Chapter One

Teacher Education and School Practice in Jordan

Introduction to chapter 1

The first chapter deals with six issues mainly, facts about Jordan, school system in Jordan, the Practical Educational Programme (PEP), background of the study, student teachers and training, and school practice.

Then a picture of teacher education in Jordan, a brief description of the teaching practice in the University of Jordan, the purpose of the study , and the research questions, are explained in details.

1.1   Facts about Jordan

The Hashemite Kingdom of Jordan was an international entity following the First World War and attained full independence in the year 1946.

The last population census of the East Bank was carried out in 1994, with a natural growth rate of 2.8 percent, and with forced migrations from the West Bank and Arabian Gulf, the population now is around 4.5 million. Although Jordan has a total area of about 96000 square kilometers, including 6600 square kilometers on the West Bank, approximately 55 percent of the population lives in urban areas. The age profile is biased strongly towards the younger years, with around 50 percent below school leaving age. Many Jordanians work abroad and their remittances make a big contribution to the national economy. (Department of General Statistics, 1997)

1.2   School system in Jordan

Jordan is one of the countries that has repeatedly emphasised the importance of education. Jordan has been one of the largest manpower exporting countries in the Middle East. (Ministry of Education (MOE), 1994).

The aims and general objectives of Education in Jordan emanate from the philosophy of education, which draws on Islamic and Arabic heritage, the continuation and the Jordanian national political, social and economical experience (MOE, 1988).

The development of the educational system in Jordan has witnessed many changes through the past year based upon meeting the development needs of a society with a high growth rate. These changes can be expressed into three phases of development, the first phase focused on the provision of education to all children, the second phase focused on a variety of education to meet the country's economic and social development needs, while the third phase focused on the quality of education. (MOE, 1988).

The Educational Reform Plan (ERP) made a further emphasis on expanding and diversifying vocational education, as well as concentrating on improving the quality of education with particular focus on primary education. (MEO, 1988).

Since the 1980's policy makers have recognised the need to improve the education that manpower acquires, in order to develop its domestic technological capacity and to maintain its regional comparative advantage in terms of labour service, many attempts and means have been developed and followed, the most significant of which was the first National Conference on Education Reform

(NCER) in 1987 (MOE, 1988) .The conference was held under the patronage of his Majesty King Hussein and led by His Royal Highness Crown Prince Hassan. His Majesty the King pointed out the need for quality changes in the educational system to meet the country's human development needs, as well as to match the world's development and needs.

It was hoped that this would provide guidance for setting a new policy in education to equip the next generation with creative skills in using available natural resources, and more specifically, to meet the country's need for labour entrants (MOE, 1988).

The conference set forth the basic guidelines and principles of the general plan for education reform (1980-1998). Accordingly, a national team of professionals was formed and supervised by His Royal Highness, Prince Hassan. The team drew up a comprehensive list of priorities for an educational reform plan. Consequently, the 1988 Act of Education was enforced and included the following:" The extension of compulsory universal basic education for ten years; the comprehensive curriculum reform; the full range of new textbooks for the twelve grades; the upgrading of teacher education and qualifications; the provision of appropriate school plant facilities, the strengthening of educational administration, and the effectiveness of planning, research and development." (MOE, 1992).

These areas of reform were meant to make the educational system more relevant and effective in meeting national development plans, and more responsive to societal needs and aspirations.

According to the Educational Reform Plan and the Educational Act no.3, 1994, basic compulsory education was expanded to ten years, and more attention was given to pre-school education. The primary and the preparatory cycles were joined to form one cycle, which is called "Basic Education".

The secondary cycle now comprises only two grades instead of three. Pre-school education in Jordan is for children aged 4-6 and not compulsory, most of the kindergartens are run by the private sector, The MOE supervisors their standards, facilities and teacher' qualifications.

Basic education is compulsory for all children between the ages 6 to 15 years, and is free of charge in the public schools.

It aims at achieving general educational objectives and preparing the citizen in the various aspects of his/her personality: physical, mental, spiritual, emotional, and social (MOE, 1990).

Secondary education consists of two years and provides for students aged 16 to 18 who complete the basic cycle. (MOE, 1990).

Secondary education aims at providing specialised cultural, scientific and vocational experiences, to meet the existing and expected needs of Jordanian society. It is also helps the student to continue to higher education or join the labour market, according to the student's capabilities and interest.

Public schools represent the majority of schools in all the educational cycles. Moreover; schools in Jordan are divided into three types of schools: boy's schools; girls' schools; and mixed schools (only for children between age 6-8 years old) in private sector; but in public schools; in grade 5 (at 10 years old) girls and boys separate and join singe-sex schools (MOE, 1992).

Curricula and textbooks in Jordan are organised into subjects, where each subject has a separate book that is designed and prepared for each grade. A committee whose membership is decided by the High Commission of the Ministry of Education prepares each subject of the curriculum for each grade.

The MOE forms national teams of experts for each subject to develop curricula. The curriculum is aimed at " developing knowledge, skills and attitudes needed ". (MOE, 1992).

Each subject committee consists of the following:

1. A teacher who teaches the subject.

2. A specialist teacher of the same subject for the grade followed.
3. Educational supervisor.
4. Representative from MOE.
5. A specialist member in the same subject from the Department of Curriculum and Textbook.
6. A parent who is interested in participating in the educational work, on condition that he/she is a specialist in the subject and a member of any university in Jordan.

The committees prepare the textbooks and learning materials necessary to teachers and pupils (MOE, 1992).

In the light of the educational reform plan, MOE prepared new curricula and textbook, taking into account individual differences and aiming to foster student' creative and scientific thinking. This new approach involved changes and developments in the structure, content and methodology of education.

From the above; it is clear that the curriculum is centrally prepared by the MOE, Accordingly; teachers at school are provided with teachers' guides and textbooks for pupils.

Although school enrolment levels are now extremely high in Jordan, the educational system faces a number of problems: in the five-year economic and social development plan, 1993-1997, the following:

1. continuation of 2-shift system in many schools;
2. low quality of education as a result of crowded classroom in some schools, lack of various facilities such as laboratories, libraries, halls, yards and playgrounds in many school, and low levels of teacher competence at the basic education level;
3. high dropout rates, especially in the rural area;
4. lack of pupil interest in vocational education;
5. non-conformity with educational specifications in some school buildings, especially rented ones;
6. overstaffed administration in comparison with the teacher staff;
7. poor level of pre-service and in-service training and preparation of principals and superintendents;
8. low level of achievement by students, especially in mathematics and English language in comparison with that in developed countries.

(Ministry of Planning/Jordan, 1994).

School education in Jordan is based on two cycles: basic stage (6-15 year olds, grade 1 to grade 10), secondary (16-17 year olds, grade 11 and grade 12), the first cycle is compulsory for all boys and girls. Thus, the pattern is represented by the ratio of first cycl to thesecond cycl is 10:2. The number of pupils is about 1380722 million of 4675 schools in operation in 1999-2000, 60 percent run by the Ministry of Education (MOE), 4.5 percent by (UNRWA),which is responsible for basic stage education within the Palestinian camps, and 35.5 percent are educated through private schools. Pupils take the general secondary examination (Tawjihi) at the end of the secondary cycle. (Risalat Almualim 1999).

