



Faculty of Education
Journal of Education

***Using E-Portfolio to Enhance Reflective
Instructional Practices and Self-Efficacy of EFL
Student-Teachers***

BY

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DOI: 10.12816/EDUSOHAG. 2020.

Journal of Education – Volume (76) August, 2020

Print:(ISSN 1687-2649) Online:(ISSN 2536-9091)

Abstract

The current study was an attempt to investigate the effectiveness of using an E-Portfolio(EP)-based learning for nurturing 4th year EFL student teachers' reflective practices and self-efficacy at the Faculty of Education, Minia University. A quasi-experimental design was employed as it was suitable for the nature of the study. The one group pretest-posttest design was chosen to determine the intervention or the treatment on the study group. An EP teacher's guide was developed by the researcher and used with the study group. Thirty students (both females and males) were randomly chosen for the study group. Data of the study were collected using two questionnaires (A reflective instructional practices questionnaire and EP knowledge questionnaire) a Reflective Instructional Practices Test (RIPT); a Teaching Practice Observation Sheet (TPOS) and a Self-Efficacy Scale (SES) as basic tools. Analysis of data (using t-test) revealed that the study group significantly surpassed and achieved higher in the post performance of RIPT, TPOS and the Self-Efficacy Scale. Discussion of these findings, recommendations and suggestions for further research are presented.

Key Items: E-Portfolio, Reflective Instructional Practices and Self-Efficacy

الملخص العربي

استخدام ملف الإنجاز الإلكتروني فى تحسين الممارسات التدريسية التأملية وكفاءة الذات لدى الطلاب المعلمين تخصص اللغة الإنجليزية

إعداد

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هدفت الدراسة الحالية إلى التحقق من فاعلية استخدام ملف الإنجاز الإلكتروني وعلاقتها بتحسين الممارسات التدريسية التأملية فى التدريس وكفاءة الذات للطلاب المعلمين شعبة اللغة الإنجليزية بكلية التربية جامعة المنيا. استخدمت الدراسة المنهج شبه التجريبي (قبلى- بعدى) لتحقيق أهداف البحث. اشترك فى التدريب ثلاثون طالبا وطالبة(كلا من البنات والبنين) كمجموعة ضابطة واحدة. تم تدريب مجموعة الدراسة باستخدام التعلم القائم على ملف الإنجاز الإلكتروني. واشتملت أدوات الدراسة على استبيانات(استبيان الممارسات التدريسية التأملية واستبيان معلومات عن ملف الإنجاز الإلكتروني) واختبار الممارسات التدريسية التأملية وبطاقة ملاحظة ومقياس كفاءة الذات و دليل المعلم. وقد تبين من تحليل النتائج (باستخدام قيمة ت) تفوق مجموعة الدراسة فى اختبار رد فعل الموقف وبطاقة الملاحظة وكذلك مقياس كفاءة الذات. حيث وجدت فروق ذو دلالة إحصائية بين متوسطى درجات عينة الدراسة فى التطبيقين القبلى والبعدى لصالح التطبيق البعدى وذلك فى كل الادوات المستخدمة. وقد تم عرض النتائج ومناقشتها. كما اشتملت الدراسة على أهم التوصيات والمقترحات لبحوث مستقبلية.

الكلمات المفتاحية: ملف الإنجاز الإلكتروني، الممارسات التدريسية التأملية، كفاءة الذات.

Introduction

Integrating technology into teacher preparation programs has changed the concepts of learning and teaching among educators. It calls for a more dynamic, digital and interactive learning environment which stimulates self-learning. Consequently, student teachers need to be equipped with both technological competence and new skills and attributes to adapt to rapid technological development. They need to learn differently and reflectively. Using electronic devices in educational settings was found of an impressive and remarkable impact on improving general language skills, motivation, learning attitude; self-regulation and efficacy of students (Babovič et al., 2019 and Masoud, 2017& 2019). Electronic devices provide such a different reflective learning environment and E-Portfolio(EP)-based learning as one of these devices is basically rationalized on reflection which is a key factor in teacher development as student teachers need to learn how to reflect on their own teaching practices for further progress and improvement.

Reflective Practices (RP)

The complicated nature of the teaching/learning process and its practical demands requires teachers who always think of and enquire about their teaching practices in classroom. The notion of reflection was basically coined in teacher education by Donald Schon (1983&1987) who introduced different terms (“*reflection-in / on action*”) emphasizing the importance of reflection. Reflection is intended to enable teachers to articulate their personal theories and make sense of their practice. It provides an obvious opportunity to not only reflect on actions occurred in the classroom but also a rationale for these actions is provided. The reflective paradigm seeks to develop critical self-inquiry into the complexities of professional practices. Pre-and in-service teachers are required to develop their reflective practices to enhance their teaching performance. As long as students are enquiring into themselves systematically, they start to gain more understanding of themselves and their action (Mathew et al., 2017). Through reflective practice, students are engaged in active relationships and significant links between theory and practice are established. They need to learn to be reflective practitioner for lifelong learning (Roberts, 2018). Developing reflective skills and

abilities of student teachers should be encouraged to keep up to the changing learning environment. Permanent self reflection, link between theories and its practices and kind of training provided to students have a remarkable impact not only on their teaching performance but also their self-image and confidence (Cimermanová, 2018). Among the most important elements of building up positive teaching self-image, confidence and self-efficacy is self-reflection as there is a strong relationship between self-efficacy and self reflection (Haddad & Taleb, 2016).

Self-Efficacy (SE)

Bandura (1977), the popular social psychologist who first introduced the concept of self-efficacy defined it as “people’s beliefs in their capabilities to produce desired effects by their own actions”. Utilizing the concept within teaching contexts, teacher self-efficacy could be seen as his beliefs on own competencies and abilities to successfully manage and execute different teaching tasks and actions (Cocca et al., 2018). Self-efficacy was perceived as teachers’ perceptions and beliefs about their abilities to teach in situations where previous experiences are considered. It is argued that teachers with high self-efficacy beliefs are willing to take initiatives, increase their commitment and to be keen on improving their teaching performance, instructional strategies and practices (Cimermanová, 2018). Having positive self-efficacy enabled teachers to strive to accomplish their tasks successfully and competently. Success of the teaching-learning process is fundamentally based on the kinds of beliefs teachers and students have for themselves. The higher self-efficacy beliefs pre-in-service teachers have the higher their achievement and professional development occurred. They become more committed to work and more able to influence the way students learn effectively (Chizhik et al., 2018 and Fackler & Malmberg, 2016). Consequently, a great deal of attention should be given for student teachers to gain high self-efficacy beliefs and maximize the notion of reflective skills to prepare effective teachers. EP is one of the promising and innovative tools to develop such skills and beliefs.

