Integrating Portfolio-Assessment into the Writing Process: Does it Affect a Significant Change in Iranian EFL Undergraduates’ Writing Achievement? A Mixed-Methods Study

Mina Saghaieh Bolghari *  Hossein Aghaalikhani**

Abstract
The paradigm shift from testing the outcome to assessing the learning of process shines a light on the alternative assessment approaches, among which portfolio-assessment has sparked researchers’ interest in writing instruction. This study aimed at investigating the effect of portfolio-assessment on Iranian EFL students’ writing achievement through the process-centered approach to writing. To this end, fifty-three sophomores, studying English translation at Islamic Azad University, Tehran Science and Research Branch, were chosen as the participants of this study. The researchers randomly divided them into two groups—an experimental and control. The experimental group received an instruction based on the four stages of the writing process—brainstorming, outlining, drafting, and editing—and underwent the portfolio-assessment. For ten weeks, the participants of the experimental group practiced reflecting on their writing through formative self-check, peer-review, and teacher-feedback on each of the stages written as homework assignments. The revised paragraphs were regarded as the final portfolio. The control group, however, received a product-based writing instruction, to which portfolio-assessment, individualized-feedback, and reflection did not adhere. The results of the quantitative data analysis showed that the students in the

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experimental group performed better than the students in the control group in their writing achievement. The qualitative findings also revealed the students’ positive perception toward the portfolio-assessment on the writing process. The results suggest some pedagogical implications for EFL writing instruction and assessment.

Keywords: Perception, Portfolio-assessment, Writing process, Reflection, Writing achievement

In language testing and assessment, there has been a shift from a psychometric, reductionist language testing paradigm to an edumetric, antireductionist language assessment paradigm. Wolf, Bixby, Glenn, and Gardner (1991) remark that testing culture is related to employing tests/exams merely to determine achievements/grades while an assessment culture is related to using assessments to improve instruction and promote student learning. To Shepard (2013), a worldwide focus on the use of innovative assessments, such as portfolio-assessment, has established informative motives for teachers who are working on the process of writing.

Writing in a foreign language is usually an arduous task for most learners, but if it is put into logical steps, it becomes less daunting. The process approach takes into account the entire writing task as a creative work, which demands time and positive feedback to be done meticulously. According to Al-Ghrafy (2018), the process approach to writing instruction did much toward changing the traditional perceptions and practices of writing instruction and how learners learn to write. Unlike the traditional product-based method, in process writing, the teacher plays a different role by avoiding to assign students a topic for writing and receiving the final result for correction without any mediation during the writing itself.

According to Zamel (1983), at the center of the process approach is the view that writing is a non-linear, exploratory, and generative process through which writers discover and reshape their opinions as they try to get closer to the meaning. The process approach helps students to assess experience, learn from mistakes, regain achievement, and plan. It is a kind of reflection that
encourages the selection, assignment of techniques, and strategies to complete the task successfully. Gallagher (2001) argues in such a respect that thinking is a crucial element of portfolios as it allows students to learn from experience and practice, through helping them fill the gap between theory and practice. To Gallagher, students are not only able to identify gaps in knowledge, skills, or expertise through the reflective process, but they are also able to reconfirm and document strengths, skills, and expertise.

Writing is usually used in many communicative activities, such as composing academic essays, business reports, letters, reporting analyses of current events for newspapers or/and web pages, e-mails, or/and short off-line messages in widely used messenger programs (Persky, Daane, & Jin, 2003). Therefore, the ability to write expressively and effectively allows individuals from different cultures and backgrounds to communicate their thoughts and their needs.

Usually, the writing process encompasses several steps including Prewriting, drafting, and revising. Pre-writing consisting of brainstorming, planning, and generating ideas is the first stage in which the teacher needs to activate the creativity of the students and make them think about how to tackle the subject of writing. The flow of ideas is vital at this stage. Students do not need to produce a much-written task. If so, then the instructor can help them to develop their primary thought. Drafting is the second stage, in which writing students write to the accuracy of their task without great deal attention.

