



مجتمع المعرفة: خبرة الجامعات الأردنية

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ملخص الدراسة

تهدف هذه الدراسة إلى إلقاء بعض الضوء على خبرة الأردن بموضوع مجتمع المعرفة وذلك من خلال البحث في المعرفة العلمية والإعداد والاحتراف المهني للطلاب المعلمين في ثلاث جامعات حكومية في الأردن. وتكونت عينة الدراسة من عينة قصديه كان قوامها (٣١٦) طالبا وطالبة. وقد استخدمت في هذه الدراسة استبانة من اجل التحقق من اتجاهات الطلبة المعلمين نحو نوعية التعليم الذي تلقوه والذي انعكس جليا اثناء تطبيقهم الميداني في المدارس. ودلت نتائج الدراسة على أن الجامعات الأردنية هي مجتمعات معرفية حيث أنها تزود الطلبة بالمعرفة والمهارات التي من شأنها زيادة قدراتهم التدريسية. كما ودلت نتائج الدراسة على الأثر القوي لكليات التربية في الجامعات الأردنية في تنمية المعرفة المهنية للطلبة المعلمين. حيث كان هذا الأثر واضحا من خلال؛ شعور الطلبة المعلمين بأنهم على معرفة وإلمام كبير بالنظريات والطرائق والأساليب، و مقدرتهم على التخطيط، و قدرتهم على التفاعل مع الطلبة في الغرفة الصفية بطريقة محفزة. هذا وقد أوصت الدراسة بتبني رؤية لإعداد الطلبة المعلمين تركز على التأمل والتبصر بممارساتهم التدريسية.

الكلمات المفتاحية: مجتمع المعرفة، إعداد المعلمين، معرفة فن التدريس، التطور المهني.

Society Knowledge: The Experience of Jordanian Universities

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Abstract

The present study aims at shedding some light on Jordan's experience of society knowledge. In order to fulfill such aim student teachers' knowledge, teacher education and above all teacher professionalism at three public universities were investigated. The participants were **316** student teachers. A questionnaire was adopted in order to ascertain the participants' attitudes toward the quality of instruction they had experienced in the light of their current practice at schools. Based on the analysis of the findings, this research theorizes that faculties of education are knowledge societies for they provide their student teachers with both the knowledge and skills to improve their capabilities. The findings of the present study, also, displayed a strong impact of faculties of education as knowledge societies in promoting professional development in teacher education programs. Such influence was clearly felt through student teachers' responses in terms of having a good knowledge base, planning their lessons, and interacting with the students in a caring manner. It was

recommended that reflection is to be emphasized together with scaffolding system level to support a new vision of student teacher practice.

Keywords: Society Knowledge, Teacher Education, Pedagogical Knowledge, Professional Development.

Introduction

The role of universities, in general and of faculties of education in particular, is consistently one of the most important long-term issues that are addressed in preparing students: the future generations. Society needs well-prepared teachers. United Nations Development Program and Arab Fund for Economic and Social Development (2003) maintained an urgent need for all Arab nations to transform themselves into 'knowledge societies'. But how precisely is this to happen? The present research, accordingly, was a bridge-building exercise between various fields of knowledge. On the other hand, academics at faculties of education were interested in the role of knowledge and professional development in contemporary society (Gess-Newsome, 2003). Consequently, the present research provides an evaluation of an interesting example of a knowledge-producing practice.

Wikipedia, (the free encyclopedia) defined knowledge as the psychological and useful result of perception, learning and reasoning. To Wikipedia, a knowledge society is formal association of people with similar interests, who try to make effective use of their combined knowledge about their area of interest.

Knowledge has become the most important capital in the present age, and hence the success of any society lies in harnessing it. Day stated that "teachers are potentially the most important asset in the notion of a learning society" (Day, 2001:495). A change is required in the way the profession teaching is seen. Furthermore, in the same way as the student-teachers, university must be prepared to work in a changing and unpredictable environment, in which knowledge is constructed from different sources and viewpoints.

