



Practice Education Student Teachers' Beliefs about Portfolio and its Relationship to Some Variables in the Faculty of Educational Sciences and Arts/UNRWA

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ABSTRACT:

This study investigated practice education student teachers' beliefs about portfolio and its relationship to some variables in the Faculty of Educational Sciences and Arts/UNRWA (FESA/UNRWA). A survey questionnaire of (70) items was developed. The items were distributed on three domains: attitudes, contents and Portfolio use challenges. The questionnaire was administered on (145) male and female students. The results of attitudes towards portfolios and portfolio contents domains were high while the domain of portfolio use challenges had a medium agreement degree. No statistically significant differences attributed to gender, General Secondary Stream or cumulative university average or their levels were found.

Key words: beliefs; portfolio assessment, student teacher portfolio; preservice teacher education; student teacher evaluation

المخلص:

هدفت هذه الدراسة لاستقصاء معتقدات الطالب المعلم في التربية العملية حول البورتفوليو وعلاقته ببعض المتغيرات في كلية العلوم التربوية والآداب / الأنروا. وقد تم تطوير استبيان مسحي مكون من (70) فقرة لهذا الغرض حيث تم توزيع الفقرات على ثلاث أبعاد هي الاتجاهات والمحتوى و تحديات استخدام البورتفوليو. و تم تطبيق الاستبيان على (145) طالب و طالبة. و كانت نتائج اتجاهاتهم نحو البورتفوليو و محتوى البورتفوليو مرتفعة في حين أن بعد تحديات استخدام البورتفوليو كانت بدرجة متوسطة. كما لم تظهر أي فروق ذات دلالة إحصائية تعزى لمتغيرات الجنس أو فرع الثانوية العامة أو المعدل التراكمي الجامعي أو في مستويات أي منها.

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INTRODUCTION

Portfolio movement started in the early 1980s (Elbow & Belanoff, 1997), then it was adopted in education from other professions such as art, photography, fashion, advertising and architecture (Wray, 2008). Portfolio use in teacher preparation programs has expanded rapidly in the 1990s (Conderman, 2003) and the last decade. Portfolios may contain many elements that are strongly recommended by literature such as teaching philosophy, sample lesson plans, samples of student work, video/audio tapes, photographs, staff development experiences, student assessments, professional growth plans and written reflections (Curry & Cruz, 2000).

There are numerous benefits of utilizing portfolios that are reported in many studies. For instance, Frederick, McMahon, Shaw and Edward (2000) mentioned that as competition for teaching positions continues to increase, professional portfolios can be the deciding factor in obtaining employment, especially for the beginning teacher. An effective portfolio provides the means for applicants to display their very best work and document special talents, abilities, and accomplishments while demonstrating their enthusiasm and commitment to the teaching profession. In addition, Zipp and Simpkins (2010) stated that the academic portfolio offers a means for faculty to organize, present and reflect on their accomplishments in the areas of teaching, scholarship

and service. Therefore, it can be used to support an application for promotion, tenure or merit reviews. Moreover, Draves (2009) mentioned that the student teaching portfolio was required as part of the student teaching semester. Furthermore, Luescher and Sinn (2003) described teaching portfolios as performance based assessment tools that promote quality teaching. As a result, paper portfolios within teacher preparation programs became electronic ones rapidly; meanwhile, portfolio authoring tools within teacher preparation institutions have changed dramatically as portfolios have moved from paper to electronic formats and now to the Web (Fiedler, Mullen & Finnegan, 2009). Other benefits of portfolios include their effective use in assessment whether authentic, formative, summative or self assessment. Klenowski (2000) examined the use of portfolios for assessment and learning purposes in an initial teacher education course in the Hong Kong Institute of Education. Teacher educators requested portfolio exemplars, more specific grading criteria and more examples to illustrate standards. In the same vein, Draves (2009) stated that portfolios can be a reliable and valid assessment tool for student teaching. This can be justified since portfolio assessment is considered an excellent means for enhancing performance (Curry & Cruz, 2000). Portfolio assessment is a powerful tool of monitoring candidates' knowledge and understanding (King, Patterson & Stolle, 2008). Besides, Koutsoupidou (2010) affirmed that self-assessment can play an important role in teachers' personal

and professional development, and is encouraged by educational programs worldwide. Moreover, Johnson-Leslie (2008) stated that in teacher education, electronic portfolios provide an authentic form of assessment documenting students' personal and professional growth.

In short, there are several diverse types and effective uses of portfolios in teacher education ranging from professional portfolios, academic portfolio, student portfolio, teaching portfolio, authentic and self-assessment portfolios to learning portfolios. Wray (2008) reported various forms within portfolio types; such as, the learning portfolio which contains the following forms; inquiry-based portfolio, thematic portfolio, and growth-and-development or reflective portfolio. She stated that regardless of the learning portfolio form, they promote an in-depth view of the preservice teacher's thinking process about professional identity and classroom practice. Portfolio implementation can be a powerful instrument to empower students' motivation to learn (Maria & Fernando, 2009). Despite the significant body of literature advocating the importance and benefits of portfolio various types, other studies reveal limited portfolio use and neglect of implementation. For instance, Boody (2009) found that portfolios are recommended by many teacher education programs but are not generally used by school districts. Similarly, Shepherd and Hannafin (2008) reported that practicing teachers did not maintain portfolios, raising questions about the continued use of them beyond graduation. Other studies pro-

posed that the electronic portfolio may be used as one requirement for certification purposes, but may not be valid for the purpose of assessing teacher competencies (Yao, Nickens, Burkett & Lamson, 2008). Besides, Zipp and Simpkins (2010) found out that faculty are not certain about whether portfolios should be used for personnel decisions. Further, portfolio use as a tool to assist educators has yet to receive systematic attention (McColgan & Blackwood, 2009).

PROCEDURAL DEFINITIONS

Beliefs: Ideas that an individual develops as a result of a certain experience. These ideas define the correctness or wrongness of a specific point of view or it is the intellectual habits of mind that indicate the correct or wrong thing. Beliefs control the values behind human behavior. Eventually, they directly affect a human's thoughts, feelings and behaviors. In this study, beliefs are measured by the score that the respondent gives to each item in the questionnaire three domains: attitudes, contents and Portfolio use challenges. Buara-phan, (2012) defined beliefs as a complex psychological construct that can drive individuals to make decisions and act.

- Faculty of Educational Sciences and Arts/UNRWA (FESA/UNRWA): A university faculty under the umbrella of the United Nations for Reliefs and Works Agency that grants a B.A. degree in three specializations only: Class Teacher, English Language and literature and Arabic Language (UNRWA,

2009).