In recent years, however, the MOE has taken a number of steps to decentralize control, for example, it now delegates responsibility to the regions for implementing ministry decisions with regard to staffing, scholarships and building.

The 1980s and 1990s have seen many efforts to increase the universality of compulsory education and to improve quality in curriculum, teacher training, and supervision.

The education system in Jordan is based on aspirations of freedom, justice, and human and economic development, to achieve a significant level of productivity and modernization (Abu-Sheikha 1994).

The evolution of education in Jordan has been highlighted by recommendations of Educational Reform Programme (ERP) 1987. The MOE increased efforts to improve the quality of education and focused the best efforts to develop human resources of high equality within the country, this is evident in the number of educational institutions in the country. There are eight public universities, and more than ten private universities in Jordan, in addition to many colleges which offer a variety of courses on different topics. These academic institutions provide a wide range of qualifications to satisfy the country's needs. Human resources are the main area of investment in this country which has limited natural resources. Although this policy has succeeded in providing the country with a satisfactory number of qualified professionals in many areas, there is still a demand for ongoing improvement (Al-Nahar 1992).

One area that needs steady and continuous improvement is teacher education. It is a sensitive area, subject to change and improvement almost everywhere. Teachers nowadays must have a university first degree at the very least. Most of the teachers who are underqualified have gone through an in-service higher qualification in universities.

Under the reform plan individuals who would like to teach in primary and lower secondary schools should have their degree from the university schools of education. This will give them the chance to acquire a wide variety of knowledge both in their subject area and in educational courses. Those who want to teach in upper secondary schools must have their first degree in their subject area and the educational courses are not obligatory for them.

Accordingly, the universities gave opportunities to students who wished to be teachers, and provided the conditions, materials, courses and also tutors.

This was accomplished through the establishment of new department and sub-departments in the schools of education especially in the public universities. (Al-Nahar-1992).

The plans of actions set to implement the ERP suggested that four public Jordanian universities (Jordan Un., Yarmouk Un., Mout'a Un., Hashemite Un.) take the responsibilities of teacher education and certfication programmes. Although the universities enjoy a high degree of autonomy, very similar certification and pre-service teacher education programmes were initiated in each of the four universities.

The University of Jordan is an example of this, where there is a Department of Curriculum and Instruction. This department has various subjects, such as Languages, Science, Mathematics, Social studies, Religious education, and Vocational education.

The students study the theories of teaching and learning in education, each in their subject area. For Maths Education, student teachers take all their Mathematics courses in the School of Mathematics.

1.3   The Practical Education Programme

The story of practice teaching in Jordan only started recently. In 1993 the Programme of Practical Education (PEP) began within the Department of Curriculum and Instruction (DCI) to assume the responsibility of organising and implementing the practice teaching component for all pre-service teacher education programmes at the Faculty of Educational Sciences (EFS). The staff of the (PEP) consist of a director who a faculty member at the (DCI); a secretary and twelve supervisors; each two for one subject of the following subjects: Arabic; English: Islamic Education; Mathematics; Science and Social Studies. The subject supervisors were all previously practising teachers with at

least five years of experience in teaching. However, the majority of their teaching experience was in teaching their subjects in either secondary or upper basic stages (5 to 10 grades).

According to its director, the PEP aims to prepare the student teachers for the teaching profession through:

(I) Experimenting in the application of their acquired knowledge about teaching, to help them to bridge the gaps between theories and reality,

(ii) Acquiring the basic teaching skills during their practice teaching at co-operating school under supervision of school and university.

The director also highlights some of the problems that in his opinion are hindering to some extent the fulfilment of the PEP aims: the lack of financial independence of the PEP in relation to the FES, and the administrative independence in relation to the DCI. The need for strengthening the relationships between the FES and the Ministry of Education (MEO) the local education authorities and the co-operating schools in particular in order to fulfil the PEP aims. Lack of contribution from the faculty members of the DCI, particularly those who participated or supported any type of practice activities or highlighted the findings of international research in practice teaching. Lack of resources in the co-operating schools in addition to the need for training the co-operating teachers to help them improve their skills as student teachers trainers. (Turki-Diab, 1996).

Currently, the training course (12 credit hours) located towards the end of the four-year programme involves student teachers being in the school for 5 days a week for 16 weeks. One full semester is accommodation in schools equivalent to 12 credit hours out of 132 credit hours as a whole plan for Bachelor degree.

The Practical Educational Programme belongs to the Department of Curriculum and Instruction.There the student teacher start, after finishing the theoretical courses, the practical training part of their course.

This programme works under the umbrella of the School of Education and it has administrative and academic responsibilities. The administrative work includes making the arrangements with schools, liaising with the Directorate of Education which is part of the MOE, providing the written documents of the programme of establishing the communication between the people who are involved in the training course. The academic work is the responsibility of the tutors who work directly with the student. Their job is to help the students to benefit from the training course to develop their knowledge and competencies, by visiting them in the schools, observing their performance and evaluating them. They also meet the students regularly in the university and deliver lectures (University of Jordan 1993).

When all the arrangements have been completed , and the students are ready to start their practice in schools, each student chooses the school in which he/she wants to practise his/her training in the training course which is sixteen weeks full time in the school, distributed as follows:

1st week: General school observation

2nd Week: General class observation (Maths Class or Arabic Class).

$3^{rd}+4^{thWeeks}$: Maths class observation.

$5^{th}-8^{thWeeks}$: Partial practice.

$9^{th}-16^{thWeeks}$: Complete Practice

The schools are called "co-operating schools". Each student is attached to a qualified teacher in his/her subject area. This teacher is called the "co-operating teacher" , and has a very important role, serving as a constant trainer for the student teacher throughout the practice time.

The University of Jordan uses the following mechanism for choosing the co-operating teachers. The head teachers of the co-operating schools usually receive a letter from the university informing them of the numbers and names of student teachers who are going to train in their schools and their subjects. The head teachers then make the arrangements for attaching each student to a co-operating teacher from his/ her subject.

At the same time, some of co-operating teachers are frequently new to the role and often have no idea how to carry it out. It is left to the university supervisors to meet these teachers and explain the process and steps of the training course to them.

The written instructions for co-operating teachers include some general information for all subject areas but do not give specific advice on their role. There is for example, nothing specific relating to Math teachers. These general instructions as presented in the practical programme outline under the heading of "Duties of the co-operating teachers" and state that the co-operating teachers should:

- Introduce the student teachers to the school environment,
- Solve and facilitate any psychological or social problems that the student teachers might face in their practice.
- Help the student teachers to become familiar with text book, curriculum and teaching manuals.
- Help the student teachers in classroom control particularly in the first stages of the training.
- Discuss practice issues with the student teachers related to the performance of the student teachers and provide them with constructive feedback.
  (University of Jordan 1993).

Teacher training education in Jordan is at the moment in an intensive procedure of improving its training. One important part in the Practical programme, when the student teachers are in co-operative schools to learn from experienced co-operative teachers. This programme has a short record, from nothing at all up till 1993, the student teacher takes a 12 credit hours (five days weekly (Turki, D., 1997).

1.3.1 The evaluation system during training course

The important work for the student teachers during their practice in co-operative schools, is "self-report". This report shall reflect the student teacher's attitudes and development during his/her practical teaching. Writing report means that the student teacher has to make observations, critical reflection and express an understanding of the process of teaching and learning process during his/her practice teaching.