E-Portfolio (EP)

With the increasing concern of integrating technology in higher education and the emphasis on students' accountability for their learning, EP is a potential tool that could provide such a motivating and supportive learning environment. It is perceived as a dynamic tool that encourages learners and teachers to think critically and become active, autonomous and self-directed. It helps them to document, reflect and review their achievement and personal experiences of learning are broadly emphasized. It could also be an efficient tool that enhances teachers' professional development as it is a reflection provoking process (Ciesielkiewicz, 2019 and Kabilan, 2016). Through EP reflective practice, self-awareness of the learning process, conceptualization, creation, feeling of ownership and accountability are emphasized. EP stimulates reflection as collecting and selecting different materials and assessing completed tasks for further progress and improvement are considered key components of reflection (Babovič et al., 2019).

There is a great interest among scholars Ciesielkiewicz, 2019, Babovič et al., 2019, Cocca et al., 2018, Chizhik et al., 2018, Nambiar & Yunus (2017) for the notion of implementing EP in teacher preparation programs for its valuable benefits as in the following:

- Achievements against professional standards are recognized.
- Meaning from accumulated experience is constructed.
- Self-regulation, self-efficacy and self-awareness are developed.
- Sense of accountability and ownership is created.
- Reflective skills are practiced.
- Authentic and diverse evidence is provided.
- Critical thinking is provoked.
- Generic competencies are presented.

Literature Review

Investigating the usefulness and effectiveness of EP was attempted through conducting a number of studies. Ciesielkiewicz (2019) acknowledged the value of EP as a learning and evaluation tool through which students gained competence and satisfaction. Karami et al., (2019) as well emphasized the significant impact of EP on developing students' writing proficiency and use of self-regulated strategies. In the same line, Albloly & Elomerabi (2018) referred to

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the easiness that EP creates to assess students' performance and the kind of learning environment it established. In his study, Kabilan (2016) addressed the value of EP on enhancing pre-service teachers' meaningful professional development, creation and innovation of ideas.

Regarding the effectiveness of EP in improving students' reflective practices, Almusharraf (2019) conducted a study investigating the impact of EP on student teachers' reflective practice and performance. It was revealed that they showed progress and improvement in some teaching skills based on their reflections via EP during teaching practicum. Roberts (2018) also concluded that developing pre-service teachers' reflection via E Portfolio-based learning was promising and encouraged them to keep their learning material and files documented which was valuable for them. Slepcevic-Zach & Stock (2018) referred also to students' enhancement of their reflective skills and self-perceived competence due to using EP. Nambiar & Yunus (2017) reported that EP platform used in their study managed to support reflective practice among B. Ed TESL students as own discussion board was created to present their reflective viewpoints and peer reflection through online discussions was developed as well. Carl & Strydom (2017) examined the use of EP as a reflective tool in teaching practice stating that it was of good effect on students' performance in teaching practice, equipping them with digital and daily reflection skills.

As for the impact of EP on student teachers' self-efficacy, A study conducted by Ibrahim & Callaway (2018) aimed to explore the influence of EP in developing pre-service teachers' self-efficacy, proficiency and intention to use technology in their future classroom. Findings showed remarkable improvements of pre-service teachers' perceptions of self-efficacy, proficiency and intention and they acknowledged it as a favorable method of learning. Yang et al., (2015) assessed the value of using EP as a pedagogical tool to improve students' self-efficacy. After using EP in one of the courses, students became more confident and endorsed of their self-appraisal, occupational information, planning, and problem solving as key aspects of self-efficacy. Results of studies done by Cimermanová (2015) and Chou (2012) showed that the professional development and self- efficacy including self-confidence, self-reflection and self

regulation were broadly enhanced through the process of creating EP. It was also believed to have positive effect on general teaching efficacy and progress.

Based on literature review, an ample number of studies highlighted the effectiveness and value of EP in promoting self-efficacy, self-reflection, self-regulation, reflective practices and professional development of student teachers in different parts of the world. However, to the knowledge of the researcher, very few of them explored its impact on self-efficacy and reflective instructional practices of student teacher in Egypt. Consequently, the current study is an attempt to achieve this end.

Background of the Problem

Supervising student teachers for many years in teaching practice in schools and teaching them Methodology course in the Faculty of Education, the researcher noticed that the theoretical background that students learn in the course is not well applied in teaching practice training in school. It was also noticed that students did not reflect on their teaching practices in schools and they are not required to reflect on the material presented in Methodology courses. To document the problem, three preliminary ways of collecting data were used. The first source was a review of related literature to explore the importance of reflective practice instruction for pre-service EFL teachers and its effect on improving teaching performance and also to explore its position in teacher preparation programs.

The second source was conducting informal interviews with a number of 3rd and 4th years EFL student teachers in the Faculty of Education, Minia University. Both groups of students mentioned that they did not get used to reflect on their teaching performance whether in schools or in faculty sessions when they made presentations. Students also clarified that in most cases they felt incompetent and lacked confidence to implement some tasks and activities in class and they did not even share reflections and feedback with each other. The third source was the questionnaires applied on EFL student teachers. The first questionnaire aimed to find out how far 4th year students know reflective practices and how far they apply in the teaching practice in schools. The second

questionnaire was to investigate students' knowledge about EP and whether they used the internet in any course. Data from the questionnaires confirmed the results obtained from the above sources.

Consequently, it was obvious that EFL student teachers need training in reflective practices instruction to acquire more self-efficacy and demonstrate reflective teaching skills. Previous considerations necessitated conducting the present study that attempted to tackle the insufficient training in reflective practice instruction and lack of their self-efficacy through using EP, an effective and utilizing tool to enhance the previous variables.

The pilot study

Instruments of the study were piloted by administering them to twenty seven 4th year EFL students other than those participating in the intervention. Piloting the instruments aimed to measure their validity, reliability and suitability to participants' level. The pilot study lasted for two weeks prior to the real implementation of the study through which the researcher applied two questionnaires (A reflective instructional practices questionnaire and EP knowledge questionnaire); RIPT, TPOS and SE scale. Face validity of all tools was determined by consulting a panel of experts, whereas the internal validity and reliability were decided by Cronbach Alpha Coefficient, test-retest, or the inter-rater method. The pilot study revealed that all tools were valid and reliable for the actual implementation.

