The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude
Abdelrahman E. AlAdl
Assistant Professor of TEFL
Delta University for Science and Technology
Egypt- Gamasa, International Road

Abstract

This study aimed at examining the impact of utilizing e-portfolio on improving Civil Engineering Students’ Technical Report Writing course and their attitude towards it in the Faculty of Engineering, Delta University in Egypt. A quasi-experimental research design was adopted. The participants were 60 civil engineering students (who had registered Technical Report Writing1, spring semester 2017). They were divided into two equal groups; an experimental group (N=30) and control group (N=30). The two groups were taught by the researcher himself, by applying traditional classroom instruction for control group, whereas the experimental group received treatment (e-portfolio assessment). The tools for data collection were report writing test and a questionnaire to investigate the students' attitudes towards the treatment. The test and questionnaire scores were analyzed using independent sample t-test, and pair samples t-test. The findings revealed that there is a difference in technical writing skills improvement for the experimental group. There was also evident change in the attitudes of the experimental group members towards the course. Some pedagogical implications were stated, as e-portfolio is a vital tool for writing evaluation. Thus, it should be employed in ESP assessment as an alternative along with traditional one to develop the process of writing.

Key words: e-Portfolio, assessment, Report Writing, performance, Attitude
مستخلص الدراسة باللغة العربية

تهدف الدراسة الحالية إلى التحقق من فعالية استخدام الحقيبة الإلكترونية في تنمية مهارات كتابة التقارير الفنية لدى طلاب كلية الهندسة المدنية بجامعة الدلتا للعلوم وعرض اتجاه الطلاب نحو استخدام هذه الإستراتيجية في تدريس مقرر كتابة التقارير الفنية. ولتحقيق هدف الدراسة تم استخدام معالجة تجريبية عن طريق استخدام عينة بحث مكونة من ستين طالب تم تقسيمهم لمجموعتين متساويتين: تجريبية وضابطة. قام الباحث بالتدريس للمجموعتين من خلال تسجيلهم لمادة كتابة التقارير الفنية، بحيث تعرضت المجموعة التجريبية للمعالجة التجريبية التي تقوم على استخدام الحقيبة الإلكترونية كأداة تقويم وتدريس، ودرست المجموعة الضابطة بالطريقة التقليدية السائدة. استخدمت الدراسة اختبار للكتابة واستبيان لجمع البيانات كأدوات للدراسة وتم القيام بتحليل إحصائي لأدوات الدراسة من أجل تفسير نتائج الاختبار والاستبيان. توصلت النتائج إلى وجود اختلاف في أداء طلاب المجموعتين لصالح المجموعة التجريبية، كما توصلت النتائج إلى وجود اتجاه إيجابي لدى المجموعة التجريبية نحو استخدام الحقيبة الإلكترونية كوسيلة تقويم وتعلم كتابة التقارير الفنية. قدمت الدراسة مجموعة من التضمينات التربوية والتوصيات الخاصة باستخدام هذه الإستراتيجية كطريقة تدريس وتقديم بديلة.

الكلمات الدالة: الحقيبة الإلكترونية, كتابة التقارير الفنية, التقويم, الأداء الكتابي.

الاتجاه نحو الكتابة

المجلة كلية التربية – جامعة عين شمس 16 (1) العدد الواحد والأربعون (الجزء الرابع) 2017
1. Introduction

Writing reports is common for many technical people because reports are a major part of the development and application of technology. Engineering students should improve the skills associated with report writing to communicate appropriately at university and to fulfill the obligations of their future employment.

Technical writing, in particular, is the most complicated skill for ESP students, engineering in particular, to master. Due to the standard transfer in writing theory from focusing on writing products to that of writing process, there is a need for alternative methods in technical writing for assessment and learning. A lot of academic establishments continued to develop this process by focusing on Intended Learning Outcomes (ILO) instead of inputs (Aseery, 2001). So evaluation includes a lot of approaches due to the intended aims and nature of students and their skills for the purpose of showing them what they know and what they can do (Al-Muslimi, 2015).

