

A Longitudinal Study of the Concerns
of Students Becoming Science Teachers
in the Yemen Arab Republic

Volume I

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- C.P.O Central Planning Organization
- P.C.I. Pupil Control Ideology
- P.G.C.E. Post-Graduate Certificate in Education
- M.S.O.E. Manchester Scales of Opinions about Education
- M.T.A.I. Minnesota Teacher Attitude Inventory.
- Y.A.R. Yemen Arab Republic.
- N.B. The quotation from the research subjects' responses in
this thesis and the Arabic references were translated
by the author.

ABSTRACT

The process of becoming a teacher is an area of a great deal of research. Different researchers have focused on different parts of the process.

This study examines the concerns and their development for a group of Yemeni student-teachers as they become science teachers.

After discussing the context of teacher training in the Yemen Arab Republic, the different arguments put forward by researchers who investigated the process of becoming a teacher, were examined.

The field work was conducted in the Yemen between March 1983 and January 1985. Two different interview schedules with open-ended questions were used: one was general and the focus of the another was teaching-a-lesson. The former was conducted at three different occasions: during the second term of the third year i.e before teaching practice, during the second term of the fourth year i.e after teaching practice, and during the first few months of the first year of teaching. The latter was conducted during teaching practice and during the first few months of the first year of teaching. Both interviews were conducted for thirty-one Yemeni student-teachers at Sana'a University as they become science teachers. A further interview was conducted for the

Faculty of Education staff to know their reactions to their students' views of their training.

The concerns' development of the group and some individuals was followed, and the relationship of the findings of this research to the different theoretical arguments was considered.

The research shows the stability and change of student teachers' concerns as they become science teachers in the Yemen. In examining this phenomenon the research points out the importance of: the kind of concern investigated, when they are investigated, and the situational and the personal factors which all have bearing on the process of concerns' development during the process of becoming a teacher.

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Introduction

This thesis is about the concerns of people while they are in the process of becoming secondary school teachers of science in the Yemen Arab Republic. The thesis will include ten chapters.

Chapter I gives an introduction to Teacher Education in the Republic. It discusses briefly Teacher Training Institutes in which primary teachers are trained; then, proceeds to explain secondary school Teacher Training which is mainly carried out in the University Faculty of Education, and finally discusses very briefly the situation of Science Education in Yemen. This chapter is meant to give the background knowledge about the context with which the thesis is concerned. Chapter II reviews the relevant literature from research reported mainly in papers in educational journals. The chapter deals mainly with the impact of Teacher Education, the impact of beginning teaching, and a third section on the conceptualization of the process of becoming a teacher. I have included reports on the purpose, the method, and the general conclusions of each study. After each of the three sections of the chapter there is a general discussion with regard to the stability or change of student teachers' attitudes, concerns perspectives, ideologies, etc, and the possible sources of influence which seem to lead to change. Chapter III outlines the research design and the techniques used for the

purpose of collecting data. In this short chapter, the research questions, the negotiation, the interview schedule and the field work arrangement, are all explained. In Chapter IV the analysis of the first phase data is reported. This phase represents the analysis of student teachers' responses to the general questions about their concerns in their third year of university training, with an introduction to the way the data was analysed. Chapter V constitutes the analysis of the second phase, i.e. that of student teachers' responses to the research questions related to the specific context of teaching a lesson during their teaching practice - where they were asked about it - planning and preparation, teaching, and evaluation, and about possible socializing agents. Using the framework provided by the analysis of the first phase student teachers' responses reported in Chapter IV, the third phase of the research is reported in Chapter VI, analysing student teachers' responses to the general questions asked after they came back from the teaching practice to the university in the fourth year of their training. Whereas phases one, two and three were carried out during student teachers' training at the university, the last phase, reported in Chapter VII involved gathering data at the beginning of their first year of teaching. Chapter VII reports the analysis of both teachers' responses to the general questions as a fourth phase of the research process and the final stage with regard to the general research questions; and for the second time, the teachers' responses in the

context of teaching a lesson. In reporting the data throughout the different chapters, an attempt is made to answer the research questions at each stage of the process of becoming teachers, namely identifying and describing the concerns of student teachers, coping strategies, the stability or change in the process of becoming a teacher, and the possible sources of influence which seem to affect that process. The relationship between student teachers' concerns and university training at the different stages of the process is considered in Chapter VIII. Selected student teachers are dealt with individually in chapter IX, in an attempt to establish a deeper understanding of the process of becoming a teacher for each of these selected individuals. Finally, Chapter X discusses the general conclusions on the basis of the evidence obtained and analyzed from the Yemeni context and its relationship to the international literature findings in relation to the phenomena under investigation. Furthermore, general recommendations for the improvement of both the quality and quantity of Teacher Education in the Yemen are outlined.

Chapter One

**Teacher Education
in
The Yemen Arab Republic**

1.1 The Yemen Arab Republic.

The Y.A.R. is situated in South West Asia and lies at the South-West corner of the Arabian peninsula. It is bounded in the North by Saudi Arabia, in the South and South-East by the People's Democratic Republic of Yemen, in the West by the Red Sea, and in the East by the Empty Quarter. The area of the Y.A.R. is approximately 2000 km², with a population, according to the 1986 census, of 9,274,173, all of whom are Muslims with the Arabic language as their mother tongue.

The Y.A.R. has some of the most fertile land in the Arabian peninsula. That is why it has been called Arabia felix. Yemenis work mainly in agriculture where different crops such as sorghum, millet, wheat, barley, maize, tobacco, cotton, and fruits such as citrus fruits, apricots, peaches, grapes, tomatoes, potatoes, etc., are produced; but mainly for domestic consumption. However, the economy of the country is affected by its being a pool of labour, mainly for Saudi Arabia and other neighbouring countries. The workers' remittances play an important role in the Yemeni economy.

Some mineral resources have been explored but not enlisted apart from salt which is the only commercially

exploitable mineral. It is calculated that industry accounts for only 6% of GDP and employs less than 4% of the labour force. There are some industries such as cement, soft drinks, cigarettes, aluminium, plastic and a few others, emerging slowly. However, Yemen has a per capita income that is among the lowest in the world.

Until 1962 the government of Yemen was a monarchy. On September 26th, 1962 a revolution took place, deposed the Imam and Yemen was declared a Republic.

1.2 Pupils and Teachers

Education was a priority concern of the government since the revolution in 1962. Schools and pupils have increased quite rapidly at the different levels: Primary, preparatory, and secondary.

Schools & Pupils	Primary		Preparatory		Secondary	
	Schools	Pupils	Schools	Pupils	Schools	Pupils
1962/63	919	61335	3	730	0	0
1971/72	1155	118868	47	5768	6	1397
1983/84	4645	675402	476	56031	135	15788

Table (1). Cf. Ministry of Education (1984).

Educational Statistics 1983/84, pp.7-10.

The above table shows quite clearly the rapid increase of schools and pupils between 1962 and 1984.

The university of Sana'a was also established in 1970/71

with a 64 student intake and by 1983/84 there were 8490 students in seven different faculties (Baabbad, 1984 p.267).

Until now the Y.A.R. remains heavily dependent on non-Yemeni teachers. Thus, the Government's major concern has been trying to achieve self-sufficiency in this respect.

1.3 Primary School Teacher Education

Prior to 1973 teacher education was aimed only at training primary school teachers. A teacher training house was brought into being in Sana'a as early as 1895 during the Turkish rule in Yemen (Baaddad 1984, p.21). This was abolished as soon as the Turks left Yemen in 1918. New training houses were later set up in Sana'a, Taiz and Hodiedah respectively (Baabbad, 1984 p.40).

After the revolution in 1962, primary teacher training institutes were established and attached in the beginning to the then secondary schools in Sana'a, Taiz and Hodiedah and Ibb, in 1963, 1965 and 1966 respectively. This system of teacher education was a three-year course of training after the successful completion of primary school. In 1968 another type of teacher training institute was opened in Sana'a which was a three-year course of training after the successful completion of preparatory school (Baabbad 1984 pp.177-8). Pupils were being attracted by offering them a

monthly grant and meals (Baabbad, 1984, pp.178). For educational reasons the formal system was abolished in 1969 (Baabbad p.178), and due to the declining number of pupil teachers it was brought back in 1973 (Baabbad, p.178a). A third system was introduced in 1976, which takes twenty-four months of training, with different courses for interested primary and preparatory school leavers, instead of both previous systems, but by the end of 1977 the time had come for its removal (Baabbad, 1984, p.180). In 1978 a new regulation came into effect offering three different courses of teacher training for the interested secondary school leavers was added (Baabbad, 1984, p.180). However, in 1980 the Ministry of Education did away with the first system of training. Instead, a five-year training system after primary school was offered in addition to the previously existing three-year training system after preparatory school (Baabbad, 1984, p.180). Different incentives were offered to attract pupils to join the institutes, among these a monthly grant and free food and accommodation (Qasim, and undated, p.12).

It is stated in the Educational policy of the Yemen Arab Republic that these teacher training institutes were to take primary and preparatory pupils only temporarily to meet the growing demand for primary teachers. However, most of the Yemeni teachers (75% in 1974), are not professionally trained (Mohammed and Abul-Khier 1984, p.119; Hanna, 1980, p.2). As a result, the Ministry has given its attention to

in-service primary teacher training particularly for those who are not professionally trained. Such training started to be held during the summer in 1972 (Baabbad, 1984, p.12). In 1976 an in-service Training Centre was established. Due to its failure in achieving its aims (Mohammed and Abul-Khier 1984, p.26) it was developed into an in-service teacher training Project (El-Sayeh, undated, p.9; Baabbad, 1984, p.12; Mohammad and Abul-Khier, 1984, p.26).

Despite this continuous effort, there is still a continuing shortage of primary school teachers. By 1981 only 15.3% of the total primary teachers were Yemenis. The following table shows the Yemeni and non-Yemeni teachers in primary schools between 1970/71 and 1983/84.

Teachers	Non-Yemeni	Yemeni	Teachers	Non-Yemeni	Yemeni
Academic	Teachers	Teachers	Academic	Teachers	Teachers
Year			Year		
70/71	54	1726	77/78	1011	5957
71/72	47	3099	78/79	2085	3785
72/73	200	4053	79/80	4111	2656
73/74	274	4651	80/81	7330	2496
74/75	221	5552	81/82	10187	1513
75/76	314	6209	82/83	11149	2016
76/77	333	6651	83/84	11264	2041

Table (2). Cf. Ministry of Education (1984). Educational Statistics 1983/84, p.42.

Moreover, most of those who have been trained in the institutes or in in-service training courses are not actually teaching. They have either left the job or been

assigned an administrative post.

1.4 Secondary School Teacher Education

Preparatory and secondary schools in their present form started only after 1962. Eighty four pupils only sat the national exam for preparatory school for the first time in 1963. The decree of secondary schooling was issued in 1964 followed by a more elaborate decree for general education in 1974; and again for the first time ninety-two pupils sat the national exam for secondary school in 1966 (Sharjabi, 1982, p.141). In 1962 there were no Yemeni university graduates in the teaching profession, and teaching in preparatory and secondary schools was the responsibility of expatriate Arab teachers (Baabbad, 1984, p.48).

It was stated in the strategy of the three-year Development programme (1973/74-75/76) that preparatory and secondary schools were totally dependent on teachers from the Arab countries (Central Planning Organization, p.114 1975). Consequently, the Education Development project established a Faculty of Education to train preparatory and secondary teachers, and it was envisaged that by 1981/82, all preparatory and secondary school teachers would be Yemenis (C.P.O., 1975 p118, Sharjabi,1982, p189). But in 1982/83 only 9% of preparatory and secondary school teachers were Yemenis (Baabbad, 1984, p.118). This is quite unfortunate given the clear policy of the Ministry of

Education that aims at encouraging pupils to join the Faculty of Education specially the scientific sections which are joined by markedly small number of pupils (Ministry of Education, 1976, p.6). In contrast to such a sharp shortage of Yemeni teachers, there is quite a rapid increase in both pupils and teachers. The following table shows the big increase in both preparatory and secondary schools' pupils, and teachers (Baabbad, 1984, p.78)

Academic Year	Pupils		Teachers	
	Preparatory	Secondary	Preparatory	Secondary
62/63	730	0	45	0
63/64	1032	84	67	5
64/65	1462	226	63	43
65/66	1426	433	76	25
66/67	1672	656	73	39
67/68	2007	711	57	42
68/69	2073	803	72	47
69/70	3118	939	212	114
70/71	3851	1270	141	73
71/72	5768	1397	337	127
72/73	7306	2267	350	157
73/74	9362	3098	479	281
74/75	12163	4350	543	265
75/76	15919	6050	710	332
76/77	17676	7197	713	341
77/78	21263	7973	685	476
78/79	18852	7165	794	529
79/80	20764	8219	1061	615
80/81	25037	9895	1407	616
81/82	32528	11831	1639	807
82/83	43302	11984	2381	1051
83/84	56031	15788	2614	1065

Table (3). Ministry of Education 1984. Educational Statistics 1983/84, pp.9-10.

The following table gives a better picture of the supply of Yemeni teachers for preparatory and secondary schools between 1976/77, when the Ministry received the first group of student graduates from the Faculty of Education, and 1983/84.

Academic Year	Yemeni Teachers	Non-Yemeni Teachers	Total
76/77	-	1054	1054
77/78	93	1068	1161
78/79	86	1237	1323
79/80	147	1529	1676
80/81	135	1888	2023
81/82	111	2335	2446
82/83	220	3312	3432
83/84	293	3386	3680

Table (4) (Cf. Ministry of Education. 1984, Educational Statistics 1983/84, p.12).

According to the second five year plan it is envisaged that in 1986, 4675 teachers will be needed for preparatory and secondary schools (Qasim, undated, p.3). In fact, it is expected that the actual figure will be higher than that estimated. For instance, it had been expected that in 1982, 2349 teachers would be needed (Qasim, undated, p.3). The actual number of teachers needed and employed turned out to be 3432. The problem can even be more serious if any attempt is made to cut down the number of pupils per class which, at present, can be as many as eighty particularly in cities (Sharjabi, 1982, p.143).

1.5 Faculty of Education

In 1962 most preparatory and secondary school teachers were expatriates. Hence, establishing a Faculty of Education, for preparing Yemeni teachers for preparatory and secondary school, was considered by the Ministry of Education. With the help of UNESCO the Ministry of Education began to establish the Faculty of Education in 1967/68; but due to the inefficiency of the Ministry of Education the project did not come to fruition (Sharjabi, 1982, p.185-6). Again there was an agreement between the Ministry and Ain Shams University in Egypt to take the responsibility of establishing and staffing the faculty but in 1972/73 it was cancelled by the Ministry (Sharjabi, 1982, p.86-7).

In a symposium for the educational planning held at Sana'a on December the 14th, 1970, the shortage of Yemeni teachers was among the issues discussed. An educationalist described it as a 'worrying situation'. He went on to focus on the shortage of preparatory and secondary school Yemeni teachers:

"We now depend on 250 teachers and in 1974/75 we shall need 500 teachers" (Zandani, 1970, p.6)

In 1972/73 the number of teachers was more than what had been expected for 1974/75. The number of preparatory and secondary pupils was 9667 and there were 574 teachers, (C.P.O, 1975,p.114). The three-year

development programme echoed the problem of total dependence in preparatory and secondary schools on expatriate teachers (C.P.O, 1975, p.114). However, the Ministry decided to establish the Faculty of Education in its three-year development programme of 1973/74 - 75/76. The responsibility rested upon the Education Development Project, and it was aimed to staff all preparatory and secondary schools with Yemeni teachers by 1982, (C.P.O, 1975, p.118). As we have discussed earlier, Yemen was far from achieving that aim by 1984/85.

Though the faculty officially opened in 1970/71, the first students began enrolling in 1973/74. Students were given different incentives during their training to encourage them to join, such as free food and accommodation, monthly grants and temporary exemption from Military Service (Ba-abbad, 1984, p.257). The faculty intakes fluctuated from one year to another. The following table shows the first year intake of the faculty.

Year	73/74	74/75	75/76	76/77	77/78	78/79	79/80
Students	227	241	308	316	226	212	235
Year	81/82	82/83	83/84	84/85			
Students	191	299	412	375			

Table (5) (Cf. Sana'a University, 1980, p.122; Sana'a University, 1983).

Due to drop out during the faculty training the number of faculty graduates has not grown as hoped as the following table shows:

Year	76/77	77/78	78/79	79/80	80/81	81/82
Students	154	141	120	97	95	90
Year	82/83	83/84	84/85			
Students	123	180	99			

Table (6). (Cf. Sana'a University, 1985).

Sarjabi (1982, p.9) reported that out of the 526 graduate teachers between 1977 and 1980 only 87 were actually teaching. The dropout between 1970-80 was between 80.5-89.2%. Moreover, out of 123 graduates who actually registered themselves at the Ministry of Education in 1977, 46% were assigned into administrative jobs (Sharjabi 1982, pp.198-9).

If we look at the science student-teachers we shall find that the situation is even worse. The following table shows the first year science student teachers at the Faculty of Education: (Science here refers to physics, chemistry, biology and maths).

Year	73/74	74/75	75/76	76/77	77/78	78/79	79/80
Students	31	17	19	68	40	64	21
Year	80/81	81/82	82/83	83/84	84/85		
Students	49	42	64	113	108		

Table (7). (Sana'a University, 1985).

and the graduates were:

Year	76/77	77/78	78/79	79/80	80/81
Students	20	22	24	27	39
Year	81/82	82/83	83/84	84/85	
Students	26	27	45	35	

Table (8). (Sana'a University, 1985).

and the graduates of physics/chemistry and biology were:

Year	76/77	77/78	78/79	79/80	80/81
Phys/Chem	20	2	10	5	5
Biology	0	10	0	10	21
Year	81/82	82/83	83/84	84/85	
Phys/Chem	6	7	10	3	
Biology	10	14	27	20	

Table (9). (Sana'a University, 1985).

(N.B. in 1973/74 only physics and chemistry were available as specializations. Another Faculty of Education was established at Taiz in 1985/86 with an intake of about 574 students, 183 in Science (Mahuob, 1986).)