- Practice education: It refers to full participation phase within teacher preparation and training program which is implemented by Practice Education unit in FESA/UNRWA. The student teacher is given the opportunity to be trained on teaching duties and practice carrying out teacher's professional and administrative tasks in UNRWA cooperative schools, where they are trained under the supervision of specialized faculty instructors (Practice Education Unit, 2006).

- Portfolio: An authentic assessment tool used to record and assess student teacher's achievements, professional development and growth over the training period. It is also used for reflection, self-assessment and learning where students compile their best achievements, artifacts and documents including C.V, essays, reports...not to be inclusive for their knowledge, skills and attitudes to their teaching depth. Trivett and Stocks (2012) defined portfolios as assessment tools that help frame expectations of personal professional learning about teaching in higher education and a key dimension of academic practice.

LIMITATIONS OF THE STUDY

Generalization of results is limited in light of the following:

- 1- Study sample was confined to fourth year students in Class Teacher Specialization during the academic year 2010-2011. These student teachers were in the final full participation phase of their fieldwork practical training period

within practice education program at FESA-Jordan.

- 2- Study instrument was a questionnaire developed by the researchers to assess the beliefs of student teachers towards portfolios in three domains: attitudes, contents and use challenges.

PREVIOUS STUDIES

Preservice teacher education programs use different types of portfolios to serve their various purposes. Following is a literature review that will focus on teacher education in specific.

The review will be divided into two main sections: one concerning portfolio use by preservice Teachers, while the other about portfolio use by faculty and lecturers in teacher education programs.

PORTFOLIO USE BY PRESERVICE AND STUDENT TEACHERS IN TEACHER EDUCATION PROGRAMS

There are studies that investigated preservice teachers' portfolios in relation to various subjects. For example, Shepherd and Hannafin (2008) reported a case study on three preservice social studies teachers' use of video –based formative e-portfolio assessment. Video artifacts facilitated reflection, supported inquiry into classroom success and failure, and influenced self-improvement plans. Additionally, the systematic examination of portfolio artifacts provided different points of view into classroom practices and influenced preservice teachers' perceptions of success. Further, Yoo (2009) identified the effectiveness of using portfolios for the prospective teachers as a tool of an explicit, reflective, and instructional approach in science education. He reported that these prospective teachers' beliefs of teaching science and their perspectives and views of nature of science have been changed. He also explored how these changing conceptions, along with their teaching practice, developed during the procedure of the developing portfolios. As well, Koutsoupidou (2010) explored generalist preservice kindergarten teachers' self-assessment of their music teaching ability. One hundred participants were asked to design and deliver three music sessions for the kindergarten and then prepare a short reflective portfolio. Qualitative analysis of the portfolios led to the identification of differ-

ent issues related to student practices, including preservice teacher training, teaching ability, the effect of different school environments and policies, and personal thoughts and feelings. In the same vein, Bataineh, Al-Karasneh, Al-Barakat and Bataineh (2007) explored how portfolios support pre-service teachers' learning to teach. The findings revealed that the portfolio provides pre-service teachers with productive learning experiences which help them develop their library use, knowledge, skills, attitudes, personal traits, motivation to learn, interpersonal relationships and information source. The respondents were found to consider the portfolio a highly effective tool in their learning to teach. Equally, Pugach, Longwell-Grice, Ford and Surma (2008) analyzed 15 exit portfolios of students enrolled in a program to prepare teachers for urban schools. Portfolios were analyzed holistically across entries to determine the degree to which students integrated multiple concepts related to teaching in urban schools, including: asset/deficit perspectives, connections with families, social justice, high expectations for student learning, and contextualized teaching and learning. The portfolios fell into three groups along a continuum from limited practice to inconsistent practice to principled practice.

PORTFOLIO USE BY FACULTY IN TEACHER EDUCATION PROGRAMS

Harland (2005) presented a case study of tutor and student experiences of using a portfolio in a preservice teacher education program. The portfolio aimed to provide a space for 'authentic

enquiry' that focused on student self-determination and the process, rather than the outcomes, of learning. Initially, portfolios were evaluated formatively during supervisory meetings and each student decided what part of their portfolio should remain private and what the tutor might read and comment on. In the second phase of development, formative judgments about work were no longer made and portfolios became private documents. Challenges for student teachers were associated with the novelty of the experience, the time taken for reflection to develop and the individualistic nature of the task. The researcher challenges were new methods of supervision and trying to live up to the explicit values that informed the curriculum. Similarly, Strudler and Wetzel (2008) investigated the perspectives of faculty in six programs in which electronic portfolios (EPs) in preservice teacher education have been used on a large scale for two or more years. Benefits included increased opportunities for students to reflect and learn, better student understanding of teaching standards, better faculty access for assessing student work, increased faculty communication with students, and improved tracking of student performance for purposes of accreditation and program improvement. The costs or disadvantages included issues pertaining to the amount of time and effort expended and to the lack of compatibility with faculty members' belief, values, and needs. Faculty satisfaction with EPs seemed strongly associated with their values for student-centered teacher education and in some cases, their will-

ingness to sacrifice individual preferences to accomplish program goals. Moreover, McColgan and Blackwood (2009) reviewed protocol used to identify, critically appraise and synthesize the best current evidence relating to the use of teaching portfolios for educators in further and higher education. The review was through conducting a search of the following databases: MEDLINE, CINAHL, BREI, ERIC and AUEI. The review followed the Joanna Briggs Institute guidance for systematic reviews of quantitative and qualitative research. The review suggested that a teaching portfolio may have a benefit for educators in higher education as a means to provide relevancy and focus to their teaching. Also, Zipp and Simpkins (2010) surveyed faculty at Seton Hall University to gather information on what faculty knew about academic portfolios, and whether they should be used for promotion/tenure or merit reviews. Results indicated that faculty understood the characteristics and organization of a portfolio, but were not certain about whether portfolios should be used for personnel decisions. The researchers attributed this to the lack of objective criteria for evaluation. As can be seen, portfolios are extensively studied in advanced and developed countries. Some of these studies investigated the attitudes towards them (Zou, 2003). Other studies examined them in certain subject areas such as Special Education (Conderman, 2003), Social Sciences (Sheperd & Hannafin, 2008) Science (Yoo, 2009) and Music (Koutoupdou, 2010). At the same time, others explored their benefits and effects

on students at school (Juniewicz, 2003) or university preservice teacher education programs (Dubinsky, 2003; Pugach, Longwell-Grice, Ford & Surma, 2008) as well as teachers and staff at universities (Zou, 2003; Harland, 2005; Strudler & Wetzel, 2008; Boody, 2009; Zipp & Simpkins, 2010). Some studies compared traditional paper-based format portfolios with electronic ones (Woodward & Naholy, 2004) while others scrutinized the electronic portfolios only (Dubinsky, 2003; Sheperd & Hannafin, 2008; Strudler & Wetzel, 2008; Le, 2012; Hung, 2012, Mok, 2012) web based portfolios (Guzeller, 2012) or the most recent innovation which is cyber portfolios (Robles, 2012).