In recent times, reform agendas emphasize decentralization that restructuring teacher educational quality assurance systems. Pre-service teacher education is, almost everywhere, one of the most obsolete pieces of education systems. It relies almost exclusively on specialized knowledge training at universities, with very little, if any, practical training on teaching and learning processes (Hargreaves, 2003)

In such context, it becomes an extraordinary challenge to design policies which enable developing country, like Jordan, to train teachers in order to help students acquire the new

competencies that are now demanded by society and required by labor markets (Windschitl, 2002). The central answer to the challenge lies in the system of teacher education and professional development. Conservative and strongly academically oriented systems of teacher training are unable to facilitate such a shift; but less spending in pre-service teacher training on the grounds of its inefficiency (Hiebert, Gallimore, and Stigler, 2002).

Despite the lack of confidence referred to above, effective teacher education programs can make a difference to student achievement. Research evidence points to a very strong link between teacher preparation and student learning outcomes. Thus, overall school effectiveness and staff development have a crucial importance for quality of teaching and individual teachers' effectiveness (Darling-Hammond, 2000).

The debate about the professional nature of university teaching is now more controversial and crucial than ever before. In contemporary knowledge economy, knowledge management is seen as the key for the flexibility of operations, the training and professional development of employees, and even the overall productivity of the organization (Laurillard, 2002). The peculiarity of knowledge about teaching is that most of it is tacit, difficult to articulate and systematize, and strictly practical and context-based in nature. However, the goal of knowledge management is precisely to help the organization to collect, build

and use its own intellectual and knowledge capital (World Bank, 2001).

Subject Knowledge and Pedagogical Knowledge

Understanding what is learned, and learning to learn, are two essential demands of today's university. This is applicable to both faculties of education as well as to student-teachers (Tilak, 2001). The debate about the curriculum of teacher education programs has taken place around two fundamental and conflicting stands: First that the emphasis should be on subject-related or so-called content knowledge: subject knowledge. Second, that the most pertinent knowledge for teaching is obviously teaching and learning-related knowledge: pedagogical knowledge about pupils themselves, classroom management, pedagogy and evaluation, and the school as a learning and knowledge producing institution (Marcelo, 2003).

Teachers must have knowledge of the subject they teach. This has been traditional in teaching. A popular belief says that to teach, it is enough to know the content of what is taught. Buchmann stated that "knowing something enables us to teach it; and knowing a subject deeply means being mentally organized and well prepared to teach it generally" (Buchmann, 1984:37). When the teacher does not have an adequate knowledge of the

structure of the discipline being taught, the teaching can impart the content inaccurately to the students.

The knowledge that teachers have of the subject to be taught also affects what and how they teach. At the same time, a lack of knowledge on the part of the teacher can affect the level of discourse in class, the type of questions teachers frame (Carlsen, 1987), and the way teachers' critique and use textbooks (Hashweh, 1987).

However, Pedagogical Knowledge is a central element of the teacher's knowledge in the model of Morine- ershimer and Todd (2003). It is the correct combination between knowledge of the content to be taught and the pedagogical and didactic knowledge of how to teach it.

Borko and Putnam (1996) reported that pedagogical content knowledge has to do with how to help students understand a specific subject matter. It includes the ways of representing and formulating the subject to make it comprehensible to others, and an understanding of what makes the learning of specific topics easy or difficult. Borko and Putnam, however, maintained that the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of the most-frequently taught topics and lessons.

According to Magnusson, Krajcik & Borko (2003), pedagogical knowledge includes knowledge of how particular subject matter topics, problems, and issues can be organized,

represented, and adapted to the diverse interests and abilities of learners, and then presented for instruction.

Professional Development

The target of teacher education programs should be directed towards enhancing teachers' professional learning and to develop teacher professionalism. But what is teacher professionalism? The answer to this question is not so obvious. Beck and Murphy (1996, p 7) defined professionalism as "a complex construct". Professionalism includes numerous components, such as commitment, satisfaction, and efficacy. Eraut (1994) maintained that the notion of professionalism in public service occupations such as teaching has all stressed the central importance of specialized knowledge and expertise, and ethical codes and conduct.

The role of faculties of education is to make provisions for teacher professional development which is not a simple task. According to ERIC Digest (1995), faculties of the range and type of information that students need to know far exceeds that of previous decades, and the academic expectations for all students are increasing in virtually every state and community. It is clear that caring and competent teachers are vital to the success of each of these initiatives and equally clear that pre-service and in-

service teacher professional development must change to equip teachers to meet these challenges (Glathorn, 1997).