1.6 The Faculty System

For the purpose of the research I shall be dealing with science student teachers excluding mathematics student-teachers. Since the faculty was established, student-teachers have spent the first and second years at the Faculty of Science studying science subjects. Their time in the third and the fourth year is divided roughly equally between their specialization subjects and educational subjects (Sharajabi, 1982, p.219). Prior to 1978/79 student-teachers were assessed at the end of each academic year. In 1978/79 the academic year was divided

into two terms with students being assessed at the end of each term. At the end of the fourth year graduates are granted BSc&Ed (Sana'a University, 1980, p.120). In 1981/82 the Faculty started adopting the credit system (Baabbad, 1984, p.255). Subjects taught and the amount of each subject varied since the faculty establishment. Both the old and present approaches are explained below:

1.6.1 The Old Approach

In this approach students spend two years at the Faculty of Science studying their own specialization with science students. In the third and the fourth year they spend half of their time at the Faculty of Science and half of their time at the Faculty of Education studying educational subjects (Sana'a University, 1981, p.41-8).

This approach will cease to exist by 1986/87 due to the adoption of a new approach in 1983/84 with the first-year students. The specialization subjects are decided by the Faculty of Science and the educational subjects, by the Faculty of Education. The subjects taught according to the old approach are (Sana'a University, 1981, pp.41-8).

A. Biology

First Year

TERM I		TERM II	
Courses	Hours	Courses	Hours
Biology (1)	4	Biology (2)	4
Chemistry (1)	4	Chemistry (2)	4
Maths (1)	4	Maths (2)	4
English (1)	<u>4</u>	English (2)	<u>4</u>
	16		16

Second Year

TERM I		TERM II	
Courses	Hours	Courses	Hours
Zoology (1)	7	Zoology (2)	7
Botany (1)	7	Botany (2)	7
English (1)	<u>2</u>	English (2)	<u>2</u>
	16		16

Third Year (Specialization)

TERM I		TERM II	
Courses	Hours	Courses	Hours
Zoology (1)	4	Zoology (2)	4
Botany (1)	<u>4</u>	Botany (2)	<u>4</u>
	8		8

Third Year (Professional)

TERM I		TERM II	
Courses	Hours	Courses	Hours
Comparative Education	3	History of Education	2
Psychological Testing and Measurements	4	Psychology: development	3
Methods of Teaching	2	Psychology: learning	4
Curricula	4	Methods of teaching	3
Teaching Aids	<u>1</u>	School Health	<u>3</u>
	14		15

Fourth Year

TERM I		TERM II	
-----		-----	
Courses	Hours	Courses	Hours
-----		-----	
Zoology (1)	3	Zoology (2)	4
Botany (1)	3	Botany (2)	<u>4</u>
Geology (1)	<u>2</u>		
	8		8
-----		-----	

Fourth Year(Professional)

TERM I		TERM II	
-----		-----	
Courses	Hours	Courses	Hours
-----		-----	
Teaching Practice	12	Educational Administration	2
		Philosophy of Education	3
		Personality &	
		Mental Health	4
		Curricula	<u>3</u>
			12
-----		-----	

Physics and Chemistry

First Year

TERM I			TERM II		
-----			-----		
Courses	Hours		Courses	Hours	
-----			-----		
Physics	(1)	4	Physics	(2)	4
Chemistry	(1)	4	Chemistry	(2)	4
Maths	(1)	4	Maths	(2)	4
English	(1)	<u>4</u>	English	(2)	<u>4</u>
		16			16
-----			-----		

Second Year

TERM I			TERM II		
-----			-----		
Courses	Hours		Courses	Hours	
-----			-----		
Physics	(1)	7	Physics	(2)	7
Chemistry	(1)	7	Chemistry	(2)	7
English	(1)	<u>2</u>	English	(2)	<u>2</u>
		16			16
-----			-----		

Third Year

TERM I		TERM II	
Courses Hours		Courses Hours	
Chemistry (1)	4	Chemistry (2)	4
Physics (1)	<u>4</u>	English (2)	<u>4</u>
	8		8

Third Year (Professional): it is the same as the biology student teachers.

Fourth Year (Specialization)

TERM I		TERM II	
Courses Hours		Courses Hours	
Chemistry (1)	4	Chemistry (2)	4
Physics (1)	<u>4</u>	English (2)	<u>4</u>
	8		8

1.6.2 The Present Approach.

This approach started in 1983/84 where courses are not left for the different faculties to decide. They are decided upon after mutual discussion between the different faculties and the Faculty of Education. Before this, student-teachers used to take more courses than they could cope with, as the Dean of the Faculty declared in an interview. In the new system, student-teachers start studying educational subjects, from the first year. According to the new system the graduate will be granted BSc and Ed in the following specializations (Sana'a University, 1985, p.8)

	<u>Major</u>	<u>Minor</u>
either	Physics	Maths
or	Maths	Physics
or	Chemistry	Physics
or	Physics	Chemistry
or	Biology	Chemistry & Geology

Each year is divided into three terms; two during the academic year and a third short summer term. (Sana'a University, 1985, p.8). Prior to 1983/84 lecturers could teach whatever they wanted and that has led to the continuous change of the content of subjects, particularly since lecturers come under contracts for only a few years. The Faculty of Education found that the Yemeni

student-teachers were studying more than student teachers in neighbouring countries. As a result, the Faculty has produced for the first time a prospectus spelling out all subjects and their broad aims and objectives.

According to the new system, there are three requirements: the university, the specialization and the Faculty of Education requirements (Sana'a University, 1985, p.9). University requirement includes: Islamic Culture (3 credits), Arabic language 1&2 (6 credits), and English 1&2 (6 credits).

Faculty of Education requirements are categorized into compulsory and optional. The compulsory includes: an introduction to educational psychology (3 credits), Islamic Education (3 credits), Teaching Aids (1) (2 credits), Educational system in Yemen (2 credits), Curricula and teaching method (3 credits), Teaching practice (3 credits), Educational theories and Mental abilities (3 credits), Comparative Education (2 credits), Methods of Teaching (2 Credits), Curriculum Analysis (2 credits), Personality and Mental Health (2 credits), Teaching Aids (2) (2 credits), Education Research (2 credits), and Teaching Practice (3 credits). That is, all these compulsory subjects amount to 33 credits. The optional requirement of the Faculty of Education includes selecting what amounts to 4 credits out of nine general subjects (Sana'a University, 1985, p.9).

They are taught in four different levels instead of years (Sana'a University, 1985, p.86-7).

The First level:

The first semester: An Introduction to educational psychology.

The second semester: Islamic Education.

The Second level:

The first semester: Teaching Aids (1), and curricula and methods of teaching

The second semester: The Educational system in Yemen, and Teaching practice (1).

The Third level:

The first semester: Educational theories and Mental Abilities, and comparative Education.

The second semester: Methods of Teaching, and Curriculum analysis.

The Fourth level:

The first semester: Teaching practice (2) and Teaching Aids (2)

The second semester: Educational research, and Personality and Mental Health.

From 1973/74 until 1975/76 administratively the education staff were attached to the Faculty of Arts, but

from 1976/77 they had their own administration.

They were:

Year	1976/77	1977/78	1978/79	1979/80	1984/85
Staff	3	5	4	3	7

Table (10). Cf. Sana'a University, 1985, p.146; Sana'a University, 1980.

These lecturers are teaching the educational subjects, whereas those from different faculties teach the specialization subjects. The educational subjects are broadly catered for by two departments, the curricula and methods of Teaching Department and the Department of Psychology and Education. In 1984/85 there were four lecturers in the former and three lecturers in the latter, two of whom are Yemenis (Sana'a University, 1985, p.5). It is the policy of the faculty to staff itself with Yemeni lecturers. At present, there are twenty five postgraduate students being trained with a view to achieving that aim (Sana'a University, 1985, p.5).

The number of student-teachers since its establishment is:

Year	73/74	74/75	75/76	76/77	77/78	78/79
Students	227	416	680	906	830	707
Year	79/80	80/81	81/82	82/83	83/84	
Students	667	948	714	807	1111	

Table (11). (Cf. Sana'a University, 1985, p.267).

A student can enrol at the beginning of each term, and should fulfill some conditions (Sana'a University, 1985, p.6 & pp.191-2): he/she should hold the secondary school certificate or the diploma of primary school teacher training institutes, pass the faculty interview, should be medically fit, a full-time student, and sign a contract with the Ministry of Education to teach for five years after graduation. In return he is entitled to get free food, accommodation and a monthly grant and to get exempted from Military Service. A recent condition was added that he/she should score a minimum of 57% from the total marks in his/her secondary school examination (Sana'a University, 1985, p.6).

1.7 The Faculty Building

Despite the fact that it was the first faculty to be established and the main building of the university was meant to be the faculty building, until now the faculty has no proper building. Only in 1981 did the faculty move to a building, which now cannot accommodate the students. The Dean said that before 1981 they did not find even a place to hold staff discussions. Until now student-teachers are taught their specialization subjects at other faculties and the educational subjects at the Faculty of Education which is about one mile away.

1.8 Science Education in Yemen.

In discussing science education I shall discuss the Yemeni science teachers, science textbooks, science laboratories, and the amount of time devoted for science teaching.

1.8.1 Science Teachers.

In preparatory and secondary schools, science teachers, as is the case with other subjects, are mainly expatriates. Though it was stated in the Educational policy that students should be encouraged to enrol at the Faculty of Education especially in the scientific sections (the educational policy, Ministry of Education, 1975, p.6), in reality that has not been achieved. The following table shows the graduates of science from the Faculty of Education (Sana'a University, 1980, pp.140-2) excluding mathematics graduates:

Year	76/77	77/78	78/79	79/80	80/81
Faculty graduates	154	141	120	97	95
Science graduates	20	12	10	15	26
Year	81/82	82/83	83/84	84/85	
Faculty graduates	90	123	180	99	
Science graduates	16	21	37	23	

Table (12) Cf. Sana'a University, 1985, Technical Directorate.

Moreover, few as they are, not all those science graduates are teaching. Some of them are appointed to administrative posts, a fact that is pointed out by the

Inspectorate Annual Report in 1980 (Ministry of Education, 1980, p.9).

1.8.2 Science Textbooks.

For every grade, there are specific textbooks which are considered the reference for both the teachers and pupils (Al-Hidabi, 1982, p.20). Science teachers are asked not to go beyond what is in the textbooks (Ministry of Education, 1984). Since 1962, Egyptian science textbooks have been in use and the ministry has recognised the need for Yemenizing the curricula. Primary and preparatory science textbooks were Yemenized (Al-Hidabi, 1982, p.21). Foreign experts were brought in to develop the science curricula and as a result a committee was appointed to prepare science textbooks for secondary schools instead of the existing Egyptian texts. (Babiker, 1981, pp.16-21; Fahmi, 1981; Ministry of Education, 1981, pp.96-98).

Consequently, a committee from the Ministry of Education and the Faculty of Science at Sana'a University was set up.

So far, the biology and chemistry textbooks for the first and second years of secondary schools have been prepared, with the rest yet to be completed.

1.8.3 Science Laboratories.

Science by and large, is still taught by chalk and talk and at best some demonstration experiments are used (Al-Hidabi, 1982, PP.22-3). Although some materials and apparatus were brought from abroad or made by the Teaching Aids Centre and distributed to schools on a limited scale (Babiker 1981, p.12; Ghalib 1984, p.7), yet science teaching has not changed significantly. The Annual Reports of the Ministry Inspectorate more or less repeat the same problems.

These problems are: (Al-Hidabi 1982, pp.23-23; Ministry of Education 1980, the Annual Report p.11; Ministry of Education, 1982, pp.40-41; Ministry of Education, 1984, pp.25-28):

- i. Some of the available apparatus and materials are irrelevant to the syllabus and consequently do not serve the curriculum taught.
- ii. Poor distribution of laboratory material and apparatus; some schools have more laboratory equipment than they need at least in comparison with the rest of the schools.
- iii. Suitable laboratories are rare or even non-existent in some schools.
- iv. Apparatus and materials are poorly stocked and looked after.
- v. Lack of necessary facilities such as electricity, gas, water supply and benches.
- vi. Shortage of laboratory assistants.

In general there is a shortage of laboratories, materials and equipment as was reported by the Annual Report of the Ministry of Education Inspectorate of 1984

(Ministry of Education, 1984, p.26)

1.8.4 Science Lessons and Timing

According to the Ministry plan, in preparatory school four lessons are scheduled for science every week. In the first year of the secondary school, six lessons a week and in each of the second and the third year of the secondary school pupils of the science section are offered nine lessons for science each week. Each lesson lasts 45 minutes. It should be noted that after the end of the first year of secondary schools pupils choose either the science or the arts section, and science is taught only in the science section, (Cf. Ministry of Education, 1984, pp.81-28 p.105).

1.9 Research into Teacher Education in the Yemen Arab Republic

Internationally, a great deal of research has been done in the field of teacher education with regard to numerous areas tackled from different angles. In Yemen, most of the studies, if not all, are focused on attempting to discover why pupils are reluctant to join the teaching profession and how to reduce their drop-out rate once they have joined it. This issue has essentially been treated as a quantitative problem which represents the pressing

need for more Yemeni teachers. Generally speaking, the few Yemeni studies in these areas have been trying to address this question in relation to different sub-populations of which student-teachers themselves are one of them.

One of these studies, for instance, was conducted by Sharjabi (1982) and reported in his M.Ed. thesis where he attempted, as it was stated:

"..to reveal some of the factors which hinder students from joining the teaching profession, and the means of overcoming them.."

He envisaged five categories of factors: personal factors, social factors, educational factors, economic factors, and professional factors. He constructed three questionnaires for three samples drawn from the final-year students of secondary school taking into account rural and urban variations, first year students of the Faculty of Education, and some graduates of the Faculty of Education who work in the education field. In his conclusion, he pointed out many different factors which, in one way or another, could be seen to be related to the ineffectiveness of training, the inefficiency and of the Ministry of Education and the poor attention it gives to teachers and the society's underestimation of the teaching profession.

Another study is being conducted by the Educational Research and Development Centre. Its ultimate aim is to

increase the number of Yemeni teachers and to keep them up in the teaching profession. The report of the study has not been published yet. However, seven questionnaires were designed after a pilot study and administered to seven different samples: officials of high administrative posts at different government Ministries except the Ministry of Education, Educational leaders who held educational leadership posts at the Ministry of Education, Regional Educational Departments and school head teachers and assistant headteachers, final year secondary school pupils, final year student-teachers of Teacher Training Institutes, final year student-teachers of the Faculty of Education, final year students of different university faculties, school and Teacher Training Institutes teachers. Again the rural/ urban dimension has been taken into consideration. In the draft of the report, reference is made to factors hindering students from joining the profession of teaching, factors which get students interested in joining the teaching profession, factors keeping teachers in the teaching profession, teachers dropout factors, and factors attracting pupils to the teaching profession. All of these factors were placed under different headings: Financial and economic, administrative, personal, Professional, social, and Psychological factors.

The student-teachers were treated in most of the

studies including both the studies mentioned above as part of the sample. What is needed, as this study is attempting to do, is an in depth study of a group of student-teachers as they go through their training till they take up their jobs. Student-teachers will be more aware than anybody else of what it is like to be a teacher when they move from university to school. In fact, they are the only ones who actually experience the process. As such, this study will be different from previous studies conducted in Yemen, in that it will focus mainly on student-teachers and those student-teachers will be followed up till they take up their jobs. And since the research focuses on student-teachers, the starting point of the research will be what student-teachers are concerned with as they become teachers rather than why pupils are reluctant to join the teaching profession and how to keep them in the profession. Although other people might be able to some extent to imagine being a teacher, their perception will not be as realistic as those who experience it. To address both the quantity and quality issues of Teacher Education, which are difficult to treat separately, the research will not only focus on investigating student-teachers' concerns as they become teachers, but will also attempt to relate such concerns to their training process where possible. Such a study, hopefully, will contribute towards improving education in Yemen in general and teacher education in particular, as

well as helping the policy-makers to make decisions on an informed basis.

Different researchers have investigated this particular issue. An attempt, first, will be made to review the relevant studies which have investigated similar issues in other countries. This could help us in formulating questions, finding out what data-gathering approaches have been productive and what dangers are to be avoided. The next chapter, then, will review some of the relevant studies which have investigated and theorized about the process of becoming a teacher.

Chapter Two

The Literature Review

Chapter Two

The Literature Review

2.1 Introduction

This chapter contains three main sections. As was pointed out earlier, this study will attempt to explore the concerns of science student-teachers in the Yemeni context. For the purpose of reviewing relevant literature, the process of becoming a teacher was broken into two main stages, that of the student-teacher and that of the beginning teacher.

The first section is divided into two sub-sections. The first sub-section deals with studies investigating the impact of teacher training programmes in general on student-teachers' concerns, attitudes, perspectives and problems. The second sub-section deals with studies investigating the effect of teaching practice. The two sub-sections thus deal with the impact of teacher education.

The second section deals with studies reporting the effect of the first year of teaching. The third section of this chapter deals with the issue of conceptualizing the process of becoming a teacher. An attempt is made here to discuss the major arguments in relation to this process.

Different studies have adopted different guiding concepts/constructs. Concerns, problems, attitudes, perspectives, strategies were among the concepts investigated in the reported studies. Through most of these studies, however, one can detect a common interest in student/beginning teachers' cognition with particular reference to their value judgements; that is judgements about what is desirable, true, important, or difficult.

Studies were selected regardless of the kind of research design or data-collection method used, so long as the student-teachers/beginning teachers were the main pivot of the studies and/or the concern was with change or stability in the process of becoming a teacher. However, I cannot claim to have come up with a comprehensive literature review. All I have tried to achieve is to avoid ignoring any major arguments concerning the process of becoming a teacher or what is sometimes called the process of teacher socialization.

At the end of each section, an attempt is made to discuss the findings of the studies without ignoring any relevant major arguments from other sources, particularly research reviews or the arguments of those who are widely cited such as Fuller, Lortie, and Lacey.

Before I move on to reporting selected papers, it might be worthwhile to refer to the arguments of two leading educationists about the process of becoming a teacher.

2.2 Lortie's Argument

Lortie, D.C. (1973), "Observations on Teaching as Work" in R. Travers (ed.) the Second Handbook of Research on Teaching (Chicago: Rand McNally).

Lortie, D.C. (1975), School Teacher: A Sociological Study (Chicago: The University of Chicago Press).

Lortie in his 'Five Towns' Teachers study based on interviews and cited in his book (Lortie, 1975, pp.62-5), suggests that teachers of both sexes and both elementary and secondary school levels connect their current practices with their mentors'. In (Lortie 1973, p.487) he argues that the protracted exposure to potent models leads student-teachers to internalize largely unconsciously modes of behaviour which are triggered in later teaching. He maintains that school teachers have great effect on pupils taking into account that the average student spends 13,000 hours in direct contact with classroom teachers by the time he graduates from the school. Further, he suggests on the basis of his findings, that neither teaching practice nor

formal training prepares teachers for the 'inner world of teaching'. In other words, he suggests that formal training is of relatively low impact and that future teacher behaviour is to a considerable extent rooted in experiences which predate formal training.

