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Teachers to Learners: Portfolio, please! New Techniques of Portfolio Assessment in ESL Classrooms

Samah Abduljawad 

Department of English,
Royal Commission for Yanbu Colleges and Institutes,
Saudi Arabia

Abstract. Portfolio assessment is considered to be one of the more advanced approaches to enhancing the proficiency of English among second language (ESL) students. The research examines how ESL learners' writing processes involved in portfolio creation influence their overall writing performance, specifically focusing on electronic portfolios (EPs) and paper-based portfolios (PPs). The research also identifies the challenges that Saudi ESL learners face when using the writing portfolio. A mixed-method approach was adopted for the research. The quantitative method consists of ESL tests distributed among one hundred and twenty male ESL learners at Yanbu Industrial College in Saudi Arabia to determine the effect of various writing portfolios on students' writing performance. A qualitative method, which consists of classroom observations, document analysis, and interviews with twelve ESL students and seven ESL teachers from different universities in Saudi Arabia, has also been utilized. The research highlights the fact that although there is no significant difference between paper-based (PPs) portfolios and electronic portfolios (EPs) in developing students' performance in writing, specific pedagogical approaches should be implemented in assessing the writing portfolios, such as the students' reflections and their peers' assessments, to raise their awareness of language structures. ESL teachers should also adopt a correction method that only highlights common mistakes to help students notice their errors and avoid charging them with negative feelings of excessive corrections. The research's outcome could raise ESL teachers' awareness of the best pedagogical methods of evaluating the writing portfolio and provide some strategies to help students develop their writing performance.

Keywords: writing portfolios; ESL students; pedagogical techniques

1. Introduction

Understanding the different kinds of language is one of the complicated processes in the study of the language. A portfolio evaluation that includes different kinds

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of writing samples developed at various points is considered one of the effective ways of shaping writing performance (Do, 2023). The crucial step in developing English as a second language (ESL) proficiency is acquiring a good command of writing. It facilitates communication in academic, professional, and personal life (Bhowmik & Kim, 2021). However, writing remains a challenging skill for most of the ESL learners.

An effective strategy for enhancing writing abilities in ESL classrooms is the execution of an appropriate assessment format, including a paper portfolio (PP) assessment. Barret (2006) defined a paper portfolio as “a collection of works that a student has selected, arranged, reflected upon, and presented to show comprehension and development over time” (p.1). With the implementation of technology, an electronic portfolio (EP) assessment was enabled. It shares many characteristics with traditional PP, with the primary distinction lying in its digital format through the Web. Donkers et al. (2008) stated that “despite variations in content and format, portfolios report on work done, feedback received, progress made, and plans for improving competence” (p. 81).

Donkers et al. (2008) have demonstrated that composing portfolios improves students' performance. Portfolio assessment (PA), including PP and EP, fosters the metacognitive awareness of students and facilitates their learning. On the other hand, writing portfolios continue to be an emotive topic in ESL classrooms as demonstrated by numerous other studies (Farahian & Avarzamani, 2018; Gebrekidan & Wei et al., 2023; Zeru, 2023). Wang and He (2020) claimed that ESL students regarded PA as a laborious, ineffective, and complicated procedure (Wang & He, 2020). As a result, the thorough execution of the PA in ESL classrooms has repeatedly encountered enormous challenges and thus requires additional research (Michelotto et al., 2022). It is hoped that more studies can be carried out to examine the impact of PA on different ESL skills other than writing (such as speaking and reading) or subskills (grammar and pragmatics). It is also hoped that more research on the implementation of technology in the ESL classroom will provide a better understanding of e-portfolios and explore ESL teachers' and students' attitudes to this new approach to assessment.