This work represents 20% of the final mark, 20% of the mark is the responsibility of the co-operating school: 15% for the co-operative teacher and 5% for the head teachers, 30% of the mark is for the whole performance during the course which is estimated by the supervisor; and 30% of the mark is for the final lesson which the student teacher prepares his/herself when the semester is approaching an end. So we have:

20% self-report,

20% co-operating school (15% for co-operating teacher and 5% for principal),

30% whole performance during the training course,

30% final performance at the end of the training course,

The supervisor has a full responsibility to apply these items of evaluation in cooporation with the schools.

1.4   Background of the study

1.4.1   Teacher development

Development means change and growth. Teacher development is the process of becoming "the best kind of teacher that personally can be" (Underhill, 1986 p.1). To the extent that teachers are regularly asking themselves: How can I become a better teacher? How can 1 enjoy my teaching more? How can I feel that I am helping learning? They are thinking about ways of developing. It is possible to change the way they teach and perhaps also the preconceptions that they have about teaching and learning.

In this study we will look at some of the ideas that have helped to shape development as a distinct concept in our thinking about teachers' learning. In giving it a name we seek to define a way of learning which is complementary to training, and which is motivated by teachers' own questioning of who they are and what they do, rather than by any external training programme.

Teacher development, draws on the teacher's own inner resource for change. It is centered on personal awareness of the possibilities for change, and of what influences the change process.

Although development can happen in many different ways, Richard Rossner was interested in finding out what the characteristics of teacher development are.

One of the questions he asked the teachers was:

"What do you personally understand by the term teacher development?"

Their responses indicated that it has at least 4-characteristics in teacher minds:

1. Dealing with the needs, the needs may be many and diverse from confidence-building awareness and technical expertise.
2. New experiences, new challenges, and developing their careers as well as themselves.
3. Developing in counselling skills, assertiveness training, confidence-building, computing.
4. Developing in teachers' opinions have to be "bottom-up"
   (Rossner, 1992 p4).

One characteristic is that the teachers themselves decide what they are going to do. It is more useful to see training and performance development as two complementary components of a fully rounded teacher education.

Teacher training essentially concerns knowledge of the topic to be taught, and of the methodology for teaching it. It emphasizes classroom skills and techniques. Teacher performance is concerned with the learning atmosphere which is created through the effect of the teacher on the learners, and their effect on the teacher.

The teacher should know that his/her effectiveness as a teacher depends largely on his/her pedagogic skills and knowledge of the topic he/she has to teach, and on all the process associated methodology.

So, effective teaching depends largely on the way he/she is in the classroom, on his/her awareness of himself / herself and his/her effect on others, and on his/her attitudes towards learners.

The trainee needs to gain a knowledge of the actual students or pupils in the class, learn their names, discover their interests, attitudes, backgrounds, and find out what they are capable of achieving. But they also need to develop a detailed knowledge of the situation in which they must teach. This will

involve developing knowledge of the actual classroom, school and community in terms of its ethos, demands and constrains.

Trainees may know their subject from their own education but in becoming teachers they need to acquire a new type of subject knowledge: 'pedagogical content'. Pedagogical content knowledge involve ways of representing subjects that make them understandable to others (Wilson et al. 1987). While certain aspects of lesson 'content', for example, evaluation of different types of subject matter and subject specific skills, may best be explored outside the classroom situation, trainees will be dependent on their observations of particular students in particular situations to evaluate just how effective their 'representations' of the subject matter have been.

Trainees need to develop a knowledge of which strategies may be used. Not simply a theoretical knowledge of different strategies that 'may' be used, but a practical knowledge of which techniques or tactics are most appropriate to facilitate learning in each case.

In practice these four domains (pupils, situation, subject matter and strategies) are never experienced or used in isolation they should work together.

So, trainees need to weigh up and balance considerations of these four aspects. In reality, trainees' decisions and responses will also be influenced or modified by considerations of their own interests and constrained by their particular stage of development.

The focus of teacher education is being extended from a narrowly based training model towards a broader approach in which developmental insights are learned alongside classroom teaching skills. The implications for 'teacher educators' (i.e. the people who design and implement teacher education programmes both at pre-service and in-service levels) are discussed in the excerpt below by Martha Pennington. She argues that viewing teaching as a profession provides a motivation for continuous career growth, and that teacher educators have a responsibility to prepare teachers right from the start to adopt a developmental perspective. Trainees who are encouraged to adopt a developmental perspective will take away from the weekly meeting, which will inform not only their teaching, but also their social skills and attitudes generally. This starts from the first day of the training course, for example:

1. Encourage trainees to make their own suggestions about lesson content and procedures.

2. Get the trainees to specify lesson aims for themselves as well as for the learners, to give equal attention to all the learners in the class, or to ask questions only once and avoid repeating or reformulating them.

3. Give the trainees practice in observing and describing, not only evaluating what they see, and learning not to mistake one for the other.

4. Encourage trainees to self-assess their teaching right from the start.

5. Invite teachers with approximately one year's experience to visit and discuss with the trainees how they have fared, and how they have dealt with the challenges of their first year of teaching.

6. Realise that some trainees will need more help than others, and try to treat each one as an individual.

We have presented a view of development which is distinctly from training, and which is centered on the teacher's own awareness of himself or herself as a person as well as a teacher. This kind of development involves the teacher in a process of reflecting on experience, exploring the options for change, deciding what can be achieved through personal effort, and setting appropriate goals. It is based on a positive belief in the possibility of change. Development is not only a way forward for experienced teachers who believe that they have unfulfilled potential and who want to go on learning.

If its attitudes and beliefs can begin in pre-service training, where trainees can be encouraged to learn from their own developing awareness and reflection alongside feedback from tutors and fellow trainees, then it can continue as a basis for career-long learning.

To give the student teacher the chance to observe and analyze the classroom situations. The team of trining course analyse videotape recording of the lesson for a sample for them, and we explain the videotape during the "weekly meeting" as a group of learners (trainees). "It is not a seldom occurrence that alternative solutions are developed from such analyses, this can impart new knowledge and also contribute to optimizing instruction" (Horst Horner, 2000).

The practice teaching experience probably makes the most profound impression on the student teacher. Within weeks, the (S.T.) changes from a university student to a beginning teacher. The development of professional attitudes, skills, and responsibilities during that period occurs under the guidance of an experienced teacher.

Although the faculty or university has given the student course work and the supervisor works closely with the student teacher, a principal responsibility for the development of the S.T. lies with the co-operating teacher in the school. The importance of cooperating teacher in the development of effective teachers cannot be minimized. The responsibilities delegated to the S.T by the co-operating teacher should be increased gradually, but what should be the sequence of experiences? And what performance can reasonably be expected as the S.T. progresses?

In particular, what experimental preparation should the faculty or university provide prior to student teaching, and what are realistic expectations during practice teaching? The particular stages were observed during the supervision of class-mathematics student teachers at co-operating schools. The observations occurred during regular visits to the schools where the S.T. were teaching and during 'weekly meetings' held at the university.

1.4.2   Four stages of development

Our observations and experience suggest that student teachers may pass through four ordered stages as they become more responsible teachers. The sequence seems valid for each student teacher, but the rate of progression varies greatly.

