ability by capturing different aspects of language production.

Complexity refers to learners' willingness and ability to employ a wide range of linguistic structures and reflects their readiness to experiment with language (Ellis & Barkhuizen, 2005). Accuracy concerns the extent to which language production conforms to the grammatical conventions of the target language (Pallotti, 2009; Skehan, 1998). Fluency, in contrast, refers to learners' ability to produce language smoothly and efficiently in real time while maintaining a regular rate of production with minimal hesitation (Skehan, 2009; Skehan & Foster, 1999).

A growing body of research has demonstrated the effectiveness of Learning-Oriented Assessment (LOA) in improving L2 writing performance. Previous studies have shown that LOA promotes learners' writing abilities through meaningful assessment tasks and learner-centered instructional practices (Almalki, 2019; Er & Farhady, 2023). Similarly, studies conducted in Iranian EFL contexts have reported positive relationships between LOA and learners' writing performance (Estaji & Safari, 2023; Ghaneiarani et al., 2024). Furthermore, Gholam-Shahbazi et al. (2026) found that ipsative assessment significantly improved learners' complexity, accuracy, and fluency, while Ghoorchaei et al. (2010) demonstrated the overall effectiveness of incorporating LOA into writing instruction.

2.3. Differential Impact of LOA on CAF

The differential effects of LOA on writing performance can be explained through Skehan's (1998, 2014) Limited Attentional Capacity (LAC) model, which proposes that learners possess limited cognitive resources that must be allocated among competing aspects of language production. During writing, learners continuously balance planning ideas, monitoring grammatical accuracy, and generating fluent text, making trade-offs among the three CAF dimensions inevitable (Skehan, 2018; Wicking, 2022; Zeng et al., 2018). Whereas traditional single-draft writing tasks often require learners to prioritize one dimension at the expense of others, LOA seeks to redistribute learners' attentional resources by integrating assessment into successive stages of the writing process.

2.3.1. Complexity

Producing syntactically and lexically complex writing requires learners to extend their interlanguage and experiment with more sophisticated language structures (Skehan, 2018). Within an LOA framework, activities such as peer assessment, rubric analysis, and exemplar evaluation encourage learners to develop what Carless (2015) termed *evaluative expertise*. By analyzing peer writing and assessment criteria, learners become more aware of advanced linguistic features and are better able to incorporate them into their own writing (Hyland, 2019). Moreover, because LOA is typically implemented through low-stakes drafting and revision activities, learners are provided with opportunities to experiment with increasingly complex language without the pressure associated with high-stakes assessment (Davidson & Coombe, 2022; Skehan, 2014; Skehan & Foster, 1999).

2.3.2. Accuracy

Unlike complexity, writing accuracy depends primarily on learners' ability to monitor and regulate their language production (Ellis & Barkhuizen, 2005). LOA supports this process through diagnostic assessment, formative writing tasks, and continuous feedback (Er & Farhady, 2023; Farhady, 2021). Consistent with Schmidt's (1990) Noticing Hypothesis, diagnostic assessment enables learners to identify specific linguistic weaknesses before extended writing begins. Immediate and contextualized feedback further strengthens this process by reducing the interval between error production and correction, thereby minimizing the likelihood of grammatical fossilization (Skehan, 2018; Zeng et al., 2018). In addition, the use of self- and peer assessment allows teachers to focus their feedback on recurring patterns of error rather than isolated mistakes.

2.3.3. Fluency

Writing fluency reflects the degree to which language production becomes automated and ideas can be generated smoothly and efficiently (Skehan, 2014). Because LOA encourages learners to engage in continuous self-monitoring through activities such as self-assessment and checklist verification, its immediate influence on fluency may differ from its effects on complexity and accuracy (Farhady, 2021; Hamzelou et al., 2022). Increased reflection during the drafting stage may initially slow writing production. However, repeated opportunities for feedback and feedforward gradually help learners internalize correct language forms and self-correction strategies, reducing the cognitive effort required during subsequent writing tasks (Ghaneiarani et al., 2024; Hyland, 2019; Skehan, 2018). As these processes become increasingly automatic,

learners are expected to demonstrate improved writing fluency over time (Er & Farhady, 2023).

Although previous studies have consistently shown that LOA enhances overall writing quality, relatively little research has examined how its individual components including self-assessment, peer assessment, rubric awareness, and feedforward differentially influence the three dimensions of writing performance. Consequently, limited evidence is available regarding the mechanisms through which LOA redistributes learners' attentional resources and contributes to the development of complexity, accuracy, and fluency. To address this gap, the present study investigated the effects of implementing Learning-Oriented Assessment in Iranian EFL writing classrooms on learners' writing performance across the CAF dimensions. Accordingly, the following research questions were formulated:

1. Does learning-oriented assessment have a significant effect on EFL learners' overall writing ability?
2. Does learning-oriented assessment have a significant effect on the complexity of EFL learners' writing?
3. Does learning-oriented assessment have a significant effect on the accuracy of EFL learners' writing?
4. Does learning-oriented assessment have a significant effect on the fluency of EFL learners' writing?

3. Method

3.1. Research Design

This study adopted a quantitative, quasi-experimental pre-test post-test control group design to investigate the effects of learning-oriented assessment on EFL learners' writing performance. Participants were selected using convenience sampling. The independent variable was learning-oriented assessment, whereas the dependent variables were overall writing ability and the three dimensions of writing performance, namely complexity, accuracy, and fluency (CAF). To minimize the influence of extraneous factors, participants' gender and age were controlled. The sample included both male and female EFL learners aged 18 years and above.

3.2. Participants

A total of 70 upper-intermediate Iranian EFL learners, including 36 males and 34 females, participated in this study. The participants were selected through convenience sampling from a

language institute in Tehran. Their English language proficiency was established using a version of the Oxford Placement Test (OPT), which ensured a homogeneous sample. The participants were then randomly assigned to either the Learning-Oriented Assessment (LOA) group ($n = 33$) or the control group ($n = 37$).