The present study is distinguished as it is conducted in Jordan as a developing country and on student teachers in Class teacher specialization during their training at schools in full participation phase of their practice education program. It seems that this is the only study in this context that came to fill the void and explore beliefs about portfolios in terms of attitudes, contents and use challenges.

STUDY IMPORTANCE

The importance of this study emanates from the fact that it contributes in providing significant insights into the nature of student teachers beliefs in Jordan towards portfolios in time where interest is increasing in linking teaching, learning and authentic assessment tools and strategies towards performance evaluation throughout the various stages of the teaching learning

process. There is no doubt that the widespread use of teaching, learning and assessment portfolios in education and in many walks of life proved successful. This interest is also increasing among supervisors and teachers in preservice and inservice teacher education programs at international as well as Arab region levels. A portfolio is considered an authentic assessment tools where the learner assesses himself, reflects on his practice and takes the appropriate decisions to improve or change his performance. The study will highlight current thinking and practice regarding portfolios in preservice teacher education. This will help student teachers in compiling the required portfolios efficiently to reflect the quality of their professional development and growth. The study also attempts to reveal the effects of gender, general secondary stream and cumulative university average on student teachers' beliefs about portfolios during their fieldwork training in cooperative training schools. None of the reviewed studies investigated the effects of these variables on student teachers' beliefs. Consequently, results of this study might also be beneficial for policy and decision makers at the ministries of education as well as ministries of higher education in the Arab world together with academic institutes and stakeholders in teacher preparation and training programs.

STUDY AIMS

The current study aimed at achieving the following objectives:

- Investigating practice education stu-

dent teachers' beliefs about portfolio in three domains: attitudes, contents and portfolio use challenges in FESA/UNRWA

- Disclosing the effects of gender, general secondary stream and cumulative university average on student teachers' beliefs about portfolios during their fieldwork training in cooperative training schools.

STUDY PROBLEM AND QUESTIONS

Due to significant world wide apprehension about perceived deficiencies in university students performance and a resulting decrease of knowledge level and competency development (Martinez and Rubio, 2009), as well as dissatisfaction of traditional teaching and assessment methods, portfolios gained accelerating international interest from educators in their search for excellence over the last two decades as one way to avoid these problems. Despite this considerable interest in portfolios, their use is still new and not widely spread in the Arab World context. As for Jordan, portfolio use started in UNRWA schools as an example in 2009/2010 so that each teacher has his own portfolio. Preservice teacher education program at FESA seeks to prepare highly qualified graduates. Consequently, there is great demand to utilize the best practices that maximize student teachers' benefits of their learning and training experiences to improve their competencies and performance so they ultimately enhance student achievements at schools. However, one of the most difficult tasks that people in higher education face is

helping students to become architects of their own learning process (Dubinsky, 2003). Similarly, Quezada (2004) confirmed that preservice teachers in elementary teacher education programs are mostly well trained and prepared in meeting the needs of the students in today's classrooms. Their more traumatic experience is the transition from student teacher to teacher. Due to various time and curricular constraints, the student teaching seminar leaves minimal time for teacher educators to responsibly cover and support the needs of student teachers in the employment preparation process. Fortunately, portfolios offer a solution for this problem for the beginning teachers (Frederick, McMahon, Shaw & Edward, 2000) for educators in further and higher education (McColgan & Blackwood, 2009) and also for faculty members since they can be used to support an application for promotion, tenure or merit reviews (Zipp & Simpkins, 2010).

Up to researchers' best knowledge, portfolios are not used nowadays in teacher education programs in Jordan on a large scale. To gain full understanding of student teachers' beliefs concerning portfolios, it is necessary to conduct a study that examines them. This includes attitudes, contents and portfolio use challenges. Trivett, Stocks and Quinlan (2012) confirmed that the details of how portfolios are used are under-examined; therefore, this study attempted to explore student teachers' beliefs concerning portfolios from their own perspectives as users. The study problem can be addressed through the following major question:

-What are the beliefs of student teachers in FESA/UNRWA towards portfolio?

The following sub questions emanated from the above major question:

1-What are the attitudes of student teachers in FESA/UNRWA towards portfolio?

2-What are the contents of a portfolio from student teachers' perspective in FESA /UNRWA?

3-What are the challenges that student teachers in FESA -UNRWA face during their portfolio use?

4- Are there any statistically significant differences at ($\alpha \geq 0.05$) in practice education student teachers' beliefs in FESA -UNRWA towards portfolio attributed to gender?

5- Are there any statistically significant differences at ($\alpha \geq 0.05$) in practice education student teachers' beliefs in FESA -UNRWA towards portfolio attributed to general secondary stream?

6- Are there any statistically significant differences at ($\alpha \geq 0.05$) in practice education student teachers' beliefs in FESA -UNRWA towards portfolio attributed to cumulative average at university?

STUDY SAMPLE AND POPULATION

The population consisted of all the student teachers towards the end of completing the full participation fieldwork phase of the practice education program at FESA/UNRWA during the academic year 2010-2011. They were 156 students. The sample consisted of all its population which was 156 student teachers; so, it is a purposeful sample.

The final number of the study sample consisted of 145 male and female student teachers because the usable questionnaires were (145) which constitutes (93%) of the study population. Table (1) shows sample distribution over the study variables:

STUDY INSTRUMENT

To answer the study questions, the researchers developed a questionnaire of a 5-points Likert scale; very high= 5, high = 4, medium = 3, low = 2 and very low = 1. It included 70 items distributed into three domains: attitudes towards portfolio, contents of a portfolio and use challenges of a portfolio. Specifying the domains and their contents was done by resorting to previous relevant literature (Juniewicz, 2003 and Curry & Cruz, 2000... not to be inclusive).