Recent research on Saudi Arabian ESL students' writing enhancement progress has revealed an unsatisfactory result (Mould, 2010; Grami & Alzughairi, 2012; Abduljawad, 2021; Ankawi, 2022; Ansari, 2023). Mould's (2010) and Abduljawad's (2021) findings showed that the impact of the first language and the insufficient exposure to English in ESL classrooms deter students from achieving high grades in English writing exams. Similarly, Ankawi's results showed that many Saudi ESL students earned low writing scores on examinations. They achieve high marks in portfolio evaluations, in contrast to their performance in the final writing examination. Therefore, a significant proportion of students hold unfavorable perceptions of their writing abilities as they fail to perceive themselves as effective in the final examinations (Ankawi, 2022). There is an explicit research gap between students' results in the writing examination and in the writing portfolio. Therefore, this research aims to probe the impact of paper-based PA and electronic PA on Saudi ESL students' writing performance and investigate any essential differences between them. The research

also explores the barriers Saudi ESL teachers and students face in using the writing portfolio, which may prevent the students from achieving a high level in writing tests. Current research on ESL barely examines the challenges associated with writing portfolios to establish an optimal learning environment for both teachers and students. Furthermore, this research may enlighten ESL teachers regarding the most effective pedagogical approaches for assessing the writing portfolio and offer suggestions for assisting students in improving their writing abilities. Hence, the following research questions are formulated:

1. Do the paper-based PA and the electronic PA improve Saudi ESL students' writing skills? And are there any main differences between them in improving Saudi ESL students' writing performance?
2. What challenges do Saudi students face in using the writing portfolio that would deter them from scoring high marks in written examinations? What pedagogical techniques could ESL teachers use to help students overcome these challenges?

2. Literature Review

Writing a portfolio is one of the most effective, beneficial, and valid tools for teaching and evaluation in different settings such as colleges and ESL education. A well-designed portfolio model can play a vital role in improving students' critical thinking in writing through creativity, decision-making, and initiative. The writing portfolio also provides opportunities for teachers to determine the students' writing proficiency, abilities, and efforts. Additionally, it strengthens the relationship between the learning processes and the writing assessment, both of which have a vital significance (Do, 2023).

A writing portfolio provides learners with opportunities to enhance their writing ability by offering them revising, editing, and tutoring opportunities (Tonogbanua, 2018). Portfolio-based writing assessments can contribute to monitoring student progress over time, provide grounds for extensive revision, and motivate students to take responsibility for their work.

2.1 Portfolio Assessment (PA) in ESL

The inadequate writing skills of ESL students are due to the two main components, namely the ESL learner and instructor (Fathi et al., 2020). Teachers need to have appropriate pedagogical strategies in place to teach writing skills, including supporting prompts and effective feedback to students most essentially, where teachers cannot motivate students. Conversely, ESL students face many barriers, such as the impact of the first language, motivation, and practice (Razi & Rahmat, 2020). In Saudi Arabia, many scholars indicated that Saudi ESL students need more knowledge for writing regarding the choice of words, grammatical accuracy, and organizing information in the context according to its pragmatic meanings (Alkubaidi, 2019; Grami et al., 2021). This is because of the impact of the first language (Arabic), poor teaching methodologies, and insufficient exposure to English in SA. The Saudi curricula focus less on English writing skills, therefore, the students face challenges in expressing their ideas effectively when writing academically (Akramovna et al., 2020).

Thus, new approaches to writing assessment have been developed and highlighted in the past literature to improve ESL students writing abilities. The phrase “genuine” standard refers to these novel writing approaches (Nguyen & Phan, 2020; Grami et al., 2021). In the domain of ESL, PA is the widely used approach, while those widely recognized are PP and EP. The PA approach provides ESL students with the opportunity to spend time choosing topics, arranging ideas, and writing about them before submitting their final writing, after drafting, revising, and editing. Furthermore, it is a useful tool for enhancing general second language abilities, such as speaking and writing, as well as writing subskills, such as spelling and grammar (Ngui et al., 2019).