2.3 Fuller's conceptualization of Teacher's concern Development

Fuller, F.F. (1969), Concerns of Teachers: A Developmental Conceptualization" American Educational Research Journal, 6 (2), 207-27.

Fuller, F.F. and Bown, O.H. (1975), "Becoming a Teacher" in K. Ryan (ed.) Teacher Education: The Seventy-Fourth Year Book of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press.

Fuller conceptualizes the development of teachers' concerns, in the process of becoming a teacher, along a continuum starting at one end with concern about one's self or what she termed 'survival' concerns, through task-related concerns and ending with concerns about pupils, that is the impact of one's teaching on pupils.

2.3.1 Development of Concerns.

2.3.1.1 'Survival Concerns'.

Fuller refers to these concerns as concerns about one's adequacy and survival as teacher, about class control, about their mastery of the subject matter, about being evaluated by supervisors. She argued that these seem to be brought about by one's status as a student. Pre-service teachers have more concerns of this type than in-service teachers.

2.3.1.2 'Teaching Situation Concerns'.

These kinds of concerns as defined by Fuller, seem to be evoked by the teaching situation. These are concerns about limitations and frustrations in the teaching situation. Concerns about varied demands made on their teaching such as having to work with too many students, about time pressures, lack of instructional materials, having too many non-instructional duties, etc. Fuller argues that in-service teachers have more concerns of this type than pre-service teachers.

2.3.1.3 'Pupil Concerns'.

These type of concerns refer, as Fuller outlines, to concerns about pupils' learning, their social and emotional needs, about being fair to pupils, about the inappropriateness of some curriculum materials and so on.

These concerns are expressed by both pre-service and inservice teachers.

2.3.2 Sequence of Concerns.

Fuller, again, described the dominant concerns of individuals at various stages in the process of becoming a teacher as follows:

2.3.2.1 'Pre-teaching Concerns'.

In this phase Fuller argues that student-teachers in their concerns identify with pupils directly, but with teachers only in 'fantasy'. They have not experienced the realities of the teaching role. At this stage student-teachers are hostile, unsympathetic and critical of the class teacher. Fuller labels this phase as a 'non-concern' phase.

2.3.2.2 After she discusses the 'non-concern' phase which precedes student-teachers actual teaching, she outlines the sequence of the last three phases of concerns as: 'Early concerns about survivals', 'Teaching Situation Concerns', and 'Concern about Pupils'. These were defined in 2.3.1.1, 2.3.1.2, and 2.3.1.3 respectively.

Fuller ended her discussion by arguing that the appropriate question at this stage of our knowledge is not 'are we right?', but only, 'What is out there?'

2.4 Main Constructs in the Literature Reviewed

Here my aim is to outline various constructs, such as 'beliefs' 'attitudes' 'ideologies' 'problems' 'concerns' 'role-conception' and 'perspectives' as used in the studies relation to the process of becoming a teacher.

Some of these concepts are closely interrelated, and some are defined in a variety of ways, so that it is difficult to separate them. 'Beliefs' can be viewed as mainly cognitive: 'What a persons accepts at a given time as true of the world he lives in' (Rokeach, 1960 p.33). 'Attitudes' imply a predisposition to respond to certain things in a certain way (Statt, 1981 p.10) and seem to include beliefs and an affective component too: 'a complex system comprising the person's beliefs about the object, his feelings towards the object and his action tendencies with respect to the object' (Ajzen and Fishbein, 1980 p.19). 'Ideologies' is a term with many meanings, but in the research reviewed here it is used of attitudes towards a perceived problem or concern, in particular being used to denote the various attitudes held towards 'classroom management' as a concern (Jones and Harty, 1981).

'Perspectives' is defined as 'coordinated views and plans of action people follow in problematic situations' (Gibson, 1976, p.241). It will therefore include beliefs and feelings and intentions in a wide ranging and self-consistent view of problematic areas. These constructs reflect to various degrees cognition, perception, feelings and tendencies or plans relating to action in a problematic situation. 'Role-conception' is something similar, but it is not about one's own views alone: it refers to one's perception of what other people expect and accept as appropriate behaviour on one's part in a particular situation, given one's position within a group (Kinch, 1973, p.125).

Such constructs imply an object: one has beliefs about something, attitudes towards it, perspectives on it. But we need to decide what 'objects' are of interest in the research, and these constructs do not of themselves supply them. It would be advantageous to know how student-teachers perceive things, and how their perceptions are influenced by their experiences as they become teachers. In the context of this research, construct such as 'problems' could be useful as providing the 'objects' on which to focus. However, the idea of 'concern' is adopted, being conceptualised as broader than a 'problem': either something perceived as a problem, or as something important. Using this as its principal construct, the research can then investigate how concerns are developed in the process of

becoming a teacher, and how students cope with concerns relating to problematic situations, and act upon concerns relating to unproblematic situations. The notion of 'perspective' found in the literature would therefore have to be expanded, and not restricted to problematic situations.

2.5 The Impact of Teacher Education

Introduction

Studies included in this section are broadly categorized into two sub-sections. The first group of studies investigated the effect of teacher training programmes in general, and is followed by another group reporting the studies focused specifically on the effect of teaching practice. At the end of each section an attempt is made to summarize what is being reported in the different studies. Any relevant arguments offered either in the papers summarized here or in review papers which I identified, are all therefore reported, so that no major theoretical positions would be ignored, regarding the nature of that is happening or what influences what is happening.

It ought to be noted that teaching practice was considered in the organization of this chapter as part of teacher training, rather than beginning teaching, though

these might have some elements in common. This was on the grounds that teaching at this stage is taking place within a context where neither the student-teacher nor others view the student-teacher as a fully responsible teacher. He is considered to be a trainee for the full-time teaching job in the coming year.

2.5.1 The general impact of Teacher Training programmes

In the following section, some of the relevant studies will be reported briefly. All of the studies deal with the effect of teacher training programmes except Lacey's study in which he studied the process of graduate students becoming teachers in the context of one year P.G.C.E. programme. The reason for reporting it here is that Lacey participated with student-teachers during the course till they moved to teaching practice. However, it will also be of relevance also to the next section where the impact of teaching practice will be dealt with. Generally, the studies reported briefly here are about the effect of the university training and any reasons offered for its effects. All the studies reported here employed questionnaires for the purpose of collecting data except Shipman and Lacey. Shipman used interviews and Lacey used participant observation. Attitude was the main concept investigated by most of these studies. Studies reported here are, more or less, ordered chronologically according to the papers' date of publication.

2.5.1.1 Butcher

Butcher, H.J. (1965), "The Attitudes of Student-Teachers to Education: A Comparison with Attitudes of Experienced Teachers and a Study of Changes during the Training Course" British Journal of Social and Clinical Psychology, 1965, vol.4 pp.17-24.

Employing the scales of naturalism, radicalism, and tender-mindedness which are known as Manchester Scales of Opinions about Education, developed by Oliver and Butcher to measure teachers' attitudes to education, Butcher, in England, administered them to a representative sample of experienced teachers as well as student-teachers. With regard to student-teachers the scales were administered during the first fortnight of the course and again during the last fortnight. He found firstly that attitudes to educational practice are more closely related to the effects of education, indoctrination and experience than to sex or age, and secondly, that changes in attitude during training may be reversed after experience of full time teaching.

It should be noted that the hypothesis of his study concerning the influence of training on student-teachers' attitudes was based on studies related to 'liberalism' or 'progressiveness' of younger people in general and university students in particular.

2.5.1.2 McIntyre and Morrison

(McIntyre D. and Morrison, A. (1967), "The Educational Opinions of Teachers in Training" British Journal of Social and Clinical Psychology, 1967; vol.6, pp.32-7).

McIntyre and Morrison, in a replication of Butcher study in a Scottish setting administered the three Manchester Scales of Opinions about Education at the beginning of the session and the end of the year to detect the changes during student-teachers' training. The principal findings they reported in their research clearly corroborate those obtained by Butcher (1965) on the general trend during training towards increased naturalism, radicalism and tender-mindedness in educational opinions, and also the general reversal of this trend in the first year of teaching.

2.5.1.3 Marsland

(Marsland, D. (1970), "An Exploration of Professional Socialization: The College of Education and School Teachers' role. Research into Higher Education, pp.45-78).

Marsland explored the professional socialization which takes place during student-teacher training at the college of education. He argues that to consider teacher education and training as an agency of socialization permits and

requires us to study the nature of that learning and change, as development and transformation of students' professional identities and conceptions of the teacher role. Furthermore, it also permits and requires study of the objectives and goals of the organizations and sub-organizations involved, and their several collective teacher-role conceptions as crucial mechanisms in the production of different patterns and levels of effectiveness of professional socialization.

In his study he employed a specially developed role inventory to explore professional socialization in the college of education. Self completed questionnaires were administered at the very beginning and at the close of the course. Seven scales were developed to measure dimensions of the teacher-role. Moreover, the study suggested, in addition to the study of the changes in the different dimensions of the teacher-role, some sources of the changes.

Generally, Marsland claims that he changes in each measure, save one, were statistically significant and substantial. He went on to disagree with what he understood Shipman, Taylor, and Ree to argue, that the effect of the college is minimal. Moreover, he reported that changes are not all such as might be thought (from any of several relevant value positions) to be what he called 'desirable'.

Although as he states the sources of influence on attitude change and specially on students' conceptions of the teacher-role are manifestly complex and multifarious; nevertheless, he appeared able to associate such change with many specific variables such as sex, informal discussion with the staff, discussion with peers, subject sub-culture, and personality variables.

2.5.1.4 Gibson

(Gibson, D.R. (1972), "Professional Socialization: The Effects of a College Course Upon Role - Conceptions of Students in Teacher Training", Educational Research, 14, pp.213-9).

This cross-sectional study investigated the effects of a college course upon role-conceptions of students in Teacher Training, as part of a larger study with regard to attitude change in the college.

A role definition instrument (R.D.I) was completed by first, second and third year student-teachers at a college of education in London, all of whom were women. He concluded that "initial training not only does something to improve attitudes towards children, but even encourages more flexible and open attitudes towards certain aspects of curriculum, teaching method and other task - centred aspects of the teacher role" (p.217). He also reported that the

majority of changes take place during the early part of the college programme and hence one cannot assume a steady progress, as he argued, in 'progressiveness' or 'openness' regarding the student-teachers' conception of the role of the teacher.

2.5.1.5 Cheong

(Cheong, G.S.C. (1974), "Changes in Student-Teachers Beliefs and classroom Behaviour", College Student Journal, 8, pp.30-5).

The aim of this study was to determine the degree of changes in prospective teachers' experimental attitude by using the Experimentalism Scale (X-scale) and the Teacher Practices Observation Record (TPOR). The first is aimed at measuring the student-teachers' personal values and beliefs; whereas the latter is meant to measure one's teaching behaviour. Both measures were administered before and after the exposure to the programme.

The results showed that there was a "significant change or increase in experimental attitudes and beliefs as well as in instructional behaviour". It should be noted that there was a deliberate attempt to change student-teachers' beliefs and instructional behaviour on the basis of John Dewey's philosophy of experimentalism where they stressed that faculty members should profess as well as practice

experimentalism in the faculty context.

It is understood from this study though there was no attempt to identify the socializing agents, that the change is thought to be caused by the consensus among the faculty members aware of the agreed-upon desired change, which is achieved by professing such desired beliefs and attitudes as well as practicing them in the context of student-teachers training.

2.5.1.6 Lacey

(Lacey, C. (1977), The Socialization of Teachers, (London: Methuen).

Lacey investigated the process of graduate students becoming teachers in the context of a one-year P.G.C.E. course using participant observation. He participated in the activities of students both in the university and the schools in which they did their teaching practice. The study involved two groups of students. One was arts students and the other was science students. Without informing the reader how he moved from student-teachers' constructs he conceptualized the process starting with the 'honeymoon', passing through 'the search for materials' to 'crisis'. The period of 'honeymoon', as Lacey defined it, is the period of euphoria and heightened awareness, which

arises from the massive change in direction in the students' career from the academic grind through school and university to a practical course involving relationships with children.

Further, Lacey commented, most students were not sufficiently part of the school to feel worried by events that carried a warning of increasing difficulty in the future. He also found that they were at this period optimistic about overcoming future difficulties. Lacey noticed the first shift when students become concerned about the search for materials as the difficulties at the classroom increased. He found that the student teacher attempted to compensate for his lack of control and lack of ability to improvise within the classroom by elaborate preparation and a search for impressive materials. Later he noticed a second shift that was a shift towards more concern about class control. Here Lacey reported a difference between science and art students. Science student-teachers' problems were more technical in nature, such as the difficulty of using a microscope. The response to classroom difficulties by the search for materials led to what Lacey called the "crisis" period which took place in the early part of teaching practice when students feel that they are not in control of the situation. In other words, they are failing to get through to their pupils and that they are failing to teach them. Lacey found that such problems are only discussed within the privacy of confidential conversation.

Here Lacey offered a further concept, 'displacement of blame', where he found that students in this case tended to push the blame upwards towards the system, such as the head, other teachers; or downwards towards the pupils. Lacey, then, conceptualized the student strategies of what he called "learning to get by", under two categories. He called them: 'collectivization' of the problem, and 'privatization' of the problem. With the former, the problem is shared by the group whose collective opinions legitimize the displacement of blame. With the latter, the student does not speak about the problem, except in a most guarded way, and may refuse to admit to any problem at all, in certain situations. Lacey found that some students stick to one strategy throughout the course, and may shift but moderately according to the situational constraints. On occasions he found that the shift might be dramatic, particularly when a student fails to 'get by'. Then, he might redefine friends and enemies and collectivize or privatize his problems accordingly. After a few weeks of their teaching practice Lacey found that the discussion of student-teachers focused on their own student-teacher status in school and not the other area of teacher-pupil relationships, which had been the initial aim of the student-run group.

In addition to the lack of clarity of the move from student-teachers' constructs to the researcher's constructs, the researcher seems to present a somewhat bold claim. He

argues that from this study he describes the major elements of the process of professional socialization, as these elements came to his notice while 'closely immersed within that process'. Describing himself as immersed within the process seems a somewhat ambitious claim. However, he offered an interesting conceptualization of the process of becoming a teacher in that he attempted to understand student-teachers' understanding of the process.

2.5.1.7 Kremer and Moore

(Kremer, L. and Moore, M. (1978), "Changes in Attitudes towards Education During Teacher Training", International Review of Education, 24, pp.511-3)

Kremer studied the contribution of students' belief systems to change of attitude toward education during teacher training. Two instruments were used to measure the belief systems and attitudes toward education. The first was an adapted version of Rokeach's D-scale for assessing one's open or closed belief systems and the latter was Hofman and Kran's questionnaire on attitudes towards Education for obtaining scores on 'progressiveness' and 'traditionalism'. Both scales were administered to a group of female student-teachers. The D-scale was administered at the beginning of the year, and the questionnaire was administered twice both at the beginning and at end of the year. He found that there was a significant overall change

toward less traditionalism and more progressiveness but the effects of the training were not the same for all students, but varied according to the students 'personalities' (Kremer, 1978 p.512).

In other words, his study showed that there is a change in attitudes toward progressiveness which is desirable, from his point of view, and also highlighted the influence of the personality or belief systems which the student-teacher brings before entering the teacher training institution.

2.5.1.8 Shipman

(Shipman, M.D. (1967b), "Theory and Practice in the Education of Teachers", Educational Research 9, pp.208-12)

In an investigation of the attitudes of student-teachers and first year student-teachers, Shipman employed both questionnaire and interviews.

The questionnaire was filled in by college staff and school teachers. He found differences between college and school staffs. The former supported more progressive methods and more democratic means of class control than school teachers and thus the student-teachers were involved in reconciling conflicting attitudes. As he commented the tension was resolved by students by using two sets of professional values, one for use in college and one for use

in the classroom. This conflict of attitude was detected by comparing the answers to the questions with what was said in interview. Students as he argues, employed 'impression management' to insulate themselves from the influence of the college. To him the apparent change was not genuine change as much as the assumption and later removal of a veneer.

Hence, the impact of college is minimal. For, as Shipman argues, underlying these on-stage attitudes were more regressive ones latent throughout the course and emerging once the need for impression management disappeared.

2.5.1.9 Discussion

All the studies reported seem to show that there is a change towards less traditionalism and more liberalism or progressiveness during the time of student-teachers training (Butcher 1965, McIntyre and Morrison 1967, Marsland 1970, Gibson, 1972, and others); or change in concern as Taylor (1975) found. Nevertheless, some others think that the training has minimal effect such as Shipman (1967) who employed the term 'impression management' to explain the kind of superficial change which is detected by researchers from student-teachers' expressed opinions; or that there is little change as Austwick and Carter (1978) seem to argue. However, researchers have taken different positions on Shipman's argument. While Marsland (1970) suggested that the training course has a more powerful effect than Shipman

believed, though Gibson (1972) seems to support Shipman in a limited way:

"Extensive interviews in connection with this research tend to support Shipman's suggestion but to a much lesser extent during the period of college" (p.218).

Most of these studies focused on whether there is a change or not, rather than why such change did or did not happen. They stopped at answering the former and offered a general answer for the latter: that is, that the training course caused such change (which is understood implicitly or explicitly from their research reports). Nevertheless, some of them attempted to highlight some elements in or out of the teacher training programmes which have an influence on student-teachers' attitudes, perspectives, or role conceptions. Gibson (1972) for instance, reported that the change is more marked in the early part of the course. While Butcher (1965) did not see the influence of sex and age. Marsland (1970) found that sex as well as informal discussion with school staff and peers influenced the conception of the teacher's role. In addition both Marsland (1970), and Lacey (1977) showed that subject-culture had a great impact on the teacher role conception and perspectives respectively. Marsland added another contributory factor which affects the change, that is personality variables. Later Kremer (1978), emphasised even more the effect of belief systems which students have established before entering the

training programme. Implicit in the argument of Cheong (1974) is the important influence of the university staff showing the kind of change desired both in words and action.

There is a third view which explained what is seen as a conservative shift which student-teachers undergo. This view sees the university as having an impact on student-teachers, but not a liberal one. Bartholomew (Zeichner and Tabachnick, 1981, p.9) argues that, though university encourages student-teachers to use liberal phrases and to affirm liberal slogans, the fact is that the social interactions in the university's own practice are unrelated to the theory presented and are similar to those in schools. This is supported by Giroux and Tabachnick, who suggest that accompanying the encouragement towards liberalism is an implicit pressure to fit smoothly into ongoing school practices. This is done, they argued, through the emphasis in their own techniques of teaching and supervising conferences and seminars (Zeichner and Tabachnick 1981). However, Hogben and Lawson (1983) commented that this position has not been systematically developed in the study of trainee teacher's attitudes.