QUESTIONNAIRE VALIDITY

The questionnaire consisted primarily of (95) items that were revised for their contents, accuracy and language by 9 assistant professors from FESA staff and some concerned supervisors and school principals. Suggestions resulted in deleting similar items and modifying the language. The final version consisted of (70) items that are distributed into three domains as table 2 reveals. A set of criteria to judge the agreement degree among the student teachers were adopted based on the reviewers' suggestions. They proposed distributing the agreement degrees of the 5point Likert Scale into three categories: high, medium and low as follows:

High	Medium	Low
More than 3.42	/ 3.42-2.62	/ Less than 2.62

TABLE (1): SAMPLE DISTRIBUTION OVER THE STUDY VARIABLES

Variable	Level	No.	Total
Gender	Male	10	145
	Female	135	
General Second-ary stream	Scientific	46	145
	Literary	99	
Cumulative uni-versity average	Excellent	50	145
	Very good	80	
	Good or less	15	

TABLE (2): QUESTIONNAIRE DOMAINS AND THEIR NUMBERS

No.	Domain	No. of items	Item numbers
1	Attitudes towards portfolio	23	1-23
2	Contents of portfolio	25	24-48
3	Portfolio use challenges	22	49-70
	Total	70	1-70

QUESTIONNAIRE RELIABILITY

After developing the questionnaire and judging its validity, it was administered on a sample of (30) female and male students at FESA/UNRWA from outside the study sample. Questionnaire reliability was verified using Alpha Cronbach for Internal Consistency concerning the whole questionnaire and each of its domains. Table (3) below reveals these results. Table (3) shows that the questionnaire total reliability coefficient was (0.95) Alpha for the three domains ranged between 0.95-0.93 which are acceptable for the current study purposes.

TABLE (3): QUESTIONNAIRE RELIABILITY COEFFICIENTS

Domain	α Alpha
Attitudes towards portfolio	0.95
Contents of portfolio	0.96
Portfolio use challenges	0.93
Total	0.95

Table (3) shows that the questionnaire total reliability coefficient was (0.95) Alpha for the three domains ranged between 0.95-0.93 which are acceptable for the current study purposes.

METHOD

This is a descriptive study. The questionnaire was distributed on the study population of Practice Education in FESA. The participants were (156) male and female students. The usable questionnaires were (145) which constitutes (93%) of the study population. After collecting the questionnaires, data were analyzed using the appropriate statistics.

STUDY VARIABLES

The study includes one independent variable which is student teachers' beliefs about portfolio.

Secondary variables are:

- 1- Gender: has two levels: males and females.
- 2- General Secondary Stream: has two levels: Scientific and Literary streams.
- 3- Cumulative average at university: has three levels: Excellent, Very good, and Good or less.

STATISTICAL ANALYSIS

To answer the first, second and third questions about the agreement degree of student teachers, mean scores and standard deviations for each item and each domain were calculated. They were then compared with predefined judgment criteria of agreement based on the reviewers' opinions. To answer the fourth and fifth questions concerning the agreement degree of the student teachers according to gender and General Secondary stream, t-test for

independent samples were calculated. Finally, to answer the sixth question according to cumulative average at university, ANOVA test was conducted.

RESULTS AND DISCUSSION

Question one

What are the attitudes of student teachers in FESA/UNRWA towards portfolio?

To answer this question, mean scores and standard deviations for student teachers' scores on every item within this domain were calculated. The resulting means were then compared with the predefined criteria to specify the agreement degree on each item. Table (4) reveals the results.

Table (4) shows the agreement degree on the items of the first domain (attitudes towards portfolio) which was generally high with a (4.09) mean. The means of this domain ranged between (4.34-3.82). This indicates positive attitudes towards portfolio use based on the predefined judgment criteria. This attitude might have stemmed from the student teacher's experience with the benefits of portfolio process and outcomes in guiding them and enhancing their performance as they take charge of their own life long learning. This positive attitude might also be tentatively attributed to the focus of FESA on authentic assessment training both theoretically and practically during the courses such as "Evaluation and Measurement" and "Practice Education" courses. In these courses, student teachers are informed about portfolio as an

authentic assessment tool, its concept, contents, organization, and how to utilize it in the educational process. In addition, Practice Education and Teacher Preparation Unit at FESA emphasizes the necessity of using authentic assessment tools and strategies including portfolios during practical training period for a whole semester at schools. Portfolios are considered the most important tool in evaluating student teachers during this period. According to McDonald (2012) portfolio assessment appeared to empower students and provide them with the self respect they desired. The positive attitude results contradict with Zou (2003) who reported a noticeable negativity in students' attitudes towards assessment portfolio due to its limitations. Although all the items in student teacher attitudes' domain had high degrees, the highest three were item (10) with a (4.34) mean, item (2) with a (4.32) one and item (14) with a (4.23) mean. Item (10) states that students think a portfolio "portrays the achievements, creativity and best works verified with relevant documents and pieces of evidence." This might be attributed to students' awareness of portfolio concept as they studied it theoretically and utilized it during actual training. They might also be aware of portfolio importance to successfully pass the training period and its reliability through the multiple entries that support each objective and the artifacts that provide more evidence of authenticity. This agrees with Coderman (2003) who reported that one use of portfolio programs is to document and validate knowledge, skills and dispositions to

justify course credit or advancement in teacher education. Another interpretation might be what Warry (2008) stated that since employment is a primary goal for students who complete teacher preparation program, it is understandable why a teaching portfolio that represents a student's knowledge and skills should be presented to prospective employers. This motivates students to select only the best practices to illustrate growth over time represented in a variety of artifacts.

As for item (2), it states that students think a portfolio "can be used for job interviews." Its high result might be due to focus during training on how to apply for future jobs by using a portfolio and actually role playing this when the student teacher presents his portfolio in front of his supervisors and colleagues to evaluate it in successive periods. During this presentation, the participants ask the student teacher various questions about its form and contents in terms of quality and quantity. The high result of this item agrees with Warry (2008) who reported that using the portfolio to become employed remains important to the student. Priest (2010) elaborated that a portfolio speaks a lot about professionalism, and often impresses the interviewer or peer. Boody (2009) stated also that career services professionals advise students to mention having a portfolio in their application letter and bring it into interview since it might be used in later interview phases and not during initial screening. They added that it allows employers to see a candidate as an individual. The high mean of item (14) which

states that students think a portfolio “allows the trainee to highlight his various talents, abilities and experiences concerning his career” might be because of training the student teacher on how to actually invest and utilize these talents, abilities and expertise through various educational activities to meet students’ individual differences and the requirements of the teaching learning process. The result of this item is in line with Boody (2009) who stated that portfolios help inservice students to showcase their skills, organizational abilities, actual past performance, work samples and tell a story to the interviews which also agrees with (Fredrick et al., 2000). Despite the high approval degrees on this domain and its items, the least items were (19, 1 and 23). Item (19) received the least agreement degree in the domain with a (3.82) mean. It states that students think a portfolio “contributes in promoting critical and creative thinking skills of the trainee.” This state might be due to student teachers’ focus on the practical side of their portfolios rather than thinking which is closer to the theory. The problem with preservice student teachers might be the relative novelty of portfolio experience, the daily work demands at schools that are poorly equipped and the heavy time constraints. These might all be contributing factors that make student teachers feel under pressure to meet the practical requirements as a priority over thoughtful analysis, critical, creative and reflective thinking. However, reflection is an invaluable component of learning (King et al., 2008). Besides, meaningful reflection and refinement of ideas

may be a motivating factor to bring about commitment for improvement (Curry & Cruz, 2000). This contradicts with Boody (2009) who stated that students perceive the portfolio value in its potential to set them apart through their creativity and unique accomplishments. It also contradicts with Wray (2008) who confirmed that portfolios deliberately engage preservice teachers in critical reflection and inquiry concerning their knowledge, and teaching ability.