Statement of the Problem

Out of the results obtained from the pilot questionnaires, it could be stated that student teacher lacked the fundamental skills of dealing with classroom problems; moreover, suggesting alternatives or solutions for the common problems were still vague for them due to insufficient instruction and training on reflection. Accordingly, there was a bad need to make a link between the theoretical background students had and the ways they could deal with classroom problems in practice. Therefore, it became evident that EFL students need to develop their reflective instruction practices and self-efficacy which are considered key factors in successful and

effective teaching performance. Reviewing literature, EP is found to be effective for achieving this purpose. Therefore, the present study was an attempt to answer the following question:

- "How far is the effectiveness of using E-portfolio in enhancing reflective instructional practices and self-efficacy of EFL student teachers at the Faculty of Education, Minia University?

More specifically, this major question was branched into the following questions:

- What are the basic features of the suggested E-portfolio teacher's guide?
- How effectiveness is the use of E-portfolio in enhancing reflective instructional practices of EFL student teachers?
- How effectiveness is the use of E-portfolio in enhancing the overall self-efficacy of EFL student teachers?

Objectives of the Study

The present study was conducted to achieve the following objectives:

- 1- Enhancing the reflective practices of EFL student teachers at the Faculty of Education, Minia University via EP.
- 2- Enhancing self-efficacy of EFL student teachers at the Faculty of Education, Minia University via EP.

Hypotheses of the Study

The following hypotheses were tested:

1. There would be a statistically significant difference between the study group's mean scores of the overall reflective instructional practices pre-posttests (favoring the post testing).
2. There would be a statistically significant difference between the study group's mean scores of the overall self-efficacy scale pre-posttests (favoring the post testing).

Significance of the Study

The current study aimed at shedding more light on reflective instructional practices mostly needed by teachers. The study tried to fill the gap in the review of literature about studies dealt with using EP in fostering EFL student teachers' reflective instructional practices and self-efficacy in Egypt. The present study offered a teacher's guide which was basically established on the light of the EP format. It also offered a RIPT and a TPOS that could be used in teaching practice periods in schools for all supervisors to assess students' performance. The study highlighted the importance of utilizing some active learning strategies (e.g. think-pair-share, cooperative learning, debates) throughout the training sessions to develop reflective instructional practices. The findings of the present study could be both theoretically and practically significant for EFL pre-in-service teachers, curriculum designers and researchers. The study could be significant to teachers as it provides an instructional strategy based on using the benefits of EP to develop their reflective practices and teaching performance.

Delimitations of the Study

- 1- The study was delimited to 30 4th year EFL student teachers at the Faculty of Education, Minia University in order to gain an insight depth into their teaching performance. Fourth year was chosen, particularly, because they had some background information and experience in teaching practice in school a prerequisite for the study. They were prospective teachers who need to demonstrate some reflective instructional practices to make use of them in their future teaching aiming to promote their teaching performance as a whole.
- 2- The treatment lasted for the whole term (from the end of September till the end of December) in the first term of the academic year 2019-2020, three hours in the faculty (Methodology class) and four hours in mentoring students in schools per week.
- 3- Reflective instructional practices were chosen as commonly found in literature and determined by the jury members. RIPT consisted of thirty items in the form of different situations that occurred in the classroom.

- 4- The self-efficacy scale was divided into four basic domains: Instructional strategies, Learning climate, English language learning skills and Technological attributes.
- 5- The observation sheet was divided into four basic domains: Lesson preparation, Presentation, Classroom management and control and Assessment.

Definitions of Terms

E-Portfolio

Wikipedia (2019) defined e-portfolio as “a documentation tool and a way of managing one’s own learning and providing evidence using the web”.

Ciesielkiewicz (2019) perceived it as “a dynamic tool that processes such as reflecting, planning, giving feedback, selecting, presenting and sharing are implied”.

EP is operationally defined as the process of collecting digital reflections of student teachers on their teaching performances via the web.

Reflective Instructional Practice

Wikipedia (2019) Reflective practice is an active, dynamic action-based and ethical set of skills, placed in real time and dealing with real, complex and difficult situations”.

Cirocki & Widodo (2019) considered it as “thinking about classroom events, experiences or critical incidents, before, during and after their occurrence, in ways that allow for deep introspection and evaluation”.

Reflective practice is operationally defined as the process of thinking about and questioning one’s own actions and experience for further improvement and continuous learning.

Self-Efficacy

According to Wikipedia (2020) Self-efficacy “a personal judgment of how well one can execute courses of action required to deal with prospective situations”.

Cocca et al., (2018) referred to it as “individual’s capacity to produce important effects and belief in one’s ability to succeed in specific situations or accomplish a task”.

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In the current study, self-efficacy is operationally defined as EFL student teachers' beliefs in their ability to carry out different teaching practices competently and reflectively.

Research Design

A quasi-experimental design was employed as it was suitable for the nature of the study. The one group pretest-posttest design was chosen to determine the intervention or the treatment on the study group. EP format was used to enhance reflective instructional practices and self-efficacy of EFL 4th year student teacher. The data of the study were gathered by pre-post RIPT, TPOS and SES.

Variables of the Study

Independent Variable

- Using E-portfolio format

Dependent Variables

- 1- Enhancing student teachers' reflective practices.
- 2- Enhancing student teachers' self-efficacy.

Control Variables

- All students were EFL 4th year student teachers.

Instruments of the study

The researcher developed the following instruments

1. A Reflective practices questionnaire.
2. An E-Portfolio knowledge questionnaire.
3. A Reflective Instructional Practices Test.
4. A Teaching Practice Observation Sheet.
5. A Self-Efficacy Scale.

I-The Questionnaires

1. A Reflective practices questionnaire.
2. An E-portfolio knowledge questionnaire

In order to answer the questions of the research, the researcher developed two questionnaires. The first questionnaire was the reflective practices one which aimed to find out how far 4th year EFL student teachers knew about reflective practices and how far they applied them in teaching practice in schools. The questionnaire

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consisted of 15 items that were found in literature about the most common reflective instructional practices of teaching in the classroom (For final form, see Appendix (A)). The second questionnaire aimed to measure students' digital literacy and background knowledge about E-portfolio and whether they used it before or not. It also aimed to figure out abilities of the students to use the internet as a prerequisite for the study and it consisted of eleven items (See Appendix (A)).