3.3. Instruments

The participants' English language proficiency was assessed using the Oxford Placement Test (OPT). The OPT is a widely used standardized placement test with well-established psychometric properties. Previous research has reported high reliability (Cronbach's $\alpha = .91$) (Berthold, 2011) and strong construct validity (Motalebzadeh & Nematizadeh, 2011; Wistner et al., 2009). In the present study, the OPT demonstrated high internal consistency, yielding a KR-21 reliability coefficient of .95, which is considered acceptable according to Fulcher and Davidson (2007).

To assess participants' writing performance, two argumentative writing tasks were administered as the pretest and posttest. All writing samples were independently scored by two raters, and the average of their scores was used for subsequent analyses. Inter-rater reliability was high for both the overall writing scores and the CAF dimensions. For the overall writing scores, the inter-rater correlations were $r = .863$ ($p < .05$) for the pretest and $r = .882$ ($p < .05$) for the posttest. Similarly, strong agreement was obtained for the pretest measures of fluency ($r = .738$, $p < .05$), complexity ($r = .805$, $p < .05$), and accuracy ($r = .794$, $p < .05$). Comparable levels of agreement were also observed for the posttest measures of fluency ($r(68) = .886$, $p < .05$), complexity ($r(68) = .943$, $p < .05$), and accuracy ($r(68) = .853$, $p < .05$), indicating a high degree of consistency between the two raters.

The participants' writing performance in both the pretest and posttest was assessed using the CAF (complexity, accuracy, and fluency) writing band descriptors, which evaluate syntactic complexity, grammatical accuracy, and writing fluency. To calculate these dimensions, the raters analyzed participants' T-units, sentences, and grammatical errors in each writing sample.

Both raters employed the analytic scoring rubric developed by Plakans et al. (2016) to assess the participants' writing. Unlike holistic scoring, which relies primarily on an overall impression of writing quality, the analytic rubric was more appropriate because the CAF framework requires separate evaluation of individual writing dimensions based on objective linguistic measures, particularly T-units. In addition to assessing the CAF dimensions, Plakans et al.'s (2016) rubric was used to evaluate participants' overall writing ability. Supporting the use of

this rubric, Pan (2018) identified it as one of the most appropriate instruments for investigating the development of syntactic complexity in second language writing, noting that it *"produces consistent and linear progression along with proficiency levels across different studies, regardless of how proficiency levels are defined"* (p. 12). Pan (2018) further supported the validity of the rubric by recommending measures based on T-units, error-free T-units, clauses, and error-free clauses and providing empirical evidence for their effectiveness.

Following Plakans et al. (2016) and Skehan and Foster (1999), complexity was measured by the ratio of sentences to T-units, a measure shown to possess satisfactory reliability and validity and to correlate well with other indicators of syntactic complexity. Accuracy was measured by the proportion of error-free T-units, which has also been recommended by Plakans et al. (2016) based on the work of Skehan and Foster (1999). Fluency was assessed by analyzing production units, including the number of words, verbs, T-units, clauses, and sentences, as well as the number of words produced within both total and error-free production units (Alghizzi, 2017; Plakans et al., 2016). Finally, the participants' overall writing performance was calculated by combining the scores obtained for the three CAF dimensions.

3.4. Procedure

The study was conducted in four sequential stages.

Step 1: Participant Selection

Initially, 80 upper-intermediate Iranian EFL learners enrolled in a language school were screened using a version of the Oxford Placement Test (OPT). Based on their OPT scores and through convenience sampling, a homogeneous sample of 70 learners (36 males and 34 females) was selected. The study adopted a quasi-experimental pretest–posttest control group design. The selected participants were then randomly assigned to either the experimental (LOA) group ($n = 33$) or the control group ($n = 37$).

Step 2: Administration of the Writing Pretest

Before the intervention, all participants completed an argumentative writing task as the pretest to establish their baseline writing performance. The same testing conditions, time allocation, and scoring procedures were applied to both groups. The writing scripts were independently scored by two trained raters using the analytic rubric developed by Plakans et al. (2016). Inter-rater reliability was calculated before the data analysis, and the average of the two raters' scores was used as the participants' final writing score.

Step 3: Intervention

The intervention was conducted over 12 instructional sessions, each lasting 90 minutes, with two sessions held each week. Both the experimental and control groups received the same amount of instructional time and covered the same writing topics. To control for the teacher variable, both groups were taught by one of the researchers, ensuring consistency in instructional style, classroom management, and content delivery. Furthermore, to minimize experimenter bias and treatment diffusion, the assessment and scoring procedures were carried out independently by the other two researchers, who were not involved in the classroom instruction.

Both groups received conventional instruction in argumentative writing, including teacher explanations, model texts, and guided writing practice. The difference between the two groups lay in the assessment procedures.

The experimental group received instruction based on the principles of Learning-Oriented Assessment (LOA) (Carless, 2015). The LOA intervention incorporated a range of complementary assessment practices, including peer assessment, self-assessment, rubric awareness, diagnostic writing quizzes, in-class formative feedback, and feedforward activities. These practices were designed to promote learners' linguistic development, assessment literacy, metacognitive awareness, and active engagement throughout the writing process rather than merely evaluating the final written product (Er & Farhady, 2023). Students were encouraged to evaluate their own writing and that of their peers using analytic rubrics, revise their drafts based on teacher and peer feedback, and apply feedforward strategies to subsequent writing tasks. Diagnostic quizzes and scaffolded classroom activities were also used to identify learners' writing difficulties and provide timely instructional support.

In contrast, the control group received traditional writing instruction. Students completed writing assignments individually, and the instructor evaluated their compositions using written corrective feedback (WCF). The assessment primarily focused on identifying and correcting linguistic errors, with limited opportunities for self-assessment, peer assessment, or iterative revision.

Step 4: Administration of the Writing Posttest

At the end of the intervention, all participants completed a second argumentative writing task as the posttest. The posttest was administered under the same conditions as the pretest. The writing samples were independently scored by the same two raters using Plakans et al.'s (2016) analytic rubric. The raters evaluated participants' overall writing ability as well as the three

CAF dimensions: complexity, accuracy, and fluency. When the discrepancy between the two raters' scores exceeded one point, a third independent rater evaluated the writing sample, and the final score was determined accordingly.

Before data collection, all participants were informed about the purpose of the study and participated voluntarily. Confidentiality and anonymity were maintained throughout the study, and participants were assured that their responses would be used solely for research purposes.