2.5.2 The Impact of Teaching Practice

Introduction

Most of the studies on the impact of teacher education have focused on teaching practice as a result of the common belief of its importance in teacher education (Friebus, 1977, Gibson 1976; Silvernail and Costello, 1983, and others). This common belief is summarized by Goodman (1985) when he said

"There seem to be an almost universal assumption among both educators and students that field experience is the most crucial aspect of teacher preparation" (p.26)

In this section the attempt was made to select some studies which dealt with the impact of teaching practice on student-teachers' concerns, perspectives, values, attitudes, etc. That is, studies which discuss the nature of the effect or what leads to or influence such an effect. Having selected them, brief summaries of what is relevant to the effect and the influences are reported. Studies which investigated mainly student-teachers' concerns are reported first, ordered chronologically according to the publishing dates. Then studies which mainly focussed on student-teachers' attitudes specifically with regard to pupil control are reported and again ordered chronologically. Finally, studies which investigated student-teachers' attitudes in general, perspectives, values, or socializing agents are reported chronologically.

2.5.2.1 Cohen, et. al.

(Cohen, M.W et.al. (1972), "Dimensions of Elementary School Student Teacher Concerns" The Journal of Experimental Education, 41 (2), 6-10).

In this study a rating scale was developed to tap a wide range of teacher concerns. The questionnaire was administered during a regularly scheduled supervision hour in the eight week of a ten week student teaching period. Student-teachers were urged to answer according to what they felt, not according to how they thought they should feel. Then the researchers used a factor analytic procedure for identifying basic dimensions of student-teacher's concerns. Their conclusion supported Fuller's theory of the development of teacher's concerns which suggest that the variety of problems expressed by student-teachers can be ordered along a continuum ranging from 'self-concerns' to 'pupil concerns' (1972, p.9).

2.5.2.2 Taylor

(Taylor, P.H. (1975), "A study of the concerns of student on a postgraduate Certificate in Education Course" British Journal of Teacher Education, 1 (2), 151-61).

On the basis of earlier studies of the attitudes of

students and teachers to their courses of training and more particularly on the work of Fuller (1969) on the development of teacher's concerns, he developed a questionnaire to explore the concerns of student-teachers, on a Postgraduate Certificate in Education Teacher Training course. A group of student-teachers specializing in different subjects were asked to rate their concerns both at the start and at the end of the course. However, the questionnaire was administered only at the end of course. He found "an overall rise in the number of concerns and their strength". He also found that student-teachers' concerns, by the end of their course, are turning outward from self-adequacy to concerns such as the need to understand pupils' behaviour and to curriculum issues. Some items in the questionnaire were of no initial concern but became of concern by the end of the course. Early concerns were found to be situation specific and appear to have a personal flavour and thus related to self adequacy whereas in the structure of later concerns, objective self-evaluation appears to be central.

In general, his results are consistent with Fuller's conceptualization of teachers' concerns in that 'there was a decline in concerns associated with class control and aspects of self-adequacy and a rise in pupil related concerns'.

2.5.2.3 Austwick and Carter

(Austwick, K. and Carter, K.A. (1978), "Concerning the PGCE Student". British Journal of Teacher Education, 4 (3), 223-8).

This study used Taylor's questionnaire, which consists of 40 items grouped in six categories: 'practice of teaching; 'theory of teaching'; 'school and staff' 'discipline and class control' 'pupils', and 'curriculum'. The questionnaire in this study was administered twice, at the beginning of the P.G.C.E. course at Bath university, and after the completion of teaching practice by the end of the course. It was decided to repeat Taylor's evaluation; to obtain further information as to the value of the questionnaire and to see how far the results in Bath were consistent with those obtained in Birmingham. Little change was found between the pre- and post-teaching practice concerns and students had self-concerns both before and after student-teaching.

2.5.2.4 Mahan

(Mahan, J.M. (1981), "A Comparison of Concerns of Secondary and Elementary Student Teachers" Paper presented at the Annual Meeting of The Association of Teachers, Dallas, Feb 13-18).

Mahan in a paper presented at the Annual Meeting of the Association of Teachers in Dallas in Feb 13-18 1981, reported his study where Elementary and Secondary School student-teachers were tested before, during, and after their teaching experiences to determine if there were changes in their concerns about teaching. Concerns here are categorized into three main categories: uncertainties regarding personal, cultural, or pedagogical issues.

For this purpose student-teachers completed a "frequent concerns of Student Teachers Ranking Device", at three points in time, prior to student teaching, after ten days of student teaching duty, and at the conclusion of the total student teaching experience.

He found that the top eight concerns, related to pedagogy, which students had before placement, tended to remain the top eight concerns during the first and second weeks of student teaching and only diminished a little during the student teaching practice. The least important concerns, non-method concerns, showed almost no change from the pre-teaching results. Furthermore, there were no great shifts in the specific concerns of the student-teachers in the time interval between the first ten days of teaching and the conclusion of the field experience.

The result also showed that although student-teachers did not face serious personal problems, they did seem to have some problems in building professional relationships with pupils and school staff members.

2.5.2.5 Hoy and Rees

(Hoy, W.K. and Rees, R. (1977), "The Bureaucratic Socialization of Student Teachers" Journal of Teacher Education, 28 (1), pp.23-6).

Having found in his earlier studies (Hoy, 1967 and Hoy, 1963) that student-teachers become significantly more custodial in their pupil control ideology as they acquire experience in student teaching, Hoy in this study was concerned with the possible influence of student teaching experience on the dogmatism, pupil control orientation, and bureaucratic orientation of student-teachers. The Work Environment Preference Schedule (WEPS), the P.C.I. form, and a short form of Rokeach's Dogmatism scale were administered to a group of student-teachers prior to the beginning of their teaching practice and immediately after their teaching experience to measure bureaucratic orientation, pupil control ideology, and belief system of student-teachers respectively. The results were:

1. Student-teachers showed significantly more bureaucratic orientation after student teaching.

2. Student-teachers were significantly more custodial in their P.C orientation after student teaching.
3. The dogmatism of student-teacher's remained virtually unchanged during student teaching.

In their research 'bureaucratic orientation' refers to the individual's commitment to the set of attitudes, values, and behaviour that are characteristically encouraged and rewarded by bureaucrats.

The pupil control ideology is measured along a custodial- humanistic continuums. A custodial pupil control ideology stresses the maintenance of order, distrust of students, and a punitive moralistic approach to pupil control. A humanistic ideology emphasizes an accepting, trustful view of pupils, and optimism concerning their ability to be self - disciplining and responsible.

Although the design of this study is better than others that have been mentioned in that the two administrations of the scale were at the beginning and the end of teaching practice, it should be noted that there were no controls for intervening learning of students from extraneous sources or, possibly most significant, for their practice in responding to the structured questionnaire presented to them.

2.5.2.6 Karmos and Jacko

(Karmos, A.H. and Jacko, C.M. (1977), "The Role of Significant Others During the Student Teaching Experience" Journal of Teacher Education, 28 (5), p.51-5).

Emphasising the critical period of teaching practice for student-teachers as Fuller's phase of 'self-adequacy and survival' they embarked on identifying people in the lives of student-teachers who were perceived as having a positive influence on their role as teachers, and to determine the nature of the influences perceived as significant. A group of student-teachers were each asked to name in order the five important persons who had influenced most positively his teaching experience, and to give reasons for the significance of the influence.

They found that student-teachers are mostly in need of personal support where non-professionals (e.g. other student-teachers, friends, parents, etc) had a marked influence. Student-teachers were influenced almost entirely by professional educators with respect to obligations and expectations. Co-operating teacher was ranked first in this area. Professionals were also found to be of influence in the area of professional skills. The researchers also reported that the beginning teachers' greatest need is for empathy, understanding, and release from the pressures and anxieties of the beginning teachers phase.

2.5.2.7 Jones and Harty

(Jones, D.R. and Harty, H. ((1981), "Classroom Management Pupil Control Ideologies" Science Education, 65 (1), p.3-10).

The researchers investigated the influence of the student teaching experience on the classroom management Pupil Control Ideology of secondary pre-service science teachers. Two measures of classroom management orientation were obtained for the subjects, prior to the beginning of teaching practice and after the completion of teaching practice. They found, from their analysis of student-teachers' responses, that the influence resulting from the student teaching experience was more custodial for a student-teachers, more humanistic for eight, and zero for two (p.5-6). Nevertheless, they concluded that the overall effect of the student teaching experience was that student-teachers became more custodial in their ideologies.

After reporting the mixed results referring to earlier studies, they tentatively tried to explain such change. They first said that student-teachers may each be influenced by the co-operating teacher with whom he/she identifies, or he/she may find such ideology conflicts annoying and seek some way of resolving the conflicts by locating different

levels of ideologies that presently exist in their cognitive structures. They also offered other possible influences such as sex, the science curriculum they were taught, the age of pupils, initial possession of a moderately custodial ideology set, and that it may be easier for them to accept a custodial approach than devise a humanistic method of teaching due to the lack of knowledge, skill and confidence in trying out his/her humanistic ideology.

As well as exemplifying very clearly the lack of uniformity among students in the ways they change during teaching practice, Jones and Harty also provide a useful commentary in which they speculate about the many possible explanations of these diverse patterns of change.

2.5.2.8 Zeichner and Grant

(Zeichner, K.M. and Grant, C.A. (1981), "Biography and Social Structure in the Socialization of Student Teachers: A Re-examination of the Pupil Control Ideologies of Student-Teachers" Journal of Education for Teaching, 7 (3), pp.298-314).

The study was to investigate if the custodial shifts in the pupil control ideologies of student-teachers occurred for specific student-teachers. Then an attempt was made to examine the relative influence of biography and social

structure on the views toward pupil control held by student-teachers at the end of the student teaching experience.

A group of elementary student-teachers completed the P.C.I. form prior to and after their experience of teaching practice. Also, the same P.C.I form was administered to the co-operating teachers who worked with those student-teachers. The initial completion of the form by the student-teachers was to represent the views of the student-teachers toward pupil control. These views being seen as an accumulation of the influence of the individual biographies. The pupil control ideologies of co-operating teachers were intended to represent one component of the potential influence of social structure on student-teachers' views toward pupil control.

The results showed, contrary to the findings of previous studies, the student-teachers did not become significantly more custodial in their views toward pupil control by the end of their teaching experience, although there was a slight shift in a custodial direction.

Furthermore, the results showed that the co-operating teachers "exerted little or no influence on the pupil control ideologies of student-teachers over or above the influence exerted by the views held by student-teachers at the beginning of the experience".

Hence, as Zeichner and Grant argued, these results support both Lortie, and others in that the teaching experience has little impact in altering student-teachers earlier views about teaching and that student-teachers play an active part in controlling the direction of their socialization despite the constraints of some elements of biography and social structure.

2.5.2.9 Silvernail and Costello

(Silvernail, D.L. and Costello, M.H. (1983), "The Impact of Student Teaching and Internship Programmes on Pre-service Teachers Pupil Control Perspectives, Anxiety Levels, and Teaching Concerns" Journal of Teacher Education, 34 (4), pp.32-6).

In reviewing different research reports, the researchers concluded that many of the anxieties and concerns centre around problems such as evaluation of teaching, maintaining discipline, students' perceptions of teacher, knowledge of subject matter, correcting of mistakes, and shortage of materials. Having done that, they embarked on carrying out evaluative research which aimed at assessing the impact of a traditional semester-long student teaching programme on pre-service teachers' pupil control perspectives, teaching anxiety levels and teaching concerns; by comparison a more extensive year-long internship type student teaching

programme had a differential effect on these same pre-service teacher perspectives, anxiety levels, and teaching concerns. The focus of this study is justified by the inconsistency of earlier studies' results regarding the effect of student teaching where some showed what the reearchers saw as positive effects and others more negative effects. Three instruments were used: Teaching Situation Reaction Scale (T.S.R.T) to measure the pre-serviece teacher' pupil control perspectives, Teaching Anxiety Scale (TCHAS) designed to measure anxiety specifically related to teaching, and teacher concerns questionnaire (TCQ) designed to measure self, task, and impact concerns of teachers about teaching. These instruments were completed by student-teachers prior to and after completion of student teachers' experience at a point which coincided with the end of one student teaching programme and the beginning of another.

The conclusion relevant to our purpose is that which is related to the semester-long teaching practice. Student-teachers did not significantly change their pupil control perspectives, teaching anxiety levels, and teaching concerns over the 15-week teaching period. They also suggest that student-teachers were most concerned about the impact of their teaching on pupil growth. Here in this study the impact concern was found common, which has not been emphasised by Fuller and other researchers particularly during teaching practice.

2.5.2.10 Poole and Gaudry

(Poole, C. and Gaudry, E. (1976), "Some Effects of Teaching Practice" Journal of Education Research, 69 (5), pp.255-63).

This study was carried out in an Australian setting. It attempted to determine which aspects of experiences in the school were related to changes in attitudes in several key areas: Commitment to teaching as a career, anxiety about facing classes, and attitudes towards punishment and pupil control more generally. The instruments used were: the teaching practice questionnaire, a simple question to indicate the commitment to teaching as a career, and State-Trait Anxiety Inventory to detect the situational change, and the differential experimental treatments. After conceptualizing State Anxiety as conscious feelings of tension and apprehension, they used with the scale a stem "Indicate how you think you will feel as you are just about to give you first lesson on the next teaching round". Other instruments administered were the Punishment Questionnaire to know the students' attitude towards discipline in the class, the pupil control ideology (PCI) form, and Dogmatism Scale to measure the person's belief system as open or closed. All scales were administered to a group of student-teachers, and about half of them completed the scales before and after the teaching practice.

The researchers found a greater change towards a more humanistic attitude to pupil control in those exposed to the influence of more radical teachers. Also they suggest that general satisfaction depended on the students' own assessments of response of pupils to their teaching rather than anything supervising teachers or faculty staff had to say. Generally, the most influential set of experiences were those related to student-teacher satisfaction with pupil response.

2.5.2.11 Gibson

(Gibson, R. (1976), "The Effects of School Practice: The Development of Student Perspectives" British Journal of Teacher Education, 2 (3), pp.241-250).

Gibson employed the concept of 'perspective' as the focus of his study. He cited the definitions of Mead and Shibutani for the definition of 'perspectives'. Mead defined them as 'co-ordinated views and plans of action people follow in problematic situation'. whereas Shibutani was reported by Gibson as saying that; a perspective is an ordered view of one's world - what is taken for granted about the attributes of various objects, events, and human nature. It is an order of things remembered and expected as well as things actually perceived, an organized conception of what is plausible and what is possible; it constitutes the matrix through which one perceives the environment'.

Having conceptualized it thus, a longitudinal study of a group of student-teachers following a three-year course of initial training was conducted in which 18 students were each interviewed seventeen times during their three-year course. The students undertook four practices. The researcher investigated the effect of school practice on the development of student perspectives. He found, though perspectives overlap, they develop in the order of 'service', 'survival and safety', and 'independent perspectives', and perspectives represent guides for action on which students base their behaviour. However Gibson did not claim to have identified a particular influence. He argues that school experience generates the second perspective which is to 'survive and play safe'. The last perspective was only developed by a number of student-teachers who showed a genuine shift during the third year experience away from the 'survival and safety' perspective towards a more autonomous position. Gibson appears to support Shipman's explanation of 'impression management' during the second phase of perspective development which implies learning the rules of the game.

2.5.2.12 Friebus

(Friebus, R.J. (1977), "Agents of Socialization Involved in Student Teaching" Journal of Education Research, 70 (5), pp.263-8).

Criticizing those who study only the co-operating teacher as the primary agent of socialization, Friebus aimed at examining student teaching in an effort to specify the range of individuals acting as socialization agents and to note the areas in which they make contributions. As he commented, using flexible field work methods including semi-structured interviews, led to the development of an image of socialization as an ongoing negotiated reality based on a complex set of interactions among variety of individuals, professional and non-professional. Several areas of socialization activity were examined including coaching, legitimation, development of a sense of success or failure, and peer involvement. The results showed that not only the co-operating teacher has influence. The professionals not related to the training institution, such as other teachers at the teaching sites may be seen as more important for some trainees. the student-teachers themselves, pupils, spouses as well as a wide range of others are referred to in ways which indicate them to be socializing influences.

Friebus also commented that the area of investigation that included the least number of references involved the role played by the trainees peers. In terms of the amount of peer contact that occurred, trainee statements reflected: having no contacts and having few contacts. The few contacts that did occur served as a kind of progress indicator and as a source of help and comfort. The former,

as he argues was less common owing to the belief by trainees that each teaching situation was too unique. However, the results of this study seem to stress both that the trainees are active contributors to their own socialization which is seen through the references to themselves. Further, the role of pupils in teacher socialization through their contributions to legitimation and generating a sense of success or failure which are, as he argues, significant and considerable.

2.5.2.13 Mahan and Lacefield

(Mahan, J.M. and Lacefield, W. (1978), "Educational Attitude Changes during Year-Long Student Teaching Journal of Experimental Education, 46 (3), pp.4-15).

Basing their research on the theory of cognitive dissonance, these researchers studied the change in student-teachers' attitudes during a year-long period of student teaching and its relationship to their supervising teachers. It aimed to explore the effects of longer field experiences with multiple role models upon student-teachers' value orientations towards education and schools. The study was conducted to detect such change and effect by using the Educational Preference Scale (EPS) to know the value orientations toward education held by student-teachers. Two other instruments were employed: The Purdue Student Teacher Opinionnaire (PSTO) to measure students' satisfaction with

their student teaching experiences, and a Most Effective Supervisor Ranking Device (MESRD) to measure supervisory personnel effectiveness. The value orientations towards education held by the student-teachers were determined three times by administering the EPS: Before the student-teachers reported to these supervising teacher, as they completed their assignment with their first semester teacher, and when they had completed their assignment with their second semester teacher. The researchers argued that there seems little doubt that the supervising teachers values and attitudes , expressed vocally and or concretely presented in their professional conduct exercise a powerful influence upon the orientations of that student-teachers. Thus, the total attitude change on the part of student teachers emerges as a function of the initial attitude disparity between student-teacher and supervising teacher.