Building the questionnaires went through the following steps:

- a. Reviewing the literature related to the field of reflective instructional practices and using EP.
- b. Stating the objectives of the questionnaire
- c. Identifying the opinions of the jury members

Validity of the questionnaires

A panel of TEFL specialists, the jury members, approved the face validity of the questionnaires, their suitability and necessity for student teachers.

II- Reflective Instructional Practices Test (RIPT)

Objectives

This test was designed to:

- 1- Assess 4th year EFL student teachers' performance in reacting to classroom problems and teaching practices and situations.
- 2- Measure the degree of improvement after the administration of the treatment.

Construction of the Test

The test was of thirty items, constructed according to the most common teaching practices occurred in the classroom and the topics related to methodology course. The test was written in the form of different situations and scenarios which student teachers were asked to reflect to find the suitable alternatives and solutions. Time of the test was (60) minutes (See Appendix (A)).

Scoring of the Test

A score is simply the total number of correctly marked answers. Two points were given for each correct answer. The correct answers were determined by jury members and total score of the test was (60) points (See Appendix (A)).

Validity of the Test

Face Validity of the Test

A group of twenty seven 4th year EFL student teachers were selected for piloting the test. The test was submitted to a panel of qualified and experienced TEFL specialists. They were requested to judge the linguistic stating of the items, appropriateness, clarity of the test instructions, the difficulty level, length of the test, applicability, fitness of the items for The student teachers, and how far the items measure the skill it is intended to measure. Their suggestions were taken into consideration. The jury members confirmed the suitability and applicability of the test.

The Internal Consistency of the Test Items

The validity of the scale was determined by computing internal consistency of each item. This was calculated by using (Pearson correlation formula). Correlation coefficient between each item and the total sheet ranged from 0.351 to 0.721 which was considered acceptable as shown in the following table:

Table (1):

Correlation Coefficients between the test items and the total sheet of the RIPT

No	R	No	R	No	R	No	R
1.	0.351*	9.	0.532**	17.	0.668**	25.	0.462*
2.	0.498*	10.	0.698**	18.	0.576**	26.	0.365*
3.	0.344*	11.	0.514**	19.	0.489*	27.	0.412*
4.	0.398*	12.	0.492*	20.	0.558**	28.	0.443*
5.	0.598**	13.	0.429*	21.	0.469*	29.	0.721**
6.	0.429*	14.	0.566**	22.	0.688**	30.	0.398*
7.	0.588**	15.	0.574**	23.	0.673**		
8.	0.382*	16.	0.667**	24.	0.578**		

**Significant at 0.01 level

*Significant at 0.05 level

The Reliability of the Test

The reliability coefficient of the test was determined by the test–retest method. The statistical correlation coefficient of Pearson was found 0.960. Cronbach Alpha coefficient was also calculated to ensure the reliability of the test and was found 0.935. It was considered acceptable as shown in the following table:

Table (2):

Test-Retest correlation coefficient of the RIPT & Alpha

No	Group	Mean	SD	DF	t-value	R	Alpha
27	Test	100.33	8.22	25	0.13**	0.960*	0.935*
27	Re-test	100.03	8.79				

*Significant at 0.05 level

**Not Significant at 0.05 level

III- The Teaching Practice Observation Sheet

Objectives

This sheet was used as another tool to measure the reflective instructional practices of the student teachers who participated in the study. It was utilized during teaching practice training in schools.

Construction of the observation sheet

It was a thirty item sheet, constructed according to four basic teaching skills emphasized in the literature and in the light of TEFL experts and supervisors in schools. Each teaching skills was represented by some sub-skills in the observation sheet. A five-point scale of the Likert type ranging from excellent to poor was used. The main teaching skills presented in the sheet were: Lesson preparation, Presentation, Classroom management and control and Assessment.

Scoring

The ratings of the observation sheet were numerically treated. Each item was given a score from one to five. The total score was the same as the total number of points given for statement regarding student teachers' performance and it was (150 points).

Validity

Face Validity of the Observation Sheet

The sheet was submitted to a panel of TEFL expert juries to evaluate its validity according to: relatedness of the sub-skills to the main skills; linguistic stating of items and suitability of the items for student teachers.

The Internal Consistency of the Observation Sheet Items

The validity of the test was determined by computing internal consistency of each item. This was calculated by using (Pearson correlation formula). Correlation coefficient between each item and the total observation sheet ranged from 0.354 to 0.866 (See Appendix (B)). Correlation coefficient between each domain and the total reached 0.740 and Alpha reached 0.834 which were found acceptable as shown in the following table:

Table (3):
Correlation Coefficients & Alpha between each domain and the total sheet of the TPOS No=27

No	Domain	R	Alpha
1.	Lesson Preparation	0.696*	0.834*
2.	Presentation	0.740*	0.806*
3.	Classroom Management	0.670*	0.707*
4.	Assessment	0.552*	0.791*

*Significant at 0.01 level

The Reliability of the observation sheet

The data obtained was computed to calculate the reliability coefficient. The reliability coefficient of the observation sheet test was determined using the inter-rater reliability method. The statistical correlation coefficient of Pearson between the two raters (the researcher and another colleague with the same qualifications) was (0.945) which was found acceptable (See Appendix (B)).

IV- The Self-Efficacy Scale

Objectives

This scale was used to evaluate student teacher' beliefs on their capabilities to perform certain tasks related to teaching in the classroom.

Construction of the scale

It was a forty item scale, constructed according to four basic domains emphasized in the literature and in the light of TEFL experts and supervisors in schools. Each domain was represented by some sub-skills in the scale. A five-point scale of the Likert type ranging from (Strongly Agree) to (Strongly Disagree) was used. The key domains presented in the scale were: Instructional Strategies; Learning Climate; English Language learning skills and Technological Attributes (See Appendix (A)).

Scoring

The ratings of the scale were numerically treated. Each item was given a score from one to five. The total score was the same as the total number of points given for statement regarding student teachers' beliefs in their capabilities and it was (200 points).

Validity

Face Validity of the scale

The scale was submitted to a panel of TEFL expert juries to evaluate its validity according to: relatedness of the sub-domains to the main domains; linguistic stating of items and suitability of the items for student teachers.