The primary focus in this stage is on the content and organization to ensure whether the writing is informative, coherent, and unified. The third stage includes evaluating, structuring, and editing (ordering, self-editing, peer-editing). Students are needed to pay attention to fundamental sentence structure, vocabulary resources, and mechanics of writing to produce a final writing task. The teacher, then, helps the students by correcting their errors and providing them essential writing advice.
Assessing writing as one of the language skills has undergone a relatively long path so far. The most apparent reason why the change in assessment is a reasonable expectation is that new ways of process-oriented methods of teaching require process-oriented methods of evaluation.

Traditionally, there were different methods of assessing writing achievement, chief among them are essay type tests (Lucas 2007; Starkie 2007), multiple-choice writing tests, writing evaluation using improvised writing samples (Chung 2012), peer evaluation (Cole & Watson 2013), and more recently the process-based writing assessment (Lucas 2007). Since product-based writing instruction does not provide formative assessment and individualized feedback on students’ writing performance during the course, their writing ability might remain untouched at the end of the course, as they do not notice their writing problems and weaknesses.

In recent years, concerns in the use of non-traditional forms of assessment welcome a new paradigm, such as following learner-centered rather than teacher-centered approach, focusing on meaning rather than form, and putting emphasis on process rather than a product. According to Farr and Tone (1994), among the alternative assessments, portfolio combines self-reflection and self-assessment instruction with the assessment.

A portfolio is a collection over some time, usually, a term or an academic year, of the writer's work helped by classmates or the teacher, the writer makes a selection from the collected work through a reflection process on what she or he has done and what it reveals about what they have acquired. Three elements of collection, choice, and reflection are at the heart of a portfolio, but if a portfolio assessment is to be genuine, it must include more than a reflection of the writer's work. (Hamp-Lyons & Condon, 2000).

Since assessment issues are effective in promoting learning and writing skill entails complex mental processes, the study focuses on the effect of portfolio assessment in the writing process. The present study set out to see
whether portfolio-assessment of process writing have any statistically significant effect on Iranian EFL undergraduates’ writing achievement.

**Literature Review**

An increasing interest in the use of portfolio assessment has recently emerged, a concept which Hancock (1994) has described "as the collection of a learner’s work assembled to determine how much has been learned" (p.238). According to Hedge (2000), portfolios are a better indicator of students' ability to write than timed tests. Fithri (2015) noted that portfolios provide many opportunities for teachers and students to participate actively, to engage in learning activities, and to track the learning progress of the students on an ongoing basis.

Many researchers have already pinpointed the benefits and pitfalls of portfolio-assessment (Brown & Hudson, 1998; Hung & Huang, 2012; Yin, 2013). For instance, Brown and Hudson (1998) proposed three benefits of portfolio assessment entailing: (a) improving student learning, (b) reminding teachers, and (c) promoting the assessment process. In terms of the design decision, logistics, understanding, reliability, and validity, they also identified five common drawbacks of portfolio assessment. Yin (2013), in his recent empirical studies, substantiated the advantages of portfolio-assessment through (a) vilifying traditional tests and meeting curriculum objectives; (b) enhancing language skills, especially writing skills; (c) augmenting student self-reflection, autonomy, metacognition, and motivation. Additionally, Hung and Huang (2012) highlighted that the most cited advantage of portfolio assessment is the opportunity to develop a sense of ownership and community. The main concerns for portfolio evaluation, however, remain with issues of infrastructure, performance, and validity. Reliability and validity are the most critical and contentious problems in language analysis and portfolio evaluation. (Hamp-Lyons & Condon, 2000).
According to Dung and Ha (2019), in portfolio-assessment, selecting the collection of samples is not haphazard but purposeful. The portfolio displays a structured and well-organized selection of materials that make a snapshot of student work, not an extensive or detailed list. Caner (2010) stated that portfolios have become an alternative to traditional tests since they provide more validity by combining instruction and assessment.

Several studies disclose the benefits of portfolio assessment as a method of measuring the improvement and success of the writing ability of students and as an alternative method of non-traditional method of assessment. For instance, Hamp-Lyons (2006) asserts that employing a portfolio-based assessment approach seems to stipulate a productive environment in which teachers and learners become involved in written feedback and thus interfere with process approaches. In this vein, Bader’s (2019) findings showed that students were positive toward teacher feedback and highlighted the importance of instructor approval. Song and August (2002) discovered that the assessment of the portfolio was as accurate as any standardized test in forecasting the students' performance in English. They found that non-native English students were likely to pass their English courses when assessed through the portfolio assessment as opposed to failing their standardized final written test.