According to Dilworth and Imig (1995) one test of teachers' professional development is the capacity to equip teachers individually and collectively to act as shapers, promoters, and well-informed critics of reform. Perhaps one of the most comprehensive definitions of professional development is given by Day. Day (1999) believed that:

Professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purposes of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues through each phase of their teaching lives. (p.4)

The present study, however, aimed at answering confirmatory: what dimensions of student teachers' knowledge and professionalism are offered by the faculties of education at three Jordanian universities.

The Problem of the Study

Knowledge is presented in the current study as an indispensable guide to the major issues and considerations. More than that, though, faculties of education at Jordanian universities should be considered as knowledge societies and should be perceived as resources for student teachers, as knowledge societies revolutionizing education, such development is exciting for pre-service teacher education in Jordan. Accordingly, the most research supported issues in the present study addressed the most pertinent questions to any teacher education program, such as whether student teachers are offered subject matter knowledge, pedagogical knowledge, and professional development. The goal of the present study, therefore, was to present as well as to evaluate the significance role of Jordanian faculties of education. The **purpose** of this study was to explore how knowledge is introduced and maintained by three Jordanian faculties of education (i.e. AL al-Bayt, Mu'tah and Hashemite) where teacher education programs operate. It is hoped that the suggestions of the study would be highlighted as points of departure, rather than arrival, and that they might serve as useful topics for discussion when the role of faculties of education is discussed. A student teacher survey was orchestrated in order to fulfill this purpose. The following **research questions** were posed at the outset of the study:

1. What are the various forms of knowledge that are promoted by the faculty of education at Mu'tah University?
2. What are the various forms of knowledge that are promoted by the faculty of education at Al al-Bayt University?
3. What are the various forms of knowledge that are promoted by the faculty of education at Hashemite University?
4. What are the teaching competencies which lead pre-service teacher education students to some form of professional development at Mu'tah University?
5. What are the teaching competencies which lead pre-service teacher education students to some form of professional development at Al al-Bayt University?
6. What are the teaching competencies which lead pre-service teacher education students to some form of professional development at Hashemite University?

Methodology

The present study aimed at mapping the field in order to obtain an in-depth understanding of the roles the faculties of education at three Jordanian universities promotes in terms of meeting the standards of being knowledge societies, as well as, sources of professional development for teacher education programs at the academic year 2006-2007. Quantitative method was used to gather empirical data because it enabled the researchers to address all research questions, provided stronger inferences and presented a greater diversity of divergent views.

Population and Sample

The **population** of the present study consisted of all graduate students teachers at three Jordanian universities (i.e. Al al-Bayt, Mu'tah and Hashemite). The questionnaire (see the Appendix) was administered to such wide spread of population in the different places of Jordan. It is hoped that the results of the findings will be of benefit to the entire group of other government programs where teacher education programs operate. The **sample** consisted of **316** student teachers, however, was purposeful. That is, the selection of student teachers required no sampling technique. All the student teachers at the three universities were selected to make the sample a good representative of the population. In this way, the results of the survey data were definitely generalizable to all the student teachers at the universities (Al Al al-Bayt: 110; Mu'tah: 106; Hashemite: 100), which participated in the study and may also be generalizable to the student teachers in other public universities where similar teacher education programs have taken place.

Instrument

A **questionnaire** (see the Appendix), as developed by the researchers, was used to secure student teachers' responses about the different dimensions of knowledge and professionalism

competencies. The use of the questionnaire made it possible to include a large number of student teachers from more diverse universities.

Using the information from different literature as previously discussed in earlier, the researchers' own experience, and the concepts noted in the theoretical framework, the questionnaire was designed to explore the dimensions of knowledge and professionalism (see the Appendix). The questionnaire was divided into two parts. Part *A* of the questionnaire contained a set of scales to investigate the dimensions of knowledge (i.e. subject matter, pedagogical skills knowledge). Part *B* measured student teachers' professional knowledge dimensions (i.e. efficacy, teacher practice, and teacher leadership and teacher collaboration). The questions assessing the expected response of the participants were adopted through a five-point Likert scale. On the scale, statements were coded as 1 = Strongly Agree, 2 = Agree, 3 = No Opinion, 4 = Disagree, and 5 = Strongly Disagree.