The Internal Consistency of the Scale

The validity of the scale was determined by computing internal consistency of each item. This was calculated by using (Pearson correlation formula). Correlation coefficient ranged from 0.366 to 0.881 between the scale items and the total (See Appendix (B)). Correlation coefficient between each domain and the total reached 0.760 and Alpha reached 0.890 which were considered acceptable as shown in the following table:

Table (4):
Correlation Coefficients & Alpha between each domain and the total sheet of the SES No=27

No	Domain	R	Alpha
1.	Instructional Strategies	0.831*	0.841*
2.	Learning Climate	0.730*	0.863*
3.	English Language learning skills	0.860*	0.772*
4.	Technological Attributes	0.562*	0.890*

*Significant at 0.01 level

The Reliability of the Scale

The reliability coefficient of the scale was determined by the test–retest method. The statistical correlation coefficient of Pearson was found 0.961. To ensure the reliability of the test, Cronbach Alpha Coefficient was calculated and was found 0.924. It was considered acceptable (See Appendix (B)).

Teaching and Training the Study group

The training program was divided into three basic parts: the first part was at the Faculty of Education, Minia University, the second was online and the third was in the training schools.

The first part that was conducted in the Methodology class went through the following procedures:

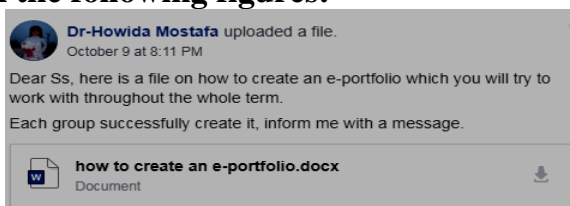
- This part started with a brief introduction about EP, its importance and the steps of creating it through following the cycle of collecting, selecting, reflecting, presenting and evaluating as shown in the following figures:

Creating an E-portfolio

By Dr. Howida Mostafa



There are certain steps you need to follow your own e-portfolio. So do the following steps



- Student teachers of the study were asked to collect information for their work on different topics related to teaching skills, presentation skills, management skills and assessment.
- The student teachers selected some of the topics to present them by themselves in the Methodology class. They video-

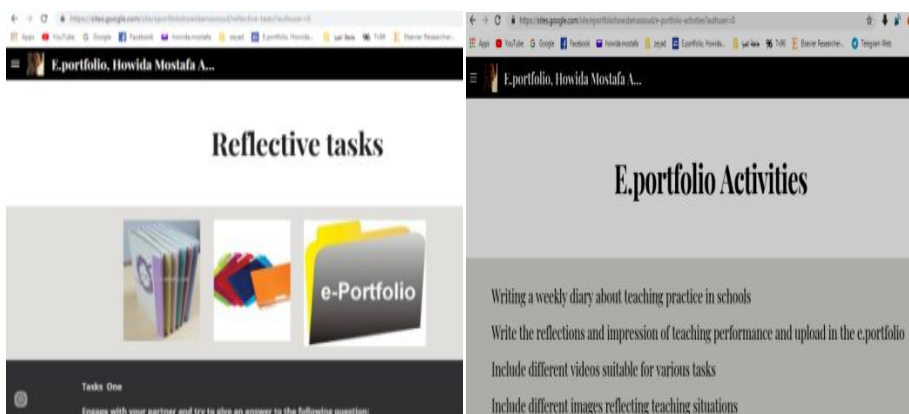
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taped their presentations followed by an open discussion on the presented topic.

- Sometimes YouTube videos on different classroom teaching practices and problems (teaching vocabulary, teaching grammar, teaching reading, teaching writing, assessment techniques, classroom management problems, using different teaching resources, etc.) were presented in class for more clarification.
- There was also an open discussion on students' reflections, questions, reactions and experiences they gained throughout the training program.

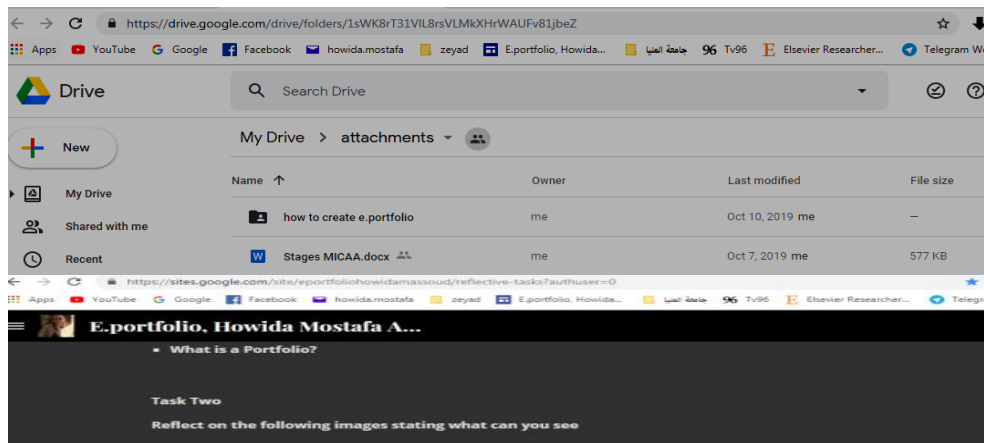
The second part that was online went through the following procedures.

- The instructor wrote down student teachers' Gmail to invite them to get access to her own EP through which tasks and activities were assigned in the following link:
<https://sites.google.com/site/eportfoliohowidamassoud/home?>



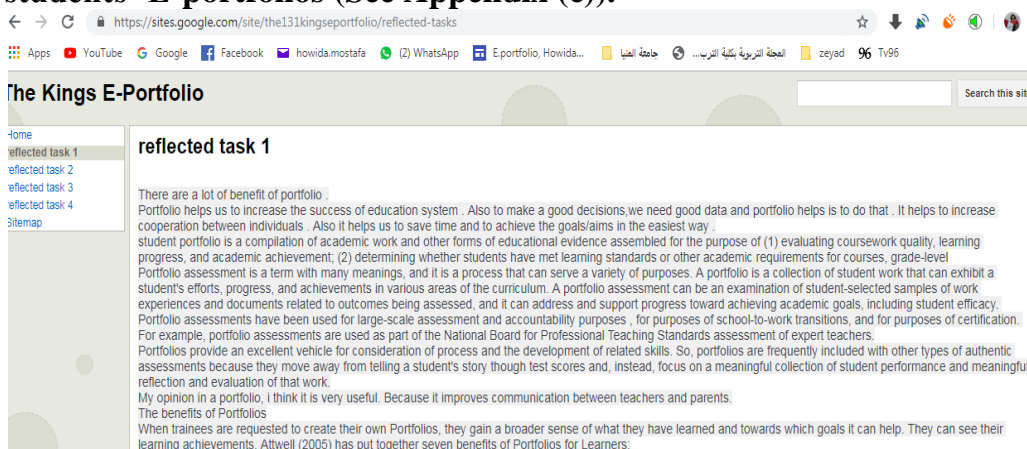
- The instructor also uploaded different files, images and videos related to reflective instructional practices for students to reflect on their E-portfolios.

