Scope of E-Portfolio Based Assessment Tool: Perceptions and Practices of ELT Practitioners in Pakistan

Yaghsha Sahar[1], Muhammad Shahbaz[2]

Abstract

The goal of conducting this study was to acquire the perceptions and practices of ELT practitioners to finalize the scope of e-portfolio based assessment in the country. This study included a survey research of 54 participants (EL teachers K-6) that were chosen through simple random sampling technique. The theoretical framework of the study was Kirkpatrick's assessment theory that has been used to achieve the objectives and analyze the results of the study. The data were collected by maintaining the research ethical decorum. The results claimed that the positive perceptions of e-portfolio had an average score of 3.07 while supportive practices and utility had an average rating of 2.95. The results provided that Pakistani English language teachers have positive perceptions regarding electronic portfolios. Thus, there is a high scope of implementing e-portfolios for the language assessment. It was recommended to obtain further clarification of ideas and promote training in the particular domain.

Keywords: *E-portfolios, EL Teachers, Assessment, ELT Practitioners*

1. Introduction

Dwelling from the dimensions of alternative assessment, portfolios provide an overview of the best of the work and journey of progress of one's career. Portfolios have already been used in multiple means of language assessment. Electronic portfolios are considered as one of the prominent types of alternate assessments for the evaluation of language. These e-portfolios can demonstrate the impact of students' skills, behaviour and attitude towards learning. Denman and Al-Mahrooqi (2018) attributed e-portfolios as one of the recommended language assessment channels as it is more complacent for learning programs and consistent student performance. The use of e-Portfolio marks the foundation of a neutral language evaluation. Research studies in Asia, such as Estaji and Ghiasvand (2022) in Iranian context, have been conducted to evaluate the perceptions of teachers regarding the utility of e-portfolio assessments. Even Alsalem et al. (2021) have investigated the perceptions of

---

[1] MS Scholar, GC Women University Sialkot, Punjab, Pakistan
E-mail: yaghsha.sahar@gcwus.edu.pk
[2] Assistant Professor (English), GC Women University Sialkot, Punjab, Pakistan
E-mail: m.shahbaz@gcwus.edu.pk

instructors of students, with disabilities, regarding e-portfolios in Jordan. Keeping in view the growing interest of electronic assessment means and technology, Asad et al. (2021) advocated the active participation of technology assistance in the field of education in Pakistan. The commencement of computer assisted learning has driven a profound interest of exploring the likeability and efficiency of electronic portfolios. Similarly, there is a need of authenticating a language assessment tool outside classroom for embedding knowledge and skill creativity of test takers. Razali et al. (2022) supported e-portfolios as a systematic and authentic procedure of assessment. In this regard however, the lack of awareness, technical illiteracy and other factors might have suppressed the scope of technical alternative language assessment in Pakistan. In the light of the current scenario, the problem of the situation was to understand and evaluate the scope of e-portfolios in the English Language Teaching (ELT) Pakistani context. The exploration of perceptions and elaboration of key practices of ELT practitioners was required to facilitate the scope and future implementation of e-portfolios based assessment tool.

1.1 Objectives of the Study

The major aim of the study was to discover the underlying perceptions of the teachers regarding the use and implementation of e-portfolio based tool in Pakistani classroom assessment. Thus, the purpose of the investigation was to look at the attitude of English Language (EL) teachers to evaluate their practices and support towards the scope of E-Portfolio assessment in Pakistani context. To achieve the aim and purpose of the study, the objectives were as follows:-

1. To explore the perceptions of EL teachers regarding e-portfolio assessment
2. To develop an insight of the practices of EL teachers
3. To understand the scope of E-Portfolio assessment in Pakistan

1.2 Research Questions

The research objectives directed the study to the following research questions:-

1. What are the perceptions of EL teachers?
2. What are the practices of EL teachers?
3. What is the scope of E-Portfolio assessment in Pakistan?

1.3 Significance of the Study

This research is a significant attempt to connect the previous literature and the perceptions of the teachers in the use of e-portfolio assessing tool. The technology has been incorporated in every field of education, most probably in the field of language assessments. In this era, interpreting and contemplating the point of view of language teachers in Pakistani context regarding E-portfolio of

pupils, can generate an insight for assessing language in Pakistani language assessment domain.