In the Iranian EFL setting, similarly, some studies confirmed the significant positive effect of portfolio-assessment on overall or componential writing performance (e.g., Elahinia, 2004; Khodadady & Khodabakhshzade, 2012; Meihami, Husseini, & Sahragard, 2019; Nezakatgoo, 2011; Taki & Heidari, 2010). The findings obtained from these studies appear to substantiate the strength of portfolio-assessment to improve the students’ writing skills, as well as learner autonomy in EFL writing.
The current study mainly aimed at integrating the writing process and portfolio-assessment to maximize the learning opportunities. In doing so, the study was conducted in the university context where students usually perceived writing a complicated, tedious, and time-consuming skill. Moreover, the study aimed to explore the students’ reactions to the use of portfolio-assessment utilizing qualitative inquiry to find out more in-depth information.

Whilst there has been little research that has investigated the impact of portfolio-assessment of the writing process on EFL undergraduates’ writing achievement using a mixed-methods study in Iran, this study tries to fill this gap and seeks to address the following questions:
1. Does portfolio-assessment of process writing have any statistically significant effect on Iranian EFL undergraduates’ writing achievement?
2. How do Iranian EFL undergraduates perceive the portfolio-assessment of the writing process?

**Method**

The current study was a mixed methods research integrating both quantitative and qualitative research methods to gather the relevant data. Data obtained from the statistical procedures were supplemented by the qualitative data that emerged from the interviews to provide the answer for the second research question of the study regarding the students’ reactions to the use of portfolio-assessment. Embedded design is used when a single data set is insufficient, or different research questions are needed to be answered. Besides, each type of question may require different types of data (Creswell & Clark, 2011).

**Participants**

This study was conducted with 53 upper-intermediate EFL sophomores studying English translation at Islamic Azad University, Tehran Science and
Research Branch. They were between 19 and 24 years of age, who were required to attend the paragraph-writing course (Advanced Writing). They participated in the class once a week and received 16 sessions of instruction, each lasting for 90 minutes.

The participants were selected out of a pool of 72 students based on their performance on the Oxford Placement Test (OPT). The results of the descriptive statistics of OPT are summarized in Table 1. Based on the results, 53 students (19 males and 34 females), whose scores were one standard deviation above or below the population mean (M=141, SD≈ 8), were chosen. The experimental group included 28 students, while the control group had 25 students.

Table 1.
Descriptive Statistics of the OPT

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT</td>
<td>72</td>
<td>127.00</td>
<td>165.00</td>
<td>141.7329</td>
<td>8.2811</td>
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<tr>
<td>Valid N (listwise)</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Since there was not any possibility for randomization, the researchers conducted quasi-experimental research with two intact classes; the same instructor taught both classes. The intact classes, however, were randomly assigned to an experimental group and a control group.

Instruments

In order to fulfill the purpose of the study, the following instruments were used:
1. Before the study, OPT (2004) was administered to the participants to ascertain the homogeneity of both classes in terms of general English proficiency. The test includes a listening test and a grammar test, each with 100 items. The test takes approximately 45-60 minutes to complete, during
which the student answers 60 multiple-choice questions. The test contains multiple-choice questions with 20 grammar, 20 vocabulary, and 20 reading comprehension questions. The reliability of the test was calculated by the ALTE (Association of Language Testers in Europe) through Cronbach’s Alpha and came out to be 0.84, which was an acceptable index.

2. To compare the effect of treatment on students’ writing performance, two writing tasks were used as the pretest and the posttest. The genre of writing in both pre-test and post-test was cause-and-effect. The pretest topic was the effect of technology on students’ academic lives, and the posttest topic was the effect of smartphones on people’s daily lives.

3. Longman Academic Writing Series 3: Paragraphs to Essays (4th ed.) by Oshima and Hogue (2014) was the main course book used by the instructor. While focusing on writing as a process, the book integrates training in vocabulary, sentence structure, mechanics of writing, and paragraph organization. It also provides students with realistic writing samples in different genres and useful writing tips.

4. Following the coursebook, each student wrote ten paragraphs as a homework assignment during the semester with five distinct modes: enumeration, process, definition, cause and effect, and comparison and contrast.