With the emergence of technology, EP has appeared as a critical component of PA in the education field. According to Dmytro (2019), in higher education, EP empowers students, offers feedback, and enhances the interactivity level. Furthermore, EP assists teachers and students to maintain a focus on their learning and skill development. This approach offers clear goals and tasks and utilizes the learning data to help them (Möller et al., 2021). Torabi (2020) highlighted many advantages of EP, such as improving students’ motivation by adding audio tracks, videos, and graphs to the content to shape the portfolio (Torabi & Safdari, 2020). Similarly, Gikandi (2019) indicated in his research that EP implementation in the educational sector enables competency-based assessment and learning to enhance fundamental proficiencies, including problem-solving, digital literacy, interactive collaboration, and self-efficacy.

The implementation of the EP follows the same pattern as utilized in PP. In this research, PP refers to a collection of students’ writing assignments in ESL classrooms that are collated, formulated, and reflected upon by ESL students. EP, on the other hand, refers to a collection of students’ writing assignments in a digital layout that is collected, formulated, and reflected upon by ESL students (Möller et al., 2021). Nevertheless, portfolio assessments do not always yield positive findings. For instance, Domene-Martos et al. (2021) have found in their research that although the writing portfolio enhances the learning outcomes and the evaluation processes, it sometimes shows that it is a time-consuming process and sometimes causes anxiety in students due to stressful tasks. Therefore, more studies are required to address these challenges and ensure the successful implementation of PA for ESL.

In the literature on teaching and learning ESL writing skills, some research studies have investigated the development of PA and the challenges of using it in an ESL environment. However, it has yet to be extended by qualitative and quantitative studies to examine the factors that generate these problems and how ESL teachers evaluate PA effectively (Torabi & Safdari, 2020).

In many studies, EP has been compared with PP. Likewise, Hasnah (2022) conducted research to compare the writing abilities of ESL students using the online portfolio and the paper-based portfolio. The research was carried out on 23 first-grade students of SMA Muhammadiyah 1 Natar. There were two groups in the research: one was an experimental group (online portfolio), and another one

was a control group (paper-based portfolio). The research results have shown that, as compared to PP, EP has significantly improved ESL writing skills.

Another research study was conducted by Barrot (2020) on a comparative analysis of the PP and EP. The research study was conducted with 89 L2 students who belong to four different classes. Among the four classes, two classes were asked to compile portfolios through Facebook. At the same time, the remaining two classes were asked to utilize conventional methods to compile portfolios. According to the research results, the Facebook portfolio was considered more favorable by students because of its flexible and accessible nature. Likewise, Torabi (2020) sought to explore the impact of EP and dynamic assessment on Iranian ESL students' writing performance. The results of his findings indicated that both e-portfolio assessment and dynamic assessment improved students' writing performance.

2.2 Pedagogical Strategies in PA

This research has employed one of the pedagogical strategies from the dynamic assessment for writing portfolios, e-portfolios, and paper-based portfolios to enhance the writing skills of ESL students. Lidz (1987) defined dynamic assessment (DA) as "interaction between an examiner as an intervener and a student as an active learner, which seeks to estimate the degree of modifiability of the student and how positive changes in cognitive functioning can be induced and maintained" (p.70). DA is generally rooted in the interaction hypothesis, a concept defined by Vygotsky, which asserts that interaction in a natural context facilitates acquiring the target language as it links input (what students hear and read); more particularly selective attention; and output (what students speak and write) in productive paths (Almeida, 2022; Long, 1996).

Moreover, DA helps the students to acquire the language successfully (Kao & Kuo, 2023). DA's objective is to provide the learners with assistance in actively engaging them in various kinds of activities. Nasiri (2020) mentioned in his research that DA helps identify students' language patterns and the skills that can aid in predicting future language performance. Therefore, DA was used in this research to raise students' awareness by implementing a variety of teaching methods, such as asking students to read their friends' writings or to interact with one another (an implicit method) and discuss their mistakes (an explicit method), to give them enough confidence to break through the fear barriers of writing.

DA encourages ESL students' language development and expands the students' capabilities beyond the pedagogical task through the instructor's dialogic mediations that contribute to facilitating students' learning (Kao, 2015). Derakhshi's (2019) results indicated that the DA implementation for language students leads to a significant improvement in their writing capabilities and test scores. Similarly, Alemi's (2015) findings demonstrated that the use of mediation via DA helped Iranian ESL participants become more aware of the rubric of writing assessment, which consequently improved their ESL writing.