Similarly, this investigation entails the significance of portfolio in general as well as the aspects of e-portfolios for measuring language performance with reference with four language skills. Moreover this study triggers out educational policy makers of Pakistan to develop a unique teaching and assessment tradition of implementing effective e-portfolio. This study proves valuable for the new stream of Pakistani education system.

1.4   Delimitations of the Study

The participant teachers were selected through a strict criterion. So the study was delimited to the EL teachers with the prime knowledge of e-portfolios. The exemption of other teachers might have manipulated the quality. The study was conducted upon one level of teaching only. The perceptions of teachers from different levels of education and in different means may generate entirely different sets of results. Similarly, longitudinal and cohort analysis of the teachers' perceptions and practices would may develop more specified and authentic evidences in Pakistani ELT context.

2. Literature Review

Language assessments are a vital element of overall assessment of an education system that has twin objectives; to evaluate the capabilities of the students and to improve the overall progress rate of the students. Klenowski (2011) defined the two primary forms of assessment; summative and formative that equally amalgamates certification, professional development and learning outcomes. However, the previous century has recognized a new form of language evaluation that not only focuses upon the traditional way of evaluation but also supports assessment out of the classrooms. That tool is of portfolios that have been taken into immense consideration for EL assessment. Birgin and Adnan (2007) have represented that education assessments require portfolios to interpret the improvement level and the reasons behind academic failures. Bataineh et al. (2007) presumed the underlying principles of using a portfolio that include less time consumption, maintaining the record of learning skills and reflective strategies. Vo et al. (2019) claimed that portfolios provide us a new direction for relating theory and practice, developing the learning procedure for these students. As a result the portfolios became a tool of reflection of pupils' current performance and a wand for impacting their future achievements. Huge dependency is prominent on using a traditional portfolio for language assessment (Dumlao & Mengorio, 2019). Martin-Kniep (2022) asserted that conventional selection of portfolio assessment remains confined to the paper based assessment and other traditional methods. As a result it lost its significance due to being

monotonous, time consuming and descriptive in nature. However, Pellegrini et al. (2019) revisited portfolios as the demonstration of the knowledge and practices in the assessment domain. Therefore, from the past decades, the portfolio has taken new dimensions in the assessment of students around the globe. Likewise, e-portfolio assessment that was initiated as an elementary school program expanded to all levels of education. Hakim and Srisudarso (2020) redefined the portfolio preferences for college and university students. The core purpose of those e-portfolios was to evaluate, enhance, provide and document the student learning and participation. The qualitative analysis represented that students supporting the adoption of an e-portfolio have been more in number rather than the tradition portfolios. The results reflected the popularity of electronic alternative assessment to assist the evaluation of the students' writing ability and prior assessment rating. Thus, the e-portfolio can be considered as one of the optimum assessment tools. Syzdykova et al. (2021) inferred that the use of assessment e-portfolios can be classified into the following categories according to their intended use:-

- Intermediating with learning outcomes
- Showcasing Learning Progress
- Dual orientation through assessment and documentation

The e-portfolios infuse self-regulation, motivation and cooperative based language learning through assessment. Though, the social media applications and software familiarity have acted as a rift between the new generation and the traditional teachers; still the use of Computer based Portfolio assessment act like a stimulating assessment tool because of its formatting flexibility, alignment ratio, and assessment learning moves for the millennials (Alruthaya, Nguyen & Lokuge, 2021).

Additionally, e-portfolios help to reduce the complexities of teaching and assessments. Joshi et al. (2015) assumed that using portfolios gives an opportunity to aggravate personalized marketing instrument. Since the turn of last decade portfolio assessment has been considered as one of the inevitable areas of record maintenance and improvement pantry. The new direction to the utility of portfolios has been emanated by the consistent progress in technology based language assessment at all levels. Although arrival of technology has not equally been scattered in all regions, still it is one of the attractive platforms for selecting, reflecting and displaying assessment data by both teachers and students. The e-portfolios are user friendly. Moreover a broader level of accessibility enhances the awareness towards e-portfolio implementation. The quality of communication among the assesse and the tester increases due to the familiar channel of assessment. Adding to it, Hussain et al. (2021) described that

the sudden blow of technology in the domain of portfolio assessments, has revived the requirements, perceptions and attitude of EL learners and instructors towards e-portfolios. Namaziandost et al. (2020) evaluated EFL learners' perceptions of e-portfolios on a vast scale. A series of mixed methods including semi structured interviews, longitudinal questionnaires and focus groups were conducted to authenticate the opinions and attitudes of learners. The results implemented that learners felt much familiarity and preferred technology based assessment tools. Their responses directed future research studies in the particular domain.