However, traditional methods for teaching writing in our institutions depend on assessing the outcome product of students, while revising, modifying and the whole practice of writing are treated as minor skills. So it becomes crucial for researchers to investigate new tendencies in writing estimation to focus on confronts of usual approaches of
teaching, which should cover the whole elements of writing skills, as well as the last product.

Considering the modern changing in communication tools, it is inevitable to apply creative studying approaches that implement IT devices into learning. One of these new approaches is an electronic portfolio (e-portfolios) which is considered as a tool of formative assessment in writing skills teaching.

This approach is defined by Lorenzo and Ittelson (2005) as “a digitized collection of artifacts including resources, shows and activities that signify an individual or an institution” (p. 2). In addition, they are “adapted, Web-based compilation of efforts and signs that are used to display basic abilities and achievement for different frameworks” (p. 2). Gray (2008) defined it as “the product, created by the learner, a collection of digital artifacts articulating experiences, achievements and learning” and as “a purposeful aggregation of digital items – ideas, reflections, feedback, etc., which presents a selected audience with indication of a person’s learning and ability” (pp. 6-7).

Moreover, Rhodes (2011) stated that e-portfolios have a better prospective to adjust higher education at its foundation than any other technological devices. This highlights the significance of employing e-portfolios in learning to keeps students act in digital, controlled, and movable way. Goldsmith (2007) mentioned the benefits of e-portfolios for teachers and students that allow them to estimate “their learning practices and progress, and how these are achieved their own objectives” (p. 31). They join students’ assignments to the outputs of institutions, so they become able to connect between their personal lives and their educational activities. (Goldsmith, 2007, p. 37).
In addition, e-portfolios can be implemented into English language studying skills courses, particularly, with writing teaching methods which recently adopted process strategies that include choosing topics for writing, collecting data about them, drafting, revising, and editing (Apple & Shimo, 2004). E-portfolios enable students to archive writing drafts, revise and edit papers, and to learn from previous feedback provided by peers or teachers. Tezci & Dikici (2011) asserted that adapting e-portfolios develops a kind of assessment which is no longer exclusive as the efficiency of students’ work can be self-assessed, and students can develop standards.

The basic two types of portfolio regarding assessment purposes are; (Summative) Portfolios which focus on the final outputs represented in documents to accomplish the prospects of educational institutions as in the case of documentation or qualifications. The second type is Learning (Formative) Portfolios which aim at fostering the educational process and documenting the progress throughout the duration of it (Aliweh, 2011).

2. Literature Review

There are recently many researches that tackle the impact of using e-portfolios in different learning activities, particularly with writing skills. In one study, Nunes (2004) conducted a study with high school students. The study investigated the significance of students" reflection and students" involvement in the teaching – learning process. The results revealed that portfolios guide EFL learners organize their personal studying and increase their autonomy. It was also claimed that portfolios could be applied as pedagogical tools to assist student –centered practices.

Moreover, the study of Erice, (2008) examined the effects of e-portfolios as a method for evaluation and teaching writing skills. It was reported that e-they help the
learners to be more positive in their educational progression, guide them to monitor their learning by developing their self estimation, and allow them to follow the progress of their personal learning.

Segers et. al.’s study (2008) examined students’ attitude towards portfolio assessment method and the relationships to their learning approaches. The participants submitted two questionnaires by the last part of the academic year. The results confirmed that feedback is essential in implementing portfolio assessment. This implied the essential role of teachers to support students making explicit how they used feedback to modify, or refine their assignments.

The study of Tonbul (2009) reported that utilizing e-portfolios for teaching and evaluation enables students to keep an eye on their personal learning and trace their progress or drawbacks. He also stated that it increased communication among instructors and learners, so it assisted the educational process. Therefore, students became responsible for their personal learning by examining what they learnt and enhanced their personal estimation.