2.5.2.14 Zimpher et. al.

(Zimpher, N.L. et. al. (1980), "A Closer Look at Universtity Student Teacher Supervision" Journal of Teacher Education, 31 (4), pp.11-5).

In an attempt to answer Fuller's Question: "what is out there?", they applied socioanthropological techniques to study the nature of supervisor/ student-teacher/ co-operating teacher triadic relationships. It was a part of a larger longitudinal study on the effectiveness of

teacher education programmes.

The evidence of this study was based on descriptions of selected experiences as viewed by three student-teachers, three co-operating teachers, and one university supervisor. The data were gathered by two observers who were not officially involved in the teaching experience. Taped interviews, observation, and connected available documents were all used. Selected findings were reported in this paper mainly illuminating, as they claimed the question of influence of one party upon the others. Relevant findings were: first, that their data showed as Zimpher argues, that the initial impressions of the supervisor often influenced the supervisors's treatment of the student throughout the experience. Second, Zimpher et. al. found that student-teachers believed the classroom experiences are the 'real ones', and so ignored what they were taught in the method courses and tended to model themselves on their co-operating teachers, whom Zimpher found believed the same thing, closely at least in the area of classroom management.

The researchers further argues that the student-teachers went with 'what worked' and what worked was what the co-operating teacher did in the same classroom. Student-teachers with their co-operating teachers were found to find it difficult to answer. Third, the researcher also found that student-teachers presented a whole series of what they termed false barriers about why they could not currently be the real teachers they knew they would be in

their own classroom. Meanwhile, however, they had to do things the way their co-operating teacher did. As the researchers suggest, this might be part of the gamesmanship that students engaged in to survive student teaching successfully. These conclusions, they added though data-based, are somewhat speculative.

2.5.2.15 Moser

(Moser, C.J. (1982), "Changing Attitudes of Student-teachers on Classroom Discipline" Teacher Education, 18 (1), pp.10-5).

The researcher based his study on the suggestion that school experience does influence student-teachers and more particularly concerning school discipline. Hence, his enquiry was an attempt to answer the question "what is the effect of the student teaching experience on prospective teachers' attitudes concerning methods of classroom discipline?". A questionnaire about the fairness and effectiveness of thirty five methods of discipline was completed by 53 student-teachers on the first and last day of student teaching quarter.

Student-teachers were found to use harsher methods of discipline than they expected to use. The researcher argues that the reality of classroom control caused them to be more willing to use harsher methods of discipline. He also found

the positive attitudes of student-teachers toward pupils seem to begin to decrease during the student teaching experience, and the authoritative role of the teacher becomes more palatable.

2.5.2.16 Hogben and Lawson

(Hogben, D. and Lawson, M.J.(1983), "Attitudes of Secondary School Teacher Trainees and their Practice Teaching Supervisors" Journal of Education for Teaching, 9 (3), pp.249-63).

Interest in the issue of stability or change in student-teachers' attitudes led these researchers to conduct this study of a group of 21 student-teachers in a one-year post graduate diploma in education course, and 20 supervising teachers who were supervising their practice teaching. The attitude scale used was a semantic differential instrument containing a total of 31 concepts. Three measurements were made for the student-teachers: at the beginning of the academic year, after teaching practice, and at the end of the academic year.

They found that the five concepts rated most highly by the students at the commencement of their diploma remained as the 'top five' over all three rounds. These were: Individualized Instruction, Practically Orientated Education Courses, Teaching Disadvantaged Children, Experienced

Classroom Teacher, and Pupil Initiated Learning.

They found that at the beginning of the academic year, the students' overall level of attitude score was higher than that for the supervising teachers. Moreover, after teaching practice, the overall decline in students' attitude score levels brought them closer in line with the supervising teachers. This, as they argue, may reflect teacher influence.

The biggest shifts, which brought students closer to the supervising teachers, were in the scores for Teaching Very Intelligent Pupils, School Rules, (both shifted positively), and The Primary School Curriculum and Educational Research (declined in value). Also both student-teachers at the three different rounds, and supervising teachers were found in perfect agreement regarding the two concepts most highly regarded: Individualized Instruction, and Practically Oriented Education Courses, and the two least highly regarded: Social Class and the State Education Department. Other findings also, following teaching practice the student attitudes towards Theoretically-Oriented Education courses and the state Education Department declined, and Education Theories also showed a marked drop. The supervising teachers rated Social Class and the State Education Department, on average, below the neutral position. On only five concepts were the supervising teachers ratings consistently higher than those of the students: Teacher

Directed Learning, Traditional Single-Teacher Classrooms, Teaching very Intelligent Pupils, Pupils and Examinations.

In general, despite some significant shifts, the researchers agree that attitude stability is the picture most clearly emerging from this study and their previous studies.

Further, they concluded from the similarity between the attitudes of the students on entering the diploma and those of the sample of regular high school classroom teachers, that student-teachers acquire attitudes similar to those of teachers during their long exposure to teachers over some 12 years of schooling.

Generally they concluded that attitudes held at the commencement of training appear to be very resistant to change, and such changes as do occur during training tend largely to disappear in the course of the first teaching year.

It could be noted here that the researchers played down the shift when it did occur. It was significant as they suggested between round one and two, but they argued later that despite the decline in students' attitude scores, their attitudes generally remained 'positive i.e. "above a neutral score of 4 on the scale". Secondly, having shown in their findings that student-teachers tended to move closer in their attitudes to their supervising teachers, they tended

to see these similarities as a possible influence of supervising teachers on student-teachers, which possibly might not be true. It should also be noted that the student-teachers joined the Diploma in Education after they finished their university degree. As the researchers speculated, they might have undergone a dramatic shift before joining the Diploma course.

2.5.2.17 Goodman

(Goodman, J. (1985), "Field Based Experience: A Study of Social Control and Student Teachers Response to Institutional Constraints" Journal of Education for Teaching, 11 (1) pp.26-49).

This study explored the field based experiences in a teacher preparation programme that emphasized student involvement in practicum sites. It attempted to illustrate the institutional and social forces that shaped the behaviour and ideas of these pre-service teachers, and show the various responses student-teachers had towards these influences. To achieve that, the researchers adopted an ethnographic approach through observations and interviews both formal and informal with six student-teachers during six months. Also co-operating teachers and three co-operating principals were interviewed.

In studying what happened i.e the social control, which he considered as a unifying theme, in the school, he reported that for these groups of elementary teacher that 'the elementary curriculum and the accountability testing movement that supported it had a strong influence on the nature of instruction found in the practicum sites (p.36). In other words, student-teachers had little control over either what or how content would be taught.

Goodman also suggests that his findings indicated that teaching practice did little more than assimilate novices into traditional patterns of teaching. However, he commented that many students came into the programme with conservative perspectives of education. Hence, the field experiences, his argument runs, merely reinforced what was already there. Its power to shape or mould individuals was secondary to earlier influences. In addition to what was said, Goodman suggests that student-teachers have potential to resist and confront external pressures.

With regard to students' response to the social control of the school, Goodman reported that some student-teachers accepted the status quo without much thought. He called this 'passive acceptance'. Others actively embraced the attitudes and practices found in the practicum sites, and this he labelled 'active acceptance'. 'Latent reaction' was another reported reaction by Goodman for some other students', where on the surface it appeared as if these

students accepted the status quo. However internally they maintained a desire to do things differently when eventually employed. Other students, though few, attempted to alter their practicum sites but within a narrow scope particularly when the co-operating teachers were 'flexible' and gave students 'freedom'. Two students were found attempting to change the situation substantially. That was to teach units they developed rather than the already prepared school curriculum. Although each student had a dominant response to their field experiences, as Goodman commented, each, he argues, accepted and resisted to various degrees in the pre-existing world they entered as student-teachers.

Although the researcher said that he started with no questions, yet he started by asking about concerns. He then reported the concerns he asked about without clarifying or justifying why he chose these concerns and not others. These concerns, were: the purpose of practice teaching; perceptions of what happens during practicum experiences; individual responses to the organization; people and events found within the practicum sites. Nevertheless, he started his research with a claim to 'discover' what 'actually' happened in the practicum sites.

2.5.2.18 Discussion

Due to the importance of teaching practice as part of the training programme, researcher, have investigated the

problems and concerns during teaching practice which help in understanding the socialization process of student-teachers.

There seems to be a high degree of consistency in the research literature on students' concerns during teaching practice. These concerns of student-teachers as reported by different research seems to centre around problems such as evaluation of teaching, pupils' discipline and classroom management, pupils' perceptions of teacher, knowledge of subject matter, correcting for mistakes, shortage of material, lack of time, pupils motivation and knowing school procedure (Fuller, 1975, p.37; Silvernail and Costello, 1983, p.32 and others). It should be noted that in most of the research 'concerns' were operationally conceptualized as perceived problems.

In addition to these, other research - it will be reported later - such as Felder et.al. (1979, p.3) and Adams (1982, p.41) added other problems such as lack of time, pupils' motivation, and knowing school procedure.

In studying the effect of teaching practice on student-teachers, which constitutes part of the process of becoming a teacher, researchers as I have reported here employed different concepts in their enquires such as pupil control ideologies, concerns, perspectives, attitudes and others. In the reported results of the different studies there seems to be two different views. First, those studies which suggest that student-teachers, as a result of their

teaching practice, appear to change their concerns, perspectives, pupil control ideologies and so on. Cohen (1972) for instance seems to be of the opinion that student-teachers' concerns develop in an order, along the continuum ranging from 'self-concerns' to 'pupil concerns' where they support Fuller's (1975) conceptualization of teachers' concerns. Poole and Gaudry (1976), Hoy and Rees (1977), Zimpher (1980) and Moser (1982) in their studies of pupil control ideologies and relevant aspects of student-teachers attitudes, argue that student-teachers become more custodial and more bureaucratic in their orientations after their teaching practice. To a lesser extent, Lacay (1976), and Gibson (1976) also suggest that teaching practice generates a second perspective which is to 'survive and play safe' and possibly move then to a more autonomous position.

On the other hand, other studies appear to suggest that the impact of teaching practice has little or no influence on student-teachers' concerns, perspectives, attitudes or pupil control ideologies. Mahan (1981), and Silvernail and Costello (1983), for instance, reported that teaching experience did not have a substantial effect in the development of student-teachers' concerns. Hogban and Lawson (1983) also commented that in general student-teachers' attitudes stability is the picture most clearly emerging from their study.

The reported studies tended to investigate the effect of teaching practice in general terms. However, some studies have attempted to explain such change when it does (or does not) occur in different ways, either by employing a particular technique to find out a relationship between the change and some other sources/factors of influence which correlate with the change or by trying to speculate about the possible sources of change or stability so as to explain the phenomenon. Gibson (1976), Jones and Harty (1981), and Moser (1982) for example commented that school practice generated the change, whereas others such as Silvernail and Costello (1983) and Goodman (1985), who considered, for instance, the length of the school experience, found that what matters is the kind or the quality of the school experience rather than the length of it. Many other studies such as Mahan and Lacefield (1978) found the co-operating teachers have a powerful influence and others such as Zimpher (1980) attempted to know why the co-operating teachers have such great influence and claimed to find that the co-operating teachers showed in the classroom what does work. Also, they seem to stress, the importance of observing the co-operating teacher in the place of work. Moreover, the frequency of interaction and of informal discussion of the co-operating teacher were seen to be important.

However, some studies such as Karmos and Jacko (1977), Zeichner and Grant (1981), and Hogben and Lawson (1983)

seemed to show that co-operating teachers have no such influence and argue that any apparent change is due to what the student-teachers have brought before entry to the training institution.

Pupils are also considered by some to be an important source of influence on student-teachers (Poole and Gaudry, 1976, Friebus 1977). Some researchers have made mention of some factors which appeared to be correlated with the change such as the curriculum student-teachers studied, and age of pupils (Jones and Harty 1981) and others. Other sources correlated variables sometimes are shown to have limited effect such as peers (Friebus, 1977) of non-professional in general (Karmos and Jacko 1977) and others.

Further, some studies stressed that we cannot consider student-teachers as 'empty vessels' to be filled with the basic value orientation of the school as Lacey termed it (Lacey 1977, p.18). Hence, they found (Lacey 1977, Lortie 1975, Friebus 1977, Goodman 1985 and others) that student-teachers play an active part in their own socialization.

In addition to what was said, it could be noted that most of the studies used structured methods and were statistical in nature. As a result, they tended to be more specific in terms of the variables they studied and clear in the operationalisation of their constructs, but to disregard

the individuals who may not fit their general conclusion. On the other hand there are a few researchers who have shown a more interesting picture, because more complete, but unfortunately they have often appeared to be less clear in their methodology and theorization. For instance their moves from student-teachers constructs to their own researchers constructs often appear to be obscure.

As a result of their shift from the group to the individuals, such researches have not shown dramatically new conclusions, apart from giving fuller accounts and highlighting in a few cases different possible conclusions which seem to contradict the common assumptions due possibly to their differences in emphasis and the adoption of different methods of research. Despite that, their adoption of a more flexible and less structured method has the advantage of offering the possibility of an interesting understanding of what is happening in the process of becoming a teacher. Among other things, they have drawn attention to the importance of adopting a more comprehensive approach rather than singling out specific variables, which might limit our understanding of the complex phenomena. This is seen through focussing on fewer individuals and employing less structured methods of data gathering.

2.5.3 An Overview on the Impact of College/University Training

I have discussed the results of selected studies on the effect of teaching practice and preservice training in general. Here, I shall try to look at the different arguments regarding this part of the process of becoming a teacher. There appear, as we have touched upon previously, two distinctive views which attempt to explain the change or lack of change during teacher training. First, those who suggest that teacher training influences student-teachers in the direction of what they called more liberality and progressiveness in their attitudes towards education and schooling. Educationists as well as researchers reported this change such as (McIntyre and Morrison, 1967), Jones and Harty (1981, p.9), Crase (1979, p.11), Gibson (1972) and others.

This view is summarized by Zeichner and Tabachnick, (1981).

"..It now has become commonly accepted within the teacher education community that students become increasingly more progressive or liberal in their attitudes towards education during their study at the university and then shift to opposing and more traditional views as they move into student teaching and inservice experience" (p.7).

It ought to be noted here that this liberal change is also reported by many studies not only for education students, but also for young people and more particularly for university students (Gibson, 1972), Zeichner and Tabachnick, 1981, p.7).

With regard to teaching experience they suggest that it has also an influence but in the opposite direction, that is towards more, what they named, custodialism and bureaucratic orientation. Here the source of influence is not the training programme but rather the social structure and culture of the school. As Zeichner and Grant (1981, pp.299-300) reported, researchers have pointed to different facets of the school setting which impinge upon student-teachers during their school practice. Three different and complementary sources of influence are reported in the literature: the co-operating teachers, the ecology of the classrooms which limit student-teacher's behaviour as Doyle and Ponder argue (Zeichner and Grant 1981, p.300), and the dominant beliefs and values associated with the bureaucracy of the school as Lortie reported from Warrien (Lortie 1973, p.487).

However, it should be noted that those who have reported changes as a result of teaching practice have reported different kinds of change. In other words, there are effects of two different kinds, or what some researchers labelled as 'desirable' and 'undesirable' effects. Some reported effects in one direction (what they called positive effect) such as Lantz, Ishler, Dumas, Copeland and others (Silvernail and Costello 1983, p.32), but the majority have shown an effect in the other

direction (what some of them called a negative effect) such as Hoy and Rees (1977), Walberg (1970) and others. Both views are summed up by Zeichner (1980):

"From a review of the literature it can be concluded that field-based experiences are neither all beneficial in their effects as the abundant testimonials and the increased emphasis on these experiences would lead us to believe; nor are they merely vehicles for adapting new personal into existing patterns as many critics would have us believe. Instead, field-based experiences seem to entail a complicated set of both positive and negative consequences that are often subtle in nature" (p.46).

On the other hand, other commentators and studies are of the view that the teacher training impact is minimal. Wright with his emphasis on early life influences led him to argue that teaching is an expression of early yearnings and fantasies (Fuller 1975, p.35; Lortie 1973, p.487). Lortie (1975, p.79) argue: that "socialization into teaching is largely self-socialization, one's personal dispositions are not only relevant, but, in fact stand at the core of becoming a teacher", and that is due to "the protracted exposure to potent models which leads to largely unconscious internalization by the student-teachers of the modes of behaviour which are triggered in later teaching" (Lortie 1973, p.484). Petty and Hogben (1980, p.55) also reported the influences of what happens before pre-training entry. They reported the low impact of teacher training including even teaching practice, as Lortie argued. Although it might be earthy and realistic in comparison to the the

theoretical course, it is short and parochial (Lortie, 1975, p.71).

However the forces of socialization can take formal or informal forms as Kuhlman and Hoy (1974, p.25) commented on the importance of informal socialization. These generalized and salient agents of socialization are viewed to work together for the change.

"Relatively 'liberal' students begin during their student teaching experience to move closer toward the more conservative beliefs and practices of their co-operating teachers, who are, in turn, pressured toward conservative views by the constraints imposed by the material conditions of the classroom and by the institutional characteristics of school and by the institutional characteristics of school bureaucracies" (Zeichner and Grant, 1981, p.298).

Other specific factors associated with the change are also reported, such as student-teachers' personalities (Kremer and Moore 1978, p.512), the kind of student-teachers (Adams, 1982, p.41) and pupils as Lortie cited from Haller (Lortie, 1973).

However, while some look at the change in a deterministic way such as Kuhlman and Hoy (1974), Hoy and Rees (1977) and others, some others would challenge such

a view and look at the process of becoming a teacher as involving the student-teacher playing an active part in its socialization. Among those taking this latter view are Lacey (1977) and Zeichner and Tabachnick (1985), who seem to argue that when there is a change towards the school values, student-teachers "willingly complied with the institutional norms in the classroom" (Zeichner and Tabachnick, 1985, p.10).

2.6 The Impact of Beginning Teaching

Introduction

For all engaged in the education enterprise, as Johnston and Ryan (1980, p.2) commented, the first year of teaching has come to be recognized as a unique and significant period in the professional and personal lives of teachers. Lortie (1975, pp.59-6) reported that one of the striking features of teaching is the abruptness with which full responsibility is assumed.. ..a student in June and a fully responsible teacher in September.

Studies reported in this section discuss generally the effect of beginning teaching on attitudes, perspectives, beliefs, etc. Despite the fact that some of the studies began studying the process from the period of teaching practice and a few others went beyond the first year of teaching, all of them have been concerned

with the effect of beginning teaching. For each study, the focus, the instrument used, time(s) of administration and the relevant findings are reported. The 'relevant findings' here refers to the conclusions which discuss the nature of change or stability and the sources and factors associated with it. All of the studies are ordered chronologically according to their publishing dates. After reporting the different studies, a general discussion of the studies conclusions and those of some relevant reviews is attempted at the end. It ought to be noted that due to consistency in reporting beginning teachers' problems, it was seen not necessary to report them in all the studies.