The recent decade has also emphasized upon the teachers perceptions. Yastibas and Cepik (2015) conducted a qualitative content analysis to explore what teachers perceive about employing E-portfolios for EL listening and speaking tutorials. The study showed that teachers were highly satisfied and marked e-portfolios as beneficial for ELT. However, the study was limited to four participants only; so further exploration was recommended. Similarly, Ghany and Alzouebi (2019) studied the perceptions and attitudes of teachers to an extent. A quantitative investigation was led in which 400 K-12 teachers shared their valuable set of attitudes and experiences. The results highlighted the lack of proficiency and acquired knowledge in handling E-portfolios as assessment tools. Khan et al. (2012) studied the variety of assessment tools used in the field of health sciences in Pakistan. Findings of the study indicated that e-portfolios are a notable assessment to assess students' knowledge and skills. However, it was suggested to explore its utility for improving critical thinking and communication skills. The scanning of the previous research gave an overview that use of e-portfolio based assessment is preferred but required further exploration. In Pakistan, the utility of e-portfolios is not much visible. The researchers have left an investigating aperture for inspecting the uses, notions and practices of e-portfolio based assessment tool on a broader spectrum in Pakistan.

2.1   Theoretical and Conceptual Framework

The theoretical framework for this study follows assessment model mentioned by Kirkpatrick and Kirkpatrick (2016). Alsalamah and Callinan (2021) commented that it is still a productive model of evaluation and interpretation in the pool of other contemporary models. The four facets of this model uniformly dealt with analyzing perceptions, learning patterns, practice of transferring knowledge and overall extent of the using e-portfolios as an assessment tool in this study.

Figure 1
Model of Assessment Theory
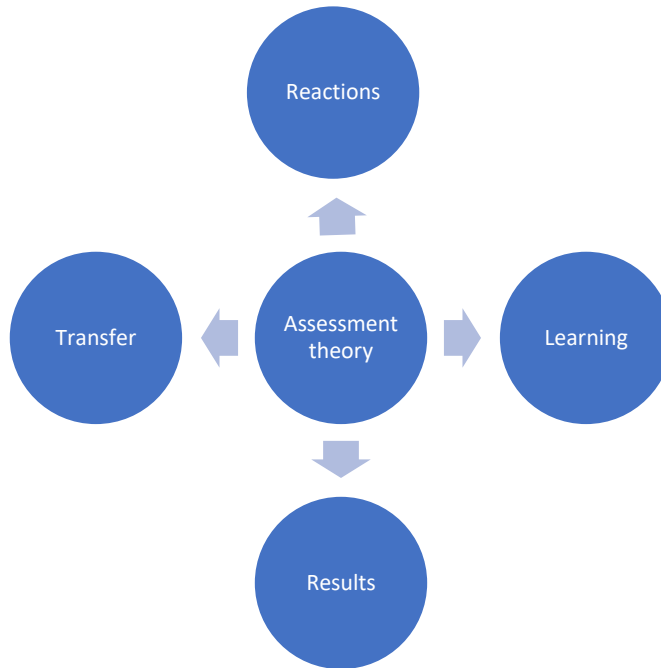
3. Research Methodology

3.1 Research Design

This study has followed a quantitative research methodology. Survey research had been opted as the main research design for this investigation to calculate the perceptions and attitudes of EL teachers.

3.2 Population and Sample

The population for this study was of the K-6 EL Practitioners of Sialkot city Punjab. Butler (2015) emphasized EL teachers of young learners are expected to assess early second language learning. So that, they could contribute to the eventual progress of the pupils. Therefore, K-6 EL teachers were chosen as the major population.

The teachers of 12 government schools (both boys and girls) of Sialkot city were targeted as the sample size for this study. However, only 54 respondents provided their consent for participation in this investigation.

3.3 Sampling Technique

The sample size of this study included all 54 participants. The sample was selected through simple random sampling technique. It was best suited to the research time frame and resources provided for this investigation.

Table 1

Demographics of the Respondents

	Description	Percentage
Gender	29 females	53.7%
	25 males	46.29%
	Total= 54	100%

For the selection of participants depicted in table 1, following criterion was prepared.