4. Findings

The collected data were analyzed using one-way ANCOVA and one-way MANCOVA. Prior to the main analyses, the assumptions underlying these procedures were examined. The distributions of the variables were assessed using skewness and kurtosis indices, indicating that the data were approximately normally distributed. Descriptive statistics further showed that the experimental and control groups were comparable before the intervention.

The first research question examined whether Learning-Oriented Assessment (LOA) had a significant effect on EFL learners' overall writing ability. To address this question, a one-way analysis of covariance (ANCOVA) was performed, with the posttest writing score as the dependent variable, instructional group (LOA vs. control) as the independent variable, and the pretest writing score as the covariate. Prior to conducting the analysis, the assumptions of ANCOVA were examined and found to be satisfactory. Specifically, the assumptions of linearity, homogeneity of regression slopes, homogeneity of variances, and the absence of multicollinearity were met.

The adjusted descriptive statistics for the posttest writing scores are presented in Table 1. After controlling for pretest performance, the experimental group obtained a higher adjusted mean score ($M = 65.85$) than the control group ($M = 54.55$), suggesting superior overall writing performance following the LOA intervention. As the means reported in Table 1 are estimated marginal means adjusted for the covariate, standard errors (SEs) rather than standard deviations (SDs) are presented.

Table 1.

Descriptive Statistics for Posttest of Writing by Group with Pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Experimental	65.859a	.359	65.142	66.576

Control	54.558a	.339	53.881	55.235
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a. Covariates appearing in the model are evaluated at the following values: Pre-Writing = 48.77.

The results of the one-way ANCOVA are presented in Table 2. After controlling for the effect of the pretest, a statistically significant difference was found between the experimental and control groups on the posttest writing scores, $F_{(1, 67)} = 523.18$, $p < .01$, partial $\eta^2 = .886$. The large partial eta squared value indicates that the instructional intervention accounted for a substantial proportion of the variance in learners' posttest writing performance. Accordingly, the first null hypothesis, stating that *Learning-Oriented Assessment does not significantly affect EFL learners' overall writing ability*, was rejected.

Table 2 also shows that the pretest was a statistically significant covariate, $F(1, 67) = 170.70$, $p < .01$, partial $\eta^2 = .718$. This finding indicates that participants' pretest writing scores were significantly associated with their posttest performance, accounting for approximately 71.8% of the variance in the outcome variable after controlling for the treatment effect.

Table 2.

Tests of Between-Subjects Effects for Posttest of Writing by Group with Pretest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Squared	Eta
Pretest	726.627	1	726.627	170.701	.000	.718	
Group	2227.073	1	2227.073	523.188	.000	.886	
Error	285.201	67	4.257				
Total	254250.000	70					

The second through fourth research questions examined whether Learning-Oriented Assessment (LOA) had a significant effect on the three dimensions of writing performance: complexity, accuracy, and fluency (CAF). To address these questions, a one-way multivariate analysis of covariance (MANCOVA) was conducted to compare the experimental and control groups on the posttest scores for the three writing components while controlling for their corresponding pretest scores.

Because the pretest scores were entered as covariates in the MANCOVA model, separate comparisons of the groups on the pretest measures were unnecessary. As noted by Field (2024), analysis of covariance procedures, including MANCOVA, control for baseline differences within a single statistical model, thereby reducing the risk of inflated Type I error associated with conducting multiple separate analyses.

Prior to the main analysis, the assumptions underlying MANCOVA were examined. In

addition to the assumptions of normality and reliability, which were addressed earlier, the research design ensured that the pretests for writing complexity, accuracy, and fluency were administered before the corresponding posttests. Furthermore, each posttest measure was paired with its respective pretest covariate, and the relationships among the covariates were examined to ensure that multicollinearity was not a concern. The remaining assumptions requiring statistical testing are reported below.

First, the assumption of linearity between the covariates (pretest scores) and the corresponding dependent variables (posttest scores) was examined. As shown in Table 3, the results indicated statistically significant linear relationships for all three writing components. Specifically, significant linear relationships were found for writing complexity, $F_{(1, 69)} = 20.28, p < .05, \eta^2 = .277$; writing accuracy, $F(1, 69) = 13.85, p < .05, \eta^2 = .189$; and writing fluency, $F(1, 69) = 23.24, p < .05, \eta^2 = .203$. These findings indicate that the assumption of linearity was satisfied for all dependent variables.

Table 3.

Assumption of Linearity of Relationship between Pre & Posttests of Writing CAF by Group

			Sum of Squares	df	Mean Square	F	Sig.
Post-Complexity Pre-Complexity	Between Groups	(Combined)	149.073	6	24.845	4.031	.002
		Linearity	125.009	1	125.009	20.282	.000
		Deviation from Linearity	24.064	5	4.813	.781	.567
	Within Groups		388.299	63	6.163		
	Total		537.371	69	Eta-Squared		.277
Post-Accuracy Pre-Accuracy	Between Groups	(Combined)	54.624	4	13.656	3.783	.008
		Linearity	50.032	1	50.032	13.859	.000
		Deviation from Linearity	4.593	3	1.531	.424	.736
	Within Groups		234.647	65	3.610		
	Total		289.271	69	Eta-Squared		.189
Post-Fluency Pre-Fluency	Between Groups	(Combined)	118.255	5	23.651	5.431	.000
		Linearity	106.036	1	106.036	24.347	.000
		Deviation from Linearity	12.220	4	3.055	.701	.594
	Within Groups		278.730	64	4.355		
	Total		396.986	69	Eta-Squared		.203

Second, the assumption of homogeneity of regression slopes was examined by testing the interaction between the independent variable (group) and the covariates (pretest scores). This assumption requires that the relationship between each pretest and its corresponding posttest be

consistent across the experimental and control groups. As shown in Table 4, the interaction between group and the covariates was not statistically significant, $F_{(6, 118)} = 0.497$, $p > .05$, partial $\eta^2 = .025$. This finding indicates that the relationship between the pretest and posttest scores did not differ significantly across the two groups, confirming that the assumption of homogeneity of regression slopes was satisfied.

Table 4.