This research also employed freewriting practices, providing practice tests, asking students to reflect on their writings, and giving further corrective feedback

methods (which is also called the DA as mentioned above) with the avoidance of excessive corrections using red markers in checking students' portfolios. Previous research has suggested that using different educational features significantly improves the students' second language (Ngui et al., 2019; Nunan & Capobianco, 2019). For instance, Park (2020) conducted research on thirty university students who were enrolled at the first level of the academic writing class. He used anxiety surveys, free writing, and students' reflections as the main methods of collecting data. His findings demonstrated the benefits of freewriting practices for ESL students' writing fluency and anxiety. ESL students generally agreed that the freewriting activity increased the quality of their writing, decreased their fear of writing tests, and improved their thinking skills. However, they reported some negative aspects of freewriting activities such as time limits and the absence of feedback. Analysis of students' reflections also revealed that their language accuracy also improved. Hence, their scores on the writing tests gradually increased as these reflections raised students' awareness of second language structures.

Besides using everyday freewriting exercises and providing practice tests in the portfolio-based instruction, another important part of a successful assessment of the writing portfolio was avoiding the overuse of red markers in checking students' writing portfolios. According to Fikrlova et al. (2019), using a red marker for checking the students' portfolios evokes a correlation with failure and increases the level of anxiety. The return of papers covered with the inevitable red marks results in a need for more comprehension and awareness of linguistic mistakes. ESL students may feel discouraged and disappointed if they see red markers in their portfolios as they feel their efforts do not have merit. Therefore, it leads to students' reluctance to read their teachers' feedback.

Past studies show the different kinds of strategies such as sharing error sheets, using color codes to identify errors and having the students correct them as an appropriate strategy to avoid the usage of red markers (Azeez, 2021; De Oliveira et al., 2021; Núñez-Peña & Bono, 2022). Furthermore, Diab (2022) recommended the use of a peer corrective feedback approach to improve ESL students' writing and language skills instead of the instructor's direct feedback with red markers.

In this research, the researcher used both PP and EP, provided many different writing topics and practice tests, assessed the writing portfolio by means of DA, and avoided excessive corrections with red markers to check students' writing portfolios.

3. Methodology

3.1 Participants in the research

The research participants in this research were ESL teachers from various universities in Saudi Arabia and their ages ranged between 25 to 55 years. In addition, there were 120 male students from Yanbu Industrial College (YIC) in Saudi Arabia. These male students were selected from six different ESL classes, and their ages ranged between 18 and 22 years, with Arabic as their first language. The six ESL classes were classified into three groups: Group One consisting of two ESL classes served as the first experimental group which received a paper-based

portfolio assessment with new advanced pedagogical strategies and practices; Group Two consisting of two ESL classes served as another experimental group which received e-portfolio assessment with the same pedagogical strategies and practices of the first experimental group, while Group Three consisting of two ESL classes served as the control group of the study which received paper-based assessment with regular pedagogical strategies. The total number of students in this study was 120; each class had 20 students. They were chosen as they had passed the former semester after studying at the intermediate English level based on the college curriculum. They were selected from YIC based on a convenience sampling method as the researcher is working at this college; however, the classes were selected randomly. In addition, two students from each group were selected to conduct interviews with the researcher, a total of 12 students from the three groups, to support the quantitative method's findings, which are addressed in detail later. All participants, including both ESL teachers and students, received and signed the consent form. The interview questionnaire is attached in Appendix A.

3.2 Data collection

The research employed mixed methodological approaches, and data were collected by both quantitative and qualitative means. The data collection techniques were tests, classroom observations, document analysis of students' activities, the researcher's reflections, and interviews with ESL teachers and ESL students. The researcher applied five procedures: (a) conducting pre-tests and post-tests before and after the experiment, b) observing the situations which were the way the instructors used the PA and teaching writing in ESL classrooms, (c) analyzing students' writing portfolios, and making reflective notes, (d) conducting interviews with ESL teachers and students, and (e) concluding. The purpose of these methods was to provide a complete description of how to implement PA successfully in teaching and learning English writing in order to validate the data.