1- EL Teachers of K-6
2- Language instructors with a minimum experience of two years
3- Aware of alternative assessment methods

3.4 Instrumentation

A questionnaire of 25 items by Razali et al. (2022) had been adapted to explore the perceptions and practices of EL teachers regarding e-portfolios in Pakistani context. The instrument was slightly modified due to the change in the research objectives and context. The Cronbach alpha's value was 0.9, claiming the survey reliable and valid for the research.

Table 2

Sections and Constructs

Sr.	Sections	No. of Constructs
	Section 0	Willingness and Consent
1.	Section 1 Demographics	Name Gender Experience
2.	Section 2 Perceptions and Attitudes	5
3.	Section 3 Practices and Transfer	11
4.	Section 4 Results and Recommendations	5

Table 2 shows that the questionnaire followed a five point Likert scale. Apart from the section of demographics, the questionnaire is based upon three sections.

1- Perceptions regarding E-portfolio
2- E-portfolio for language assessments
3- Software recommendations

The questionnaire was circulated online to the EL K-6 teachers. The data were taken online through Google forms.

3.5   Data Collection

Fulcher and Davidson (2020) urged to maintain fairness in the research. All public, professional and research ethics have been employed during collection and post collection period. Care has been taken to keep the language unbiased and non-directional. The data were collected and analyzed with the consent of each participant. The identity of the participants has been kept hidden to avoid any privacy conflict in future. The participants were contacted and intimidated through instant calling, WhatsApp and email platforms during the collection of data. Therefore, the factors like lack of interest, misconceptions, and diagonal answer strategies have been avoided to the maximum extent possible.

4. Data Analysis and Interpretation

4.1   Analytical Framework

The descriptive analysis has been carried out. The mean of each section has been calculated along with the inferences.

4.2   Criterion of Interpretation

The collected data were interpreted through the criterion proposed by Bin Darusalam and Sufean (2016). The mean values of every construct were either marked high or low according to the value. <1.00 To>2.00 was interpreted as Low; <2.00 to >3.00 was marked as Medium to low; <3.00 to >4.00 was considered as medium to high and >4.00 to <5.00 was claimed to be as high value for the interpretation.

4.3   Perceptions and Attitudes of the Teachers

Perceptions deal and control the practices of the persons. Kuvaas (2008) highlighted that every individual supports unique yet pre standardized notions in one's brain to conceive and perceive the world in a particular manner. Section 1 explored the pre-assumed notions of the ELT practitioners regarding the purpose and significance of e-portfolios.

Table 3
Average Mean value of the perceptions of Teachers

Sr.	Items	Mean	Inference
1.	Keeper of record of student learning	3.90	Medium-high
2.	Best work selection results	1.81	Low
3.	Student learning assessment	1.84	Low
4.	Professional Development	3.94	Medium-high
5.	Documentation of results	3.88	Medium-high
	Average	3.07	Medium-High

The participants n=54 responded to the section one. The average sum value for this section is 5. Table 3 reflected that the average score of mentors considering that e-portfolios are helpful in keeping the record of students' progress is 3.90 that remained close to 4. However, the average mean value for the perception that E-Portfolio can generate best work selections got reduced to >1.811. Similarly, assuming electronic assessment as the tool for learning' score dropped to >1.84. However, the average response for e-portfolio perceived as the source of professional development and effective documentation conceded to >3.5. The average score of the sections of perception equalized to the average=3.07 that was interpreted as medium-high score.

4.4   Practices of the EL Teachers

The responses gathered in this section were based upon the practices and preference of use.

Table 4
Practices and Assumptions

Sr.	Items	Mean	Inference
1.	Alternative assessment tool of 21st century	3.60	Medium-high
2.	Flexibility of e-portfolio	1.73	Low
3.	Highly interactive assessment tool	3.32	Medium-high
4.	Creative assessment tool	2.79	Medium
5.	Best suited to present day technology	4.00	High
6.	Helpful in complete language assessment	3.47	Medium-high
7.	Effective for student's creative learning	3.90	Medium-high
8.	Effective for student' cognitive skills	3.73	Medium-high
9.	Supports systematic assessment and record keeping	2.90	Medium
10.	Helpful in progress monitoring	3.32	Medium-high
11.	Directs to more technology based assessment	3.69	Medium-high
	Total Average	3.30	Medium-high