Testing Assumption of Homogeneity of Regression Slopes for Sub-Skills of Writing

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.023	.449	3	58	.719	.023
	Wilks' Lambda	.977	.449	3	58	.719	.023
	Hotelling's Trace	.023	.449	3	58	.719	.023
	Roy's Largest Root	.023	.449	3	58	.719	.023
Group * Pre-Fluency * Pre-Complexity * Pre-Accuracy	Pillai's Trace	.049	.497	6	118	.810	.025
	Wilks' Lambda	.951	.494	6	116	.812	.025
	Hotelling's Trace	.052	.491	6	114	.814	.025
	Roy's Largest Root	.051	.993	3	59	.402	.048

Third, the assumption of homogeneity of error variances was examined using Levene's Test of Equality of Error Variances. As presented in Table 5, Levene's test was statistically significant for the posttests of writing complexity, $F_{(1, 68)} = 5.55$, $p < .05$; writing accuracy, $F_{(1, 68)} = 6.66$, $p < .05$; and writing fluency, $F_{(1, 68)} = 12.52$, $p < .05$, indicating that the assumption of equal error variances was not fully satisfied. Following the recommendation of Tabachnick and Fidell (2019), the subsequent MANCOVA results (Tables 5 and 6) were interpreted using the more conservative significance level of $\alpha = .01$ to reduce the likelihood of Type I error.

Table 5.

Levene's Test of Homogeneity of Variances for Sub-Skills of Writing

	F	df1	df2	Sig.
Post-Fluency	12.522	1	68	.001
Post-Complexity	5.550	1	68	.021
Post-Accuracy	6.660	1	68	.012

Finally, the assumption of homogeneity of variance–covariance matrices was examined using Box's M test. As presented in Table X, the test was not statistically significant, Box's M = 10.57, $p > .001$, indicating no significant differences between the variance–covariance matrices

of the experimental and control groups. Following the recommendations of Pallant (2016), Tabachnick and Fidell (2019), and Field (2024), Box's M was evaluated using the more stringent significance level of $\alpha = .001$. Accordingly, the assumption of homogeneity of variance–covariance matrices was considered satisfied, and the MANCOVA analysis was deemed appropriate.

Table 6.

Box's Test of Equality of Covariance Matrices

Box's M	10.574
F	1.677
df1	6
df2	32297.558
Sig.	.122

After confirming that the assumptions of MANCOVA were satisfied, a one-way MANCOVA was conducted to compare the experimental and control groups on the posttest measures of writing complexity, accuracy, and fluency, while controlling for the corresponding pretest scores. The pretest scores for each writing component were included as covariates to adjust for any pre-existing differences between the two groups.

The adjusted descriptive statistics for the posttest scores are presented in Table 7. After controlling for pretest performance, the experimental group obtained higher adjusted mean scores in writing complexity ($M = 22.75$), writing accuracy ($M = 21.54$), and writing fluency ($M = 21.54$) than the control group ($M = 18.40$, $M = 18.32$, and $M = 17.84$, respectively).

Table 7.

Descriptive Statistics for Posttests of CAF by Group with Pretests

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Post-Complexity	Experimental	22.756a	.204	22.348	23.164
	Control	18.407a	.192	18.023	18.791
Post-Accuracy	Experimental	21.546a	.159	21.229	21.864
	Control	18.324a	.150	18.024	18.623
Post-Fluency	Experimental	21.542a	.154	21.234	21.849
	Control	17.841a	.145	17.551	18.131

a. Covariates appearing in the model are evaluated at the following values: Pre-Complexity = 16.36, Pre-Accuracy = 16.26, Pre-Fluency = 16.16.

The multivariate test, displayed in Table 8, revealed a statistically significant difference between the experimental and control groups on the combined mean scores on all three posttests after controlling for the pretests, $F(1, 63) = 156.83$, $p < .01$; partial $\eta^2 = .882$. This represents a

large effect size, indicating that 88.2% of the variance in the combined dependent variables is explained by the group membership.

Table 8.

Multivariate Tests for Comparing Groups on Overall Posttests with Pretests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.255	7.188	3	63	.000	.255
	Wilks' Lambda	.745	7.188	3	63	.000	.255
	Hotelling's Trace	.342	7.188	3	63	.000	.255
	Roy's Largest Root	.342	7.188	3	63	.000	.255
Group	Pillai's Trace	.882	156.837	3	63	.000	.882
	Wilks' Lambda	.118	156.837	3	63	.000	.882
	Hotelling's Trace	7.468	156.837	3	63	.000	.882
	Roy's Largest Root	7.468	156.837	3	63	.000	.882

Following the statistically significant multivariate effect (see Table 8), the Tests of Between-Subjects Effects were examined to determine the contribution of each dependent variable. As presented in Table 9, statistically significant differences were found between the experimental and control groups on all three writing components after controlling for the corresponding pretest scores.

For writing complexity, the ANCOVA revealed a statistically significant group effect, $F_{(1, 65)} = 233.57$, $p < .01$, partial $\eta^2 = .782$. After adjusting for pretest performance, the experimental group obtained a higher adjusted mean score ($M = 22.75$) than the control group ($M = 18.40$). Accordingly, the second null hypothesis, stating that *Learning-Oriented Assessment does not significantly affect EFL learners' writing complexity*, was rejected.

Similarly, a statistically significant group effect was found for writing accuracy, $F_{(1, 65)} = 211.63$, $p < .01$, partial $\eta^2 = .765$. The adjusted mean score of the experimental group ($M = 21.54$) exceeded that of the control group ($M = 18.32$). Therefore, the third null hypothesis, stating that *Learning-Oriented Assessment does not significantly affect EFL learners' writing accuracy*, was rejected.

A statistically significant difference was also observed for writing fluency, $F_{(1, 65)} = 297.23$, $p < .01$, partial $\eta^2 = .821$. After controlling for pretest scores, the experimental group achieved a higher adjusted mean score ($M = 21.54$) than the control group ($M = 17.84$). Accordingly, the fourth null hypothesis, stating that *Learning-Oriented Assessment does not significantly affect EFL learners' writing fluency*, was rejected.