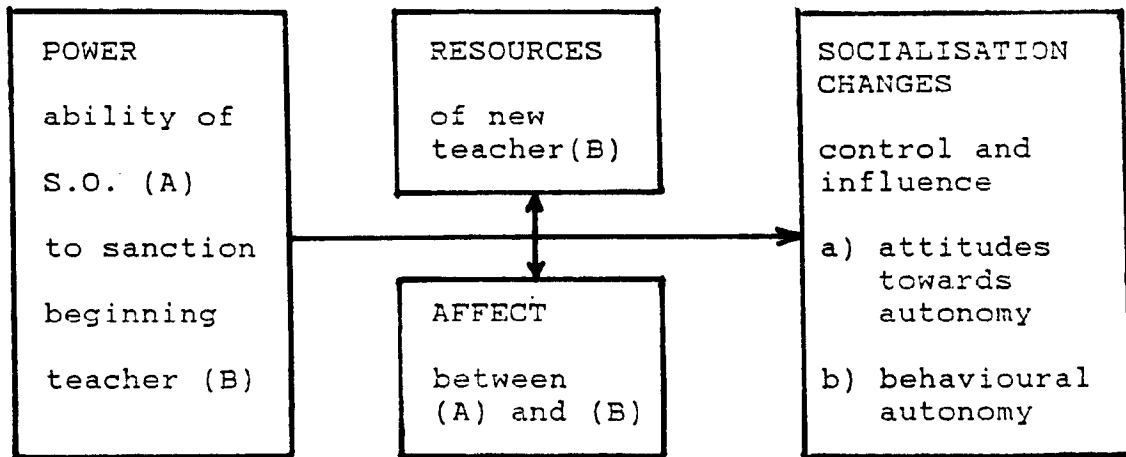
2.6.1 Edgar and Warren

(Edgar, D.E. and Warren, R.L. (Fall, 1969), "Power and Autonomy in Teacher Socialization" Sociology of Education, pp.386-400).

Starting with a view of occupational socialization as a process which involves pressure to change previous patterns of behaviour by beginning teachers and to accept the norms held by socializing agents who have the ability to sanction, these researchers conducted a pre-test post-test attitude study. A group of beginning teachers, experienced teachers and administrators were contacted and a pre-test of autonomy attitudes was administered to

all of them prior to the start of the school year and a post-test was administered six months later after teachers were subjected to at least one formal evaluation in their school.

Furthermore, interviews were conducted with teachers to identify their 'significant others', to know their 'behavioural autonomy' and their feelings about the 'legitimacy' of administrative authority, and their 'satisfaction' with teaching. 'Significant other' here refers to the person(s) whose evaluations of task performance have the greatest value for the new teacher in relation to their effect on organizational sanction. 'Behavioural Autonomy' refers to the behaviour which not controlled by an external agency. 'Legitimacy' refers essentially to the congruence between the norms of subordinates and the exercise of power in the authority system. 'Satisfaction' refers simply to the extent to which teachers accept or are satisfied with the patterns of allocation and evaluation they experience. Edgar and Warren summarized the process in the following model.



Where 'Resources' refers to the skills, abilities and experience relevant to the teacher organizational task performance. Two indicators used: the relative teaching experience of new teachers in the sample, and the perceived status of their teaching subject. 'Affect' refers to the strong positive liking between the teacher and the significant other(s).

It should be noted as Edgar and Warren themselves pointed out that this model implies that colleagues per se and the contextual effects of work group attitudes are less important to organizational neophytes than are the attitudes of significant evaluator(s) which seems a big assumption.

However, the researchers found that the new teachers' attitudes to autonomy were changed towards the attitudes held by his significant other (except in the case when new teachers and significant other sources on the pre-test

coincide). Unexpectedly the new inexperienced teachers did not change toward their significant others' autonomy attitudes any more than the new experienced teachers; whereas there was more change towards significant others' attitudes in the case of low status (of teaching subject) teachers than of high status teachers. As predicted, high affect teachers changed more towards significant other attitudes than low affect teachers. Further, the researchers argued that the 'affect' variable may be more related to socialization change for autonomy new teachers than those who are less conformist in attitude at the outset.

Moreover, they indicated that teachers discussed sources of satisfaction in terms of autonomy. Demands for autonomy centred on curriculum content and decisions about teaching methods. Sources of dissatisfaction they expressed primarily in terms of administrative interference and generalized pressures to conform. They also reported that many new teachers wanted more help with discipline and greater clarity in administrative and clerical tasks, rather than greater freedom from control.

2.6.2 Hoy

(Hoy, W.K. (1969), "Pupil Control Ideology and Organizational Socialization: A further Examination of the Influence of Experience on the Beginning Teacher School

Review, 77 (3-4), pp.257-65).

Taking the school as a social organization in which, it is believed, pupil control ideology is seen as a central feature of its organizational life; he examined the pupil control Ideology of the same sample of beginning teachers, he studied earlier, as they acquired their second year of teaching experience. In his earlier studies, he reported that beginning teachers showed a significant increase in the custodialism of pupil control ideology both after the studied teaching experience and again after the first year of teaching. He found that pupil control ideology remained virtually unchanged as teachers acquired their second year of teaching experience. This was found true of the those who taught but the pupil control ideology of those who did not teach in their second year became significantly less custodial.

2.6.3 Kuhlman and Hoy

(Kuhlman, E.L. and Hoy, W.R. (1974), "The Socialization of Professionals into Bureaucracies: the Beginning Teacher in the School" The Journal of Educational Administration, 12 (2), pp.18-27).

In this study the researchers focused on investigating the changes in bureaucratic and professional orientations of beginning teachers as they encountered the formal

organization of the school during their first year of professional teaching experience. Professional orientation refers to a perspective characterized by a belief in a high degree of autonomy to make professional decisions in the best interests of students; a focus on expertise in the professional responsibilities and obligations, and a professional reference group orientation to keep abreast of new developments in the field.

'Bureaucratic Orientation' refers to the basic pattern of beliefs which include a reliance on the administration for guidance in controversial educational matters, a high regard for the necessity of rules and regulations, a high degree of loyalty to the administration and the school; and a general feeling of self-subordination to the school and community. They based their study on the hypothesis that beginning teachers would have a significantly greater bureaucratic and professional orientation after the first year of teaching. Two measures were employed: the Bureaucratic Orientation Scale and the Professional Orientation Scale both of which were administered to a sample of prospective elementary and secondary teachers at the end of their teacher training programme and after the completion of their first year of teaching. The results they found were not as they expected. The bureaucratic and professional orientations of elementary teachers changed very little. Concerning secondary teachers; they become significantly more bureaucratic but significantly less

professional as they completed their first year of teaching. The authors speculated that formal socialization was successful with regard to secondary school teachers and both formal and informal socialization was less pronounced with regard to elementary school teachers because there is simply, as they commented, less need for it (i.e. for them to be more bureaucratic and professional). No sex difference was found and they also added that differences regarding sex and type of preparation programmes which were reported in other studies might be due to samples, time, devices and the foci of the studies.

2.6.4 Sheridan and Pyra

(Sheridan, D.P and Pyra, J. F. (1975), "Problems and Self-concepts of Beginning Teachers" Saskatchewan Journal of Educational Research and Development, 52, pp.30-7).

This study investigated the relationship between the problems of beginning teachers and their measured self-concepts. Two measures were used: Beginning Teachers' Questionnaire and the Adjective Check List. Both measures administered to neophyte teachers. First, they concluded that the major problems experienced by beginning teachers were discipline and teaching methods, and the remaining problems were of secondary difficulty.

Second, by investigating the possible relationships among the personality attributes and beginning teachers' problems; they found that the attributes scales were not unusually powerful predictors of the problems.

However, by using Pearson and step-wise regression analysis, they found that, for instance, those with discipline and teaching methods problems tended to see themselves as anxious, apprehensive, critical of self and others, troubled with peers, tended to be individualistic, and though clever and sharp witted, as headstrong, pleasure seeking, self-centred, and not sufficiently considerate with others.

2.6.5 McArther

(McArther, J.T. (1978), "What does Teaching do to Teachers?" Educational Administration Quarterly, 14 (3), pp.89-103).

To explore the effect of teaching on teachers, he designed a longitudinal study that monitored a group of Australian secondary teachers from their final year of training into their initial year of teaching. It was an attempt to replicate other studies which employed Pupil Control Ideology and other measures of attitudes to examine the phenomenon of beginning teachers' socialization. The PCI form was administered after the conclusion of final practice teaching and during the initial year of teaching.

He concluded and supported Hoy's finding but in an Australian context, that is beginning teachers' ideologies shift towards more tough-minded, custodial and realistic attitudes during, and possibly as a result of their initial experience as full-time teachers. He also found within this shift that males tended to perceive themselves as rather more custodial in their pupil control ideology than females.

In general, his concluding remarks add strength to earlier observations that the initial year of teaching experience constitutes a 'reality shock' phase for beginning teachers.

2.6.6 Paschal and Treloar

(Paschal, B.J. and Treloar, T.M. (1979), "A Longitudinal Study of Attitude Change in Prospective and Beginning Elementary School Teacher" Teacher Educator 15 (1) pp.2-9).

These researchers look at the process of socializing teachers as being in two phases: initial socialization to professional norms and values occurs during college preparation which focuses more on ideal images and practices, and the second phase of the process begins during practice teaching, as students enter the 'real teaching world'. As a result of the call, as they say, in 50s, 60s, 70s for early and direct experience with children, they attempted to investigate the attitude change as a result of different training programmes and field experiences which extended from the time of students' training to the next

three years of full-time teaching in a longitudinal study. There different scales were used: The Dogmatism Scale, the Pupil Control Inventory and a Semantic Differential Measure.

These scales were administered at the beginning of the course, at the end of their teaching practice, at the end of the first year of teaching, and at the end of the third year of teaching. They found; first, dogmatism was lowered during their course of training and remained stable and resistant to change through the third year of employment irrespective of the programmes followed by student-teachers.

Second, there was a change towards what the author labelled, more positive connotations for the concepts 'learning' 'Teachers' and 'Teaching' during their training and these two remained stable through the three years of teaching. With regard to the concept 'student', although there was a move towards, what the researchers called, a more positive connotation during their training they reverted by the end of teaching practice and remained as such until the end of the three years of teaching. Third, student teachers moved from a more custodial to a more humanistic orientation during the period of training but it was eliminated by the end of teaching practice. Hence, pupil control ideology was, at the end of the third year at the same level as it had been at the beginning of their training course. Finally, they found that early field experience has no significant effect more than the effect of any other teaching practice.

2.6.7 McArthur

(McArthur, J. (1979), "Teacher Socialization: The First Five Years" The Alberta Journal of Educational Research, 25 (4) pp.264-74).

Studying the socialization of teachers in a follow up to his earlier study, he extended it as a longitudinal study, to follow the teachers up to their fifth year of teaching. The findings reported here were obtained in 1978 from some of the sample surveyed in 1972, particularly those who stayed in the profession. Using the pupil control ideology inventory as a primary measure of teachers self reported attitudes to pupil control he administered it between preservice training and the fifth year of their full-time teaching. Consistent with his previous study and supporting Hoy's findings, the main finding was that the most marked adjustment in the socialization of beginning teachers takes place during the period of initial teaching experience. This period of 'reality shock' is followed by a consolidation or plateau phase during which those who choose to remain in the teaching profession adjust and 'internalize' values of the teaching sub-culture. He also reported sex (males became more custodial), teaching subjects (science and practical subject teachers became more custodial), and changing school (mobile teachers became more custodial) as significant factors in the process of teachers' socialization.

2.6.8 Lundstrom and Murphy

(Lundstrom, K.V. and Murphy, P.D. (1976), "Concerns of First Year Teachers of Home Economics" The Journal of Vocational Education Research, 1 (2) pp.61-9).

They investigated the concerns of first year teachers of Home Economics. They also tried to explore the situational socializing agents in school and community related to beginning teachers' concerns. They admitted other related factors which may be of influence such as psychological factors in the teachers themselves, aspects of the teaching-learning process, etc. An open-ended question "The way I feel about teaching this month is.." was completed by beginning teachers. Two situational factors were found to be significantly related to beginning teachers' concerns.

The number of daily lesson preparations and the kind of contact with their administrators were of significant influence. Teachers with more (4) daily lesson preparations made significantly more negative comments about their work load, about themselves, and teaching. Secondly, teachers who had what were termed as positive contacts with their administrators experienced fewer problems and more feelings of success, and satisfaction with teaching than those who had 'negative' contacts with their administrators. They also supported Fuller's argument in that beginning teachers

were found to be concerned primarily with their self-adequacy and less with the progress made by students and teachers did not seem to resolve these concerns during the first year of teaching.

2.6.9 Felder, et al

(Felder, B.D. et. al. (1979), "Problems and Perspectives of Beginning Teachers: A Follow Up Study" ERIC ED201631 Spol8059).

This was an enquiry to investigate the problems and concerns of beginning teachers and their coping strategies from the completion of student teaching through the first nine weeks of instruction as professional teachers. Data were collected at the end of student teaching, the end of school orientations programme and at the end of the third and the ninth weeks of teaching. The procedures used for data gathering were: Teacher Concerns Questionnaire to measure teachers concerns in the areas of self, task and impact, and self-reports to elicit information concerning problems encountered and coping mechanisms employed. The latter was obtained through open-ended questionnaires and audio recordings of group interactions and individual reports.

Discipline and classroom management represented the major concerns for the majority of student-teachers at the

end of student teaching. The problems mentioned during teaching practice were specific such as lack of time for preparation, children fighting and so on. Incident-related concerns and problems listed as important during student teaching were not evident just prior to opening school (i.e. school orientation time). While the coping strategies during student teaching varied according to the individual student-teacher, they tended to be general during the orientation stage since the problems of teaching had not yet surfaced. The question "how am I going to survive in this time-demanding and uncontrolled world?" represented the underlying theme of concerns at the end of the third week of their first year of teaching. Being ready and armed for the next day was the way to survive, even if it took all night, was the coping strategy for the first three weeks of teaching. Also conversation with others comes as a second strategy. By the end of the ninth week there seemed an increased concern about pupils and parents and less concern about management related problems. The coping strategy now shifted from planning and preparation to conversation with other teachers and principal.

Moreover, they found self concerns remain high and fairly consistent from the end of student teaching through the first three weeks of beginning teaching. These concerns begin to taper off by the end of student teaching, dip to their lowest at the conclusion of orientation sessions for new teachers and rise over the initial weeks of beginning

teaching. They also reported that impact concerns were highest at the end of student teaching, dipped to their lowest point at the end of orientation sessions and then rose during the first nine weeks of teaching. The researchers suggest that the high impact concerns at the end of student teaching were possibly explained by what they called somewhat unrealistic views which these students might have had regarding teaching as suggested by student-teachers' tendency to generalize and idealize about the problems they could encounter as beginning teachers.

It appears that the researchers did not deal with task concerns as a separate category of concern, rather as was clear from their report, they dealt with both self and task concerns as if they were one category. This reflects the underlying assumption of research investigations that the development of concerns that 'impact concerns' are assumed to represent the maturity of the teacher.

Further, the researcher did not show clearly in their report what happened to self-concerns at the end of the ninth week. Nevertheless, it could be understood from what they reported that there was possibly a move away from self-concerns to impact concerns.

In general, they argue that their findings support Fuller's hypothesis.

2.6.10 Petty and Hogben

(Petty, M.F. and Hogben, D. (1980), "Explorations of Semantic Space with Beginning Teachers: A Study of Socialization into Teaching" British Journal of Teacher Education 6 (1), pp.51-61).

The researchers explored the overall attitude structures of six different categories of students and teachers. For this purpose they developed and employed a semantic differential instrument. The concepts of the instruments were chosen, the researchers claimed, so that they would be meaningful to students, interns (interns refers to the students who are employed as regular classroom teachers, and continue with courses at the university), and experienced teachers; were designed to provide evidence of bureaucratic and professional orientations; and to allow the respondents to describe the meaning of teaching for them in fairly comprehensive terms. The six categories were:

Group one. Interns who were teaching for the first time in elementary school in 1976.

Group two. Experienced teachers teaching at the same schools as the above interns and nominated by them as the teachers with whom they most often interacted on day-to-day teaching matter.

Group three. Those who were in their final full-time year at the university in 1976 and who were interns in elementary schools in 1977.

Group four. Experienced teachers teaching at the same schools as the 1977 interns.

Group five. Bachelor of Education and Diploma in Education (Elementary) students who were in their final full-time year at the university in

1977.

Group six. Non-education students in their final year at the university

Group one, two, and four each completed the instrument twice: approximately three weeks after the commencement of the school year, and again as close to the conclusion of the same school year as possible.

Group three completed the test twice as full-time students in their final year at the university: immediately after teaching practice, in the middle of the year and at the end of the year; and twice as interns: at the beginning and end of the year.

Group five completed the test three times: during the first week of their final year at the university, immediately after teaching practice, and at the end of the academic year.

With regard to the meaning of schooling, they found that all groups seemed to share a conception of schooling which was practical task oriented, and divorced not only from theoretical consideration but also from other factors extraneous to the classroom. Even if there was a slight change during theoretical courses, this was reversed as soon as they began their teaching. Generally, they found that teachers, education students and non-education students hold common attitudes towards schooling. In this, as they suggest, they support

Lortie's assertion that teachers retain a definition of schooling and teaching from their own school days.

2.6.11 Corcoran

(Corcoran, E. (1981), "Transition Shock: The Beginning Teacher Paradox" Journal of Teacher Education, 32 (3), pp.19-23).

Starting with criticizing the empirical studies which as he commented, tend to focus on a small piece of a much larger picture, leaving the reader unable to envision the totality of the university-to-public-school-classroom shift, he attempted through two case studies of individual beginners, to explore, describe and explain what it is like to make the shift from being a student to being a teacher so as to explain why preservice education fails to survive the shock of transition from university to school. That is an attempt also to answer Fuller's question "what is out there?" as he commented. The primary sources of data were weekly interviews with and bi-weekly observations of, beginning teacher interns during their first 14 weeks in the classroom. All interviews and observations were tape-recorded, and the beginner was encouraged to review his/her tapes regularly. At the pre-observation interview which occurred on the day a scheduled observation, the beginner was asked to describe the forthcoming lesson in great

detail, including a discussion of objectives, content, materials, equipment, timing, seating arrangement and anticipated problems. At the post-observation interview, which occurred immediately after each observation, the beginner was asked to describe his or her perception of how the observed lesson went, comparing the planned with the actual lesson. At the inter-observation interview, which occurred during the week between observations, the beginner was asked to describe and interpret occurrences and changes in the classroom, and related contexts. The key purpose of all interviews, the researcher asserted, was to encourage the beginner to make independent sense of his or her learning-to-teach experiences.