Eight experts in statistics were consulted in identifying the analytical levels of estimating values of mean scores of each item in the instrument (i.e. questionnaire). The experts identified the levels of means as follows:

1. Mean scores (5-3.5) as having strong effect.
2. Mean scores (3.49-2.5) as having moderate effect.
3. Mean scores (2.49-1.5) as having little effect.

4. Mean scores (1.49-1) as being immeasurable

Validity is a measure of the degree to which the instrument is measuring what it is intended to measure. Reliability, on the other hand, is a measure of the degree to which the same analysis procedure is likely to give consistent results (Gay, 1996). The instrument (i.e. the questionnaire) was subjected to judgment and piloting, as well. This draft of the questionnaire was given to a jury of educators who were aware of the contextual background of the study. The jury was formed as follows:

1. Nine experienced university professors in curriculum and instruction.
2. Two evaluation and assessment university professors.

The team was asked to **validate** the content of the instrument concerning its instructions and suitability to the objectives of the research. The team's comments and suggestions were studied carefully, and the necessary modifications were made accordingly. For example, the number of the items of the questionnaire, which were initially twenty six, was reduced later by the jury to fourteen. Feedback from the first draft of the questionnaire helped to further refine it. This draft of the questionnaire was translated in Arabic (National language of Jordan).

The questionnaire was pre-tested in a pilot study in February 2007. Pre-testing the questionnaire yields data concerning instrument deficiencies as well as suggestions for improvement (Gay, 1996). That is, the **reliability** of the instrument was field tested and refined through the split-half method on a pilot group of thirty student teachers who were randomly chosen from the three universities in question (ten student teachers from each university). The correlation coefficient was found to be 0.89 which was considered to be appropriate to conduct the current study.

The context for the research was descriptive. Student teachers were asked to fill in the questionnaire which, in turn, reflects how they felt about their knowledge as obtained by the faculties of education, how they perceived their professional development, and what they perceived as weaknesses in their current practice at field-based training at partner schools. The questionnaire was administered on April where 316 student teachers (Al al-Bayt: 110; Mu'tah: 106; Hashemite: 100) responded to it.

Results and Discussion

The current study examined the provision of society knowledge and professional development as perceived by student

teachers at three public universities in Jordan. This section presents the findings of statistical analyses of the data gathered to answer the questions of the study. The discussion of the results is organized according to the

research questions stated earlier. To answer these questions, the researchers integrated quantitative instrument: the Teaching Competencies Questionnaire (see Appendix).

Results and Discussion Related to Questions 1, 2, and 3:

In this section, the results of the survey research are outlined, providing a comprehensive description of the quantitative data analysis that were undertaken to highlight the different dimensions of student teachers' knowledge base at three Jordanian universities where teacher education programs operate. The material in this section partly addresses the first three research questions. The reason for studying the first three questions together has to do with the fact that these questions are about one single idea (i.e. knowledge society) that is investigated in three educational settings. To review the research questions were:

1. What are the various forms of knowledge that are promoted by the faculty of education at Mu'tah University?

2. What are the various forms of knowledge that are promoted by the faculty of education at Al al-Bayt University?
3. What are the various forms of knowledge that are promoted by the faculty of education at Hashemite University?

The basis of this section is to contextualize the dimensions of knowledge and to investigate their practical implications in the public Universities. Before moving on to the details of the analysis, it is important to underline the procedures employed for the descriptive dimensions of teacher knowledge.

The aim of items 1 to 7, in the survey questionnaire (see Appendix), was to reflect: to what extent faculties of education, participating in the study, tend to be knowledge societies? That data was factor analyzed in order to determine the underlying patterns among a large number of variables concerning: subject matter knowledge, pedagogical skills knowledge.

Table 1 shows the mean scores, standard deviations, rank order and the estimated effect of courses at the faculty of education at Mu'tah University.