5. To assess the participants’ paragraphs, the researchers used Maftoon and Akef’s (2009) rating scale for each of the defined stages of the writing process--brainstorming, outlining, drafting, and editing. Maftoon and Akef developed and validated the four sub-scales by running a factor analysis. Each sub-scale includes five components with scale descriptors that describe the students’ quality of performance on five operationally defined components according to four levels of performance, namely very good, good, fair, and poor.
6. To elicit some qualitative data from the participants, the researchers conducted a semi-structured interview with ten randomly-selected students after the treatment. The interview included five questions that addressed the students’ overall perception of the efficacy of the procedure.

Data Collection Procedure

Data were collected in regular class time and over 15 weeks. The first and the last sessions were allotted to the pre- and posttests. The students attended the class once a week, for a ninety-minute session. Both groups were uniformed in terms of the material, the number of the assignments, and the writing topics.

Before the treatment, the pretest was run. All the participants were asked to write a paragraph (150-200 words) on a topic assigned by the teacher. During three sessions, the participants were introduced with the essential elements of paragraph writing and a five-step process for building writing skills: prewriting, organizing, writing the first draft, revising and editing, and writing a new draft. The students analyzed the book samples, did the related exercises and practiced writing in the class. In the experimental group, the participants also received an introduction to the portfolio assessment and the rating scale.

During ten weeks, five developmental patterns of a paragraph--classification, process, definition, cause/effect, and comparison/contrast--were taught based on the coursebook chapters, to which self-check and peer-feedback checklists were appended. Each book chapter was covered in two sessions, and, at the end of each session, the teacher gave the students a writing topic from the book. In other words, the students wrote two paragraphs for each writing pattern.

In the experimental group, the participants received the portfolio-assessment integrated into the writing process. They reflected on their writing through self-check, peer-feedback, and teacher-feedback, respectively.
Following the stages of process writing, each student edited his/her paragraph in accordance with the book checklist and then sent it to one of the classmates for peer-review. The book checklists were relied on some fundamental elements of the writing ability, including content and organization, mechanics of writing, sentence structure, vocabulary resources, and formant. After doing self-check and peer-review, the participants were required to email their assignments to the instructor before the deadline. Each email included six attachments: brainstorming, outlining, the first draft, a copy of self-check, a copy of peer-feedback, and the final draft. Afterward, the instructor weekly assessed the paragraphs using Maftoon and Akef’s (2009) four rating subscales and emailed them back to the students so that they received the instructor’s ratings and comments. The participants were finally required to revise and edit their final drafts based on the instructor’s feedback and prepare their portfolios to submit before the posttest.

In the control group, however, the participants were only required to email their final paragraphs without following the steps of the writing process. Some paragraphs were randomly chosen and rated by the instructor to analyze in the classroom via the projection. Therefore, the students received no individualized feedback on any of the four stages of the writing process. Besides, no portfolio was required at the end of the semester.

After the accomplishment of the treatment, the posttest was administered to both groups to explore the effect of the treatment on the students’ writing achievement. The writing topic and the test time allocation was identical in both groups. The paragraphs of both the pretest and posttest were evaluated through Maftoon and Akef’s (2009) rating scale by the researchers, as well as a third rater who was an experienced university instructor. In order to ascertain that an acceptable level of agreement existed among the raters, twenty random paragraphs were rated by the three raters using the same scale. The inter-rater reliability value was satisfactory (r=.91).
Finally, ten students from the treatment group were randomly chosen to attend the interview. Before conducting the interview, four questions were written by the researchers regarding the perceptions of the students about the portfolio-assessment and the influence of portfolio-assessment on writing ability and then, the questions were revised by an expert in language teaching. Modifications and improvements were made as needed. Each student was interviewed for approximately 10 minutes. Interviews were held in-person in the participants’ classrooms at a time convenient for them. The interview was conducted in English, although the students could answer the questions in Persian if they preferred. All responses were separately audio-recorded to be carefully analyzed later.

**Results**

**Analyzing the quantitative data (Research Question 1).** As mixed-methods research, the study included both the quantitative and qualitative methods of data collection, as well as data analysis. In order to make sure that the two groups had no significant difference in terms of their writing before the study, the mean scores of the pretest was compared statistically. Table 2 shows the results of the normality tests. For a small sample size, the results of Shapiro-Wilk are considered. Non-significant results confirm the normality of the data. Accordingly, both the pretest scores were distributed normally (Sig. > 0.5), and, so an independent t-test was used to compare the mean scores of both the control and experimental group on the pretest.