 Unfortunately, many students do not seem to reach the fourth stage during practice teaching; the four stages are:
(i)   Take care of themselves;
(ii)   Take care of teaching actions;
(iii)   Take care of pupils' behaviour;
(iv)   Take care of pupils' learning.

First stage
Initially most student teachers questioned their ability to cope with a complex and demanding class of unfamiliar students. Every body seemed to ask,:
"Can I handle this? What do they think of me? What does my supervisor think? Will I have enough material to last through the period?"
Their thoughts seemed to be centered on rather than on teaching or learning. Also, they were trying to assess what venues would be open to them within the classroom. Unfortunately, many seemed to assume without asking that material outside the textbook or strategies not used by their co-operating teacher would be unacceptable.

So, they are talking about their future performance, which give us an idea about their concern in teaching competencies.

Although they recognized the need to know their pupils, most S.T. seemed uncertain how to do so. Through experience of them, they seemed to learn the classroom routine, but some could not characterize the dynamics within their classes. It seemed that only after the issues of self-doubt were resolved the student teachers could turn their attention to instruction. Prior to this point they often seemed to perform mechanically. They did not respond naturally to pupils' questions or classroom events. It is important to recognize stage 1 behavior in student teachers. Co-operating teachers are in a much better position to assist student teachers if they understand the concerns with which student teachers may be preoccupied.

Second stage

In the second stage student teachers seemed to see and deal with classroom challenges, but the focus was on their own actions rather than on students' learning.

An emphasis on their own actions sometimes resulted in excessive lesson planning. These student teachers often had extremely detailed lesson plans that they followed like scripts. The result tended to be a rigid, monologue presentation with little sense of timing, enthusiasm, or class interaction .

Some student teachers seemed to be asking for someone to tell them what to do, and others had ideas but seemed reluctant to discuss them, perhaps because of their lack of confidence to how to adapt or to implement their ideas in the classroom. When encouraged and aided by discussions of how to carry out their ideas, each of these groups of student teachers gradually came to develop their own styles of teaching; after four weeks of the practice the prime concern of the student teachers seemed to shift to discipline and classroom atmosphere, of course, these problems existed prior to this point, but the student teachers did not seem to be able effectively to address these issues previously. The co-operating teachers offered suggestions (e.g.techniques for discipline) and expressed a willingness to discuss without judgment the classroom atmosphere the student teachers seemed to gain confidence.

The key may have been the experience of success coupled with the development of good, varied lessons that kept their students involved.

Third stage and fourth stage

During the third stage, lesson planning usually centered on: What will I do? Or:What will I say? The fourth stage seemed marked by the question: Did they learn? This concern for learning seemed to be accompanied by an increased awareness of individual pupils rather than only of the class.

The student teachers that reached fourth stage began to address the needs of the individual pupils. Additionally, they began to develop their own teaching styles and acquired the self confidence to believe in themselves as teachers. So it seemed as if these (beginning teachers) viewed the remainder of their field experience as a time not only to practise teaching but also to study teaching, In other words the performance of student teachers during this period depends on their progression achieved with respect to the time of the training course.

It is important that co-operating teachers have realistic expectations concerning the performance of a student teacher. To expect too much too soon may cause student teachers to doubt their ability and to fear admitting their weaknesses. Similarly, overly to restrict the responsibilities of student teaches may hinder their development and smother their creativity. In either case, this results in a lack of communication between the student teacher and his/her co-operating teacher that may limit the potential of the student teacher.

The cooperating teacher may find it helpful to keep these stages of concern in mind. Initially, student teachers are not very receptive to a discussion of techniques or ideas, since many have not yet recognized that they have problems or they may not be able to cope at that level yet.

1.4.3 Observation phase without own practice

During the first three (or four) weeks student teachers may not be at ease when exchanging ideas during conferences whereas later on they may be able to express their thoughts and concerns as they move toward self-evaluation. Rather than interpreting a reserved manner as disinterest or incompetence, the co-operating teacher should consider the student teacher's stage. While the co-operating teacher in teaching, daily pre-class conferences between the co-operating teacher and the student teacher are invaluable.

It is through these sessions that the student teacher comes to see that planning involves more than simply determining what they will do today. The student teacher can observe how the co-operating teacher plans a sequence of lessons, assesses the pace for a particular class, recognizes the needs of certain pupils, determines when testing is beneficial, or organizes outside resources.

At the same time, the student teacher learns the desired format for lesson plans as well as the amount of detail expected. When pre-class conferences are followed by a post teaching analysis of observed teaching moves (teaching as performed by the supervisor as well as the student teacher), the student teacher not only comes fully to perceive the aspects of classroom instruction but also to see the cooperating teacher as an ally and the conference as an aid.

One purpose of this study is to show that student teachers are not equally sensitive to all aspects of teaching throughout their practice teaching that there are stages of development influenced the student teachers' performance that can serve as guideline to supervisors in planning intervention strategies. Although, we may feel it is essential that student teachers become aware of the needs of individual pupils and the learning process, such efforts may not be effective if introduced early in the practice teaching. As student teachers overcome concern for theirselves they become sensitive to the classroom atmosphere and may then develop effective means of setting a productive learning environment. As with all learning, individual differences do exist. Some student teachers move through some or all of the stage rapidly, whereas others may never reach stage four. Although the stages of development does not lead to day-by-day prescriptions for all students. This study invistigates some factors related with these situations, and addresses the needs of student teachers in the classroom.

1.4.4 Factors affecting ths S.T. performance

We will try to explore these factors that affect the student teachers' performance during their practice teaching.

Attempts to understand teacher development have recently drawn upon research on teachers' beliefs and mental processes (e.g. Richardson 1990). Such research suggests that the professional growth in neophyte professionals is influenced by a range of factors with particular emphasis on the following:

The expectations for professional development that the neophytes bring with them to their training (Calderhead 1988, Elliot and Lange 1991) the learning strategies employed by trainees (Brown 1978, Calderhead 1988, 1990, Kober 1980),the nature of the work environment into which graduates will move (Mitchell & Marland 1989, Zeichner & Gore 1990).

In a review of contemporary research on teacher learning, Kagan (1992) concludes that growth occurs within a number of domains:
1. There is an increase in the knowledge that trainees have about pupils, how they learn and the importance of their backgrounds.
2. The focus of beginners' concerns moves away from themselves as actors in the classroom to those learners to whom their teaching is directed.
3. Routine for teaching becomes automated and the need to think through each minute step is diminished.
4. Novices become more aware of their own thinking about what they are doing and its impact on pupils.
5. There is an increase in instructional problem-solving approach.

It follows that not only in growth complex but, given that knowledge associated with teaching assumes a range of forms (Shulman 1986), development programmes for teachers may need environments to develop different forms of knowledge. A number of factors emerge from the above analysis:

First, growth in teaching performance is a process that occurs across a considerable period of time and needs to be fostered in ways that are unique to the profession. Such fostering needs to attend to both the affective and cognitive aspects of teaching. It means, for instance, that throwing students in at the deep end will probably, at best, produce teachers whose prime aim is the development of survival skills.