The results of Tehrani (2010) study showed that e-portfolio activated students and guided them to be responsible for their personal learning as they were in charge of their e-portfolio elements. It also enhanced their self-evaluation and dual feedback among their classmates. In addition, Babaee & Tikoduadua (2013) examined assessment methods from traditional to alternative. It outlined recent tendencies in writing assessment, shedding light on the benefits and problems of e-portfolio implementation. The educational allegation of this article was that e-portfolios present computer based learning process, provide using social media in education and combine learning into
assessment, but also and. They also advance the writing process elements such as; drafting, revising and editing. Moreover, social systems can be used as a way to accomplish e-portfolios for facilitating peer feedback and self-evaluation. Students can study and practice writing in a reliable, and dynamic manner because this atmosphere provide the connection of daily life knowledge with e-learning platforms.

Al-Muslimi (2015) investigated to what extent applying e-portfolio is effective for improving Students’ English business writing skills, and their attitude towards it. The study made use of English business writing test and a questionnaire for data collection. The findings indicated that there is a significant difference in business writing improvement; also the results of the post-questionnaire illustrated a positive change in the attitude of the experimental group towards the treatment. In addition, the study of Masaeli & Chalak (2016) aimed at investigating the impacts of implementing e-portfolios for developing EFL students’ writing skills. The participants were divided into experimental group that received the treatment of employing e-portfolios, and control groups that had the traditional context of language courses. The findings revealed considerable variation in the sake of the treatment of using e-portfolios.

At last, the Egyptian study by Abd-Allah (2016), identified the shortcomings in teaching critical writing skills of preparatory stage students due to the traditional methods of teaching and assessment. The study made use of e-portfolios as learning and assessing tools. They provided students with the opportunities to understand how to plan, and evaluate their learning, moreover, to express their feelings and ideas by writing critically. The results revealed that e-portfolios are helpful tool for learning and assessing critical writing skills. They also encourage personal
The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude

expression and engage the exchange of knowledge and feedback.

The previous review presents the vital role of e-portfolios in teaching and assessment processes. As an alternative approach, there are many aspects need to be thoroughly investigated, such as; its design, improvement, implementation, and assessment to make use of its benefits in teaching language courses.

3. Importance of the Study

- To provide adequate information for teachers and students about utilizing e-portfolio for evaluation and assessment activities that may let them adopt this approach.
- To highlight students' feedback towards keeping a portfolio and the impact of portfolio on their autonomy.
- To provide alternative tools for teaching and evaluating technical writing skills.
- To provide different ways for positive feedback (from peer and teacher) on students' writing performance.
- To shed light on using technological tools for teaching and evaluation different skills.

4. Statement of the Problem

Traditional written tests have been applied to assess students’ performance in writing technical reports at the faculty of engineering, Delta University. There are two formal types of tests; midterm and the final written exams. Most of the methods of assessing students' writing skills are not efficient enough because they do not reveal the actual performance of students in writing technical texts. In addition, students have a passive role in the writing process without real interaction. There is a need for alternative assessment tools that measure different factors of students’
performance in writing reports such as understanding, analyzing, drafting, modifying and submitting final products. Moreover, the need is urgent to provide alternative tools that focus on students’ responsibility for their learning and involvement in writing course as a project to finish with obtaining continuous feedback through the process. The current study attempted to determine the effects of using e-portfolio for formative assessment and writing activities in technical writing course among civil engineering students at Delta University.

5. Research Questions
The study problem could be summarized in answering the following questions:
1. How can e-portfolios be used to improve Students’ technical writing skills at the faculty of engineering, Delta University?
2. What are the students’ attitudes towards utilizing e-Portfolio for assessment and writing activities in technical writing course?

6. Delimitations
1. Civil engineering Students, at the faculty of engineering, Delta University.
2. The treatment was taking place in the academic year 2016-2017-Second semester.
3. The study was conducted through studying Technical Report writing1 course.