Using E-Portfolio to Enhance Reflective.....



- The student teachers uploaded their own presentations, images, videos, files they selected in their E. portfolios. They wrote their reflections on the journey of creating the portfolios and on their teaching practice in schools.
- Student teachers were asked to reflect on each other EP and evaluate its contents so as to receive collegial and instructive feedback both on their presentations and reflections.

Here are some examples of students' E-portfolios: For more students' E-portfolios (See Appendix (c)).



Using E-Portfolio to Enhance Reflective.....

sites.google.com/site/futuregirls2438/7fbclid=IwAR0PoUWuv3cuy_rlenEhk5ZqPrvP9TUu8al-LdvUzstFoAXBqUhme8S5yo

futuregirls Search this site

My journey of creating this site and my expectations from it


Comment on Ambitious Girls Group
 Comment on Friends Group
 Classroom management
 Comment on Challenge Group
 Comment on Diamonds Group
 Comment on Pirates Group
 Comment on The Fairies Group
 Future girls Group (our group)
 Future girls Group (our group)
 Future girls Group (our group)
 Sitemap

My journey of creating this site and my expectations from it

It is the first time for me to do something like this. I am not proficient in computer and network so it was not easy somehow but finally I could to do it. I faced some problems : Firstly, the connection was so bad .Secondly, the site gave me : "To create or edit a site,go to Google Sites on your desktop." I did not know how to do this so I asked my friend Fatema Bakry and she helped me to do that .Thirdly,the site I found after that was completely empty so I tried to open it from another device but I found the same thing .To solve this problem I tried to find the differences between my site and the site of my friend. I found a funny thing :In my site there was (www) but in the site of my friend and when I deleted it I finally managed to create it.

HOME
 AZHAR EWIS E-PORTFOLIO
 HOPE & FUTURE
 ENGLISH LANGUAGE ASSESSMENT
GROUP WORK
 HOPE & FUTURE
 TASK 10
 TASK 11
 TASK 12
 TASK 3
 TASK 4
 TASK 5
 TASK 6
 TASK 7
 TASK 8
 TASK 9
 THE DIFFERENE BETWEEN ASSESSMENT TESTS AND EVALUATION TESTS
 VIDEO ABOUT MULTIPLE CHOICE ITEMS
 VIDEO ABOUT THE CONCEPT OF ASSESSING
 SITEMAP

Group work



sites.google.com/site/shazamohamedseportfollo/reflective-tasks-2

Home
 first task
 presentation
 reflective tasks
reflective tasks
 reflective tasks
 reflective tasks
 reflective tasks
 reflective tasks
 reflective tasks
 reflective tasks
 reflective tasks
 Sitemap

reflective tasks

Reflective teaching is a different question, you ask yourself to develop yourself. It is also a way we use to express ourselves. We can reflect ourselves in many ways like :teacher diary ,student feedback, recording lessons, peer conversation.We learned the steps or stages of reflective teaching inside the class like :Mapping: what you do inside the class as a teacher or put a map about what you do today.Informing: to give evidence or reasons to my students or to collect information. Contesting: to provide ideas and assumptions. Abrasing: a solution and alternatives for something don't work with you or you don't find answers.finally, acting: act the collected information to students to make it easier. in brief, we collect data, analyze,evaluate data, reflect, plan, make dssion, ana act. We learned the strategies of reflect ive teaching to inform my studentes. like : self analysis ,writing journals ,keeping a portfolio and observations of students responses and questions at the end of every lesson. Teachers can use reflective teaching to observe and evaluate the way they behave in their classroom . It's a process where teachers think over their teaching practices, analyzing how something was taught and how the practice might be improved or changed for better learning outcomes. So reflective teaching is an important personal tool for teachers . Through reflections, teachers can look clearly at their successes and struggles and consider options for change that greatly impact student learning. IT makes teachers more effective and encourage learners to reflect on, analyse and evaluat

Using E-Portfolio to Enhance Reflective.....

sites.google.com/site/thefairiesgroup/reflective-tasks

The Fairies

Home
Comments on presentations
First Task
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Reflective Tasks

Task 2 : _
The teacher presented the lesson in an unconventional way. He showed us how to manage the classroom and to be able to send the information to the students in an easy way at the same time to make them participate in class.
He started with warm up to give an idea to the students about the new lesson . Then He presented the new lesson by using cards, photos, gestures, and even acting that made th class more active and not boring . He used different exercises inside the classroom some of them had been applied individually and another in pairs , others with the whole class . He used the (CLT) approach so all the students were involved.
He saved time and made his work without wasting time also he used positive language. He is well organized teacher, and he has a self confidence.

The comment on the image: _
This man has a lot of information in his head , and he is thinking about a piece of information how to put it in his head. And how to find a process to make his head receive this information.
He also think if this information is valuable or not.

Friends group's portfolio

التسعة الرئيسية

PRESENTATION
TASK 1
TASK 2
TASK 3
TASK 4
TASK 5
TASK 6
TASK 7
TASK 8
SITEMAP

Task 8

Galaxy group
They managed their time well. They build up their presentation on asking and answer. Some of them were stressed, and afraid. Most of them have a good language . But unfortunately they didn't use Data show.
They were well designed they divided the subject in a good way they were having a paper that contain some websites names which help us to search for more information about their subject there was some trouble of us to take marks but they continue and made a wonderful presentation this was really so beautiful although they faced some problems at the beginning they were able to get over it and complete their presentation in a very good and of course because they were enthusiastic they make the audience and all the students enthusiastic too .they used question technique to keep the concentration of the students connected with them all the time .they were really helpful group and well organised and this was clear in their presentations

Comments on presentations Updated Nov 21, 2019, 1:07 PM

The Fairies

Home
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First Task
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Comments on presentations

The comment on The pirates' presentation : _
They started with an active warm up and it was related to what they presented
They were so cooperative with each other and their voice were so clear. Their accent was also nice and most of us understood almost everything they said.
The data show was clear and organized but there were some information that we couldn't follow.