**Table 2.**

*Tests of Normality of the Pretest*

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Shapiro-Wilk</th>
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<tbody>
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<td></td>
<td>Statistic</td>
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<td>Pre-control</td>
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</tr>
<tr>
<td>Pre-experimental</td>
<td>.195</td>
<td>28</td>
</tr>
</tbody>
</table>

<sup>a</sup> Lilliefors Significance Correction
Table 3 shows the descriptive statistics of the two groups (M= 12.88 and M=13.17). As the results of Table 4 (t = -0.730, p = 0.469 > 0.05) indicate, that there was no significant difference between the mean scores of the two groups at the pretest. Therefore, any possible difference in the writing of the two groups at the posttest could be attributed to the treatment.

Table 3.
Descriptive Statistics of the Pretest

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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</thead>
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<tr>
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<td>15.00</td>
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<td>1.33292</td>
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<tr>
<td>Pre-experimental</td>
<td>28</td>
<td>9.00</td>
<td>16.00</td>
<td>13.1786</td>
<td>1.61138</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>25</td>
<td></td>
<td></td>
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</tbody>
</table>

Table 4.
Independent Samples T-Test for the Two Groups’ Scores on the Pretest

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>pretest</td>
<td>Equal variances assumed</td>
<td>.746</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-.738</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-.738</td>
</tr>
</tbody>
</table>
Following the treatment, both groups took the writing posttest. The numerical data for answering the first research question came out from the two group’s posttest scores. The null hypothesis was: Portfolio-assessment of process writing does not have any statistically significant effect on Iranian EFL learners’ writing achievement.

To test the null hypothesis, the researchers conducted another independent t-test as it was revealed that the data were normally distributed (see Table 5 for tests of normality). Table 6 indicates the descriptive statistics of the posttest (M=15.08 and M=17.07).

Table 5.
Tests of Normality of the Posttest

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnova</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
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<td>postexp</td>
<td>.141</td>
<td>28</td>
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</table>

a. Lilliefors Significance Correction

Table 6.
Descriptive Statistics of the Posttest

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18.00</td>
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<td>postexp</td>
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<td>13.00</td>
<td>20.00</td>
<td>17.071</td>
<td>1.65392</td>
</tr>
</tbody>
</table>

Table 7 shows the results of the independent-samples t-test. As it is evident, there was a statistically significant difference between the scores of the experimental group and the control group on the posttest (t = -4.647, p = 0.000 < 0.05), with a large effect size (eta squared=0.29 > 0.14). Hence, the null hypothesis was rejected, meaning that portfolio-assessment of process writing had a significant impact on EFL learners’ writing performance.
Table 7.
Independent Samples T-Test for the Two Groups’ Scores on the Posttest

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>posttest</td>
<td>.795</td>
<td>.377</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analyzing the qualitative data (Research Question 2). As for the second research question of the study, to elicit the students’ perception toward the portfolio-assessment, the researchers conducted a semi-structured interview with 10 participants chosen randomly. The data that came from open-ended questions were prepared through the ‘theme-based categorization’ (Dörnyei, 2007) by structuring and classifying, that is, by tracing commonalities and underlying patterns across them. Structuring of complex data were done by transcription. Then, the transcript were classified by eliminating repetitions and digressions. The resulting categories were then reported in English language according to the factors emerging from the information.

Innovation and interest. When being asked whether they enjoyed the class, most students found the teaching method new and interesting. "I liked the class because of the teaching method. It was new, and we did many different things in the class and at home," said one student. Another student
commented, "The instruction was novel, I think. In the past, I found writing too boring, but it is now exciting."

Other students had negative perceptions toward the portfolio-assessment. It is evident from the following excerpts: "I did not like the class because it was difficult for me to do many assignments. Each week, we were emailing six assignments. It was exhausting"; "I think we a lot of assignments overloaded us. We had to write every week. It was not interesting."

Writing achievement. All the interviewees believed that their writing was improved after receiving the portfolio-assessment instruction. One student mentioned. "I thought the writing was challenging, but now I know how to write a good paragraph although I need more practice." Another student said: "Of course our writing was improved because we had a lot of practice. We wrote ten paragraphs and learned many things."