Table 9.*Tests of Between-Subjects Effects for Posttests by Group with Pretests*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Group	Post-Fluency	225.468	1	225.468	297.231	.000	.821
	Post-Complexity	311.440	1	311.440	233.574	.000	.782
	Post-Accuracy	170.999	1	170.999	211.630	.000	.765
Error	Post-Fluency	49.307	65	.759			
	Post-Complexity	86.669	65	1.333			
	Post-Accuracy	52.521	65	.808			
Total	Post-Fluency	27249.000	70				
	Post-Complexity	29832.000	70				
	Post-Accuracy	27851.000	70				

5. Discussion

The present study examined the effect of Learning-Oriented Assessment (LOA) on Iranian EFL learners' overall writing ability and the three dimensions of writing performance, namely complexity, accuracy, and fluency (CAF). The findings demonstrated that LOA significantly improved learners' overall writing performance and each of the three writing components. These results provide empirical support for the effectiveness of LOA as a learner-centered assessment approach that integrates assessment with instruction to promote language development.

The significant improvement in learners' overall writing ability suggests that embedding assessment within the learning process creates greater opportunities for reflection, self-regulation, and meaningful engagement with writing tasks. This finding is consistent with Purpura's (2024) and Carless's (2007, 2015) conceptualization of LOA, which emphasizes assessment as an integral component of learning rather than merely a tool for measuring achievement. Likewise, the results support previous research highlighting the positive role of LOA in fostering learner autonomy, self-assessment, and reflective learning (Carless et al., 2006). The findings are also consistent with Gholam-Shahbazi et al.'s (2026) work on ipsative assessment, which demonstrated that continuous self-evaluation promotes learners' cognitive and metacognitive development during writing.

An important finding of the present study is the exceptionally large effect size observed for learners' overall writing performance. Although such large effects are uncommon in classroom-based research, they may be attributed to the high fidelity with which the intervention was implemented. Factors such as controlling the teacher variable, following carefully structured

lesson plans, and minimizing treatment diffusion may have contributed to the magnitude of the observed effect (Amiri, 2020; Field, 2024). Furthermore, the experimental group received a comprehensive package of LOA practices—including peer assessment, self-assessment, feedback, and feedforward—whereas the control group experienced conventional teacher-centered instruction. This clear contrast between the two instructional conditions may also explain the substantial differences observed between the groups.

Beyond overall writing ability, the findings showed that LOA significantly improved learners' writing complexity, accuracy, and fluency. These results suggest that integrating assessment into instruction promotes multiple dimensions of writing development rather than focusing solely on the final written product. The findings support previous studies reporting the positive effects of LOA on writing development (Er & Farhady, 2023; Ghaneiarani et al., 2024; Gholam-Shahbazi et al., 2026) and are consistent with Abdeta et al. (2026), who found that collaborative assessment practices enhanced learners' writing performance. Given that academic writing relies heavily on syntactic complexity, grammatical accuracy, and coherent expression (Hyland, 2019), the present findings further reinforce the role of LOA in supporting comprehensive writing development (Purpura, 2024; Salamoura & Unsworth, 2016).

The observed improvements in writing complexity, accuracy, and fluency can also be interpreted through Skehan's (1998, 2014, 2018) Limited Attentional Capacity model. According to this perspective, learners possess limited cognitive resources that must be allocated among planning ideas, monitoring language forms, and producing written text. LOA appears to facilitate a more effective distribution of these cognitive resources by embedding reflection, feedback, and revision within the writing process. Activities such as self-assessment, peer assessment, and exemplar analysis encourage learners to monitor their writing more strategically, while multiple drafting opportunities provide sufficient time to revise and refine their work. Rather than treating writing as a one-shot performance, LOA transforms writing into a recursive process in which planning, evaluation, and revision mutually reinforce one another.

The significant gains in writing accuracy are likewise consistent with the central role of feedback within the LOA framework. Effective feedback provides learners with timely information about their performance and guides subsequent revisions (Lam, 2021). Similarly, Kim and Hyun Jung (2017) argued that instructor feedback within LOA supports integrated reading-to-write tasks and facilitates academic writing development. The present findings also corroborate those of Ghaneiarani et al. (2024), who reported that both teacher and peer corrective feedback contributed significantly to Iranian EFL learners' writing development. Collectively, these findings

suggest that continuous formative assessment enables learners to recognize their linguistic weaknesses, revise their texts, and gradually improve their writing performance.

The effectiveness of LOA may also be explained by the complementary roles of its constituent practices. Peer assessment and self-assessment promote evaluative expertise by enabling learners to internalize assessment criteria and recognize characteristics of effective writing (Carless, 2015). Diagnostic quizzes and ongoing classroom feedback help learners identify language problems before they become entrenched, while feedforward directs learners' attention toward future writing tasks rather than merely correcting previous errors (Er & Farhady, 2023; Farhady, 2021). Together, these interconnected practices establish a continuous cycle of assessment, reflection, revision, and improvement, which likely contributed to the significant gains observed across all dimensions of writing performance.

The present findings are also consistent with broader research demonstrating that LOA promotes authentic, purposeful, and learner-centered writing instruction (Farhady, 2021; Hartle, 2020; Jalilzadeh & Coombe, 2023; Wakid et al., 2024; Wicking, 2022). Similarly, Hamzelou et al. (2022) reported that task-based assessment activities increase learner engagement in writing, while Estaji and Safari (2023) showed that LOA fosters positive learner perceptions and reflective writing practices. Taken together, these studies and the present findings provide growing empirical support for incorporating LOA into second language writing instruction.

Despite its demonstrated effectiveness, the successful implementation of LOA depends largely on teachers' assessment literacy and institutional support. Previous studies have shown that many EFL teachers are either insufficiently familiar with LOA principles or encounter practical constraints when attempting to implement them in classroom settings (Beikmohammadi et al., 2020; Derakhshan & Ghiasvand, 2022; Fazel & Ali, 2022; Jalilzadeh & Coombe, 2023; Khalili et al., 2024). Accordingly, teacher education programs and professional development initiatives should place greater emphasis on developing teachers' assessment literacy and their ability to integrate formative assessment practices into writing instruction. Increasing both teachers' and learners' familiarity with LOA may facilitate more effective implementation and ultimately lead to improved writing outcomes in EFL classrooms.