The comment on The Diamond's presentation : _
They were somehow nervous at first then gained confidence and we began to understand them more and they used body language in a really good way.
Some of them make us share with them .
They use the data show and it was very clear.
But if they use cards to explain how we teach vocabulary it may be more interesting.

The comment on Nessma's presentation: _
They made us more active by using a good warm up .their voice was loud and language was so simple so almost of us understood more.
They used visual aids.
They were well prepared so the way of their presentation was so clear .
They will be good if they minimize their time.

The comment on the ambitious group's presentation: _
They were well organized . They used data show .They had self confidence and clear voices.
They need to be more active.

The comment on Friends group's presentation: _
They explained the lesson very well, we understand the most of information. They used the white board in affective way. We like the pictures which they used in the powerpoint . But I think they don't prepared well, because they take much time to take their turns.



The third part that was conducted during student teachers' teaching practice in different schools went through the following procedures:

- After allocating student teachers in different schools, they were asked to use the different reflective teaching practices that they were instructed and trained earlier in the previous parts.
- The student teachers were asked to video tape their performance each time they teach in class and upload them in their E-portfolios to get more reflections.
- When student teachers started their actual teaching in schools, the instructor began to attend each one's class for conducting observation sheets and taking comments on their reflective teaching practices.
- The student teachers were also asked to reflect on their own and others teaching performance and write the reflections in their E-portfolios.
- The instructor utilized school time only in making observations for each student and write her comments online in their E-portfolios.
- In teaching practice periods, the instructor also followed how far student teachers benefited from the reflection they received via their E-portfolios in teaching in the classroom.

Finally, at the end of the training, students were asked to present their own E-portfolios in the methodology class in front of the whole group for evaluating the design and layout of them.

Findings

The present study attempted to investigate how training EFL student teachers was effective to use EP in promoting their reflective instructional practices and self-efficacy. Data obtained from the RIPT, the SES and the TPOS was analyzed using “t-test”. Scores of the study group for the pre-post administrations were analyzed and compared.

Hypothesis (1)

The first hypothesis predicted that the study group would achieve higher in the post performance of the RIPT. Results showed that the mean scores of the study group on the post administration of the RIPT was superior and statistically significant as compared to the pre administration as t-value was 12.69 and Eta- squared was 0.932 as shown in the following table:

Table (5):

T-value & η^2 between mean scores of the Study group in the Pre-
Post RIPT No=30

No	Treatment	Mean	SD	DF	t-value	η^2
30	Pre	29.13	6.17	58	12.69*	0.932*
30	Post	48.27	5.28			

*Significant at 0.01 Level

Referring to the TPOS which was also used to measure the effectiveness of EP in improving students’ reflective instructional practices, statistical analysis showed that the mean scores of the study group on the post administration of the whole observation sheet was higher compared to the pre- administration as t-value was 27.23 and Eta- squared was 0.923 as in the following table:

Table (6):

T-value & η^2 between mean scores of the Study group in the Pre-
Post-TPOS No=30

No	Treatment	Mean	SD	DF	t-value	η^2
30	Pre	86.03	3.53	58	27.23*	0.923*
30	Post	115.33	4.60			

*Significant at 0.01

Additionally, statistical analysis shown in table (7) indicated that the study group achieved a significant improvement on each domain of the post TPOS. However, students got higher marks on particular domains rather than others. Consequently, the first hypothesis was confirmed and accepted.

Table (7):
T-values & η^2 between mean scores of the Study group in the Pre-Post-TPOS domains
No=30

No.	Domain	Mean		SD		t-value	η^2
		Pre	Post	Pre	Post		
1.	Lesson Preparation	21.87	27.27	2.73	1.83	8.86*	0.788*
2.	Presentation	24.73	41.63	2.18	2.80	25.29*	0.954*
3.	Classroom Management	22.23	27.33	1.89	1.25	12.12*	0.805*
4.	Assessment	16.97	19.10	1.08	1.47	6.30*	0.732*

*Significant at 0.01

Hypothesis (2)

The second hypothesis anticipated that the study group would achieve higher in the post performance of the SES. Statistical analysis showed that the study group's post testing of the whole SES exceeded their pre testing as t-value was 30.37 and Eta- squared was 0.924 as shown in the following table:

Table (8):
T-value & η^2 between mean scores of the Study group in the Pre-Post SES
No=30

No	Treatment	Mean	SD	DF	t-value	η^2
30	Pre	97.70	7.44	58	30.37*	0.924*
30	Post	165.03	9.32			

*Significant at 0.01

Data analysis also revealed that the study group achieved a significant improvement on each domain of the post SES as the difference in the mean scores between the pre and the post administrations was statistically significant. However, students got higher marks on particular domains as shown in table (9). Consequently, the second hypothesis was achieved and accepted.

Table (9):

T-value & η^2 between mean scores of the Study group in the Pre-Post SES domains No=30

No.	Domain	Mean		SD		t-value	η^2
		Pre	Post	Pre	Post		
1.	Instructional Strategies	25.53	41.20	3.85	2.89	17.51	0.864*
2.	Learning Climate	25.67	40.40	2.58	2.54	22.23*	0.885*
3.	English Language learning skills	20.70	43.97	1.85	3.17	34.17*	0.930*
4.	Technological Attributes	26.00	39.47	1.63	3.21	20.13*	0.902*

*Significant at 0.01

Discussion

The main rationale of the current study was to investigate the effectiveness of using EP in enhancing student teachers' reflective instructional practices and SE. The previously presented results indicated that EFL student teachers' reflective instructional practices consistently enhanced as well as their self-efficacy. There was evidence of an overall significant progress in their teaching performance as shown in the formerly analyzed data. The study group's scores of the post testing on RIPT, SES and TPOS were higher than their pre testing. The researcher attributed these results to the implementation of EP on training the study group which was found to be effective, valuable and useful for them. Another possible account for this remarkable improvement might be the well-established teachers' guide, varied, reflective and interesting activities utilized. It had a significant impact on promoting different teaching practices, self- efficacy and language skills. Results of this are in line with most of studies in literature (Karami et al., 2019, Almusharraf, 2019 and Slepcevic-Zach & Stock, 2018, Cheng & Chau, 2013). The study addressed a very vital issue i.e. the implementation of EP in teaching and learning for both pre and in-service teachers.