Second, because growth is complex and multidimensional in nature, learning to teach will probably occur at different rates for different students. The stage models of growth proposed by Fuller (1969), and more recently by Berliner (1987), suggest an invariant developmental pattern. Given the different profiles that students bring with them, it is likely that some will be quite advanced in some dimensions and novices in others. Such differentiation probably continues throughout their career where teachers move to expertise in different areas at different rates. Thus, it is unlikely that there would be a uniform linear progression in all domains of development as suggested by the stage models.

Rather, what is more likely is development across a range of dimension at different times for different students. Learning to teach, in this sense, is idiosyncratic and personal.

Third, growth can be fostered or hindered by the knowledge, values and ideas that the beginning teacher brings to teaching as well as the context in which such growth is developed. Further, given the unique combinations, of support and challenge required to address these prior orientations, growth needs to be fostered in a range of contexts.

Fourth, those who foster growth in novices require a distinctive and comprehensive language to assist them in the process.

Such language would not only enable a diversity of classroom experiences to be incorporated into the novice's image of teaching but it would enable developers to adequately reflect on their complex task.

Finally, there is a need for considerable individual support, in both emotional and cognitive spheres, for beginning teachers if they are to develop and grow as teachers. While current demands for a reflective profession suggest that student teachers study and develop in traditional university

academic environments, such environments may not provide the necessary support for the students to grapple with previously constructed and reinforced images of pupils and teachers which are at the heart of their learning to teach.

Such conclusions beg the question of how such growth can be fostered within teacher education courses through processes of mentoring . For example Shulman (1986) has argued that the most substantial contribution that a mentor can make is to help other teachers extend their thinking about their educational practices but what it means to '' extend their thinking'' and how such initiative are conceived by practioners are not clear.

In order to facilitate growth, cooperating teachers need to have well formulated ideas about how teachers develop professionally.

Also they need to be able to recognize the images of teaching that trainees bring with them to their training, the diversity of possible teaching styles and how the latter can be constructed from the former. They require not only skills for counselling but also a language of practice which incorporates the complexities of training and teaching.

Now; we can say; professional growth in performance of beginning teacher should be characterized by:

1)   a continuous ongoing process;
2)   a team-training effort:S.T, Co.T; and supervisor,
3)   directed toward self evaluation by the student teacher; others helping the student teacher become consciously aware of instructional behaviour and by discussing alternatives to that behaviour.

There is a great debate about initial teacher education almost everywhere, and all the programmes of teacher education aim to improve it and make it as effective as possible. (Mountford 1993). There is also a tendency to make it a partly school-based education. In doing so three parties become involved (Booth et al 1990).

The first is the team of university tutors. The tutors are the university staff members who work in the Department of Curriculum and Assessment and/or in the Practical Educational Programme. The second is the school and the co-operating teachers. The student teachers themselves are the third party of this situation (Maynard 1997).

The school must be willing to co-operate with the university in the first place, then must provide the appropriate atmosphere for the student teachers to feel comfortable in the school and to select a teacher from their teaching staff to act as a co-operating teacher (Shaw 1992). The student teachers are the target of this course, they are in the position of seeking help from both the university and the school and in particular the co-operating teachers (Edwards &Collison 1996).

The interaction between these three parties can be represented in the following diagram, adapted from Walking (1992,p:103). Watkins suggests that the three parties engaged in training need to be clear about their different roles, perspectives, and learning needs.
 They must also communicate openly and frequently, and treat each other as adults.

Supervisor

.   S.T ⟵⟶ Co.T
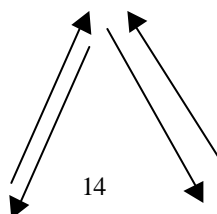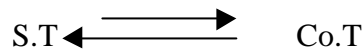
Moreover, as indicated by this diagram interaction must be two-way. Brook & Sikes (1997) emphasises the importance of interaction between the participants in initial teacher training. To explain more, the student teachers should come to the schools with the latest theories of learning and some clues about classroom interactions and methods of teaching. In the schools they have the chance to apply these ideas with the help of the co-operating teacher (Brook& Sikes 1997). The co-operating teachers are separate from the academic atmosphere. Therefore through interacting with the student teachers they might add some new ideas to their own practice and experience (Kelly et al 1995). Furthermore, the co-operating teachers discuss their practically based ideas with the student teachers. In this way both of them provide feedback to each other and hence possibly learn from each other (Edwards & Collison 1996, Watkins&Whallye 1995).

Interaction between the university and the schools, happens mainly between tutors and co-operating teachers. In this case each of them should be transparent and explicit in their ideas. This means that the university tutors should communicate and discuss with the co-operating teachers the plan, the goal of the training course and how they perceive the co-operating teacher's role. The co-operating teachers on the other hand should communicate and discuss their ideas and plans with the university tutors. In this way both of them would have the same vision about the goals of the course and a same way of thinking about the strategies for training the student teachers (Shaw 1992, Watkins 1992).

Interactions between the student teachers and the university are also important. It is important because when the student teachers start their practice in the schools they interact with the co-operating teachers and with the school system. In this way the student teachers find out how the co-operating teachers and yet other teachers teach, perceive their work and perform as trainers. They also have the chance to reflect upon their experience and discuss the problems and obstacles they face in the schools in particular practical issues. This is where interaction with the university is important, providing help and support in relation to these issues. (Brook & Sikes 1997).

Consequently, the university tutors get some feedback about issues in schools and help the university to know what areas of the training course need improvement,or require change and how improvements can be made, in particular with reference to the role of the co-operating teachers and how they can improve their performance. (Edwards & Collison 1996, McIntyre & Hagger 1996, Shaw 1992).

1.5   Student teachers and training course

Having briefly considered perspectives on the structure of the training system, and programmes, we now turn to consider perspectives on the knowledge and skills that student teachers need to acquire from the training course.

We have seen in the previous section that within initial teacher education programmes the student teachers are the main focus. This focus can be seen through the attention given to the learning outcomes and goals that the student teachers need to accomplish. These can be defined as equipping them with certain kinds of knowledge and skills of teaching (Maynard and Furlong 1995). However, it is important for the people in charge of the initial teacher education programmes to be explicitly

aware of these goals and to specify them clearly to the students (Malderez,1999). Malderez (1999), argues that student teachers in these courses have to learn to do things, to work professionally with other adults and to develop capabilities and skills. These skills include the mastery of their own subject knowledge, the pedagogical knowledge in order to be able to choose strategies of teaching the appropriate to different situations as well as acquiring of micro teaching skills (pedagogical skills, management, and evaluation skills).

These skills can be considered as general ones, that can be found in many initial teacher training schemes no matter what the subject is. For example, in reviewing an appraisal scheme of teachers' inspections, or an assessment observation sheet in a student teacher's handbook of training. We can find a long list of these observable/ visible skills that labels the things that the teachers/ student teachers should know how to do, see for example Horne & Pierce (1996), Tomlinson (1995).

However, it is not enough to have personal subject knowledge and general kinds of skills. For instance the teaching of science or mathematics makes special demands.

Teachers of Mathematics need for example to find ways of making Mathematics content accessible to the pupils, try and test good ideas for teaching activities, define common difficulties in learning Mathematics concepts, and manage and organise the practical work (Maynard 1997, Scott et al 1994). Pupils learn a wide range of concepts, facts, theories, and relations. In order to teach these effectively, teachers need to have a satisfactory level of knowledge in their subject area and a good background of teaching methodology in maths Education, such as constructing skills, presenting the activities and planning for them and being aware of the alternative concepts of the pupils, see for example, Leach & Scott (1995).