7. Methodology
A. Participants
They were chosen from civil engineering students who registered for the technical report writing1 course in the faculty of Engineering at Delta University. Participants were 60 students divided into control group (30 students), and experimental group (30 students).
B. Instruments

The current study made use of the following instruments:

1. A technical writing skills pretest – posttest. For validating the test, the researcher showed it to a panel of jury at Mansoura University to validate the instrument regarding clarity, adequacy, difficulty of items, and its relevancy to the technical writing. The correlation was calculated using Pearson correlation, and it was significant at level 0.021, which means that there was no statistical significant difference between test and re test process. This means that correlation is significant at the 0.05 level (2-tailed). (See appendix A).

2. The rubric of writing Competence

The researcher established a systematic rubric to measure students’ writing proficiency. This rubric tackled the writing structure, content, and precision. Face validity of this rubric was checked by expert professors at Mansoura University. Four raters were requested to assign scores ranged from 4 (the highest) to 1 (the lowest). The reliability was established before rating students’ tests; Pearson correlation coefficient alpha was .79 (Appendix B).

3. A questionnaire: to evaluate the students’ attitudes towards using e-portfolios

It was developed to collect data about the students’ attitude towards using e-portfolio in technical writing course. For developing the questionnaire, the researcher reviewed the relevant related literature. The questionnaire contained 25 close-ended items with a 4-level Likert Scale of ‘Strongly Disagree’, ‘Disagree’, ‘Agree’ and ‘Strongly Agree’. The questionnaire was given to a number of experts to check its suitability to the research topic and questions. (Appendix C)
C. Teaching Process for Experimental Group

The current study adopted Barrett’s (2005) model for portfolio improvement. It had a learning purpose to guide students practicing the writing process elements, through arrangement, specifying aims, collecting related data, and reflecting on the writing process through editing and refining technical writing.

- **Practicing the Online Process of Writing**

  It was assigned for the experimental group members to practice the five stages of the writing process. They also asked to prepare for their portfolios through this process.

1. The stage of Pre-writing

  The students were involved in collecting suitable resources and materials for the topic. They were required to recognize proper data, and utilize certain pieces when writing reports. They came to learn paraphrasing the collected knowledge in their own writing.

2. The stage of Drafting

   This stage stressed on the meaning mainly, by putting ideas on paper. Therefore, “mechanics and surface structure such as spelling, punctuation, and sentence structure were not be a concern. This stage was “centered on recording ideas” (Carter, 2007; p. 69).

3. The stage of Reviewing

   Here, students were asked to go through the structure of their writing, searching for development. They clarified, added, or deleted due to the received feedback from their peers and their teacher, in order to fit the intended style and objectives.
4. The stage of Editing
In this stage, the participants worked on refining their final drafts by checking the mechanics and the surface features; e.g., spelling, punctuation, sentence structure, writing format, etc. They made use of the spelling and grammar checkers of the Word processing program when editing their reports.

5. The last stage of Publishing
The students shared their topics with their peers through publishing their reports on the group’s web page. This stage was set for documenting the last products of students.

8. Procedures and data collection
The researcher used the experimental method in which the quasi-experimental design is adopted. It contained a pre and post test for both the control group and the experimental one. Besides, a questionnaire to investigate the students’ attitude was distributed for the two groups as well. The following procedures were followed during this study:
- The experiment started at the beginning of the second semester 2016-2017 and continued till the end of the semester.
- The test and the questionnaire were administered before the experiment.
- The experimental group was studied by using portfolio, while the other one performed in the light of the traditional way of teaching and assessment (written tests).
- At the end of the experiment, the same test and questionnaire that were administered before the experiment were administered again after the experiment.
The data was collected and prepared for the statistical analysis.

The data obtained from the pretest and the post-test were analysed statistically to determine the impact of the experiment t-test. In order to analyze data, T test was applied; furthermore, the SPSS (Statistical Package for Social Science) was employed.

9. Results and Discussion

The Results of the First Question (How can e-portfolios be used to improve Students’ technical writing skills at the faculty of engineering, Delta University?)