Table 1: Knowledge competencies as perceived by student teachers at Mu'tah University

Item	Mean	Standard Deviation	Rank	Faculty Courses'
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				Effect
1	4.330	0.881	1	great effect
2	3.547	1.114	5	great effect
3	3.774	1.149	2	great effect
4	3.764	0.962	3	great effect
5	3.415	1.420	6	moderate
6	2.887	1.182	7	moderate
7	3.660	1.218	4	great effect
Society Knowledge	3.625	0.597		Great effect

This analysis implies that student teachers at Mu'tah University recognized the university as society knowledge. Apparently, from the above Table, students felt that the Faculty of Education at Mu'tah University as supplying them with the required subject knowledge as well as pedagogical knowledge for practicing their teaching at schools. Table 1 shows that student teachers strongly agree that the Faculty helped them in identifying key elements of the subject matter (item number 1) which has a relatively high mean scores. Nevertheless, most of the student teachers scored high and agreed with items 2,3,4,7 respectively.

Clearly, student teachers participating in the study from Mu'tah University seemed to feel confident that they have the knowledge base, the skills, and abilities to teach at school. These student teachers think in terms of their ability to teach effectively.

And that they considered themselves as efficacious about performing classroom related tasks. In other words, these student teachers believed that they could teach well. It is interesting to note that mean scores for most items in this factor are very high. The high mean scores of 4.33, 3.77, 3.76, 3.66, and 3.54 and the moderate mean scores are related to two mean score: 3.41, and 2.88. It's worth mentioning that

none of the mean scores has little or immeasurable effect of courses offered by the Faculty of Education at Mu'tah University. Teachers scored high and this brings to light a strong construct in student teachers' minds about believing in their own selves to remain committed in executing teaching. The findings suggest that the student teachers believed that they know very well about successful execution and teaching process in light of what their courses at the University gave.

Table 2, however, shows the mean scores, standard deviations, rank order and the estimated effect of courses at the faculty of education at Al al-Bayt University. Applying knowledge for student teacher's learning tended to be as effective as that of Mu'tah University. The data obtained by student teachers at Al al-Bayt University suggested that they felt as having received subject knowledge base with regard to: different teaching approaches with a mean score of (4.08), prepare lessons in behavioral terms which scored (4.33), teaching through group

work with a mean score of (4.14), and managing classroom effectively which scored (4.1). Obviously, these dimensions appeared through their teaching practice at schools. One way to explain this finding is through rooting it to the quality of courses at the Faculty of Education at the University where professors, there, offered them the opportunities to learn.

Table 2: knowledge competencies as perceived by student teachers at Al al-Bayt University

Item	Mean	Standard Deviation	Rank	Faculty Courses' Effect
1	4.082	0.814	4	great effect
2	4.336	1.094	1	great effect
3	3.909	1.208	5	great effect
4	3.282	1.521	6	moderate
5	4.182	1.220	2	great effect
6	3.109	1.078	7	moderate
7	4.145	1.156	3	great effect
Society Knowledge	3.864	0.602		Great effect

On the other hand, moderate mean scores were related to two mean score: 3.28, and 3.10. Teachers scored high and this brings to light a strong knowledge base felt by student teachers

which tended to help them in teaching. The findings suggest that the student teachers believe that they know very well about successful teaching process in light of what their courses at the University gave. Again, none of the mean scores has little or immeasurable effect of courses offered by the Faculty of Education at Mu'tah University. Similar to results obtained by Al al-Bayt University, this brings to light a strong construct in student teachers' minds about believing in their own selves to remain committed in executing teaching. The student teachers participated in the study believed that they have the required sort of knowledge orientation that enabled them to successfully execute and teach.

Table 3 displays the mean scores, standard deviations, rank order and the estimated effect of courses at the Faculty of Education at the Hashemite University. The Table reveals the presence of two subject knowledge, as well as, pedagogical knowledge components or factors with great effect values, explaining 4.20, and 3.69 mean scores respectively. This analysis implies that the student teachers recognized two factors, “strong belief in identifying key elements of the subject matter (concepts, postulates, and methods” and “strong belief in managing the classroom adequately,” as underlying dimensions of teacher efficacy knowledge.