The major goal of the observations was to enable the researcher as he claimed, to enter the beginner's world to put faces to names mentioned in interviews, and to get a first-hand sense of classroom dynamics. The students were the focus rather than the beginner. This was justified in that it would be less threatening to the beginner and that the beginner could reconstruct his/her role by reviewing the tape of the lesson. The researcher focused on non-verbal behaviours since the lesson was tape-recorded.

It might be worth noting that Corcoran in his report did not tell how he moved from the data he collected to the theme of "the condition of not knowing", apart from

his claim that it emerged as a common element. Further, the picture is still not clear because he said that only one of these common elements emerged from the vast amount of data he reported. The explanation he offered is summed up by his phrase 'the condition of not knowing'. He suggests that the large number of factual and procedural unknowns can send the beginning teacher into a state of shock, where in it becomes impossible to transfer previously mastered concepts and skills from the university to the public school classroom. He called it the paradox of not knowing, yet having to pretend that she/he does know.

2.6.12 Adams

(Adams, R.D. (1982), "Teacher Development: A look at changes in Teacher Perceptions and Behaviour Across Time" The Journal of Teacher Education, 33 (4), pp.40-3)

In studying teacher development, he investigated the change in teachers perceived problems, concerns and classroom behaviour over a six year period beginning with student teaching and continuing through five years of teaching experience. Data were gathered in four phases, near the end of student teaching, first, third, and fifth years of teaching experience. Data collected, were from numerous sources including self report data, direct classroom observations by trained observers, student

ratings, and peer and supervisor ratings. Developed modified instruments were used to collect data: Teacher Preparation Evaluation Inventory for studying student-teachers' perceptions of specific problems, Teacher Concerns Checklist based on Fuller's work to study self, task and impact concerns, and the Classroom Interaction Analysis System and the Classroom Observation Record as measures of teaching style. The main finding of the enquiry was: when teachers leave the preservice programme enter the teaching field, and gain experience as teachers, they change in regard to some perceptions and behaviours but not others. Teachers, for instance, change little in their perceptions of discipline and student motivation (problems of high severity for all teachers across time), concern for students' welfare (Fuller's impact concerns), and style of teaching.

Further, as teachers gain experience they tend to perceive an increase in problems with pupils, administrators, and parents at the same time as their concerns about themselves as teachers are decreasing. Teachers tend to have increasing concerns about instructional tasks even though their classroom teaching behaviour is judged greatly to improve, particularly between the first and the third years of teaching experience. With regard to elementary and secondary teachers there is no significant difference apart from secondary teachers being more concerned with the subject

matter at least in pre-service and first year of teaching. Finally, he seems to support Fuller's theory in relation to a shift in emphases from self-concerns to task concerns, but not in relation to impact concerns which characterize Fuller's mature teacher as Adams argued.

2.6.13 Hogben and Lawson

(Hogben, D. and Lawson, M.J. (1983), "Attitudes of Secondary School Teacher Trainees and their Practice Teaching Supervisors" Journal of Education for Teaching, 9 (3), pp.249-63).

After reporting the stability of student-teachers' attitudes (Hogben and Lawson 1981), they focussed on a small number of student-teachers and followed them to their first year of teaching. Five measurements of attitudes were made: at the beginning of their training i.e. before going on teaching practice; at the end of teaching practice; at the end of the academic year, within a month of starting teaching; and lastly at the end of the first year of teaching. The attitude scale used took the form of a semantic differential instrument. The last data gathering took the form of an open-ended interview with probing. The change of emphasis from the group to the individual as they argued led them to a different conclusion. Here they reported a considerable change of attitudes toward certain concepts while attitudes towards other concepts remain

stable. The change is largely idiosyncratic, yet they found the most powerful influence was the support provided by the school community. As such they commented that Lortie's thesis of stability is supported by some student-teachers but is not true of others.

2.6.14 Gehrke and Kay

(Gehrke, M.J and Kay, R.S. (1984), "The Socialization of Beginning Teachers through Mentor-Protege Relationships" Journal of Teacher Education, 34 (3), pp.21-4).

Assuming that trainer-trainee relationship characteristics are highly similar to those examined as mentoring relationships in managerial careers. These researchers explored the socialization of beginning teachers in terms of Mentor-Protege Relationships. Beginning teachers were given a short questionnaire in which they were asked if at any stage in their career or career preparation there had been anyone outside the family who had taken a personal interest in their careers and had helped, guided, or responded to them. Later a further exploration was conducted for a group of them by means of interviews. It was found that there was no doubt that mentors were influential in many of the teachers' decisions. Mentors were mostly college professors/supervisors (21) and school principals (8), followed by former teachers (4) and co-workers. They also noted that only three teachers

mentioned fellow teachers as mentors and none named a co-operative teacher. Hence, they argued that the beginning teacher - co-operating teacher relationship is a pseudo one.

However, they found the teachers suggest that the relationships began with signals from the potential mentor that they were taking an interest in the teacher. 'Taking an interest' refers to apparently friendly visits to the classrooms, joking, informal conversations and encouraging remarks.

2.6.15 Zeichner and Tabachnick

(Zeichner, K.M. and Tabachnick, B.R. (1985), "The Development of Teacher Perspectives: Social Strategies and Institutional Control in the Socialization of Beginning Teachers" Journal of Education for Teaching, 11 (1), pp.1-25).

This study was a two-year longitudinal study of the development of teaching perspectives by four beginning teachers. A "perspective" here is not fundamentally different from what was reported during the discussion of Gibson's study. Essentially the study was of two phases. In the first phase during teaching practice the sample were 13 student-teachers. Only four of them were followed as beginning teachers who taught in rural, sub-urban and urban schools. The present study examined the individual responses of the four teachers to the institutional contexts

in which they worked, and the nature of the formal control mechanisms which existed in their schools. In their study the researchers attempted to illuminate how specific beginning teachers are socialized in particular settings as opposed to many central tendencies studies. These four teachers were followed from their teaching practice into their first year in schools to know who and what influenced the development of teacher perspectives during their first year. Classroom observation and narrative descriptions of events was the method of collecting data using four orienting categories complemented by teachers and pupils, other teachers' and principals' interviews. They were: knowledge and curriculum, the teachers' role, teacher - pupil relationship, and student diversity; which were in turn described in terms of 'dilemmas' of teaching. Documents were also added as a source of information. The dominant strategy for ten out of thirteen student-teachers during teaching practice was of 'internalized adjustment' which is different, as they reported, from 'passive acceptance', i.e. they willingly complied with the institutional norms. The dominant social strategy of the remaining three students was one of 'strategic compliance' i.e. they opposed school constraints, but acted in ways demanded by the situation. A variety of strategies were employed by every individual in their first year at different times, but there was also a dominant strategy which characterised the experience of each teacher. It was also found that first year teachers under some conditions at

least can have a creative impact or adopt what the researchers called strategic redefinition, on their workplace, and survive i.e. they can maintain their perspectives. They offered one possible explanation; that is the pressures of the institution are often contradictory in nature. In other words, it was found that the interaction of formal and informal cultures rather than the presence or absence of any particular control mechanism by itself which determined the institutional constraints and opportunities presented to each other.

In discussing the institutional control in the process of beginning teachers' socialization, they pointed out three types of control: personal or direct control e.g. the principal through close monitoring of teachers' actions, bureaucratic control embedded in the social structure of the school situation enforced through impersonal bureaucratic rules and hierarchical relations, and technical control which is embedded in the physical structure of the teaching process. They found that technical control was the most pervasive and powerful factor exerted through the timing of instruction, the curriculum and curricular material, and the architecture of the school. However, there is no single explanation which can describe the process of becoming a teacher.

Finally to sum up the basic findings: the researchers argue that the determinants of institutional constraints and

in turn the socialization process lies in the interaction between formal and informal modes of control. Secondly, loss of idealism is not an inevitable result of induction into teaching and that the formal teaching programmes are not necessarily in vain. Under certain circumstances beginning teachers can express their ideals.

It should be noted that the reserchers, in studying student-teachers' and beginning teachers' perspectives, focused on only four themes without clarifying why they did so. Further, the move, in the second phase, to describe the four themes in terms of 'dilemmas' of teaching is a move which needed clarification.

2.6.16 Discussion

First, it was noted from the research findings and reviews reported here or elsewhere such as Sheridan and Pyra (1975), Silvernail and Costello (1983, p.32), Lacey (1977, p.80), Johnston and Ryan (1980, p.29), Coates and Thoresen (1976, pp.164-5), Veenman (1984, p.160), and many others that research, investigating beginning teachers since 1930s seem to be consistant in their findings. Veenman (1984) in his research review since 1960 summarized the problems faced by beginning teachers by saying:

"The eight problems perceived most often are
classroom discipline - most serious problem

motivating students, dealing with individual differences, assessing students work, relationship with parents, organization of classwork, insufficient and/or inadequate teaching materials and supplies, and dealing with problems of individual students" (p.143).

With respect to whether there is a shift during this transition period or not, there are two main arguments. First, some such as McArthur (1978) and Corcoran (1981), and many others, argue that as a result of the unfamiliar situation or what is some times called 'reality shock' beginning teachers tend to be more concerned with self adequacy (Fuller, 1975, pp.38-9) and to become more custodial, more bureaucratic in their orientations and hence to have internalized the values of the school culture (cf. Edgar and Warren (1969); Hoy (1969); McArthur (1978 & 1979) Felder et.al (1979), Corcoran (1981), and others. Within this argument, there are some who report that not every thing is prone to change, rather some perceptions and behaviours change and others do not. Adams (1982) for instance, found that there was little change in beginning teachers' perception of problems of high severity, impact concerns, and teaching styles; but there was a change in their perceptions of problems with pupils and administrators. This view is supported though with different aspects and emphasis by Hogben and Lawson (1984) and Hoy (1969). Despite such qualifications, there is widespread support in the literature for the view summarized by Veenman (1984) who reviewed the studies since the 1960s.

"Many studies provide evidence that students become increasingly idealistic, progressive, or liberal in their attitudes towards education during their pre-service training and then shift to opposing and more traditional conservative, or custodial views as they move into student teaching and first year of teaching" (p.145).

This deterministic view has been challenged by others such as Lacey (1975) and Zeichner and Tabachnick (1981, & 1985) Lacey (1977) for instance, commented:

"This change is complex and incomplete. Too much emphasis has been given to the obvious fact that the change occurs, and too little attention paid to the partial and incomplete nature of the change and the realization that new styles of teaching are emerging" (p.48).

In other words, the beginning teachers, while constrained, have some freedom to manipulate and change the situation (Lacey ,1977 p.95). Zeichner and Tabachnick (1981 & 85). Although they did report a change with the beginning teachers willingly complying with the institutional norms claim that the loss of idealism is not necessarily inevitable. First year teachers, under some conditions, they argue, can have a creative impact on their work place.

Concerning the socializing agents or factors which have an influence in the transition period of the process of becoming teachers, there are different emphasis and multiple agents and factors suggested in different

studies and reports. Nevertheless, they can be discussed under two categories: personal and situational factors. Under situational factors researchers have tended either to attribute the change to inadequate training, teaching experience, the problems faced in the first year, the school environment, work conditions and so on (cf. Crase 1979, p.13; Fuller 1975, p.40; Morrison and McIntyre 1980, p.77; Hoy 1969; McArthur 1978, & 1979; Paschal and Treloar 1979; Felder 1979; Corcoran 1981 and others); or have attempted to be more theoretically explicit. For instance, role model was highlighted as an important source of influence (e.g. Butcher 1965), or significant other with evaluative power (Edgar and Warren, 1969). Some commentators, have drawn our attention to the possible influence of formal school bureaucracy on secondary school beginning teachers' orientation such as Kuhlman and Hoy (1974) but others such as Lortie (1975) would say that school hierarchy is of limited influence simply because it is a formal agent of socialization. Pupils were mentioned as playing an important role in beginning teachers' socialization by for instance, Haller (Lortie 1973, p.487) and Zeichner (1980, pp.51-2). Peers are seen to have, though may be minor, a contributory factor in teachers' socialization (McArthur 1979; Lortie, 1975). Subject sub-culture, sex, mobility were also considered by different researchers as differentiating factors (Lacey 1977; McArthur, 1979; Lortie, 1975).

Technical control or constraints as labelled and referred to by Lacey, (1977, p.86), Zeichner and Tabachnick (1985), or part of these technical constraints such as resources (Edgar and Warren, 1969) or the ecology of the classroom as stressed by Doyle and Ponder (Zeichner 1980, p.47), is seen by some as the most powerful influencing agent of all (Zeichner and Tabachnick, 1985).

With regard to the personal variable or as some would label it the self, Lortie (1975, p.77) commented that one cannot adopt a practice unless it is consistent with his personality. Veenman (1984, p.147) mentions in his reviews personal causes such as a mistake in choosing teaching as a career, improper attitudes, and unsuitable personality characteristics.

More particularly Zeichner (1980, pp.51-2) referred to cognitive maturity as one factor which influences the beginning teacher's response to the constraints he faces.

In short, although different studies have pointed out different factors which affect the process of becoming a teacher, the research findings of one often seem to be 'included' in those of others. For instance, when one researcher talks about the school environment as an important factor, another may talk about technical

constraints.

A further point worth noting is that although there is a tendency, though not a very clear one, towards adopting less structured methods of data gathering, as was previously mentioned to further our understanding of the phenomenon under investigation, it seems that, in addition to the ambitious claims and conclusions of such researchers as Zeichner and others, there is also a tendency for them to undertake their research from a heavily 'professional' perspective. Evidence of that is markedly in their use of evaluative terms such as 'desirable', 'undesirable', 'positive' and 'negative'. They seem to be primarily concerned to know whether or not a 'good job' is being done and that in turn, involves massive assumptions about what would or would not be a 'good job'. This kind of concern would ultimately interfere with their attempts to use research to achieve better understanding of what is happening. In such research, superimposing their subjective judgement about what is beneficial, positive or negative, tends to obscure any research contribution they might make towards furthering understanding of the phenomenon.

Finally, there is the other view which suggests that there is no dramatic change, rather they argue that the role model in pre-college entry as the major socializing factor in teaching career. This view is argued by Lortie

(1975) who suggests that 'apprenticeship of observation' shapes the students' conception of the teaching role. In other words what constituted good teaching then constitutes good teaching now (Lortie, 1975, p.66); and even if there was a limited influence it comes from informal agents of socialization (Lortie, 1975, p.77). It is also supported by Petty and Hogben (1980).

2.7 The Conceptualization of the Process of Becoming a Teacher

Although studies have attempted to view the teachers' development from childhood until as far as the 7th year of teaching, nonetheless, the majority of studies focussed mainly on investigating the period covering student-teachers training and their first year of teaching.

The dominant school of thought interprets the research, whether conducted on a large or a small scale, and employing different research instruments and methodologies (e.g. MATI, MSOE, PCI, inventories. etc) and constructs (e.g. concerns, attitudes, problems, perspectives, strategies, etc) as having found that training or university in general and teaching or school in particular has an impact. Student-teachers tend to adopt liberal or progressive attitudes towards education during their teacher training and shift towards more conservative or custodial attitudes as they start their teaching practice and first year of teaching. This shift is seen by researchers to come about as a result of the 'reality shock' which in turn comes as a consequence of the inadequacy of the training programmes and the

training programmes and the unfamiliarity and the situational constraints of the school.

Identifying the above tendencies was only the first step to know the process of becoming a teacher. Researchers are still trying to understand the mechanism of this phenomenon. This is represented by studying the influences or socializing agents so as to approach understanding the nature of the process. Using more flexible methodology and studying the context have helped the education community towards a better understanding of the nature of the process; as Fuller has commented, we are in need of knowing "what is out there?"

Due to many factors, among these, situational and personal multifaceted variables and instruments and methodology used, research results appear to show different significant influences, though sometimes may be conflicting results, which operate in the process of teachers socialization.

Among those mentioned, as was discussed earlier are: University training; co-operating teacher or co-workers; school bureaucracy; pupils; technical control as it was termed by Zeichner and Tabachnick (1985); and others outside of the school such as friends, spouses. etc. Further, the influences of the personal dimension such as student-teachers/beginning teacher biography and

cognitive maturity- formal-informal dimension was also seen by some researchers as a determinant. Factors such as the informal relationship between student-teachers'/beginning teachers' relationship with others (Gehrke and Kay, 1984) or the nature of possibly conflicting formal and informal school culture (Zeichner and Tabachnick, 1985). However, although again adopting less structured techniques showed the possibility of revealing a better understanding of the phenomenon, the finding of most of the studies if not all, as opposed to the researchers commentaries and speculations, seem to be very few and uncertain. The processes and outcomes of teacher socialization appear to be different in different cultural and organizational contexts.

It is worth noting as well, that within this school of thought there are two distinctive views. First, the deterministic or functionalist view which looks on student-teachers/beginning teachers as vulnerable and unable to resist the situational constraints such as Edgar and Warren (1969) and Hoy (1969). Second, there is a growing body of research looking at the student-teacher/beginning teacher as playing an active part in his own socialization. Hence, Shipman (1967) talked about "Impression Management" as a strategy of responding to the questionnaire technique.

Lacey has elaborated and used three different social

strategies which student-teachers adopt to cope with the situational constraints. These strategies are: Internalized adjustment, strategic compliance and strategic redefinition (Veenman 1984, p.163). Zeichner and Tabachnick (1985, p.11) have extended these strategies by adding a contextual factor which considered the overall similarity or dissimilarity between the institutional contexts experienced during student teaching and the first year. In other words, the loss of idealism is not inevitable. Teachers can willingly internalize the school values and culture, can adopt a strategic compliance, or have an impact on the situation. Teachers can resist as well as internalize. This is based on the distinction as Lacey showed (Zeichner and Tabachnick, 1985) between value commitment and behaviour conformity.

The second school of thought, which we have shown earlier, argues that the transition between university and school is that of continuity rather than discontinuity. Despite the fact that the impact is minimal, their emphasis is on biography. While Wright and Tuska stressed the influence of early childhood (Lortie, 1975), Lortie as cited by Wells (1984) stresses the role model of one's teachers in school as a pupil. However, the second school seems to generate little research, perhaps because it is difficult to design studies which could actually support or build on such

theorizing as Lortie's.