The average of participant marking e-portfolios as the 21st century's tool for language assessment corresponded to the value of 3.60. However, the construct regarding the flexibility and utility of e-portfolio fell to a lower mean value=1.73. The teachers with an average of 3.32 regarded e-portfolios as the interactive assessment tool. Teachers who considered it as a novel and creative tool had a mean score of 2.79. While, the agreement of its suitability to technology had an average of 4 that is a fairly high value. The average of the supposedly belief that e-portfolios are a complete form of language assessment, was > 3.5 which was still a medium to high value. The average score of teachers believing e-portfolios can be pivotal channel for enhancing the cognitive and grooming creativity in students was >4.00. However, >2.9 mean value supported that e-portfolio provides a systematic assessment in Pakistani context. The preference given to the e-portfolios for its monitoring efficiency had a mean number of 3.23. While the support for technology assisted e-portfolios was represented by the mean=3.69. Table 4 inferred that the overall average score of the constructs is 3.30 that was a medium- high score where the total number of constructs is 11.

4.5   Scope of E-portfolio

Present age supports the invention of multi-purpose software and interactive social media sites. The section 3 dealt with the exploration of an appropriate software for e-portfolios assessment.

Table 5

Results and Recommendations

Sr.	Items	Mean	Inferences
1.	Blogger	1.69	Low
2.	Word Press	1.79	Low
3.	Facebook	2.58	Medium
4.	Google Classrooms	3.47	Medium-high
5.	Google Drive	3.45	Medium-high
	Average	2.59	Medium

Table 5 included recommendation and preferences for the software for e-portfolio assessments. The average result for preferring blogger and Word Press was relatively lower than 2. Thus the average score was >2.00. Due to the large familiarity index, Facebook likeability average score stood for >2.5 which was comparatively a medium score rather than Blogger and Word Press. The remaining two items; Google drive (mean value= 3.45) and Google classroom (mean value=3.47) presented higher values. The overall mean of the constructs referred =2.59 which was a medium score.

5.   Discussion and Conclusion

The results represented the perceived attitudes of EL teachers. The higher average values supported e-portfolios as the record maintaining instruments. However, the e-portfolio for the enhancement and betterment of academic achievement is not equally perceived by the participants. Jawaid and Aly (2014) distinguished that the trend of using e-portfolio based assessment tool is still not normalized in Pakistan. As a result, the results might not reciprocate with the previous studies completely; but showed a positive relation with them.

In Pakistan, the teachers have been pre-occupied with traditional means of assessing the students. The traditional portfolios have been used at different levels of education system of Pakistan. Therefore, the first reaction towards e-portfolios was of a documentary setup of learning progress and language assessment. Its professional development and technological compatibility was undoubtedly supported by the EL practitioners. However, the EL teachers failed to idealize a confirmed relationship of student's learning and the electronic assessment.

The practices and preferences of the ELT practitioners highlighted the use of e-portfolios for assessment when the traditional means are not required. Kusuma et al. (2021) acknowledged the use of e-portfolio increased during Covid-19 period. The results portrayed that teachers utilized e-portfolios for systematic assessment and its record keeping. However, depending upon it as a complete mode of language assessment has still not been a norm of Pakistani Assessment module. The practices of the teachers were driven towards more technical assessment. Kolb (2014) claimed that e-portfolio based assessment tool drags creativity in the procedure as well as in the learning procedure of the students. The transfer of knowledge and skill empowerment was evident through the practices and the results of the study.

Electronic portfolios make use of software and internet for assessing and storing the progress of the learners. Therefore, they have been given higher weightage as the new trend of modern day language assessment. The less likeability towards blogger and Word Press pointed out the lack of awareness towards these platforms. Barrot (2021) affirmed that platform of Facebook is well known and mostly used by most teachers and students. Therefore, the choice score of Facebook e-portfolio was improved. However, the corona era has demonstrated the intended use of Google classrooms as well. Therefore, it became the most recommended software for e-portfolios in Pakistan. Likewise, Google drive was relatively familiar platform to get equal popularity compared to Google classrooms. Wang and He (2020) generalized future use of e-portfolio in the main stream language assessment practices. The results of this research

enumerated that, if the assessment is taken on different levels of language assessment and education, the performance can be optimized in all forms of language assessments extensively. All those problems of the present system of Pakistani language assessment of EFL learners have been understood as a key obstacle in the way of incorporation of e-portfolios. Thus, the use of this alternative assessment seemed to be right and affectionate.

The results of this research investigation confirmed that e-portfolios provide a more authentic set of observations and exemptions regarding the student profile and overall improvement. The use of e-portfolios can contribute in systematic language assessment at all levels of language assessment. The results of the study put forward the notion that multiple aspects that may not be assessed evaluated to the complete extent in the traditional assessment can be assessed through e-portfolios.