3.3 Intervention

In this research, three groups were considered. Two were the experiment groups, and the remaining one was the control group. These groups were tagged as Group A (PP with advanced pedagogical approaches), Group B (EP with advanced pedagogical approaches), and Group C (EP with regular pedagogical approaches). In one experiment a paper-based portfolio with advanced pedagogical strategies was employed. In the second experimental group an electronic-based portfolio with the same advanced methodological approaches was used. The third group utilized a controlled group paper-based portfolio with simple pedagogical approaches.

The experiment portfolios included activities such as writing assignments, corrected samples, and the students' reflections. In the e-portfolio, multimedia channels were also incorporated for peer feedback. The teachers for the experimental groups were trained in and informed about the goals of the PP and EP writing portfolios. The syllabus included the various writing types in the experiment portfolio. The freewriting approach has also been incorporated into the syllabus as a topic. During the classes, students were given tasks regarding essay writing. Students then received feedback in class on their writing

performance, both on the contents and the mechanics. Furthermore, the explicit methods of teaching for the experiment group were utilized, including instructor-direct feedback and peer collaboration regarding the errors to enhance the ESL students' interest.

On the other hand, the control group was only given the traditional writing instruction. They were asked to submit simple writing drafts to their instructor with no peer collaboration or self-reflection. Furthermore, in the control group, the instructor utilized the traditional way of checking, which involved the grading criteria as per the rubric. These practices, tests, and activities with the control and experimental groups were conducted during the semester classes. The main aim of conducting these experiments was to compare the PP and EP portfolio writing approaches with the traditional writing approach.

3.4 Research Procedures for Per-Test

First, the pretest was administered to both groups. TOEFL iBT writing sample tests were used as applied by Nurhayati (2021) to determine the intervention's efficacy. This method ensures that the writing proficiency of both groups is comparable. Two ESL teachers checked the designed pretest to ensure its validity. It is worth noting that the writing post-test topics differed from those of the pre-tests.

3.5 Research Procedure for Post-Test

After 12 weeks of instructional writing, the students in both groups received the writing post-test. Again, as with the pre-test, students wrote about two different topics; however, they were related to their writing syllabus. After both the pre- and post-tests, the average scores of these tests were calculated to carry out further evaluation.

After conducting the tests, the data-analysis phase began. The researcher compared their results on the writing tests using the T-test of Stata17 Software to explore their performance before and after the experiment. Later, the researcher analyzed the data from the qualitative materials thematically.

4. Result

For precise analysis, this research focuses on two elements:

- The first element includes English writing exams (EWE), which are utilized to compare students' writing competency in English after implementing various kinds of writing portfolios with advanced teaching methods; and
- The second element contains observations, document analysis, and interviews, which are used to determine the successes and challenges that students face in using writing portfolios in ESL classrooms.

The first analysis presents the students' performance in the three groups:

- Group A (the first experimental group) which received a paper-based portfolio assessment with advanced pedagogical strategies;

- Group B (the second experimental group) which received an e-portfolio assessment with the same pedagogical strategies and practices as Group A; and
- Group C (the control group) which received a paper-based portfolio assessment with regular pedagogical strategies.

The results of these three groups in EWE before and after the experiment were collected and analyzed using a t-test to answer the first research question.