Table 3: Knowledge competencies as perceived by student teachers at Hashemite University

Item	Mean	Standard Deviation	Rank	Faculty courses' effect
1	4.200	1.287	1	great effect
2	3.390	1.456	3	moderate
3	3.360	1.586	4	moderate
4	3.050	1.725	5	moderate
5	2.400	1.664	7	little effect
6	2.830	1.700	6	moderate
7	3.690	1.022	2	great effect
Society Knowledge	3.274	0.846		Moderate

It is interesting to note that mean scores that four items in this factor, in Table 3, have moderate effect. The moderate mean scores were of 3.39, 3.36, 3.30 and 2.83 respectively. This shows that most of the student teachers at the Hashemite University agreed partially with these items. Yet, an inspection of the Table reveals a clear break of having one component "belief in designing teaching learning situations for the subject matter to be learned" with little effect values, explaining 2.40 mean score.

The question which remained unanswered so far: are faculties of education in Jordan knowledge societies at teacher education programs? Table 4, however, establishes mean scores comparison among the three universities participating in the study

(Mu'tah, Al al-Bayt, Hashemite) in the light of being knowledge societies in teacher education programs. This analysis implied student teachers participating in the study strongly agreed that two universities as knowledge societies. The Table shows that Al al-Bayt University (of 3.86 mean score) and Mu'tah University (of 3.62 mean score) correlate strongly with high mean scores

Table 4: Comparison among universities in the light of being knowledge societies

University		Mean	Standard Deviation	Rank	Faculty Courses' Effect
Mu'tah	Society Knowledge	3.62 5	0.597	2	great effect
Al al-Bayt	Society Knowledge	3.86 4	0.602	1	great effect
Al-Hashemite	Society Knowledge	3.27 4	0.846	3	moderate

In other words, subject knowledge as well as pedagogical knowledge tended to be mastered and consequently applied by student teachers at both of Al al-Bayt together with Mu'tah

universities to a large extent. The same perspective, yet to a little extent, was obtained at the Hashemite University. Accordingly, student teachers considered the application of the knowledge of different teaching approaches, prepared lessons behaviorally, designed teaching learning situations, recognized students' learning styles, taught through group work, created evaluative tools and managed class effectively. This can be interpreted as: student teachers are provided with the opportunities to learn.

So it can be inferred that faculties of education at the three Jordanian universities in question tend to be, of course, knowledge societies.

Results and Discussion Related to Questions ٤, 5, and 6

In this section, the results of the survey research are outlined, providing a comprehensive description of the quantitative data analysis that were undertaken to highlight the different dimensions of student teachers' knowledge and professionalism at the three Jordanian universities where teacher education programs operate. The material in this section partly addresses the last three research questions. The reason for studying the last three questions together has to do with the fact that these questions are about one single idea (i.e.

professionalism) that is investigated in three educational settings. To review, the research questions were:

- 4- What are the teaching competencies which lead pre-service teacher education students to some form of professional development at Mu'tah University?
- 5- What are the teaching competencies which lead pre-service teacher education students to some form of professional development at Al al-Bayt University?
- 6- What are the teaching competencies which lead pre-service teacher education students to some form of professional development at Hashemite University?

Table 5 reveals the presence of only one factor (i.e. believing every student can learn) with great effect value (of 3.50 mean score). It is clear, from Table 5, that most student teachers perceived their instruction at Mu'tah University as offering them a sort of 'moderate' type of feedback regarding their professional development.

The analysis displayed in Table 5 highlights one significant dimension of student teachers' professionalism as provided by the Faculty of Education at Mu'tah University. Yet, the Table revealed student teachers' perceptions about the different ways in which to enhance their professionalism. The mean scores for most

the items are quite moderate. However, except for item nine values. This means that there were some student teachers who appeared to strongly agree with the items in the scale, there were

also those student teachers who disagreed with the items in the scale. This implies that the Faculty of Education tended to enhance their professionalism through providing them with opportunities to believe that every student has the potential for learn. So the role of the teacher, here, is never to give hope in student and keep trying to achieve learning objectives.