The results proclaimed that e-portfolios help in understanding the requirements and interest towards particular skills of language. Meyer et al. (2021) support that Meta cognitive strategies and learning skills of language extend the knowledge regarding the use of portfolios in EFL assessment contexts. The awareness and perceptions of the teachers eventually cooperate for the brighter scope of e-portfolios in Pakistan.

6. Recommendations

Integration of E-portfolios in the present-day education system of Pakistan can be considered advantageous for both learning and assessment.

1. The findings of this study highlighted that the only challenge, present in the incorporation of the utility of portfolios is to out spread their usage and awareness regarding their use. The practices of teachers regarding e-portfolio can be groomed if this challenge is swiped off with effective guidance and comprehending the intentions of the teachers. Creative need analysis and latest tools can support the compensation of the gap between traditional mind set and digital e-portfolios. The lack of resources, conventional point of view, and technological illiteracy should be acknowledged and improved through proper funding and training.

2. This investigation has also indicated that e-portfolios are often considered as non-compulsory language assessment tools. It is recommended to maintain optimism and presiding positive vision regarding e-portfolios in the coming decade. The change can follow many trips and turns gradually but it would be consistent over time. Moreover, the supportive role from the education bodies and other organizations can be played in the implementation and understanding the

significance of portfolios. Recommendations can be forwarded to make e-portfolios as a recommended language assessment tool.

3. The results elevated the teachers' assumptions towards the insignificant role of e-portfolios in developing learners cognitive skills and creativity. Hence, the major recommendation for the e-portfolios assessment is its development with relevance to the learning outcomes of the students. The ultimate need is to maintain a sufficing range of portfolios that can be used by according to the requirement and interest of the people, resources and efficiency of e-portfolios. It is suggested to employ a strategy for modifying the attitude and practices of the ELT instructors to keep uniform e-portfolios assessment.

4. The use of portfolios, are thus an integral part of the whole some language assessments the focus of interest should be driven towards the learning and reflective aspects of the portfolio based language assessments.

References

Alruthaya, A., Nguyen, T.T., & Lokuge, S. (2021). The Application of Digital Technology and the Learning Characteristics of Generation Z in Higher Education. *ACIS*. Alsalamah, A., & Callinan, C. (2021). The Kirkpatrick model for training evaluation: bibliometric analysis after 60 years (1959–2020). *Industrial and Commercial Training*, *54*(1), 36-63.

Alsalem, G. M., Ali, E. M., Al-Bustanji, M. A., & Kamal, S. M. (2021). Perceptions of Professionals Working with Students with Disabilities towards the Use of E-Portfolios: Opportunities and Challenges. *Dirasat: Educational Sciences*, *48*(3), 414-427.

Asad, M. M., Hussain, N., Wadho, M., Khand, Z. H., & Churi, P. P. (2021). Integration of e-learning technologies for interactive teaching and learning process: an empirical study on higher education institutes of Pakistan. *Journal of Applied Research in Higher Education*, *13*(3), 649-663.

Barrot, J. S. (2021). Effects of Facebook-based e-portfolio on ESL learners' writing performance. *Language, Culture and Curriculum*, *34*(1), 95-111. https://doi.org/10.1080/07908318.2020.1745822

Bataineh, R. F., Al-Karasneh, S. M., Al-Barakat, A. A., & Bataineh, R. F. (2007). Jordanian pre-service teachers' perceptions of the portfolio as a reflective

learning tool. *Asia-Pacific Journal of Teacher Education*, *35*(4), 435-454.

Bin Darusalam, G., & Hussin, S. (2016). *Metodologi penyelidikan dalam pendidikan: Amalan dan analisis kajian*. Penerbit Universiti Malaya.

Birgin, O., & Adnan, B. (2007). The use of portfolio to assess student's performance. *Journal of Turkish science education*, *4*(2), 75-90.

Butler, Y. G. (2015). English language education among young learners in East Asia: A review of current research (2004–2014). *Language teaching*, *48*(3), 303-342.

Denman, C., & Al-Mahrooqi, R. (2018). Teachers' attitudes toward alternative assessment in the English Language Foundation Program of an Omani university. *English education in Oman: Current scenarios and future trajectories*, 59-73.