6. Conclusion

The present study investigated the effect of Learning-Oriented Assessment (LOA) on Iranian EFL learners' overall writing ability and the three components of writing performance,

namely complexity, accuracy, and fluency. The findings demonstrated that learners who received LOA-based instruction significantly outperformed those who received conventional writing instruction on overall writing performance as well as each of the CAF dimensions. These findings provide empirical support for the effectiveness of integrating assessment with instruction to promote second language writing development.

The findings also reinforce the theoretical foundations of LOA, which conceptualize assessment as an integral component of the learning process rather than merely a means of evaluating learning outcomes (Carless, 2007, 2015; Purpura, 2024). The significant improvements observed in learners' writing suggest that learner-centered assessment practices including self-assessment, peer assessment, formative feedback, and feedforward can facilitate meaningful engagement with writing tasks and encourage continuous reflection and revision. Consequently, the study extends the growing body of evidence supporting LOA as an effective approach to developing L2 writing.

The findings have several pedagogical implications. For language teachers, incorporating LOA practices into writing instruction may provide learners with continuous opportunities to monitor their progress, receive constructive feedback, and revise their work before final evaluation. Rather than relying primarily on teacher-directed summative assessment, teachers are encouraged to integrate self-assessment, peer assessment, diagnostic writing activities, and feedforward into regular classroom practice. For teacher educators and curriculum developers, the findings highlight the importance of strengthening teachers' assessment literacy and providing professional development opportunities that promote the effective implementation of learning-oriented assessment. Such initiatives may contribute to more learner-centered writing instruction and improved writing outcomes.

Despite these promising findings, the results should be interpreted in light of the study's limitations. The study employed a quasi-experimental design with a convenience sample of upper-intermediate Iranian EFL learners. Although this design provides reasonable evidence regarding the effectiveness of the intervention within the study context, the findings cannot be generalized to all EFL learners or educational settings. Future research may replicate the study using larger and more diverse samples, different proficiency levels, and longitudinal designs to examine the long-term effects of LOA on writing development. Further research may also investigate the relative contribution of individual LOA components, such as peer assessment, self-assessment, and feedforward, to different dimensions of second language writing performance.

Overall, the findings suggest that Learning-Oriented Assessment offers a promising

instructional framework for enhancing second language writing by integrating assessment and learning into a continuous developmental process. When implemented systematically, LOA has the potential to improve learners' writing performance while fostering greater learner engagement, reflection, and autonomy in EFL writing classrooms.

References

- Abdeta, M. T., Olamo, T.G., & Woldeyes, K.M. (2026). Effects of collaborative writing on EFL learners' writing accuracy, fluency, and complexity: Secondary school in focus. *SAGE Open, January-March 2026*, 1-14. <https://doi.org/10.1177/21582440251413940>
- Alghizzi, T. M. (2017). *Complexity, accuracy, and fluency (CAF) development in L2 writing: The effects of proficiency level, learning environment, text type, and time among Saudi EFL learners* [Unpublished doctoral dissertation]. University College Cork. <https://hdl.handle.net/10468/4815>
- Almalki, M. S. (2019). Learning-oriented assessment, critical thinking and English language speaking skills: Exploratory study of Saudi EFL learners. *International Journal of English Language Education*, 7(1), 37-50. <https://doi.org/10.5296/ijelev7i1.14528>
- Amiri, M. (2020). *Research methods in applied linguistics*. Arsa Publications.
- Atak, N. (2019). *Written complexity developmental stages of Turkish EFL learners in argumentative writing* [Unpublished doctoral dissertation]. Bilkent University. <https://repository.bilkent.edu.tr>
- Bachman, L. F. (2014). Ongoing challenges in language assessment. In A. J. Kunnan (Ed.), *The companion to language assessment* (Vol. 3), (pp. 1586-1603). John Wiley and Sons. <https://doi.org/10.1002/9781118411360.WBCLA128>
- Bakir, M., Anasse, K., Boudribila, W., Mazzourh, A., & El Hammouchi, A. (2026). Investigating Moroccan EFL students' writing issues: A case study of first-semester students at Cadi Ayyad University. *International Journal of English Language Studies (IJELS)*, 2(3), 1-10. <https://doi.org/10.32996/ijels.2026.8.1.1>
- Beikmohammadi, M., Alavi, S. M., & Kaivanpanah, S. (2020). Learning-oriented assessment of reading: A mixed methods study of Iranian EFL university instructors' perceptions and practices. *Journal of Foreign Language Research*, 10(2), 316-329. <https://doi.org/10.22059/jfr.2019.264150.541>
- Benraghda, A., Mohd Radzuan, N. R., & Lardhi, F. A. S. (2022). Self-assessment as a self-regulated learning approach in English oral presentations: College students' choices and perceptions. *Cogent Education*, 9(1), 1-14. <https://doi.org/10.1080/2331186X.2022.2123472>
- Berthold, M. (2011). Reliability of Quick Placement Tests: How much faith can we place on quick paper or internet-based placement tests. *Australian Journal of Teacher Education*, 35(6), 674-698.