Student teachers need also to have an understanding of education policy in their country, What it means to be a teacher, and the consequence of the professionalism of teaching. They also need to have a satisfactory level of knowledge about pupils, (1995), claims that student teachers need to achieve a level of consciously thinking about their performance and to be able to reflect upon what they have done and why. He suggests that at the final stage of training the student teachers should be able to link the 'know what' and 'know how' together with this awareness in order to work towards a level of expertise.

Hudson & Lambart (1996), are more specific about the areas of knowledge which student teachers need to acquire. They classify these into four broad areas, Similar classification introduced by Shulman (1987). These areas are:

1.   Professional knowledge, consisting of general pedagogical knowledge, subject matter knowledge and pedagogical content knowledge.
2.   General pedagogically knowledge, including knowledge of theories and principals of teaching / learning, knowledge of learners, and knowledge of classroom management and behaviour.
3.   Subject matter knowledge, which includes, ideas, facts, concepts of the field, relationships within them and understanding of ways new knowledge is created and evaluated.
4.   Pedagogical content knowledge, which means understanding how to teach a given topic, understanding the principals and techniques of teaching a given topic.

(Hudson & Lambart 1996, p: 416).

Tomlinson (1995, p155), presents a similar range of knowledge and skills in a training competence profile developed for an initial teacher training programme at the University of Leeds.

Therefore, from the discussion of some perspectives concerning the areas of knowledge and competencies required by the student teachers. It can be said that these areas of knowledge do not emphasise the things that the student teachers need to know just in theory. It also emphasises the teaching skills and competencies they need to know how to do as well as to perform them in an adequate way in practice. In other words trainees need to acquire both theoretical and practical knowledge through out this course, and link the theory with practice during their performance in Mathematics classes. At the same time, the performance of student teachers depends on their competencies, abilities, and their awareness of the teaching/learning process.

1.6   School practice

This title deals with basic stage school practice, which for most systems means the teaching of pupils aged between 6 and 15 years, and means grade 1 to grade 10, those grades are two parts; the first one is from grade 1 to grade 4 and denoted by " class teacher" which means one teacher teaches all subjects for the class, the second part consist of grades 5 to 10 and is denoted by "field teacher" which means one teacher teaches one subject for some grades from grades 5 to 10.

The purpose of this section is to identify, illustrate, and highlight the practice teaching of student teacher (trainees) during their training course at schools, which means pre-service teacher training.

The researcher attempts to describe what is going on pre-service teacher training in a case of Jordan (Amman-The University of Jordan).

At the beginning the reader will find some terms with limited meaning. It's advisable to know them before you start the reading of the topic:

Teacher: Co-operating teacher.

Student of university: Student teacher (trainee).

Student of school: Pupil.

School: Co-operating school.

Educator (teacher of teachers): Supervisor (trainer).

As one can see; the previous nomination related with the co-operation of all people or components that involved in process of pre-service teacher training: teachers; students, supervisors, and the schools.

1.6.1   Higher education

The first university established in Jordan was the University of Jordan in 1962. the establishment of universities in Jordan continued. In 1989 there were four public universities, accommodating about 5000 students. In 1993 the number of universities reached 12; of which 7 were private. Recently, in 2000 the whole number of universities reached 18, of which 8 are public universities.

These universities accommodated 56530 students, of whom 42% were females.

 (MOE, 1999).

The first Faculty of Education in Jordan was established in 1972 and the teaching started in the faculty in October 1973. The faculty included two departments: the Department of Education (started with the university in 1962) and the Department of Psychology. The Department of Education offered an undergraduate (4 year) program leading to the Bachelor degree in Elementary Education. The development offered also a post-graduate programme (Advanced Diploma) in Education for Practising Teachers who have a university degree in a subject, or those who finished

their university studies and plan to join the teaching profession. In addition two MA programmes were also offered: one in Curriculum and Foundations of Education, and the other was an MA in Educational Administration and Supervision (Al-Bakheat, 1987).

Since then, the Faculty of Education programme of studies has been always a subject of revision and modification. The range and scope of the modifications varied from slight changes, such as replacing a few courses within certain programmes, to establishing or abandoning an entire programme. However, although there was always at least one four year initial teacher education programme, it is interesting to note that in 1972 a course of teaching practice was included. The course was however abolished in the 1975 revision and continued to be so until 1991, when the most recent version of these programmes were established. Thus one of these programmes, the Field Teacher Programme which included Maths-Field Teacher Programme:

In this section the field teacher programme will be described from documents of (DCI) at (FES) at the University of Jordan.

The programme is one of two four-year pre-service teacher education programmes currently offered the DCI at the FES. It is stated that: "This programme is designed to prepare both academically and professionally qualified teachers to teach Mathematics for grades 5 to 10 from basic cycle so that they can carry out their duties".

(FES, 1994).

According to the University of Jordan regulations of admission, students who held the Jordanian General Secondary Certificate (Tawjihi), or its equivalent, with a minimum average of 65% are eligible for the FES. Students are admitted to the programme at the beginning of their second year of study at the FES. Admission to the programme is determined according to policies established by the department's council.

Like other programmes at the University of Jordan, the programme follows the credit hours system in the composition and structure of its study plan. The credit hour could be roughly defined as an hour of class teaching/learning per week for 16 weeks. In the case of a work experience, three hours of practice are equivalent to one credit hour; which means 36 hours weekly for 16 weeks; the student teacher stays at school:

$36 \times 16 = 567$ hours during his/her practice teaching.

1.6.2 The co-operating schools

The co-operating schools are participating in the training course of the student teachers during any particular school semester. According to the director of PEP, there are about 20 schools currently nominated as co-operating schools through an arrangement between the PEP and MEO, in addition to one school, which is situated in and administrated by the university to save time and minimise the costs of transports for both the student teachers and the supervisor of the university.

These co-operating schools are part of Jordanian schools, most schools in Jordan suffer many problems that characterise the national schooling system, especially lack of resources available to the already poorly equipped schools and the large numbers of pupils in the classrooms (an average of 40 pupils in a room measuring 24 square metres) in most of the schools. These conditions do not apply to the university school and private schools.

In addition to these general problems, the poor interpersonal relationship among the teachers on the one hand and between them and their head-teachers on the other hand, in some of the public co-operating schools, they may have some adverse effect on the training process and outcomes. Some

student teachers reported that they discovered that there were teachers who were more qualified and enthusiastic about teacher training than their own co-operating teachers but they were not chosen as co-operating teachers, simply because they were not among the head-teacher's friends.

Another example was reported by some student teachers that they could not build a good relationship with all teachers in their cooperating schools because of the poor relations between their co-operating teachers and some of the other teachers in the school. Some of the student teachers reported also that they did not expect this kind of social climate to be so common in the schools. The willingness of the schools to participate in the training is another important issue that may have implications for the training processes and outcomes.

The public schools are not consulted about whether they want to participate in the process.

They are simply notified by the educational authorities that they have been chosen to be cooperating schools and asked to facilitate the task of the training.