The notion of using EP as a reflective tool both in teaching practice and in methodology class helped student teachers to have a deeper insight into their own teaching performance. It assisted them to acquire certain abilities such as collecting, selecting, reflecting,

Using E-Portfolio to Enhance Reflective.....

presenting and evaluating throughout the training period which are considered key steps in EP (Nambiar & Yunus (2017). EP promoted reflective instructional practices among student teachers which helped them to compare their first draft with the final one to trace their own personal progress and growth. Posing reflective questions on different materials and videos encouraged them to think reflectively and make connections between the topics presented in Methodology class and their application in school.

Again, the process of designing the EP provided the study group with a novel experience that they had not practiced before. EP in the current study proved to have a positive impact on creating a more active, flexible and digital learning environment which largely affected the demonstration of different reflective instructional practices. It was also effective in utilizing digital literacy tools and establishing some social and interactive relationships among students. Reflecting on own actions and practices in the classroom via EP encouraged student teachers to start to brainstorm their ideas and information on topics and issues selecting the most suitable ones. Actively engaged in the creation and organization of EP, students began to think about own and others' action, teach reflectively and report the most urgent problems they encounter in teaching. Afterwards, they proposed different alternatives and solutions as a result of their self-and peer reflections. Getting used to reflect on their own teaching performance in schools, videos and presentations, created a different learning environment which pushed student teachers forward to self-learning as mentioned by some of them; e.g. (1) *“Reflecting on what I did in my teaching in class through watching my video helped me to notice points of strengths and weaknesses and to think how I can get rid of them and improve it next time”*; (2) *“Really, using EP to reflect on our work was valuable and made us feel that we are responsible of improving our learning”*; (3) *“Making reflections on our teaching and presentation using EP was very interesting for me because I felt that I can move forward depending on myself”*; .

Furthermore, getting the chance to reflect on each other teaching practices changed their views on conducting reflections in a more relaxed and instructional environment. It stimulated them to accept their peers' comments, reflections and questions on their teaching performance. Adding to this, it assisted them to direct and

control their own learning, to pay more attention to their points of strength and weakness (Ciesielkiewicz, 2019 and Oakley et al., 2014). This also motivated them to become more willing to self-correct and gain the skill of constructing and rebuilding their knowledge and making modification and improvements in their performances. Actually, providing students with instant feedback, whether instructional or collegial, had a great effect on their learning progress and developing a reflective teacher (Roberts, 2018). This was stated by some of the students: (1) *“First, I feel annoyed to hear my friends’ reflections on my work, especially, my EP, but latter I noticed that she was right and I have to make some modifications”*; (2) *“Reading friends’ reflections challenged me to make good presentation and reach at a perfect teaching in class, so I put them in my head and benefit from them in further work”*; (3) *“Receiving others’ reflections on my work and putting my reflections for others helped me so much to discover new things in myself which pushed me to learn more”*; (4) *“For me, I liked when Doctor commented on our work and we had the chance to correct ourselves without meeting or having a face to face impression as it relieved us more”* (See Appendix (c)).

It is remarkable that EP had an influential impact on developing student teachers’ reflective instructional practices in school training periods which helped them to gain a range of ideas of the incidents they might face in classrooms (Farrell, 2014). It was a good stimulus for them to regularly look back at their knowledge, teaching performance and what they have not achieved and try to make a move forward. EP made a great push towards active and student-centered based learning which became crucial in the learning-teaching process. Regarding the different domains presented in the TPOS and SES, results showed that student teachers achieved substantial enhancement in some of these domains e.g. presentation in TPOS and English language learning skills in SES as t. values were very high compared to other domains. This means that student teachers typically enjoyed some domains, gained a deeper understanding of their different sub-skills and achieved progress on them due to using EP and whereas they found difficulty to deal with others. For more details, see tables (7&9).

Moreover, a sense of ownership was created due to using EP as student teachers decided the contents, the general design and layout and ways of organizing the files of their EP as they designed them in their own desired way. They had the chance to choose the figures, images, materials and videos related to the different topics presented which encouraged creativity and allowed autonomous learning. Having this sense of self-authority in creating E-portfolios increased student teachers' beliefs and self-confidence on their abilities to carry out different tasks which in turn increased their self-efficacy. Findings of the study revealed that, after the completion of the training, student teachers' self-efficacy was generally changed and its different domains were increased as well. They scored higher in some domains rather than others which indicated that EP influenced their self-efficacy beliefs and their conceptualization was broadly promoted (Ibrahim & Callaway, 2018 and Babovičet al., 2019). This was reported by students, e.g. (1) *"Really, at the beginning I felt very confused and afraid that I will not be able to create my EP. But, during till the end of the training, I was very happy that I managed to do it in addition, I shared it with my friends, wrote my comments and was interested to receive their reflections"*; (2) *"For me, I felt very proud of myself to do all the tasks, activities and I also became more confident and able to upload videos, images which I have not done before"*; (3) *"It was difficult for me to imagine that I will succeed to do hard tasks using the internet, but it was very interesting and it increased my ability to log in different sites and choose suitable material. So I feel very happy"*; (4) *"This training increased my self-confidence and helped me to discover my abilities that I have never known before and I became independent and active"*(See Appendix (c)).

Conclusion

From the aforementioned findings and student teachers' reflections, it is apparent that the implementation of EP in this study was of great value and usefulness for 4th year English majors. It stimulated collaboration and cooperation among them, maximized their confidence and self-efficacy and promoted reflective practices. It encouraged reciprocal learning and peer assessment, instant and instructive feedback and constructed some interactive and social

skills. EP provided the students with a good opportunity to document, retain and store a large bulk of files of their work to refer to it at any time which helped them to have a clearer vision of their progress. It also allowed them to gain more experiences in organizing the artifacts of their E-portfolios in various forms (videos, audio, graphics, files, etc.) which they had not done before in any course. Student teachers acknowledged EP as a valuable and usefulness tool which had great impact on their teaching skills as a whole. Throughout the journey of using EP, student teachers were engaged in continuous self-reflection process which is considered as the core element in further professional development. Accordingly, EP is recommended to be a basic part of teacher education training programs in Egypt.

Suggestions for Further Research

Studies could be done to investigate:

- 1. The effect of using EP on developing students' writing proficiency.**
- 2. The effectiveness of using EP on promoting students professional attitude and self-autonomy.**
- 3. The effect of using EP on developing students' critical thinking and Self-regulation skills.**
- 4. The effectiveness of using EP on enhancing students professional**

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