Regarding writing subskills, most of the students found the organization as the most improved one. One student commented: "Introduction, body, and conclusion! I never forget them while writing". "I struggled with using transition markers in my writings. I did not use them a lot, and my writings lacked unity. I learned how to use them in writing," said another participant.

However, the least improved subskill was vocabulary based on their comments. For instance, two students mentioned: "I think nothing happened regarding my knowledge of vocabulary. It was difficult to use appropriate words in my writing"; "I did not like the vocabularies I used in my paragraphs. They were too simple. It needs time and effort to learn and use difficult words in speaking and writing."

In addition, most students believed that they learned how to develop a paragraph through the stages of process writing. They emphasized that outline writing was the most crucial stage, while doing peer-check--as a part of revision stage--was the most difficult one. A few students also mentioned that proofreading helped them to find grammatical mistakes easily.
Teacher-feedback. The most valuable part of the course, according to
the comments, was the instructor’s feedback on each written paragraph. A few
responses are: "Through the teacher’s feedback, I could find my strengths and
weaknesses in writing"; "I learned a lot from the comments. They were very
useful"; "It was beneficial that we received the teacher’s feedback each week.
Without feedback, how could we improve our writing?"

The students believed that the course gave them a great chance to edit
and revise their writings based on the instructor’s feedback. Some of the
extracts are: "It was meaningless if we just wrote and sent our assignments to
the teacher. We must revise our writings and put them in the portfolio"; "I
liked the portfolio-assessment because I had to edit my mistakes to complete
the portfolio": "After completing my portfolio, I could see the progress of my
writing. There was a huge difference between the first assignment and the last
assignment. It was as a result of my own editions."

One student, however, commented that collecting the portfolio was not
sufficient: "I did not know how to revise my paragraphs." Another student
said, "It was too time-consuming to edit my paragraphs and prepare the
revised portfolio. I should have edited them during the semester". Finally, a
student said: "It was terrific that we had to edit our final drafts. I wish we
could edit other stages too, for example, outlines, but the portfolio only
included the final drafts."

Discussion

This study was a mixed-methods investigation on the integration of
portfolio-assessment of the writing process on EFL undergraduates’ writing
achievement. The result of the first research question demonstrated that
portfolio-assessment of the process writing approach had a positive and
statistically significant impact on undergraduates’ writing achievement. This
is in line with Farr and Tone (1994), who believed that portfolio integrates
instruction with the assessment that follows self-reflection and self-
evaluation. The finding is also consistent with recent studies showing the efficacy of the portfolio assessment as a way of measuring the improvement of writing ability of students and as an alternative method of non-traditional evaluation (e.g., Obeiah & Bataineh, 2016; Song & August, 2002; Tanner et al., 2000; Yin, 2013). The result also supported the previous Iranian studies showing a significant effect of portfolio-assessment on overall writing performance (e.g., Elahinia, 2004; Nezakatgoo, 2011; Taki & Heidari, 2010).

One reason for the positive result is that the participants of the experimental group practiced reflection through self, peer, and teacher-assessment for ten weeks. The instructor asked the students to reflect on their writing process and what they thought they learned from doing the task. In other words, the instructor facilitated reflective learning since the students could gain an understanding of their own level of writing performance and attempt to correct the errors and revise the writings. Creating an anxiety-free and cooperative atmosphere of learning in different steps of writing also helped the students believe in themselves. Another reason for the promising result is that the participants got feedback individually before moving to the next stage of writing. They could check their writing progress in each session. As the result of the first research question shows, the researchers believed that implementing a clear-cut rating scale (Maftoon & Akef’s, 2009) for each of the defined stages of the writing process enormously contributed to learners’ improvement.

Regarding the qualitative phase of the study, the results showed the participants’ positive perception toward the portfolio-assessment. They found the instruction exciting and innovative. These findings are in complete agreement with other studies (e.g., Bader, 2019; Elahinia, 2004; Tanner et al., 2000) which reiterate the positive effect of portfolio-assessment on the participants’ perception.