- Carless, D. (2007). Learning-oriented assessment: Conceptual bases and practical implications. *Innovations in Education and Teaching International*, 44(1), 57-66. <https://doi.org/10.1080/14703290601081332>
- Carless, D. (2015). Exploring learning-oriented assessment processes. *Higher Education*, 69(6), 963-976. <https://doi.org/10.1007/s10734-014-9816-z>
- Carless, D., Joughin, G., & Liu, N. F. (2006). *How assessment supports learning: Learning-oriented assessment in action* (Vol. 1). Hong Kong University Press.
- Coombe, C., Vafadar, H., Mohebbi, H. (2020). "Language assessment literacy: What do we need to learn, unlearn, and relearn?" *Language Testing in Asia*, 10(3), 1-16. <https://doi.org/10.1186/s40468-020-00101-6>
- Davidson, P., & Coombe, C. (2022). Practical applications of learning-oriented assessment (LOA) in the UAE. In C. Coombe, L. Hiasat, & G. Daleure (Eds.), *English language and general studies education in the United Arab Emirates: Theoretical, empirical and practical perspectives* (pp. 399-418). Springer Nature Singapore. https://doi.org/10.1007/978-981-16-8888-1_25
- Derakhshan, A., & Ghiasvand, F. (2022). Demystifying Iranian EFL teachers' perceptions and practices of learning-oriented assessment (LOA): Challenges and prospects in focus. *Language Testing in Asia*, 12(1), 1-18. <https://doi.org/10.1186/s40468-022-00204-2>
- Duncan, N. (2007). 'Feed-forward': improving students' use of tutors' comments. *Assessment & Evaluation in Higher Education*, 32(3), 271-283. <https://doi.org/10.1080/02602930600896498>
- Ellis, R. W., & Barkhuizen, G. (2005). *Analyzing learner language*. Oxford University Press.
- Ellis, R.W. (2008). *The study of second language acquisition* (2nd ed.). Oxford University Press.
- Er, H. K., & Farhady, H. (2023). The effects of learning-oriented assessment on academic writing. *International Journal of Assessment Tools in Education*, 10(2), 197-217. <https://doi.org/10.21449/ijate.1222410>
- Estaji, M., & Safari, F. (2023). Learning-oriented assessment and its effects on the perceptions and argumentative writing performance of impulsive vs. reflective learners. *Language Testing in Asia*, 13, 31-49. <https://doi.org/10.1186/s40468-023-00248-y>
- Etemadi, S. H., & Abbasian, G.-R. (2023). Dynamic assessment and EFL learners' writing journey: Focus on DA modalities and writing revision types. *Teaching English Language*, 17(1), 53-79. <https://doi.org/10.22132/TEL.2022.162923>
- Farhady, H. (2021). Learning-oriented assessment in virtual classroom contexts. *Journal of Language and Communication*, 8(2), 121-132. <https://d1wqtxts1xzle7.cloudfront.net>
- Fazel, I., & Ali, A. M. (2022). EAP teachers' knowledge and use of learning-oriented assessment: A cross-

- contextual study. *System*, 104, 102685. <https://doi.org/10.1016/j.system.2021.102685>
- Field, A. (2024). *Discovering statistics using IBM SPSS statistics* (86th ed.). SAGE Publications. <https://profandyfield.com/discoverse/dsus/>
- Fulcher, G., & Davidson, F. (2007). *Language testing and assessment: An advanced resource book*. Routledge.
- Ghaneiarani, S., Alavi, S.M., & Kaivanpanah, S. (2024). Access enhancing writing ability of Iranian EFL learners through learning-oriented assessment: Peer and teacher feedback implementation. *Language Testing in Asia*, 14, 39-53. <https://doi.org/10.1186/s40468-024-00298-w>
- Gholam-Shahbazi, H., Amiri, M., & Hedayat, N. (2026). The effect of ipsative assessment on EFL learners' argumentative writing development: Complexity, accuracy, and fluency in focus. *International Journal of Language Testing*, 16(1), 20-40. <https://www.ijlt.ir/>
- Ghoorchaei, B., Tavakoli, M., & Nejad Ansari, D. (2010). The impact of portfolio assessment on Iranian EFL students' essay writing: A process-oriented approach. *GEMA Online™ Journal of Language Studies Volume*, 10(3), 35-51. <http://ejournal.ukm.my/gema/about/editorialPolicies#openAccessPolicy>
- Golzar, J., Momenzadeh, S. E., & Miri, M. A. (2022). Afghan English teachers' and students' perceptions of formative assessment: A comparative analysis. *Cogent Education*, 9(1), 1-19. <https://doi.org/10.1080/2331186X.2022.2107297>
- Gomez, G., Saiz, M. S. I., Beardo, J. M. D., Ruiz, M. A. G., Noche, B. G., Sanchez, D. C., Serra, V. Q., & Val, A. M. d (2009). Developing the e-learning-oriented e-assessment. *Actas de La V: Internacional Conference on Multimedia and Information and Communication Technologies in Education*, 1, 515-519.
- Hamzelou, Z., Alavi, S. M., & Nemati, M. (2022). Integration of learning-oriented assessment into writing instruction: A case of IELTS writing preparation class. *Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills)*, 41(3), 57-87. <http://dx.doi.org/10.22099/tesl.2022.35693.2761>
- Hartle, S. (2020). Combining formative and summative practices in higher education ELT: Implementing learning-oriented assessment. In S. Morgan, (Ed.), *Learning and assessment in the higher education context*, *Research Notes*, 77. (pp. 9-19). Cambridge Assessment English.
- Hyland, K. (2019). *Second language writing*. Cambridge University Press.
- Jalilzadeh, K., & Coombe, C. (2023). Constraints in employing learning-oriented assessment in EFL classrooms: Teachers' perceptions. *Language Testing in Asia*, 13(1), 1-16. <https://doi.org/10.1186/s40468-023-00222-8>

- Jalilzadeh, K., Alavi, S. M., & Siyyari, M. (2022). Comparing language assessment literacy and challenges of Iranian EFL teachers: TEFL vs non-TEFL background. *Journal of Language and Translation*, 12(4), 177-196. <http://noo.rs/8kWsW>
- Khalili, A., Zafarani, P., & Gholami, J. (2024). Learning-oriented assessment in the context of Iran: Teachers' perspectives. *International Journal of Language Testing*, 14(2), 82-96. <https://doi.org/10.22034/ijlt.2024.433024.1317>
- Kim, A. Y., & Hyun Jung, K. (2017). The effectiveness of instructor feedback for learning-oriented language assessment: Using an integrated reading-to-write task for English for academic purposes. *Assessing Writing*, 32, 57-71. <https://doi.org/10.1016/j.asw.2016.12.001>
- Lam, D. M. (2021). Feedback as a learning-oriented assessment practice: Principles, opportunities, and challenges. In A. Gebril (Ed.), *Learning-oriented language assessment: Putting theory into practice* (1st ed.) (pp. 102-122). Routledge. <https://doi.org/10.4324/9781003014102-7>
- Lantolf, J. P., & Poehner, M. E. (2008). Dynamic assessment: Bringing the past into the future. *Journal of Applied Linguistics*, 1(1), 49-74. <https://doi.org/10.1558/japl.1.1.49.55872>
- Mohammadzadeh, A. (2024). Dynamic assessment in L2 writing performance: The case of Iranian EFL learners. *Journal of Applied Linguistics Studies*, 3(1), 173-182. <https://oiccpres.com/jals/article/view/5599>
- Motallebzadeh, K., & Nematizadeh, S. (2011). Does gender play a role in the assessment of oral proficiency? *English Language Teaching*, 4(4), 165-172. <https://doi.org/10.5539/elt.v4n4p165>
- Pallant, J. (2016). *SPSS survival manual* (6th ed.). Allen & Unwin.
- Pallotti, G. (2009). CAF: Defining, refining and differentiating constructs. *Applied Linguistics*, 30(4), 590-601. <https://doi.org/10.1093/applin/amp045>
- Pan, X. (2018). *Investigating the development of syntactic complexity in L2 Chinese writing*. The University of Iowa. <https://doi.org/10.17077/etd.mwpr44tk>
- Plakans, L., Gebril, A., & Bilki, Z. (2016). Shaping a score: Complexity, accuracy, and fluency in integrated writing performances. *Language Testing*, 36(2), 161-179. <https://doi.org/10.1177/0265532216669537>
- Purpura, J. E. (2024). Learning-oriented language assessment. In A. J. Kunnan (Ed.), *The concise companion to language assessment* (pp. 22-39). Wiley.
- Rad, H. S., & Alipour, R. (2024). Unlocking writing success: Building assessment literacy for students and teachers through effective interventions. *Assessing Writing*, 59, 100804. <https://doi.org/10.1016/j.asw.2023.100804>
- Riswanto, Heydarnejad, T., Saberi Dehkordi, E., Parmadi, B. (2022). Learning-oriented assessment in the