Concerning item (1) which had (3.83) mean, it states that students think a portfolio “receives acceptable interest levels from educators and academics nowadays.” Student might have looked at this item through the low interest and use of portfolios in the Arab World in general and Jordanian universities during training student teachers at schools in specific. FESA is one the few faculties in Jordan that uses portfolio in its preservice training program. This highlights a real challenge for decision makers in higher education in the third world to promote their practices up to the international standards. They should raise societal awareness by effectively introducing and using portfolios to reflect current best practices in education rather than lagging behind. According to Coderman (2003), portfolios should provide feedback about the teacher preparation program itself. This might indicate a problem of compromising the quality and integrity of the preservice education program at FESA and a serious case in other universities that must be avoided were portfolios are not used until now. This is in line

with Strudler & Wetzel (2008) who found a lack of portfolio compatibility with faculty beliefs, values and needs. Boody (2009) affirmed that some career services professionals perceived that portfolios have great values, others saw them as side issues, but all were involved with them. He confirmed that an employment portfolio is definitely part of the work and knowledge base of these career professionals. None of the 15 institutions with preservice teacher education students required the preparation of employment portfolios, though most recommend them to students. Juniewicz (2003) also reported that not only educators but also students and parents disagree about portfolio use effectiveness.

One reason for this might be the labor intensive nature of portfolio process for faculty members. At the same time, they need to provide students with sufficient opportunities to support their learning process to teach and reflect deeply on their practices. According to (Klenowski, 2000), studies show that preservice teachers face difficulties in writing self-reflective statements which stresses the importance of the teachers feed back and peer review.

In terms of item (23), it got a (3.86) mean. It states that students think a portfolio "supports cooperative projects

and ideas and encourages exchanging experiences among the trainees." Students carry out some simple cooperative projects in schools such as school service projects and participate in school committees and clubs. This is a compressed short period of time for one semester only. Another reason might be their new experience with portfolio use as well as lack of awareness regarding its cooperative aims. The challenge here might be having longer training periods with full participation in the teaching learning process systematically distributed over their course of study. Hopefully, this will facilitate relaxed active personal engagement and social cooperative interaction in the process.

The results of this domain indicate student teacher positive attitudes towards portfolio use. This result agrees with Bataineh et al. (2007) who explored how portfolios support pre-service teachers' learning to teach. The respondents were found to consider the portfolio a highly effective tool in their learning to teach. The findings of the present domain contradict with Zou (2003) who found out that students had negative attitudes towards assessment portfolio suggesting that students should have been taught how to make a learning portfolio before compiling an assessment one

TABLE (4): MEAN SCORES AND STANDARD DEVIATIONS FOR STUDENTS' AGREEMENT SCORES ON THE QUESTIONNAIRE ITEMS IN DESCENDING ORDER WITHIN ATTITUDES TOWARDS PORTFOLIO DOMAIN

Item no.	Item	Mean	St. Dev.	Agree. degree	Rank
10	Portrays the achievements, creativity and best works verified with relevant documents and pieces of evidence.	4.34	0.89	High	1

02	Can be used for job interviews.	4.32	0.91	High	2
14	Allows the trainee to highlight his various talents, abilities and experiences concerning his career.	4.23	0.90	High	3
16	Can be used to accumulate the educational experiences of the trainee's performance in the various domains.	4.21	0.74	High	4
08	Reflects the trainees' abilities and competencies in ordering and arranging his work and achievements and presenting them in a creative way.	4.21	0.96	High	4
11	Reinforces self assessment and reflective thinking through trainee's constant revision for his performance.	4.12	0.92	High	6
17	Illustrates the trainee's competencies in executing his duties as he planned for in a methodological way.	4.09	0.90	High	7
15	Enables the trainee to compare between his successive performances: how was it? where will he go? and how is that? (professional growth plan).	4.08	0.89	High	8
05	Enables decision makers from making comparisons between trainees, performance and other similar groups.	4.07	0.95	High	9
07	Can be referred to in order to specify the starting points for development and improvement of the trainee.	4.05	0.97	High	10
12	Reflects the keenness of the trainee in constant self professional development in education domain.	4.04	0.87	High	11
04	Involves the trainee in self assessment to reinforce points of strength and remedy points of weakness.	4.04	0.91	High	11
22	Contributes in supporting and developing the successful experiences of the trainee.	4.03	0.96	High	13
21	Makes the trainee more aware of his abilities in comparison with others.	4.03	1.00	High	13
03	Provides the requirements of the integrated approach in performance evaluation instead of the traditional evaluation of the trainee.	4.01	0.84	High	15

18	Highlights the practical implementation for knowledge and skills that he studied theoretically in education.	3.98	0.98	High	16
09	Clarifies trainee's educational vision, mission and aims.	3.97	1.03	High	17
13	Contributes in documenting the guided changes and innovations that take place for the trainee through training successive periods.	3.95	0.89	High	18
06	Consolidates communication relationships between the trainee and his supervisor who carries out the role of a guide and supporter.	3.92	1.00	High	19
20	Helps the trainee in developing his study and scientific research skills.	3.90	1.00	High	20
23	Supports cooperative projects and ideas and encourages exchanging experiences among the trainees.	3.86	1.09	High	21
01	Receives acceptable interest levels from educators and academics nowadays.	3.83	1.08	High	22
19	Contributes in promoting critical and creative thinking skills of the trainee.	3.82	1.05	High	23
	Total	4.09	0.62	High	

QUESTION TWO

What are the contents of a portfolio from student teachers' perspective in FESA -UNRWA?

To answer this question, mean scores and standard deviations for student teachers' scores

on every item within the domains were calculated. The resulting means were then compared

with set degrees of the predefined criteria to specify the agreement degree on each item. Table(5) discloses the results. Table (5) discloses that the agreement degree on portfolio contents was generally high. Its

total mean was (4.07). The mean scores of this domain items ranged

from (4.55-3.44). This might be due to training, constant follow up and supervisors' guidance to student teachers during practical training at schools especially regarding portfolio's contents and organization while allowing space for students' creativity and innovation in this domain.