In addition, almost all interviewees maintained that the course was effective in improving their writing ability. In this respect, the organization
was the most improved sub-skill, whereas vocabulary resource was the least improved one. This is in line with the findings of Dung and Ha (2019), Fahed Al-Serhani (2007), and Tanner et al. (2000), which confirm the effectiveness of portfolio-assessment on learners’ writing ability.

Finally, notable in the responses was the students’ positive evaluation of the teacher-feedback since formative feedback was able to motivate them to regulate and evaluate their process of writing. The participants believed that without receiving weekly feedback from the instructor, they could not have revised their paragraphs. This matches well with Hamp-Lyon’s (2006) and Bader’s (2019) study in which the results approved that students were positive toward teacher feedback, and portfolio-assessment provided a productive environment in which teachers and learners could participate in feedback on writing and thus communicate well with process approaches. Similar to Suwaed’s (2018) research, although all the students who interviewed in this study showed the positive perception of portfolio-assessment, a few students referred to two main disadvantages of using portfolio-assessment in the writing classroom, including excessive time and effort and lack of vocabulary and content knowledge.

**Conclusion**

Compared to other skills, writing is the most challenging skill to teach, and also it is arduous to learn in a short period because of its own rules and conventions. The paradigm shift in writing assessment from focusing on outcome into the process, brought portfolio-assessment in the center of attention among writing instructors. Because of the severe shortcomings of traditional methods of writing assessment, portfolio-assessment of writing became an acceptable alternative tool for improving writing skills widely. In the current study, the process was documented in an atmosphere in which learners could receive interactive individual feedback on writing to review progress, identify areas that need to be further strengthened, and allow
students to reflect. Also, using a pre-established scale in scoring motivated learners enthusiastically to follow the principles explained in the initial session, which led to the positive effect of portfolio-assessment on EFL undergraduates’ writing achievement.

Keeping in mind that teaching with feedback is a skill, and so is learning from feedback. Positive feedback in portfolio-assessment is one of its outstanding advantages that notably improve writing skills. In addition, constructive feedback is a highly-skilled teaching quality, which should be acquired and practiced by instructors. It can be concluded that new experience, self-assessment, peer-assessment, and instructor’s weekly feedback contributed to the positive perception of EFL learners toward portfolio-assessment.

Integrating portfolio-assessment into the process writing has some pedagogical implications for both students and instructors. First, process writing provides students with opportunities for practicing writing in three phases: planning, writing, and editing. Through brainstorming, they learn how to list any possible ideas, select the relevant ones, and develop the initial plan of their writing. Then they organize their sketches through outlining. They decide on the main ideas and supporting details, as well as the introduction and the concluding sentence. In other words, they plan what and how to write. They write the first draft based on the outline. After writing, students practice reflecting learning through self-check and peer-assessment. Finally, they prepare their final paragraphs to be reviewed and commented on by the instructor. In essence, students learn how to engage in the writing process.

Learning from experience is another implication of the current study for students. Portfolio-assessment helps them become aware of their strengths and weaknesses and learn from their own writing performance. Portfolio-assessment of process writing can also help them develop a sense of responsibility for their own and their peers’ writing development.
The results also have some beneficial implications for university instructors. The students’ positive perception of teacher-feedback suggests that writing without feedback is incomplete in tertiary education. Students who do not receive continuous guidance, support, and regular feedback from instructors, will not improve their writing ability sufficiently. Therefore, instructors should provide ongoing individualized feedback on students’ writing to reach satisfactory outcomes. It might be a heavy burden on university instructors’ shoulders in case of crowded classes. Still, students need to be aware of their writing problems in order to resolve them and boost their writing performance.

Regarding language assessment, the results suggest university instructors benefit from portfolio-assessment in assessing the writing process rather than writing as product. Assessing a single product at the end of an academic semester would not be a valid indicator of students’ writing achievement. Several attempts of drafting, writing, and editing should be considered in writing assessment. In short, like any type of formative assessment, portfolio-assessment is the assessment for learning, not the assessment of learning.

There is not any research devoid of limitations, and this is true for the present study for several factors, including the research design, the instruments, and the sample selection--although the results are statistically significant. Factors such as age, gender, and other individual characteristics left untouched in the present study, which can provide areas for further research to see if they have any positive effect on EFL learners’ writing achievement. As a promising authentic assessment technique, portfolio-assessment of process writing has the potential to increase both the instructors’ and learners’ active engagement in teaching and learning processes.