Table 5: Professional knowledge competencies as perceived by student teachers at Mu'tah University

Item	Mean	Standard Deviation	Rank	Faculty Courses' Effect
8	3.321	1.451	5	moderate
9	3.509	1.071	1	great effect
10	3.453	1.353	3	moderate
11	2.830	1.376	7	moderate
12	2.981	1.324	6	moderate
13	3.462	1.281	2	moderate
14	3.358	1.481	4	Moderate
Professional Development	3.274	0.767		Moderate

Table 6, however, shows the mean scores, standard deviations, rank order and the estimated effect of courses at the faculty of education at Al Al al-Bayt University. Accounting for the professional development of student teachers tended to be effective. The data obtained by student teachers at Al al-Bayt University suggested that they felt as having received input with regard to their professional development in terms of three factors. These factors were: coping with very noisy students with a mean score of (4.21), influencing other teachers in school which scored (3.66), and searching solutions for lack of resources with a mean score of (3.509). Obviously, these dimensions appeared through their teaching practice at schools. One way to explain this finding is, perhaps, through perceiving it as another qualitative dimension of the courses at the Faculty of education at the University.

Table 6: Professional development competencies as perceived by student teachers at Al al-Bayt University

Item	Mean	Standard Deviation	Rank	Faculty Courses' Effect
8	4.218	1.266	1	great effect
9	3.273	1.347	5	moderate
10	2.255	1.487	7	little effect
11	3.182	1.497	6	moderate

12	3.664	1.454	2	great effect
13	3.509	1.438	3	great effect
14	3.382	1.381	4	moderate
Professional Development	3.355	0.884		Moderate

On the other hand, moderate mean scores were related to three mean scores (items 9, 11, 14). This brings to light a fairly strong construct in student teachers' minds about believing in their own selves in executing teaching. The findings suggested that student teachers believed, to some extent, that they know how to execute the teaching process in light of what their courses at the University gave. One mean score was little (item 10) which denotes: believing that every student can learn).

A close perusal of Table 7 reveals how student teachers' strongly believed that the three dimensions (items: 8, 12, and 13) of teacher professionalism are offered by the Faculty of Education at the Hashemite University. That is, the student teachers indicated that they can cope with very noisy students (mean score: 3.58). They can influence other teachers in school (mean score: 3.71). Also they are capable of searching solutions for lack of resources (mean score: 3.58). And this is what professionalism entails; it entails the ability teach in ways that facilitate students' learning in the light of the learner psychology. In fact, some of the items of the student teacher's professionalism reflected

moderate advocacy of believing that the Faculty of Education at the Hashemite University accounted for. Examples are these such as of: believing that every student can learn (item 9), making sure that every student is making progress (item 10), and making significant changes in the lives of students (item 11).

Table 7: Professional development competencies as perceived by student teachers at Hashemite University

Item	Mean	Standard Deviation	Rank	Faculty courses' Effect
8	3.580	1.350	2	great effect
9	3.490	1.403	4	moderate
10	3.170	1.400	5	moderate
11	2.770	1.221	7	moderate
12	3.710	1.200	1	great effect
13	3.580	1.478	3	great effect
14	2.970	1.772	6	moderate
Professional Development	3.324	0.842		Moderate

Another question which remained unanswered so far: Do faculties of education in Jordan account for professional development at teacher education programs? Table 8, however, establishes mean scores comparison among the three universities participating in the study (i.e. Mu'tah, Al al-Bayt, and Hashemite) in the light of the dimension of professionalism in teacher education. This analysis implied that all student teachers

participating in the study agreed that the three universities account for professionalism to varying extent.

Based on Table 8, it can be argued that tentative responses can be given to the last three research questions mentioned earlier. Student teachers indicated meanings in terms of the different dimensions of professionalism prevalent in their schools as perceived from their Faculties of Education. The extent of professional development dimension in teacher education programs at the Universities in question was perceived as 'moderate' by the student teachers.

Table 8: Comparison among universities in the light of professionalism domain

University		Mean	Standard. Deviation	Rank	Faculty Courses' Effect
Mu'tah	Professional Development	3.274	0.767	3	moderate
Al al-Bayt	Professional Development	3.355	0.884	1	moderate
Al-Hashemite	Professional Development	3.324	0.842	2	moderate

Through investigating tables 5, 6, 7 and 8, student teachers appeared to think about professionalism in terms of the capability

to achieve success in different types of work, such as dealing with learning problems or getting good results with the difficult students, etc. Being a professional student teacher means that by working in this way she or he can influence other teachers in the school and can bring about change in the school. This is very similar to results obtained by Beck and Murphy's (1996) highlighted earlier. Student teachers, also, believed that a professional teacher should be able to execute different responsibilities successfully, whether it is helping students to make academic progress or it is carrying out other school responsibilities successfully.