The means, standard deviations, and t-test of the pre and post tests for the two groups were analyzed. The results are shown in the following table:

Table 1: the results of the performance of the two groups in the pre and post tests

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>22.00</td>
<td>7.655</td>
<td>.019</td>
<td>38</td>
<td>.987</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>22.05</td>
<td>9.876</td>
<td></td>
<td>38</td>
<td>.987</td>
</tr>
<tr>
<td>Posttest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>38.75</td>
<td>6.056</td>
<td>5.103</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>26.25</td>
<td>0.243</td>
<td></td>
<td>38</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 1 shows that there was a statistical significant differences between the two groups of the study at level .05 in the posttest for the sake of the experimental groups. This means that there is an effect for the use of e-portfolio on the students' development in Technical Report Writing.

The results of the second question (What are the students’ attitudes towards utilizing e-Portfolio for assessment and writing activities in technical writing course?)

The results of this question are presented in the following table:
The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude

Table 2: Students' attitude towards using portfolio in technical Writing Course

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>3.9837</td>
<td>.68134</td>
<td>1.230</td>
<td>38</td>
<td>.987</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>3.6586</td>
<td>.50794</td>
<td></td>
<td>38</td>
<td>.987</td>
</tr>
<tr>
<td>After the experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>4.971</td>
<td>.3943</td>
<td>3.937</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>3.5764</td>
<td>.45062</td>
<td></td>
<td>38</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 2 shows that there was an effect on students' attitudes towards using e-portfolio in the Technical Report Writing Course at level .05. This statistical difference is in favor of the experimental group that was evaluated by means of e-portfolio.

Summary of the Results:
The results shown in table 1&2 above can be summarized in the following lines:
- Students who were taught and assessed by e-portfolio approach were better than those who were taught and assessed by using the traditional method in the test given to them.
- The attitude towards using e-portfolio in the Technical Report Writing Course of students who were taught and assessed by e-portfolio were positive than those who were evaluated by using the traditional method.

10. Conclusion and Discussion
The improvement revealed in the students’ technical writing skills is an anticipated result because e-portfolio provides each student the opportunity to study in different ways. This is because e-portfolio encourages students to move from playing a passive role in the writing courses to an active one, in which they must engage in more complex thinking and self evaluation (Nezakatgoo, 2011). Moreover, students reflect on their work and measure their progress
E-portfolios reinforce the process of assessment beyond test scores (Belgrad, Burke & Fogarty, 2007). This result is similar to some studies which proved that portfolio has an evident influence in language skills in general and in writing in particular. Some of these studies are the study of Aliweh (2011), Sharifi & Hassaskhah (2011), Tavakoli & Amirian (2012), Fahim & Jalili (2013) and Al-Muslimi (2015).

Regarding students' attitude towards using e-portfolio in the Technical Report Writing Course, results revealed that the attitudes of the experimental group were higher than the control group. The study of Haung (2012) indicated that students’ believe that the portfolios process prevents negative aspects resulting of exam anxiety. Thus, the students’ attitude towards the writing skills with respect to the motivation changed positively. It is reported that e-portfolio encourages the group and team work for them specially in writing activities where they collaborate, share ideas, exchange opinions … etc.

This result is also supported by the studies of Nakayama (2011); Caner (2010) Sharifi & Hassaskhah (2011); Al-Muslimi (2015) and Abd-Allah (2016).

To sum up, the current study demonstrated the impact of a recent approach for writing teaching and assessment. This approach integrated teaching into evaluation, and supported computer based teaching with using social media in education. The crucial benefit of e-portfolios was the focus on writing as a process elements; such as drafting, editing, and revising. These elements are the basic skills for learning technical reports. Moreover, students learnt in an environment where they were encouraged to plan for their writing and improvement. The continuous feedbacks by teacher and peer, which are basic requirements for learning technical writing skills, were presented through the social media. This made students enjoy learning with more trust to
submit e-portfolios for practicing peer assessment and self-assessment. Finally, Students performed writing in a authentic, meaningful and natural way because in this atmosphere they associated e-learning with their daily life experiences. (Tikoduadua & Malihehe, 2013; Masaeli & Chalak, 2016 and Abd-allah, 2016).