A closer look at the means of this domain items reveals that the highest approved item was item (25) with a mean of (4.55). It states that students think a portfolio should include "A table of contents that shows portfolio sections." Next items were (27) "A Curriculum Vita that reflects the qualifications and expertise of the trainee" and (24) "a cover page which specifies portfolio type and trainee's name, attitudes and interests" with a (4.50) mean for each

of them. This might be tentatively attributed to the fact that the student teachers practiced writing scientific reports and research papers in almost all the courses at the faculty. They were used to design a cover page and a table of contents for each project or paper they submit within the requirements of the various courses. They might have transferred the same skills to portfolio. As for their high degree of agreement concerning the Curriculum Vita (C.V.) availability, this might be related to the item of portfolios suitability in job interviews that came in the first domain of the study. Student teachers are aware of C.V. importance for job interviews. The items that got the lowest agreement degree in this domain, were item (48) with a (3.44) mean then item (47) with a (3.59) then item (46) with a (3.63). Item (48) states that students think a portfolio should include "work related to teaching such as trainee's philosophy, aims and documents as well as innovations of his profession." This might be due to students' perceptions that the focus of a portfolio should be on practical implementation aspects rather theoretical ones. Wray (2008) suggested that providing a framework from which to select artifacts and organize the portfolio can assist students

with this difficult task.

Concerning item (47), it states that students think a portfolio should include "exchanged ideas between the trainee and those who deal with him such as supervisors, colleagues and parents." This might be attributed to students' relatively short experience in dealing with portfolios and their thoughts about what it should include. May be their situation as trainees affected their beliefs in this item as they rarely deal with parents and lack time to establish relationships with school principals, cooperating teachers and even supervisors who are also under great time pressure to effectively supervise a large number of student teacher trainees over many different sites and schools. The result of this item agrees with Wray (2008) in the necessity of increasing support and audience for students as well as communication among all stakeholders. Regarding item (46), it states that a portfolio should include "students' follow up achievement level register over successive periods of time supported by the necessary reports." This might be due to student teachers' beliefs that the portfolio during his training period at schools should contain more personal things rather than students' documents or registers.

TABLE (5): MEAN SCORES AND STANDARD DEVIATIONS FOR STUDENTS' AGREEMENT SCORES ON THE ITEMS OF THE QUESTIONNAIRE IN DESCENDING ORDER WITHIN PORTFOLIO CONTENTS DOMAIN

Item no.	Item	Mean	St. Dev.	Agree. degree	Rank
25	A table of contents that shows portfolio sections.	4.55	0.74	High	1
27	A Curriculum Vita that reflects the qualifications and expertise of the trainee.	4.50	0.69	High	2

24	A cover page which specifies portfolio type and trainee's name, attitudes and interests.	4.50	0.82	High	2
37	Samples of work papers, audio-visual aids or printed materials the trainee used during his training period.	4.40	0.88	High	4
34	Samples of the trainee's lesson and semester plans.	4.39	0.84	High	5
32	Work, services and activities that the trainee carried out during his training at school.	4.34	0.90	High	6
35	Various samples of different exams that the trainee constructed, their analysis and formed remedial plans based on the analysis.	4.32	0.90	High	7
31	Substantiated best practices and accomplishments that the trainee did.	4.29	1.01	High	8
44	Individual and cooperative projects that the trainee executed or participated in and their effects on the target groups.	4.27	1.01	High	9
43	A collection of printed, written materials, cut and paste pictures, colors etc. of the trainee's work.	4.19	1.00	High	10
41	Thank you letters, gratitude certificates, awards and incentives that were granted for the trainee.	4.18	1.00	High	11
33	Innovative new experiences and achievements that reflect trainee's creativity and competence in teaching and its strategies.	4.15	0.89	High	12
36	Samples of student achievements concerning things the trainee taught them.	4.13	1.03	High	13
45	Courses, meetings or workshops the trainee attended or executed as well as his positive and negative comments on them.	4.12	1.00	High	14
42	Social services through committees and activities that the trainee participated in.	4.09	1.05	High	15
39	Reports and self reflections regarding the most important events the trainee experienced through training period and their effects.	3.92	1.16	High	16
40	Periodic evaluation reports for the portfolio by the stakeholders: supervisors, colleagues, parent etc.	3.89	1.16	High	17
30	Written reports supported by evidence that document the professional development of the trainee that took place over a certain period.	3.85	1.11	High	18

26	An introduction about the trainee's methodology in choosing, collecting and arranging portfolio content as well as its expected value.	3.82	1.15	High	19
38	Articles, studies or action research the trainee conducted supported with rationale and results.	3.81	1.11	High	20
28	Mission, Vision, values, aims and ambitions of the trainee whether personal or professional.	3.79	1.05	High	21
29	Knowledge resources and professional development the trainee resorted to, made use of and implemented.	3.79	1.08	High	21
46	Students' follow up achievement level register over successive periods of time supported by the necessary reports.	3.63	1.20	High	23
47	Exchanged ideas between the trainee and those who deal with him such as supervisors, colleagues and parents.	3.59	1.23	High	24
48	Work related to teaching such as trainee's philosophy, aims and documents as well as innovations of his profession.	3.44	1.33	High	25
Total		4.07	0.65	High	

QUESTION THREE

What are the challenges that student teachers in FESA -UNRWA face during their portfolio use?

To answer this question, mean scores and standard deviations for student teachers' degrees in every item within the domains were calculated. The resulting means were then compared with set degrees of the predefined criteria to specify the agreement degree on each item. Table (6) discloses the results. Table (6) reveals that the degree of portfolio use challenge was generally medium its total mean was (3.21). The mean scores of this domain items ranged from (2.80-3.72). There were only (5) items with high challenge degree. The highest challenges were

items (58, 54 and 59). Item (59) which states that students think there is a challenge in "allocating enough time for the trainee to prepare, follow up and update the portfolio contents constantly" got a mean of (3.72). This might be attributed to the compressed training period in full participation phase which is a one semester where the student teacher carries out many professional and administrative tasks. These mainly include planning, participating in school clubs, committees and activities, providing help in administrative work, preparing for classroom evaluation visits, constructing an implementing exams as well as analyzing their results. Consequently, the student teacher might not have enough time to prepare the portfolio and update its content constantly. The result of this item is in line with

a study conducted by Juniewicz (2003) who concluded that sufficient time must be allowed for portfolio implementation process and that some students viewed this process as a too much work. Similarly, Zou (2003) reported that students complained that the whole process of portfolio was too time-consuming. Also, Harland (2005) stated that one challenge for student teacher was associated with time taken for reflection to develop. In the same context, Strudler and Wetzel (2008) considered the amount of time and effort expended as a cost and disadvantage for using e-portfolios. Fiedler et al., (2009) reported that students spend too much time working on their portfolios to improve them. Besides, collecting, selecting and reflecting on work needs capacity to choose evidence that demonstrates attainment. It also needs time and evaluation skill. Birgin (2012) asserted that preservice mathematics teachers were most challenged by time management. This is why preservice teacher should receive the necessary feedback in the development of these skills (Klenowski, 2000). Item (54) which states that students think there is a challenge in "formulating the trainee's vision, mission and aims" got a mean of (3.54). This might be attributed to the fact that students do not receive any training on formulating these concepts during the theoretical courses at the faculty. There are only few individual attempts the student teachers to model what they see at schools during the training period. UNRWA school experience in strategic thinking and quality assurance concepts is still relatively new and does