4.1 Group A Results

Table 1: Group A Results

Paired t test

Variable	Obs	Mean	Std. err.	Std. dev.	[95% conf. interval]	
post	40	15.0875	.3211994	2.031444	14.43781	15.73719
pre	40	6.8	.353009	2.232625	6.085972	7.514028
diff	40	8.2875	.1992675	1.260278	7.884443	8.690557

mean(diff) = mean(post - pre) t = 41.5898
 H0: mean(diff) = 0 Degrees of freedom = 39

Ha: mean(diff) < 0 Ha: mean(diff) != 0 Ha: mean(diff) > 0
 Pr(T < t) = 1.0000 Pr(|T| > |t|) = 0.0000 Pr(T > t) = 0.0000

For Group A, the value of t is 41.589825. The value of p is < .00001. The result is significant at $p < .05$. These results indicate a statistically apparent change in scores from the pre-test to the post-test in this group, as seen in Table 1. The t-test results of Group A show a highly significant change in scores from the pre-test to the post-test. This suggests that paper-based portfolio assessment with advanced pedagogical strategies used with Group A has had a substantial impact on the student's performance.

4.2 Group B Results

Table 2: Group B Results

Paired t test

Variable	Obs	Mean	Std. err.	Std. dev.	[95% conf. interval]	
post	40	14.65	.3364597	2.127958	13.96945	15.33055
pre	40	6.7	.32463	2.05314	6.043374	7.356626
diff	40	7.95	.1705947	1.078936	7.60494	8.29506

mean(diff) = mean(post - pre) t = 46.6017
H0: mean(diff) = 0 Degrees of freedom = 39

Ha: mean(diff) < 0 Ha: mean(diff) != 0 Ha: mean(diff) > 0
Pr(T < t) = 1.0000 Pr(|T| > |t|) = 0.0000 Pr(T > t) = 0.0000

For Group B, the value of t is 46.6017. The value of p is < .00001. The result is significant at $p < .05$, as seen in Table 2. Similar to Group A, the t-test results of Group B indicate a highly significant change in scores from the pre-test to the post-test. However, there is a slight increase in students' scores in Group B, who used e-portfolios ($t=46.6$), compared with Group A, who used paper-based portfolios ($t=41.5$). This suggests that using either paper-based portfolios or e-portfolios with good teaching techniques helps students perform better in English writing.

4.3 Group C Results

Table 3: Group C Results

Paired t test

Variable	Obs	Mean	Std. err.	Std. dev.	[95% conf. interval]	
post	40	7.85	.3331089	2.106766	7.176224	8.523776
pre	40	6.625	.3155937	1.99599	5.986652	7.263348
diff	40	1.225	.3271624	2.069157	.5632515	1.886748

mean(diff) = mean(post - pre) t = 3.7443
H0: mean(diff) = 0 Degrees of freedom = 39

Ha: mean(diff) < 0 Ha: mean(diff) != 0 Ha: mean(diff) > 0
Pr(T < t) = 0.9997 Pr(|T| > |t|) = 0.0006 Pr(T > t) = 0.0003

For Group C, the control group, the t value is 3.7443. The value of p is .00058. The result is significant at $p < .05$, as seen in Table 3. The t-test results of Group C show a small change in students' scores from the pre-test to the post-test. This suggests that the paper-based portfolio and the traditional methods of teaching writing implemented in Group C have had a minor positive impact on the student's performance compared to Groups A and B.

4.4 Interview Results

Besides the EWE, classroom observations, document analysis, and interviews were conducted to answer the second research question mentioned above. The qualitative analysis shows that implementing PA, both paper-based portfolios and e-portfolios, helped teachers observe the progress of learners' writing skills. However, students' interviews and the researcher's observations indicated that the writing portfolio assessment has some disadvantages. For example, it is challenging and complicated for some students owing to overcorrections by many teachers when checking students' writing portfolios. This leads to students' reluctance to go over their writing mistakes:

"Two students mentioned in the interviews that the overdone corrections using red markers made them feel disappointed in understanding their mistakes. Many researchers have previously corroborated this negative impact of the excessive use of red markers on students' papers."

The researchers also asked the teachers about the implementation of portfolio writing in their colleges. The teachers answered as follows:

"Many ESL teachers mentioned in the interviews that they implement the writing portfolio in ESL classrooms in Saudi Arabia; however, we do not use it as it is supposed to be used. Another teacher added that most of the writing topics were chosen by the University Curriculum Department, which makes students feel boredom and demotivated to write."