11. Implications and Recommendations
Based on the results of this study, the following recommendations are presented:
- It is recommended that portfolio should be adopted in EFL and ESP evaluation systems because it is an efficient method for students and teachers.
- Teachers need to be well trained on how to use e-portfolios and how to guide students during the stages of utilizing e-portfolio process.
- Curriculum designers should take into account the portfolio assessment as a new approach for teaching and learning EFL and ESP.

At last, in the light of the findings of the current study, more studies are suggested: to conduct the impact of e-portfolio on other skills such as speaking, listening or reading. Moreover, similar studies may be conducted to demonstrate the impact of e-portfolio on the accuracy of grammar and assessment on self-evaluation.
Reference


The Effectiveness of Using E-Portfolios based Assessment on Engineering Students’ Writing Performance and Attitude


Abdelrahman E. AlAdl

Appendices
Appendix (A)
Technical Report Writing Test
1- Match the following sentences with its type
(5 marks)

<table>
<thead>
<tr>
<th>Number</th>
<th>Sentence</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>this report may be useful for the government for..... (_____)</td>
<td>a. Acknowledgment</td>
</tr>
<tr>
<td>2)</td>
<td>duration of this study is 3 months in a coastal area. (_____)</td>
<td>b. aim</td>
</tr>
<tr>
<td>3)</td>
<td>Iron is a solid material used in different ways (_____)</td>
<td>c. Importance</td>
</tr>
<tr>
<td>4)</td>
<td>My best regards for everyone helped me (_____)</td>
<td>d. Definition</td>
</tr>
<tr>
<td>5)</td>
<td>study is submitted to finish the graduation project (_____)</td>
<td>e. Limits</td>
</tr>
</tbody>
</table>

2. Complete the following:
(5 marks)

1. The three main parts of the report body (text).
   A) ..............................................B)
   ..............................................C)

2. The three types of conclusion.
   A) ..............................................B)
   ..............................................C)

3. Two basic items that are written in the introduction.
   A) ..............................................B)
   ..............................................

4. The common ways to start a presentation are:
   A) ..............................................B)
   ..............................................
Whole foods provide a variety of benefits, most notably substantially better nutrition, when compared to junk foods. A common misconception is that healthy food is more expensive than junk food; however, research shows that healthy foods can actually be cheaper options than junk foods. The single disadvantage of health foods is their lack of convenience when compared to fast foods and prepackaged junk foods in grocery stores.

A diet rich in fruits and vegetables can help reduce your risk of a variety of diseases, including heart attack and stroke. ChooseMyPlate.gov also notes that eating produce regularly can protect against certain cancers and decrease the risk of obesity and Type 2 diabetes. In addition, most vegetables are low-calorie foods that contain high levels of many vitamins and minerals and fiber, all of which can improve overall health. Junk foods are often the exact opposite of healthy foods -- they are high in calories and low in nutrients.

1- What kinds of reports this one? (Informative-feasibility-scientific-manuals) give reason.

2- What is the suitable aim of the writer for this report?

3- What items do you find in these introductions?

4- What is the suitable title for this report?
4- Read the following passage and write the following:
(12 marks)

1) Cover page 2) abstract 3) table of content 4) reference 5) introduction
6) Conclusion

Cancer is a group of diseases characterized by an uncontrolled growth of abnormal cells, and it is the result of an uncontrolled cell-cycle. If the spread of these abnormal cells is not controlled by radiation therapy or other means, then cancer can cause death. Most cancers take the form of tumors, although not all tumors are cancers. A tumor is simply a mass of new tissue that serves no physiological purpose. It can be benign, like a wart, or malignant, like cancer. Benign tumors are made up of cells similar to the surrounding normal cells and are enclosed in a membrane that prevents them from penetrating neighboring tissues.