Discussion of Findings

The research drew attention to two major dimensions of teacher education. These dimensions are: subject knowledge together with professional development. The survey analysis revealed that faculties of education at three Jordanian universities (Mu'tah, Al Al al-Bayt, and Hashemite) tended to be knowledge societies which assert student teachers' efficacy. Such faculties of education seemed to promote the belief that all aspects of work and change could be achieved and a belief in executing responsibilities for achievement. This finding goes hand in hand with Beck and Murphy's (1996) the two core components of

theorizing teachers' sense of efficacy. The first is the belief that one is capable of doing his or her own work. And the second is the notion that an individual's work and decisions can help to bring about change in the system.

Another inspection of Tables 1 to 8 reveals how student teachers showed their commitment by indicating that they work responsibly and they teach in ways which facilitate students' learning. These student teachers tended to use a variety of teaching methods, evaluate students' performances and implement new teaching approaches in their classes because they wanted to apply their professional knowledge for student learning. Student teachers participating in the study seemed to endeavor to apply professional knowledge, to some extent, in their classes and work responsibly.

These findings concurred in Slavin's (1991) description of effective teachers and Eraut's (1995) description of a professional practitioner. Slavin (1991) emphasized that effective teachers motivate students to learn, group students for instruction, and assess the students' learning. Eraut (1995) argued that being a professional practitioner implies a moral commitment to serve the interest of students. Kelly (2000), also, recognized teacher commitment, strong knowledge base, organized lesson design, recognizing learners' styles, managing the classroom and the use of different teaching methods as important indicators of

professional teacher practice. Furthermore, the analysis revealed that most of the student teachers participating in the study tended to reflect upon their teaching with the other student teachers and plan effective lessons.

The present study reported that faculties of education at the three Jordanian universities in question were keen on their student teachers' development of conceptualizing new knowledge and beliefs about content, pedagogy and learners. These new understandings and beliefs were reflected through emphasizing pedagogy. It was because they cared about the students getting quality education. The results of the study felt an implemented professional standards and accountability systems at Jordanian universities' teacher education programs. In short, student teachers participating in the study demonstrated strong knowledge base and application of professional knowledge for student learning. Kelly (2000) described effective teachers as those who know the subject(s) they teach and how to teach those subjects to the students, who think systematically about their practice, learn from experience, and motivate students to learn.

Recommendations for learning to teach in a knowledge society

The findings of the present research are important and have strong implications for future teacher education development programs, namely:

A. Student teachers professional development through:

- Creating a culture of shared professional practice, and build both teacher expertise for examining practice and teacher voice in instruction and professional development; and
- Providing a vision of professional community and professional practice that takes responsibility for and develops internal expertise for learning and advancing together.

B. System level scaffolds focusing on supporting new vision of teacher practice:

- Introduce a standards based system, articulating expectations for student and teacher knowledge and competencies; and
- Build accountability for teaching and teacher training quality by establishing measures for performance and progress against articulated performance standards.

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Appendix

Knowledge and Professionalism Questionnaire

The Faculty of Education Courses Offered Me the Following Skills which are Reflected in My Current Field Practice:	Strongly Agree	Agree	No Opinion	Don't Agree	Don't Agree at all
1- Identifying key elements of the subject matter (concepts, postulates, methods).					
2- Preparing lessons in behavioral terms					
3- Designing teaching-learning situations for the subject matter to be learned.					
4- Recognizing students' learning styles.					
5- Teaching through group work.					
6- Creating evaluative tools.					
7- Managing the classroom adequately.					
8- Coping with very noisy students.					
9- Believing that every student can learn.					
10- Making sure that every student make progress.					
11- Making significant difference in the lives of my students.					
12- Influencing other teachers in my school.					
13- Searching solutions for lack of resources.					
14- Brining about a change in my school.					