Therefore, implementing technology in teaching writing, such as using an electronic portfolio in some English writing classes and giving students the freedom to write about any topic in English writing classes, has the advantage of relieving the monotony of old learning methods that limits students' motivation. The researcher's observations also revealed that, unlike the control group, the students of the experimental groups received further corrective feedback and assistance from the instructor and peers, making them more confident and competent in doing English writing. Moreover, to gain the benefits of writing portfolios, one of the teachers pointed out the importance of implementing authentic materials in English writing classes, such as reading novels, to develop students' accuracy and fluency in ESL writing. Also, ESL teachers and the researcher's observations confirmed the importance of students' reflections on their writing, which has a positive role in developing their writing performance. Many teachers noticed that students' reflections are a further bonus for those students who enjoy speaking about their work as well as for those who were too shy to initiate discussions with teachers.

5. Discussion

The research sets out to investigate any major differences between the e-portfolio assessment and the paper-based portfolio assessment on improving Saudi ESL students' writing performance. Additionally, the research attempts to examine the challenges that the students face in using the writing portfolio and to explore efficient pedagogical ways for evaluating the writing portfolios, which in turn leads to improved student performance in writing successfully.

For research Q1, the quantitative analysis indicated that using writing portfolios, both PP and EP, with certain pedagogical methods of assessing these portfolios enhanced Saudi ESL students' writing performance. Nevertheless, there was not any statistically valid difference between the impact of PP assessment and EP assessment on improving Saudi ESL students' writing performance. This finding confirms the results of a study by Torabi and Safdari (2020). They concluded that paper-based portfolios form the basis for the development of e-portfolios. Therefore, both can improve students' writing performance once the right criteria are applied. Likewise, the results of the current research concerning the positive impact of using writing portfolios and valid pedagogical methods on assessing the writing performance of Saudi ESL students are in line with Alam and Aktar's (2019) findings. The results of this research have indicated that the formative portfolio assessment has improved the language writing and reading skills of Saudi students by empowering them to control their learning processes (Alam & Aktar, 2019). The results of this research are also in congruence with Bahrom et al.'s (2018) findings (Bahrom et al., 2022). This research has shown that implementing the PA with ESL students has improved their language abilities by giving them autonomy in various psychological aspects compared to traditional teaching methods.

According to the research Q2 (What challenges do Saudi students face in using the writing portfolio that would deter them from scoring high in the writing exam? And what are some pedagogical techniques that ESL teachers can use to help students overcome these challenges?), the qualitative data analysis presented some barriers that ESL students face when using PA. It also offered several pedagogical techniques that ESL teachers can use to help students overcome these problems.

The results of these research questions indicated some barriers to using the PA that ESL students faced before the experiment was applied. For instance, some students mentioned in the interviews that it is boring and difficult, and others stated it is complicated and useless as they do not score high in the final examinations. Moreover, student interviews revealed that most students do not follow the teachers' feedback. They use autocorrect sites (such as ChatGPT) before submitting the final draft. Unfortunately, the researcher found that the teachers indicated all students' errors in students' drafts with red markers. Therefore, students might feel too disappointed to read their instructor's corrections. Furthermore, the teachers' interviews revealed that owing to the large number of students in the class, there is no time to check the students' writing portfolios twice, and there is no time to meet students and discuss the teacher's comments on their writing portfolios, only those who need it. The teachers also argued that one of the challenges that deter students from scoring high marks in the final examination is the lack of writing practice during the semester. This finding is supported by Ankwai (2022), who mentioned that the Saudi curricula do not focus much on English writing skills. All these weaknesses of portfolio assessment stated earlier are in line with other studies (Hudori et al., 2020; Kao, 2015). Hence, the qualitative data analysis offers several suggestions for how ESL teachers can assess PA successfully to help Saudi students overcome the barriers they face using the writing portfolio.

ESL teachers should use pedagogical methods in teaching and assessing the writing portfolio to improve students' writing performance. For instance, implementing students' reflections is important to help students identify their own mistakes. Park (2020) supports this result, noting that implementing students' reflections on portfolios encourages students to revise and improve their work. Students' reflection helps ESL students notice their mistakes, which leads to stable knowledge development.