not exceed 10 years. Training of supervisors and school principals on vision, mission and aims started at UNRWA schools in 2002. Another reason might be what Strudler & Wetzel (2008) referred to as a cost and disadvantage for using e-portfolios pertaining to lack of compatibility with faculty members' beliefs, values and needs. Combining the results of the highest two challenges can be linked to the concept of introducing change that guides practice in preservice teacher education programs. King et al. (2008) reported that portfolio process resulted in making changes in their course content, learning experiences, lectures and presentations where the portfolio became the catalyst for change. Moreover, teachers should become facilitators and information guides. They should provide the necessary time, guidance and support for preservice teachers to develop their confidence to, independence and ownership for learning process (Klenowski, 2000). As for item (58) which states that students think there is a challenge in "writing periodic reports that document the changes and development that happened to the trainee during training period" got a mean of (3.51). This might be justified by the fact that student teachers did not receive any training on this type of reports except in the training period in full participation phase. They were not trained on them during the theoretical courses at the faculty; too. The result of this item is also in line with Wray (2008) who stressed the need for additional guidelines and reflective narrative samples to help students engage in increased

critical reflection upon their work and development. Reflective essays are at the core of a portfolio as they provide a way for candidates to observe themselves as learners and teachers (King et al., 2008). Another reason might be the need for both faculty staff and preservice students to understand and exchange ideas about the process of portfolio and share portfolio exemplars of such reports. Concerning the lowest items in this domain that received a medium degree of portfolio use challenge, they were items (53, 51 then 49). Item (49) had a medium mean of (2.80). It states that students think there is a challenge in "designing an innovative portfolio cover page that reflects the trainee's interests and attitudes." This might be because student teachers practice designing educational packages as well as writing research papers and reports in most courses where they always design cover pages. Item (51) got a (2.82) mean which is a medium degree of challenge. It states that students think there is a challenge in "organizing, arranging and distributing portfolio contents into sections based on similar and relevant work." This result might be because of training attempts on constructing port-

folios in some study courses such as "Measurement and Evaluation" course and "Practice Education" course, and adding to this actual implementation during training period at schools under the guidance of their supervisors and school principals. This might be why this challenge was of a medium degree. Item (53) got a (2.84) mean. It states that students think there is a challenge in "writing and organizing the C.V." This result might be because of student teachers' obligation to write it to later apply for a job. Therefore, they find difficulty even if a medium one to write a good quality C.V. that introduces them in a good way to future employers. They might be anxious that the C.V. might not be up to the expectations of these prospective employers. Based on the challenge degree of the three previous items, the researchers note that they almost approach the low degree of challenge (2.62) according to the pre set criteria of judgment. They also notify that designing the cover page and writing the C.V. items were also the most prominent items that got the highest agreement degree among the respondents.

TABLE (6): MEAN SCORES AND STANDARD DEVIATIONS FOR THE ACTUAL SCORES ON THE QUESTIONNAIRE ITEMS IN DESCENDING ORDER WITHIN THE PORTFOLIO USE CHALLENGES DOMAIN

Item no.	Item	Mean	St. Dev.	Challenge degree	Rank
59	Allocating enough time for the trainee to prepare, follow up and update the portfolio contents constantly.	3.72	1.29	High	1
54	Formulating the trainee's vision, mission and aims.	3.54	1.30	High	2

58	Writing periodic reports that documents the changes and development that happened to the trainee during training period.	3.51	1.32	High	3
56	Preparing or adopting criteria for self assessment of portfolio content and sections.	3.46	1.14	High	4
55	Justifying the choice of knowledge resources and professional development to make use of and implement during training.	3.43	1.19	High	5
52	Writing the introduction that states the trainee's methodology in choosing, collecting and arranging portfolio content as well as its expected value.	3.36	1.25	Medium	6
63	Keeping in line with educational advancements and linking them to portfolio content and updating.	3.34	1.18	Medium	7
57	Choosing documents and pieces of evidence that confirm and verify the trainee's achievements.	3.34	1.34	Medium	7
60	Doing self assessment and writing reflective comments on trainee's work and achievements to present them in the portfolio.	3.31	1.25	Medium	8
64	Writing reports that include summaries of research, experiences and services that the trainee underwent.	3.31	1.27	Medium	8
67	Comparing points of strength and weaknesses in trainee's performance to present them under the suitable section of the portfolio.	3.30	1.26	Medium	9
68	Following up students academic achievements and presenting it in its suitable section in the portfolio.	3.26	1.19	Medium	10
66	Highlighting new and creative experiences and experiments that reflect the trainee's competence in a certain domain.	3.21	3.21	Medium	11
70	Presenting portfolio contents in a convincing way for others if required.	3.14	1.38	Medium	12
61	Extracting learned lessons through discussions between the stakeholders and supervisors and making use of them.	3.10	1.17	Medium	13
62	Presenting projects that the trainee participated in or conducted and reporting on them.	3.04	1.32	Medium	14

50	Choosing and specifying portfolio contents and sections in a way that facilitates judging the trainee's competencies and skills.	2.97	1.39	Medium	15
69	Choosing what might be presented in the portfolio such as samples of plans and exams according to definite criteria.	2.89	1.35	Medium	16
65	Gathering audio-visual aids or printed materials the trainee used during his training in a way that portrays their use benefits.	2.88	1.42	Medium	17
53	Writing and organizing the Curriculum Vita.	2.84	1.54	Medium	18
51	Organizing, arranging and distributing portfolio contents into sections based on similar and relevant work.	2.82	1.37	Medium	19
49	Designing an innovative portfolio cover page that reflects the trainee's interests and attitudes	2.80	1.48	Medium	20
	Total	3.21	0.92	Medium	

QUESTION FOUR

Are there any statistically significant differences at ($\alpha \geq 0.05$) in practice education student teachers' beliefs in FESA -UNRWA towards portfolio attributed gender?

The results of this question as well as the next two ones will be discussed in light of the researchers experience because this is the first time where these variables undergo investigation.