- classroom: The contribution of self-assessment and critical thinking to EFL learners' academic engagement and self-esteem. *Language Testing in Asia*, 12(1), 1-21.
<https://doi.org/10.1186/s40468-022-00210-4>
- Salamoura, A., & Unsworth, S. (2016). Learning oriented assessment: Putting learning, teaching and assessment together. In A. Salamoura, S. Unsworth, H. Puchta, A. Doff, C. Thaine, & C. Thaine (Eds.), *Insights into learning and assessment* (pp. 2-5). Cambridge University Press.
<https://doi.org/10.4324/9781003014102-13>
- Sambell, K., McDowell, L., & Montgomery, C. (2012). Assessment for learning in higher education. In C. Montgomery, K. Sambell, & L. McDowell (Eds.), *Assessment for learning in higher education*. Routledge. <https://doi.org/10.4324/9780203818268>
- Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11(2), 129-158. <http://dx.doi.org/10.1093/applin/11.2.129>
- Shepard, L. A. (2013). Foreword. In J. H. McMillan (Ed.), *Sage handbook of research on classroom assessment* (pp. xix-xxii). Sage.
- Skehan, P. (1998). *A cognitive approach to language learning*. Oxford University Press.
- Skehan, P. (2009). A framework for the implementation of task-based instruction. In K. Van den Branden, M. Bygate, & J. Norris (Eds.), *Task-based language teaching* (pp. 121-132). John Benjamins.
<https://doi.org/10.1093/applin/17.1.38>
- Skehan, P. (2014). Limited attentional capacity, second language performance, and task-based pedagogy. In P. Skehan (Ed.), *Processing perspectives on task performance*, 211, (pp. 211-260). John Benjamins Publishing Company. <https://doi.org/10.1075/tblt.5>
- Skehan, P. (2018). *Second language task-based performance: Theory, research, assessment*. Routledge.
<https://doi.org/10.4324/9781315629766>
- Skehan, P., & Foster, P. (1999). The influence of task structure and processing conditions on narrative retellings. *Language Learning*, 49, 93-120. <https://doi.org/10.1111/1467-9922.00071>
- Tabachnick, B.G., & Fidell, L.S. (2019). *Using multivariate statistics* (7th ed.). Pearson Inc.
- Tajeddin, Z., Khatib, M., & Mahdavi, M. (2022). Critical language assessment literacy of EFL teachers: Scale construction and validation. *Language Testing*, 39(4), 649-678.
<https://psycnet.apa.org/doi/10.1177/02655322211057040>
- Turner, C. E., & Purpura, J. E. (2016). Learning-oriented assessment in the classroom. In D. Tsagari, & J. Banerjee (Eds.), *Handbook of second language assessment* (pp. 255-272). De Gruyter Mouton.
<https://doi.org/10.1515/9781614513827-018>
- Vogt, K., Bøhn, H., & Tsagari, D. (2024). Language assessment literacy. *Language Teaching*, 2(3), 1-16.

<https://doi.org/10.1017/S0261444824000090>

Wakid, M., Sofyan, H., Widowati, A., & Zaida Ilma, A. (2024). Learning-oriented assessment: A systematic literature network analysis. *Cogent Education*, 11(1), 2366075.

<https://doi.org/10.1080/2331186X.2024.2366075>

Watmani, R., Asadollahfam, H., & Behin, B. (2020). Demystifying language assessment literacy among high school teachers of English as a foreign language in Iran: Implications for teacher education reforms. *International Journal of Language Testing*, 10(2), 129-144.

https://www.ijlt.ir/article_118025_c3e48269d28fe50ac5b4fc8dc9f0ad7d.pdf

Wicking, P. (2022). Learning-oriented assessment in an international virtual exchange. In S. Hilliker (Ed.), *Second language teaching and learning through virtual exchange* (pp. 9-34). De Gruyter Mouton.

<https://doi.org/10.1515/9783110727364-002>

Wistner, B., Sakai, H., & Abe, M. (2009). An analysis of the Oxford Placement Test and the Michigan English Placement Test as L2 proficiency tests. *Bulletin of the Faculty of Letters, Hosei University*, 58, 33-44. <https://doi.org/10.15002/00004453>

Xu, J., & Zheng, Y. (2024). Understanding the interconnectedness of L2 learners' writing assessment literacy and engagement: A longitudinal survey. *System*, 123, 103318.

<https://doi.org/10.1016/j.system.2024.103318>

Zeng, W., Huang, F., Yu, L., & Chen, S. (2018). Towards a learning-oriented assessment to improve students' learning—a critical review of literature. *Educational Assessment, Evaluation and Accountability*, 30(3), 211-250. <https://doi.org/10.1007/s11092-018-9281-9>

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