The ESL teachers could also help students be aware of their mistakes by using dynamic assessment, such as enhanced peer collaboration (implicit methods of teaching) and consulting with teachers after each writing assignment (explicit methods of teaching) to provide direct feedback on their work. The findings of this research allude to the positive impact of DA on ESL learners' writing performance. Abdullateef and Muhammedzein (2021) concurred with the results through research at Prince Sattam bin Abdulaziz University. This study shows that DA significantly enhances ESL learners' language and promotes social practices.

Conversely, ESL teachers should change their way of correcting students' writing portfolios and avoid excessive corrections using red markers since the qualitative data of this research showed that many students did not read their teachers' feedback on their writing portfolios. ESL teachers should adopt a correction method that highlights only common mistakes and explains these mistakes with written comments at the end of the content to help students notice their mistakes and avoid the negative impacts of excessive corrections. Feren et al. (2020) noted that the detailed feedback at the end of the paper showed a significant improvement in English students' writing skills.

Furthermore, to eliminate the monotony and boredom of English writing classes, ESL teachers should adopt academic methods that mutually construct tasks with students to motivate them. Providing free writing topics that give them the liberty of selecting topics of their interest could also serve as a means of motivation. The greatest value of free writing in portfolio assessments is that the students have an opportunity to write about many topics within their circle of interests. In this way they become active participants in the learning process and overcome writing anxiety (Park, 2020). Implementing an electronic portfolio in writing classes and using a variety of aids in technology, such as listing videos, graphics, audio tracks, and texts as the content in e-portfolios, also has the advantage of removing the monotony of old learning methods, thus enhancing students' motivation. (Torabi & Safdari, 2020).

6. Limitation

One limitation was that only one university in Saudi Arabia was targeted for data collection. Another limitation of this research is that it only considers male students as a sample size because male and female students are separated in Saudi universities.

7. Future Implications

For future research, researchers should collect data from multiple universities instead of only one to obtain diverse perspectives. Future researchers should conduct a comparative analysis between the PP and EP to determine which system is most relevant to addressing the issue investigated. Furthermore, the researchers should consider a longitudinal research design to identify the long-term impact of PA on ESL students.

8. Conclusion

In ESL classes, simply teaching ESL writing using electronic (EP) or paper-based (PP) writing portfolios without defined assessment criteria is insufficient to make the students successful writers in the target language. Some advanced pedagogical methods should also be combined with implementing the writing portfolio to improve students' writing performance. We advocate an integrated teaching approach to heighten ESL students' awareness across the writing portfolios through a fruitful integration of collaborative learning, students' self-reflections, everyday writing, and practice tests. Also implementing authentic materials in teaching ESL writing, such as using literature materials that consist of novels and poetry, enhances students' writing performance. Finally, following effective ways of checking ESL students' writings and avoiding excessive corrections in their writing portfolios help them notice their mistakes and avoid charging them with the negative energy resulting from using red markers. The research has proven that portfolio assessment (PA) and advanced pedagogical approaches significantly enhance students' writing capabilities. This research has provided fruitful insight to educationalists regarding the impact of PA. Educationists can advance the use of PA for their ESL students by using innovative strategies.

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Appendix A

Interview Questions:

Section 1: General information

1- Could you please tell me some general information about your teaching experience?

For example, (What level do you teach, and how long have you been in teaching English?)

Section 2: Questions

1- What pedagogical methods do you use in teaching writing?

2- Do you only follow the course specifications of the writing course? What Kind of materials do you use in teaching writing?

3- Do you notice differences between paper-based and electronic portfolios in developing students' writing performance?

4- From your teaching experience, what barriers do your students face in using the writing portfolio that would deter them from scoring high in the writing exam?

5- Tell me some procedures that you follow to check the writing portfolio. In other words, how do you assess their writing portfolios, and what color do you use to correct their portfolios?

6- Do you have any comments that you would like to add?