(This essay from a book “Descriptive features of the Cancer “by Jane Stephen in 2005. It is published by Liam Foster Library in Berlin)
Appendix (B)
Writing Competence Rubric

Dear Raters;

The following reports were written by a group of ESP college seniors as part of a study undertaken to assess their overall writing competence. You are kindly requested to rate these reports according to the criteria below:

**Content:**

4: The report has a clear central idea that directly relates to the assigned topic. It contains an abundance of evidence and details that fully support the topic. All sentences are related to the assigned topic.

3: The report has a central idea that is reasonably well developed. It contains most details needed to support the topic with few minor details missing. It also contains very few irrelevant sentences.

2: The report has a central idea that is partially developed. It contains some details relevant to the assigned topic. Other equally important details are missing. It also contains several irrelevant sentences.

1: The report has a central idea that is poorly developed. Very few details, if any, support the topic. Substantive details are missing. Most sentences do not relate to the assigned topic.

**Organization:**

4: The report has a clear plan that contains all major parts of a standard essay; an introduction, a body, and a conclusion. All paragraphs are logically ordered and interrelated through appropriate transitions and discourse signals.

3: The report contains basic parts; yet, it needs a little more elaboration and coherence through the use of more accurate transitions and discourse signals.

1: The report contains a basic structure. It lacks the necessary elaboration and coherence through the use of appropriate transitions and discourse signals.
The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude

2: The report has a plan that is partially coherent. Some paragraph are not logically ordered and contain few transitions and connectors.
1: The report does not have a clear plan. Basic parts of a standard essay are missing. Transitions and discourse signals are nonexistent.

Accuracy:
4: The report contains no grammatical or mechanical errors. Words, phrases, and idioms are accurately chosen to address the assigned topic.
3: The report contains very few grammatical or mechanical errors which do not obscure the meaning. Most words used are accurate and felicitous.
2: The report contains some sporadic serious grammatical and mechanical errors which irritate the reader. The writer uses some words which sound awkward and monotonous.
1: The report contains too many serious grammatical and mechanical errors. It also contains several inaccurate words and phrases which obscure the reader’s effort to comprehend the meaning.
Appendix (C)

Students' Questionnaire towards Using E-portfolio

Dear students,

This questionnaire is formed to get data about using e-portfolio in Technical Report Writing course. It tries to acquire your attitude towards e learning experience at all, in order to meet your expectation regarding learning technical writing skills.

Appreciate your faithful participation.

The researcher

Items (1-25) Tick any one from the five options (1-2-3-4-5) given below

(1- Disagree 2- Disagree to some extent 3- No idea 4- agree to some extent 5- Agree)

Name: 
College:  
Department:  
Level:  

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I can evaluate myself in terms of my assignments and projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I make use of what I learned before to improve my writing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I try various writing styles that match task requirements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I revise what I write in order to improve my writing performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I can identify and select the additional materials to support the subjects I study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I start writing only after I look at other people’s work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>I become involved in my learning process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I follow guidelines to achieve an objective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I organize information coherently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I take part in my own assessment and in my classmates’ assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I learnt new methods to study writing skills by means of e-portfolio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I learnt to correct my mistakes by means of e-portfolio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I learnt to participate in the courses more actively by means of e-portfolio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I ask my classmates for basic material I need in writing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I consult various writing texts and resources to find effective solutions to my writing difficulties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I track my progress while learning by e-portfolio assignments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I learnt to be an autonomous learner by means of e-portfolio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I use the Internet to search for material I can use in my writing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Content</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>19</td>
<td>I felt more motivated to study and learn writing skills by means of portfolio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>My progress has been remarkable with using the e-portfolio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I am more aware of my strengths and weaknesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I have profited from my classmates’ feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I have profited from my work outside the classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I am satisfied with the use of the e-portfolio to develop my writing skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I am more self-confident as a language user</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude

Appendix (D)
Samples of Students' E-portfolio Reports via Facebook group
a good sample of a student report... please read and give comments....
you will get benefit

doc: التدريب-الصيفي-شاهيناز
Document

Sarah Hazem Elbeltagy and 25 others  10 comments
The Effectiveness of Using E-Portfolios based Assessment on Engineering Students' Writing Performance and Attitude