Dumlao, R. P., & Mengorio, T. (2019). From inland to outland: Experiences of non-native expatriate teachers teaching in a foreign context. *Journal of English Education*, *4*(1), 24-37.

Estaji, M., & Ghiasvand, F. (2022). Teacher assessment identity in motion: the representations in e-portfolios of novice and experienced EFL teachers. *Issues in Language Teaching*, *11*(2), 33-66.

Fulcher, G., & Davidson, F. (2020). *Language testing and assessment: An advanced resource book* (2020 ed.). Routledge.

Ghany, S. A., & Alzouebi, K. (2019). Exploring teacher perceptions of using e-portfolios in public schools in the United Arab Emirates. *International Journal of Education and Literacy Studies*, *7*(4), 180-191.

Hakim, P. K., & Srisudarso, M. (2020). A Washback Study on Portfolio Assessment. *ELT in Focus*, *3*(1), 9-14.

Hussain, R., Zahid, M. S., & Alam, Y. (2021). Ensuring Viable Solutions in Resource-Constrained Language Teaching Settings: ESL Learners Perceptions about Computer-Assisted Language Testing (CALT). *Sustainable Business and Society in Emerging Economies*, *3*(4), 509-519.

Jawaid, M., & Aly, S. M. (2014). 'E-learning' modalities in the current era of medical education in Pakistan. *Pakistan Journal of Medical sciences*, *30*(5), 1156.

Joshi, M. K., Gupta, P., & Singh, T. (2015). Portfolio-based learning and assessment. *Indian pediatrics*, *52*(3), 231-235.

Khan, J. J. S., Biggs, J. S., Tabasum, S., & Iqbal, M. (2012). Assessment in medical education in Pakistan: evaluating evaluation. *Biomedica*, *28*(1), 88-94.

Kirkpatrick, J. D., & Kirkpatrick, W. K. (2016). *Kirkpatrick's four levels of training evaluation*. Association for Talent Development.

Klenowski, V. (2011). Portfolio Assessment. *Adult Learning and Education*, 198-204.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.

Kusuma, I. P. I., Mahayanti, N. W. S., Gunawan, M. H., Rachman, D., & Pratiwi, N. P. A. (2021). How Well Do E-portfolios Facilitate Students' Learning Engagement in Speaking Courses during the COVID-19 Pandemic? *Indonesian Journal of Applied Linguistics*, *11*(2), 351-362.

Kuvaas, B. (2008). An exploration of how the employee–organization relationship affects the linkage between perception of developmental human resource practices and employee outcomes. *Journal of Management studies*, *45*(1), 1-25.

Martin-Kniep, G. O. (2022). *Portfolio Assessment*. Routledge.

Meyer, E., Abrami, P. C., Wade, C. A., Aslan, O., & Deault, L. (2010). Improving literacy and metacognition with electronic portfolios: Teaching and learning with ePEARL. *Computers & Education*, *55*(1), 84-91.

Namaziandost, E., Alekasir, S., Hassan Mohammed Sawalmeh, M., & Miftah, M. (2020). Investigating the Iranian EFL learners' attitudes towards the implementation of e-portfolios in English learning and assessment. *Cogent Education, 7*.

Pellegrini, M. M., Caputo, A., & Matthews, L. (2019). Knowledge transfer within relationship portfolios: the creation of knowledge recombination rents. *Business Process Management Journal*, *25*(1), 202-218.

Razali, N. F. Y. M., Hamid, J., & Hashim, H. (2022). E-Portfolio As An Assessment Tool in Teaching and Learning: A Survey of Teacher's Perceptions. *Journal of Contemporary Social Science and Education Studies (JOCSSES)*, *2*(2), 64-72.

Syzdykova, Z., Koblandin, K., Mikhaylova, N., & Akinina, O. (2021). Assessment of E-portfolio in higher education. *International Journal of Emerging Technologies in Learning (iJET)*, *16*(2), 120-134.

Vo, N. N., He, X., Liu, S., & Xu, G. (2019). Deep learning for decision making and the optimization of socially responsible investments and portfolio. *Decision Support Systems*. *124.*

Wang, L., & He, C. (2020). Review of Research on Portfolios in ESL/EFL Context. *English Language Teaching*, *13*(12), 76-82.

Yastibas, A. E., & Cepik, S. (2015). Teachers' attitudes toward the use of e-portfolios in speaking classes in English language teaching and learning. *Procedia-Social and Behavioral Sciences*, *176*, 514-525.