To answer this question, mean scores and standard deviations for students' beliefs according to gender on the questionnaire and on every domain were calculated. Results of t-test for independent samples were calculated to reveal the significance of differences between the means. Table (7) shows the results. Table (7) demonstrates that there are no statistically significant differences at ($\alpha \geq 0.05$) on the questionnaire and its domains attributed to general secondary

stream. t. value was not significant in the questionnaire and each of its domains. This might be attributed to the fact that the students whether males or females study the same courses at university, are exposed to the same teaching and training whether in the theoretical aspect in the faculty or the practical one at schools. Moreover, practice education stage requirements in the practice education program are the same for the two sexes; so, their belief degree was the same.

TABLE (7): RESULTS OF T-TEST FOR SIGNIFICANCE OF DIFFERENCES IN THE MEAN SCORES ACCORDING TO GENDER

Domain	Levene's Test		Gender	N	Mean	Std. Deviation	t. value.	Sig
	F	Sig.						
Attitudes	2.399	0.124	Male	10	93.40	9.79	.078	.938
			Female	135	93.04	14.52		
Contents	0.708	0.402	Male	10	99.10	12.51	-.549	.584
			Female	135	102.04	16.54		
Use challenges	0.738	0.392	Male	10	63.00	23.16	-1.233	.219
			Female	135	71.16	19.96		
Total	0.947	0.322	Male	10	255.50	25.01	-1.018	.310
			Female	135	266.23	32.57		

QUESTION FIVE

Are there any statistically significant differences at ($\alpha \geq 0.05$) in practice education student teachers' beliefs in FESA -UNRWA towards portfolio attributed to general secondary stream?

To answer this question, mean scores and standard deviations for students' beliefs according to general secondary stream on the questionnaire and on every domain were calculated. Results of t-test for independent samples were calculated to reveal the significance of differences between the means. Table (8) shows the results. Table (8) discloses that there are no statistically significant

differences at ($\alpha \geq 0.05$) on the questionnaire domains attributed to general secondary stream. t. value was not significant in the questionnaire and in every domain. This might be attributed to the fact that the subjects that students learn all through the basic stage before moving into the secondary one are the same. The differences in the secondary streams are in focusing on certain aspects that are related to the stream; however, other subjects are almost the same for all the secondary streams. If there were any differences, they immediately start to diminish when the students are enrolled at universities due to knowledge, social and psychological maturation.

TABLE (8): RESULTS OF T-TEST FOR SIGNIFICANCE OF DIFFERENCES IN THE MEAN SCORES ACCORDING TO GENERAL SECONDARY STREAM

Domain	Levene's Test		General Secondary Stream	N	Mean	Std. Deviation	t. value	Sig
	F	Sig.						
Attitudes	0.155	0.694	Scientific	46	91.04	13.17	-1.167	.245
			Literary	99	94.00	14.65		

. Contents	0.376	0.541	Scientific	46	102.59	15.15	.378	.706
			Literary	99	101.48	16.83		
Use chal- lenges	3.635	0.059	Scientific	46	74.11	18.09	1.433	.133
			Literary	99	68.96	21.01		
Total	0.407	0.525	Scientific	46	267.74	29.44	.573	.568
			Literary	99	264.44	33.43		

QUESTION SIX

Are there any statistically significant differences ($\alpha \geq 0.05$) in practice education student teachers' beliefs in FESA -UNRWA towards portfolio attributed to cumulative average at university ?

To answer this question, mean scores and standard deviations for students' beliefs according to cumulative university average on the questionnaire and on every domain were calculated. ANOVA test was conducted to reveal the significance of differences between the means. Table (9) shows the results. Table (9) reveals that there are no statistically significant differences at ($\alpha \geq 0.05$) on the questionnaire domains attributed to students' cumulative university average. Table (10) F.value in table (10) was not significant in each domain. This might be attributed to the fact that preparing a portfolio is an obligatory requirement for all student teachers regardless to their cumulative university average as every student tries to get the marks allocated for the portfolio. In addition, following up student teachers' performance during training as they practice teaching indicates that many students of low cumulative university

average get high results in practice education phase. Some of them even surpass those who have high cumulative average. This might create a sense of value and preference to things student teachers succeed in their active learning engagement. Fiedler et al. (2009) reported that the portfolio task taught students valuable skills and sometimes motivated them to seek more skills in presenting their work. Similarly, Bataineh, et al. (2007) confirmed that portfolios provide preservice teachers with productive learning experiences, positively affect their personal traits and motivate their learning. Eventually, student's cumulative university average might be a weak indicator of his performance in practice education program and its requirements.

TABLE (9): RESULTS OF ANOVA TEST FOR DIFFERENCES BETWEEN THE MEANS ACCORDING TO CUMULATIVE UNIVERSITY AVERAGE

Domain	Cumulative Univ. average	N	Mean	Std. Dev.
Attitudes	Excellent	50	92.00	15.69
	Very good	80	93.08	13.71
	Good or less	15	96.53	11.84
Contents	Total	145	93.06	14.22
	Excellent	50	106.02	14.68
	Very good	80	99.59	15.45
	Good or less	15	99.87	22.95
Use challenges	Total	145	101.83	16.27
	Excellent	50	69.22	21.79
	Very good	80	71.30	19.43
	Good or less	15	71.40	20.00
Total	Total	145	70.59	20.21
	Excellent	50	267.24	28.47
	Very good	80	263.96	33.71
	Good or less	15	267.80	36.80
	Total	145	265.49	32.15

TABLE (10): RESULTS OF ANOVA TEST FOR DIFFERENCES BETWEEN THE MEANS ACCORDING TO CUMULATIVE UNIVERSITY AVERAGE

Domain	Levene's test		Source	Sum of Squares	df	Mean Square	. F	Sig
	F	Sig.						
Attitudes	2.236	0.111	Between Groups				.583	.560
			Within Groups					
			Total					
Contents	1.687	0.189	Between Groups				2.582	.079
			Within Groups					
			Total					

Use chal- lenges	0.445	0.642	Between Groups				.174	.840
			Within Groups					
			Total					
Total	1.016	0.365	Between Groups				.201	.818
			Within Groups					
			Total					

RECOMMENDATIONS

In light of the previous results, the researchers recommend the following:

- Increasing interest in portfolio as an effective learning and assessment tool in the various learning stages beginning with schools up to universities.
- Training student teachers on formulating their visions, missions, aims and planning their sustainable professional development plan accordingly.
- Conducting more research on portfolio use, attitudes and challenges within other target groups and variables.
- Holding training workshops for student teachers on writing reports concerning the challenges they face during and after training such as achievement and progress reports, benefiting from others' expertise, points of strength and weakness, practicing critical and reflective thinking and finally communication as well as cooperative work skills.
- Supporting students with more scaffolding in their portfolio development process towards better performance development and growth.
- Providing strong administrative sup-

port towards systematically institutionalizing portfolio use throughout the study plan of preservice teacher education program.

- Training employers on how to use portfolios in employment decisions.

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