The majority of the student teachers reported that they don't know how or on which basis the cooperating school had been selected, except being in the neighbouring area of the university. Most student teachers prefer the private schools over the public schools as sites for training. Their reasons for this preference include:

1.Private schools are better equipped and have better resources;

2.The reasonable number of pupils in the classroom minimise classroom control problems and facilitates better classroom organization;

3.The co-operation and the spirit of team work is a common feature in the private schools, student teachers believe that this is likely to create a more supportive climate for their training;

4.Student teachers believe that they may get an opportunity of work at the end of training cours, especially if they proved themselves during their practice teaching.

However, student teachers who were being trained in a private school complained that they only had a rather narrow opportunity to try out their own ideas unless thoroughly checked and modified by the co-operating teacher.

One of the student teachers said that "although the school made it clear from the beginning that the pupils' interest is the top priority, I did not expect this degree of conservatism towards the training".

Many of the student teachers in public schools criticised the programme of the practical education (PEP), among other things, for lack of clear policies for student placement in the schools.

The schools were complaining that they were not given sufficient information; the teachers did not know that they would be a co-operating teacher until the student teachers arrived.

All parties noted the weak communication between university and the schools, and there was a strong request from the teachers and head-teachers to be informed well in advance of the teaching practice.

The following quotes from the student teachers self-report about their experiences show their situations and its consequences on their training course.

"I don't understand how they choose the co-operating schools and teachers, my co-operating teacher in a community colleague (2 years after high school) had some years in teaching and retired from public schools. She works now by special contract. Despite our good personal relationship (at the end of the course) I have the feeling that she ended up weary or careless and has negative attitudes towards the profession ".

"I found myself in a school, which is in addition far from my residence. It is difficult to get to by public transport. I had the responsibility for teaching very early, so, I was buying some materials for my classes at my own expense to avoid the possible negative effect on my assessment."

"…well, it seems to some of us as a matter of luck, (in which school the student was placed) but I still believe that the university in the first place should seek a solution with the Ministry of Education to improve the facilities and provide the schools (public) with the necessary resources so that all the participating schools become similar or nearly so in terms of their conditions as co-operating schools if they are serious about the fairness and equality in the training course."

Despite all the complaint and criticism from the student teachers, almost all of them valued their teaching practice in general but they also believed that it could be better if a closer and stronger relationship existed between the university and the schools.

One co-operating teacher said to me about one case of training which took place in her school last semester:"Sometimes there is a contradiction, I observed a period which the supervisor was observing. He observed about 25 minutes and left with the student teacher. When I saw my student teacher after the period she was actually crying. After a while I asked her what had happened. She said that the supervisor said to her that she must work harder, and that he criticised almost everything, the language, the pace of the lesson, the pupils' contribution, in fact, I don't think that many of his criticisms were true ".

The teachers considered it important and educative to share with the university supervisors their opinions and ideas about the teaching and the training. Like the co-operating teachers, almost all the student teachers believed that there was a lack of co-ordination and weak communication between the university supervisors and their cooperating teachers.

Most of them reported that during the supervisors' visits they were usually in a hurry and did not contact the co-operating teachers. But the private schools insisted on having more contact between the co-operating teachers and the supervisors. The private schools also required the co-operating teachers to attend the supervisors session at the university which was held weekly for approximately two hours.

Other examples of contradiction or variation in points of view in advising student teachers include how to choose and set the lesson's objective, and the relative appropriateness of certain methods for particular purposes, such as sequencing the teaching/learning activities for a lesson.

Some students reported that their co-operating teachers told them that they did not have any idea about what the university wanted or expected them to learn at school.

The student teachers said they became aware how weak the communication was, and of the possibilities of the negative effects of that on their training and assessment.

All the supervisors complained about the heavy working loads, each one was responsible for following up their students in schools in addition guiding the weekly meeting.

During informal interviews with supervisors, I told some of them that some of the co-operating teachers told me they wished to discuss with them the ongoing training of their student teachers but that they were always in a hurry.

All of them said they actually already held many meetings and discussions with some co-operating teachers, but most of the time, it happened only when they found a student facing some serious problems.

They said it was a matter of priorities to discuss what with whom, within the time limitations. However, they admitted that some student teachers were actually facing such serious problems, and therefore needed more attention from the others.

1.6.3   The student teachers and co-operating teachers' perceptions of their roles

Student teachers:
Most of the student teachers (71.4%) reported that they had a good relationship with the supervisors and with the co-operating teachers. Only one or two cases reported that they had some difficulties with their co-operating teachers at the beginning of the training course, but all of them were able to overcome their difficulties.

The majority of student teachers said that they learned directly from their teachers what they believed to be essential for a new teacher. The examples they gave included: lesson planning, preparing teaching materials, teaching methods, classroom management, and sequencing and timing teaching activities.

Most of their reports on this issue came in the context of the comparison between what they thought they learnt in the university and the schools. They thought that most of these essential teaching skills could only be, or at least best be learnt in the hands of the experienced teachers.

A few students reported that there was too little scope to try their own methods:

"It was not difficult to do something similar to what my co-operating teacher did, but step by step, actually I implemented my own lesson plan".

About half of the student teachers reported that they were given the opportunity and tried some of the methods that they had learned in their teaching courses. However, the majority said that they did not succeed and found that the best or the easiest way to follow their co-operating teachers' methods.

"… Later, when I tried myself to use some of these methods, they did not work …the pupils looked unhappy and distracted … and I returned to do what my teacher was doing".

The reasons for the failure in her opinion included: the pupils were used the teaching methods of their teacher, and therefore they did not like and interact with the new ones. There was gap between the methods in theory and the application in reality, there was no help from the teachers because they were used to their own methods and possibly not interested in different methods and/or knew little about them. However, the majority of these student teachers who reported that they had the opportunity to try their own methods, reported also that they did only one or few trials. The student teachers may not have been patient enough to give adequate time for experimentation before they judged the outcomes of their trials. Only one student teacher had experienced some partial success in this, while the rest gave up and used their co-operating teachers' methods.

The majority of the student teachers were satisfied with what they learned in the school and considered their co-operating teachers as good models to follow.

One case of student teachers reported that his co-operating teacher had low motivation towards teaching and using rigid teaching styles. Some student teachers said that they felt that their teachers relied too much on them (the co-operating teacher gave up almost all responsibilities to the student teacher) under the umbrella of "be independent and discover it yourself". That student also reported that they received useful feedback from their co-operating teachers except one case.

There was a generally positive attitude on the part of the student teachers towards their co-operating teachers. The majority of them said that they had developed good relationships with their teachers

and learned directly from their teachers the essential skills of teaching, as well as lesson planning, teaching methods and techniques for classroom control. There was a minority of student teachers in the public schools who complained that the teachers relied too much on them, giving them almost all the responsibilities of their training. In the private schools, student teachers complained of a lack of opportunities to try out their own methods, because the parents (who are seen as customers due to the fees they pay) might object.

Co-operating teachers

All the co-operating teachers (7 teachers) reported to the (PEP) that they followed the sequences of the training stages that was suggested by the university. The sequence consisted of five stages:

General school observation: one week;

General classroom observations: one week;

Specific classroom observations: two weeks;

Partial practice teaching: four weeks;

Full practice teaching: eight weeks.

However, the overwhelming majority of the teachers did not adhere to the suggested duration of the first four stages to about four weeks in average, the time saved was added to the full practice teaching stage.

The teachers mentioned two related reasons for this reduction: they said that:

1.   Students would continue to observe throughout the training period; it is logical that the student starts his/her training as an observer, but not for such a long time especially when you realise that during the partial practice teaching, the student teachers actually spend the majority of the day observing his/her teacher and will continue to do so after that although to a lesser extent.

2.   A second reason mentioned by some teachers in their reports to the (PEP) was the pressures on them from their student teachers to start the teaching very early.

Generally, the teachers presented themselves as models for their student teachers to follow. This might be due to two reasons:

1.   They don't have any clear policy in training from the university, in addition to the lack of communication with supervisors, which led to the situation that only the experience in school afforded the student teachers apportunity to learn;

2.   The university gave them no clues as to what they expect them to do for student teachers, except to allow the student teachers to observe in the classroom for a few weeks and then to move gradually to practise some teaching.

It is possible that this silence from the university gave them the impression that all the university wanted was for them to transfer their experience and/or skills to the student teachers. Although, the co-operating teachers perceived themselves mainly as models for student teachers to follow, they also wanted to know what the university expected them to do for the student teachers. At the same time, they wanted to work jointly with the supervisors on training but they did not see how this could be achieved. This whole problem was a consequence of the lack of communication between the university and the schools and of the absence of clear plans for the training process and its objectives.

1.6.4   School practice in general

Finally, school practice situations in Jordan should be better in the future, because more perspectives are collected. In addition to the experience that is gained with time in all aspects of the teacher training process. The important issue in the context is to fill the gap between the participants and to find a way for real co-operation and support the training course of pre-service teacher education by more co-operation between the University of Jordan and United European Countries through the Jordan-Europe Project which took place in 1996-2000.

The main goal of this project was improving teacher education at Jordanian Universities jointly funded by the European Union and Government of Jordan.

One of the outcomes of this project was a handbook of practice-oriented teacher education: "Enjoying Teaching" (Handbook of practice–oriented teacher education). The authors who contributed to this book come from different countries: England, Germany, and Jordan, each of them with practical experience of their own in schools in their own countries and/or experiences in comparative studies in other places. Furthermore, all of them are or have been involved in teacher training.

The Ministry of Education in Amman, which set down goals for school reform in the (ERP), gave direction in selecting contributions for the book. Among these goals were:

Teaching children to be flexible and critical thinkers;

Discovery learning;

Group work and communication skills;

Activity-oriented and pupil-oriented teaching methods;

The ability to make decisions through self organization of learning processes.

Goals which are all very important in teacher education and teacher training programmes all round the world.

As a part of the Jordan-Europian Project, the Mathematics workshop was one of many workshopes held at the universities of Jordan. The ajenda of Math-workshop had contained some areas of knowledge that represented a needs for the supervisors in both the universities and the MOE. The main areas of the content of the Math-workshope were:Operative Method, Problem Solving, learning Skills, Lesson Structure, and How to Teach Mathematics?. Of course, the europian experts focused on the programmes of pre-service teacher training around the world as well as they tried to help the Jordanian group in developing the process of training. One of the euoropian experts recommendations to the Jordanian side was to organize a conference between all the people who interested in the process of pre-service teacher training at the universities that had Faculties of Education, in addition the educators of the MOE should invite to this conference.

At the same time, we have to determine the people who are involved in the process of pre-service teacher training. We believe that the starting point should come from the university to the MOE, by creating a negotiation between the staff, the supervisors in both the university and the MOE, the co-operating teachers, and the head-teachers, altogether, could change the situation to a new one, which gives the people who are involved directly in training a more settled and clear image, a clear policy, and a clear national plan for preparing teachers during their practice teaching at Jordanian schools.

1.7   Research Questions and the Purposes of the Study

Regarding the pre-service mathematics teachers education as we do it at the University of Jordan /Amman, we gain from this chapter the following questions:

(1)   How does performance develop with respect to time?

(2)   What *difficulties* (obstacles) do S.T. face the performing during the training course ?

(3) What are the *facilities* that help in developing student teacher performance during the training course ?

(4) What are the *factors* related to performance? are they personal, social, methodological, or related to mastering the curriculum?

(5) What is the relation between student teacher's performance and supervision?

With this study we want to find answers to these questions, for the concept of performance we use the following operational definitions

"Student teacher's performance is the field of action of what student teachers should know and be able to do, in addition to the opportunities of training that they have received during their life", which means:

1.   Student teachers are committed to pupils and their learning,

2.   Student teachers know the subject they teach and how to teach those subjects to diverse learners,

3.   Student teachers are responsible for managing and monitoring pupils' learning,

4.   Student teachers think systematically about their practice and learn from the experience,

5. Student teachers are members of learning communties.

Thus, we may state the following supposition:

The student teacher understands and uses a variety of instructional strategies which enable himself/herself to improve and develop his/her performance during the training course.

Therefore, with this supposition we could determine the responsibilities of the student teachers in the following way:

1.   He or she carefully evaluates how to achieve learning goals, choosing alternative teaching strtegies and materials to achieve different instructional purposes and to meet pupils' needs, [for example,development stages, prior knowledge, learning styles, and interests].

2.   He or she uses multiple teaching/learning strategies to engage pupils in active learning.

3.   He or she plays some different roles in the instructional process, [for example,instructor, facilitator, audience].

4.   He or she develops his/her ability by using alternative explanation to help pupils' understanding and to encourage critical thinking.

5.   He or she manages his/her classroom in order to achieve the goals of lesson, and to foster pupils' learning by their own activities.

Questions arise about what teachers should be expected to know and be able to do at various phases in this process and kinds of preparation would be needed to enable student teachers to improve their performances.

So, the primary question is: How do we distinguish between beginning and advanced levels of performance?

We conclude that the appropriate distinctions between phases are in the degree of sophistication teachers exhibit in the application of knowledge rather than in the kind of knowledge needed. Student teachers will have developed their abilities to deal simultaneously with more of the complex facets of the teaching context, with greater flexibility and adaptability, and a more highly developed capacity to integrate their understanding and performances on behalf of pupils' individual needs.

Expectation at the end of the training: The trainees will eventually have an awareness of the kinds of knowledge and understandings needed, as well as resources available to develop skills in many facets of curriculum, classroom, and pupil life.

As one can see, these norms aim to develop student teachers to the development of the profession during the time of training course.

It is natural to have problems among the period of development during the training course as a trainee, while some facilities should decrease the influence of those problems.

The researcher is aware of some factors related to the development of student teacher's performance, but not all are easily seen. Consequently, the study's questions are a natural result to fill the gap surrounding the training processes.

Finally, as one can see, there is a shaped area between development of student teachers and their performance during the practice teaching in training cours, which means that the performance of student teachers is influenced by some factors as they are faced with some problems through their practice teaching. Some facilities should help the student teachers in their performing in the Mathematics classroom.

This study aims to try to explore those factors that affect and /or relate to the student teachers' performance. This study also tries to discover the obstacles (problems) and facilities that help the student teachers' performance.

All this indicates that the changes related with factors, problems, and facilities which are existing and working in parallel to the performance and development of student teachers. While "teaching is a very complicated field of social relations, a great variety of factors affect it". (Horst Hörner 2000).

This study tries to highlight those factors and explores a group of problems and facilities which affect student teachers' performance during their practice teaching.