Since Fullers' conceptualization of the development of teachers' concerns, and since the focus of this research is 'concerns' and their development in the process of becoming a teacher, it might be worth summarizing it again very briefly.

Starting her conceptualizing with student-teaching she tentatively conceptualized the development of concerns in three phases: survival concerns (self-concerns); teaching situation concerns (task concerns), and pupil concerns (impact concerns). Fuller also seems to look at the period preceding the teaching practice as a non-concern phase where student-teachers still identify themselves with pupils rather than with teachers except in fantasy. (Fuller, 1969, pp.218-9, and Fuller, 1975, p.38).

As we have reported earlier, some researchers seem to support Fuller sequence of concerns development for instance, some found that during teaching practice only few of the student-teachers achieved Fullers mature phase of impact concerns; whereas others found that self-concerns have been not resolved during the first year. Furthermore, while accepting the self-concerns to task concerns shift, they questioned the impact concerns phase. They reported that impact concerns did not

change. It ranked high during student teaching and during first year teaching.

In the light of the evidence related to Fullers' conceptualization of teachers, it appears that Fuller's three types of concerns could be distinguishable and the empirical evidence concerns could be seen to cluster into these three groups. What she seem not clear in her conceptualization is the fact that it is not consistent with her findings. Although she reported that student-teachers were concerned about pupils, that is to say they had impact concerns, she interpreted this as of no concern simply because student-teachers were not talking from the teacher's role. As a result, she began to conceptualize the process of development from the beginning of teaching which start as she reported with self, passing through task, and ending with the mature type of impact concerns. This confusion mainly with pre-teaching phase has been reflected in the doubt which was casted upon the impact concerns type as some research findings indicated.

It would be more appropriate, I think, to introduce to the conceptualization, the 'educational' (ideal) and 'pedagogical' (practical) dimension. Then it could possibly said that student-teachers will be concerned with 'impact' at an ideal level, but with 'self' at a practical level, whereas mature teachers tend to be concerned with 'impact' at a practical level.

A third school of thought though emphasising stability rather than change, looks at the university and school as agents of consolidating conservatism. Mardle and Walker (1980) argue that:

"Teachers do not become resocialized during their course of training nor in the reality of classroom since in essence this is a reality which they never actually left." p.103.

This is done through the separation between theory and practice at the college as Giroux argued' (Zeichner and Tabachnick, 1981). That is although teacher education institutions encourage the use of liberal phrases but in practice, as in the school, the emphasis is generally on the transmission of approved views and information. Again, this is done as Mardle and Walker (1980) argue through the process of 'domination' and 'differentiation'. 'Domination' refers to student-teachers having to submit to a particular experience, perform a specific set of activities and demonstrate commitment, appropriate attitudes and enthusiasm towards the experience. Knowing and accepting the evaluation placed upon them as individuals, and upon the products of their labour constitutes 'differentiation'.

2.8 Concluding Remarks

In this area in general, in addition to addressing the issue of stability or change in the process of student-teachers becoming teachers, researchers have been

concerned also with answering why such change or lack of change happens. Promising and interesting results have been achieved with the employment of less structured methods in that the description generated appear to come nearer to what happens. The move to study individuals rather than groups, where open ended description is used, with an interest in mechanisms, is one aspect of this development although still rare. Such studies necessarily lack however, the theoretical structuring needed for any focused study of mechanisms.

Although research in general has shown the possibility of both stability and change and pointed out different possible significant factors, the findings appears to be affected by many different factors.

Different examples could be cited in this respect. For instance, Petty and Hogben highlighted stability when their focus was on the group; but later when their focus was on the individual, they reported a mixed result. Change might have happened in their previous study but possibly due to the focus on the group, the few individuals might be deemed as insignificant. The choice of data gathering procedure could be seen to have an influence on the results. Shipman, Lacey and Gibson provide examples of students presenting themselves in ways which the researchers termed 'impression management', "learning the rules of the game", or "to get

by". Another example Lortie's use of student-teachers' reference to their previous experience has led him to conclude that one's life as a pupil has a great impact. Other researchers asked explicitly about socializing agents, and have generated different kind of talk in which they stress different factors of influence. Using a particular construct rather than others could be seen as having led to different emphasis and conclusions. In studying socializing agents, for instance, one research report, possibly owing to the adoption of 'legitimation' construct, emphasised the important influence of pupils; whereas another due to its choice of the concept 'power' found that people with sanctioning power such as the co-operating teacher or principal exerted an important influence.

The researcher's assumptions could also be seen as having lead to different findings. Some researchers for instance such as Hoy and others have viewed student-teachers/beginning teachers as, to borrow Lacey's term, 'empty vessels' and as a result got particular finding, whereas others such as Zeichner have rejected the deterministic view and has assumed the possibility of resistance and with the focus on individuals and less structured techniques obtained slightly different findings.

Another example; Mardle and Walker have played down any effect of the university and saw both the school and the university as playing the same role in perpetuating the present state of affairs.

The research in general had shown the possibility of both stability and change. What is found of course could be influenced by many factors. Among these for instance: the focus of the study (group or individual); the context; the kind of instrument or technique used; the type of construct one is adopting; the timing of data gathering; the person's response to the situation which in turn could be influenced by many factors among these: the teachers' unique biographical history, the strength of one's view belief/perspective work, cognitive developmental maturity, the level of teachers coping skills, and the sensitivity to the organizational dynamics of the school. (Hogben and Lawson 1984, Lortie 1975, Zeichner, 1980, Goodman 1985, and others).

As a result, Fuller's question of "What is out there?" though interesting attempts were made, is still far from being answered fully and comprehensively (Goodman, 1985, p.47) employing more flexible techniques for data gathering is required.

Despite what was said, the research findings are useful in the sense that the studies drew my attention to

different facets of the socialization process of teachers, and the difficulty of investigating this complex phenomenon.

In order to make a useful contribution to the quality of teacher education, we should attempt, as MacIntyre (1980, p.304) argues, commented, to know about how education students' thinking about teaching changes as a result of their various experiences in teacher education programmes, or about how it informs their developing classroom practices (Patariczek & Isaacm, 1981 p.7, and Zeichner & Grant, 1981, p.310). This demands of course to study the process of becoming a teacher as many educationists have repeatedly stressed (Friebus, 1977, p.264).

Studying such a process is complex and difficult as Lortie argues: "the process of teacher socialization is undoubtedly a complex process not readily captured by a simple one-factor frame of reference" (Zeichner and Grant 1981 p.321). Therefore, the alternative is studying a specific facet of the process at a specific stage of the process which does not show the totality of the university-to-school classroom transition (Corcoran 1981, p.19). Further, such an investigation also will require to focus more on the education students rather than exploring the process from other perspectives (Johnston and Ryan, 1980, p.13; Taylor, 1975 p.151; Crase 1979,

p.13 and others).

As part of this study's aim is to contribute towards improving the quality of teacher education in Yemen Arab Republic, and as no such investigation has previously carried out it was decided to approach achieving that aim by exploring the process of becoming a teacher.

One way of looking at the process is to investigate student-teachers' concerns as they become teachers. Knowing the concerns in the broadest sense and how they develop in relation to their training programme and teaching experience not only can help us to improve the quality of teacher training, but even should help the policy makers to look at the teachers and the process of education in Yemen in general in a better informed way.

To approach fulfilling this aim in studying the process of student-teachers' concerns as they become teachers, opting for a pencil and paper or a statistical technique will not be helpful (Zeichner and Grant, 1981, p.311). Descriptive and analytical techniques are likely to provide the most revealing accounts of the process of the socialization of beginning teachers (Pataniczek and Isaacson, 1981, p.17).

Finally, the assesment and interpretation of trends and changes require, as Lortie pointed out, examining the

sequence of experiences the entrants typically undergo, and regular collections of data comparable through times (Lortie, 1973, p.482; Lortie, 1975 p.57).

As it was said earlier the intention is that the findings of such an investigation should be helpful in improving the quality of teacher education in particular and improving the quality of education in Yemen in general, through informing both the faculty of education and the policy makers and those who consider the quality of education as an issue worth attending to. On the other hand, investigating the process of becoming a teacher in a new context should help us in furthering our understanding of the process from an international perspective.

Chapter Three
The Research Question
and
Methodology

Chapter Three

The Research Question and Methodology

3.1 The Research Question

As was indicated earlier, this study focuses on the way in which science student-teachers' concerns develop as they become teachers. The study is mainly concerned with science student-teachers in the Faculty of Education at Sana'a University, who are being prepared for teaching science in preparatory and secondary schools. The concept used for this study is the 'concern' and how it develops as one moves from being a student to being a teacher. The few studies carried out in Yemen which addressed the issue of the immediate need of Yemen for Yemeni teachers, although they have offered interesting results, have not offered an account of the process of becoming a teacher from those who experienced the process. To fill this gap, this study is attempting to know what concerns science student-teachers at different stages of the process of becoming a teacher. Most of the reported studies which employed the concept 'concern' have been based on Fuller's conceptualization of teachers' concerns. Fuller has operationally defined a 'concern' as a 'perceived problem'. In this study, it is thought that a 'concern' is not necessarily a problem. A teacher could be concerned with something he/she perceives as 'important' and not as a 'problem'. Consequently, a 'concern' is taken to include two things: Something which is seen by a

student-teacher/beginning teacher in the process of becoming a teacher, either as a 'problem' or as 'important'. In following the process at different stages from the time they are student-teachers at the beginning of taking educational courses and before teaching practice until they become full-time teachers, an attempt is made to follow the development of their concerns. First, it is aimed to know what their concerns are at each stage of the process of becoming teachers, and how they construe these concerns. The second aim is to explore how they set about dealing with their concerns in practice: if it is a problem how they cope with it and if it is not a problem how they act upon it. The third aim is to find out how sources or factors of influence are seen to be related to their concerns. The fourth aim is to find out how their four-year university training is seen to be related to their concerns. Having investigated these issues at different stages of the process, an attempt will be made to know how these concerns are developed as science student-teachers become teachers.

It should be pointed out that the population studied are physics, chemistry and biology science student-teachers in the third year of the University of Sana'a in 1983, most of whom were included in this study.

The research questions were addressed to science student-teachers in two different contexts. First, a general context where student-teachers are asked these

questions in their second term of the third year, their final year at the university after completing teaching practice, and in their first year of teaching. The second context is more specific. Questions are phrased in such a way as to suit the teaching-a-lesson context. Student-teachers are asked these questions during their teaching practice about a lesson they teach, and again during their first year of teaching. By doing so, I hope to explore to what extent and in what ways do the concerns in the two kinds of context tend to differ?; and how do they interact in their development?

3.2 Research Method and Technique

To explain the process of becoming a teacher requires a developmental approach. For a better understanding of the phenomenon, a longitudinal strategy in this case, is more advantageous than a cross-sectional one. Among these advantages are: First, the longitudinal approach is more effective in studying trends of the development for the individual as well as the group. Further, the changes which might occur across time are real changes, whereas in a cross-sectional approach it is difficult to distinguish real changes from differences between the different groups. In a longitudinal study one can investigate a process of change including the influences upon that process in a way that is quite impossible in the case of a cross-sectional study.

However, a longitudinal study is time consuming, and there is the possibility of sample mortality. To make it feasible, I have chosen as subjects for the study third year students-teachers. In this way, I have managed to overcome the problem of time by cutting it down to two years. To overcome the possibility of drop out, I have included a larger number of the science student-teachers in the sample than would otherwise have been thought appropriate.

In investigating a phenomenon like the present one, it is recognisable how complex and difficult the investigation is. Moreover, the context of this study is different. In fact, no comparable study has been conducted previously in Yemen. Hence, one is best to take for granted as little as possible especially in exploring a phenomenon in such a new context. One may opt for adopting a flexible technique which would help in achieving a better understanding of the phenomenon under investigation. Therefore, what is defined as semi-structured, open-ended, guided and informal interviews have been thought to be relevant because, For, and to quote Moser and Kalton's words:

"when it sets out to study more complex things, particularly attitudes, formal interviewing may limit the investigation to too superficial a level to be appropriate". (Moser and Kalton 1979, p.299).

A review of the literature, as reported earlier, suggests that such an open-ended exploratory approach is the most productive one in studying the development of beginning teachers' concerns and attitudes.

By following a group of science student-teachers for almost two years from being a student to being a full time teacher in the way outlined, I have been conducting what could appropriately be viewed as a longitudinal exploratory and explanatory case study. Thus, the study aims at exploring a group of science student-teachers' concerns for a long period of time and to explain what happens during this process. This has been done by systematically collecting data at different times of the process. Practically, this has been found to be feasible since science student-teachers were limited in number and started their educational courses only in the last two years of their training.

Employing a semi-structured method in investigating a phenomenon across time in a new context, has the advantages of allowing the opportunity for flexible probing, which gives access to relevant and rich data. For achieving the purpose of this research, one cannot use a completely unstructured method of interview because, first as Walker (1985, p.47) said there is no such a thing as a totally unstructured interview and second once one decides the purpose of the research as the one outlined earlier, one cannot leave the interviewee to talk in any direction he/she likes. Therefore, this research was to employ a kind of interview which is partly unstructured so that the

student-teacher may not feel inhibited to talk freely, and which has at the same time some general guidelines to direct the talk in such a way as to unfold the student-teachers concerns. The research questions, outlined earlier, provide the themes for the interviews' agenda. Further guidance has also been possible through probing; that is by asking 'how' and 'why' questions in reaction to student-teachers' responses to the general questions. Also, a third element of guidance is the use of hints if it is found necessary. But, the interviews are meant to be unstructured in the sense that all questions are general and open-ended.

To follow up the process of becoming a teacher for a group of science student-teachers, it has been decided to collect data at four times. First in their second term of the third year which is the first year they start taking educational courses. Second, in the first term of their fourth year during teaching practice. Third, during the second term of their fourth year after finishing school practice. Fourth, during the first year of teaching.

All times selected for collecting data, apart from the lesson-context were decided mainly on the basis of the existing literature. Two different sets of interviews were made to detect any possible difference between, what Keddie (1971) termed 'words' and 'deeds' or

the 'educationalist context' and the 'teacher context'; or as Shipman (1967) stated, the two levels of professional values: one for use in college and one for use in the classroom. An attempt was made to explore student-teachers'/ beginning teachers' views about their university training and, simultaneously, to explore their concerns in the general context. How the Faculty of Education reacted to their views so was also monitored as to be able to see the nature of the relationship between student-teachers'/ beginning teachers' concerns and their university training.

It was decided to collect the data for the first phase; on the basis of which the plan for the later phases would be decided upon.

3.3 Research Design

Through documents of the Faculty of Education and the personal contacts with regard to student-teacher training at Sana'a University, it was found that, the would-be subjects of this study had spent their first two years of university studying their specialization subjects at the Faculty of Science without studying any educational course. Their third year and fourth year time was divided between the Faculty of Education and the Faculty of Science. Their teaching practice started in the first term of the fourth year. It was planned to collect the

data between March 1983 and November 1984, on four different occasions. Accordingly four visits of two months duration each were envisaged. But, due to practical constraints related to the researched context and research funding, the fieldwork took more time than expected. For instance, in the first phase more time was needed for building rapport first with student-teachers before I started interviewing them. It was sometimes difficult for students to spare the time for the interview even after it was fixed on account of the amount of work required for their study. Moreover, due to the shortage of funds it was difficult for me to go to Yemen four times. Instead, three visits were made. The first interviews were between the beginning of March 1983 and the end of June. In that phase student-teachers were in the second term of the third year. Data for the first general phase were collected then. The second phase was based on teaching-a-lesson during teaching practice, and the third phase was based on issues similar to those of the first phase, during the second term of the fourth year, when student-teachers come back from school practice.

For these two phases a visit between the beginning of November 1983 to the end of July 1984, was made. Then, the third and last visit was made to collect data of two kinds: One was a follow up to the first and third phase of the general questions, and the other was a follow up

to the second phase. This was done between the beginning of November 1984 and the end of January 1985 when the subjects have become full-time science teachers.

3.4 Interview Schedule

In order to investigate and explain the development of science student-teachers' concerns and how they are related to their training, an interview schedule was designed on the basis of the research question outlined earlier and taking into account that these questions should be interpreted in a very open-ended way since the phenomenon has not been investigated as such in the Yemeni context.

Also taken into account, when designing the interview schedule was the definition of a 'concern' which includes two elements: A problem/difficulty and an important thing as perceived by the student-teacher in the process of becoming a teacher. Moreover, probing was planned for getting more elaborated answers. The interview schedule included five sets of questions. The first two sets of questions attempt to know the concerns of student-teachers and to get more details of these concerns, and how student-teachers construe them. The third set of questions was meant to discover how student-teachers set about acting on these concerns in practice. The fourth set of questions was to explore the

socializing agents which might influence science student-teachers' concerns. The fifth and last set of questions was aimed to know how student-teachers' concerns are related to their university training. In short, all these questions were directed towards answering the research general question; that is the development of science student-teachers' concerns for a period of two years at the university and school, and to what extent these concerns are reflected in the university training.

Each question is preceded by the phrase 'as you are becoming a teacher'. There are five sets of questions.

Set 1.

1. Could you tell me what are the important things you are thinking of?; Other important things?
2. Could you tell me what are the problems/difficulties you are thinking of? Other problems/difficulties?
3. Do you have anything that you are not happy with? (if yes) what are they? Anything else?
4. Is there anything you are happy with? (if yes) what are they? Anything else?
5. Does anything worry you? (if yes) what? Anything else?

Set 2.

1. Can you elaborate or tell me more about the concerns?
2. What do you mean by the concerns?

Set 3.

If it is a problem/difficulty type of concern the question would be:

1. Do you think it is manageable? If so:
 2. How would you deal with it?
- b. If not a problem/difficulty type of concern, the question will be: How do you act upon it?

Set 4.

1. Whom do you tend to consult whenever you have a concern? Examples if possible? What are the things you tend to consult about? For what purpose do you consult?
2. Whom do you find yourself at ease to talk to? What kind of things do you talk about? How do you benefit from such talk?
3. Whom do you expect help from? How?
4. Whom did you expect help from, but he/she/they did not? What did you expect? How did you expect their help to be offered?
5. Whenever you face any difficulty whom would you ask for help? What kind of help? How would you be helped?
6. Of whom do you feel a bit apprehensive, or find it difficult to talk to? In what way?
7. Who does help you? How? Examples if possible?

Set 5

This set of questions are aimed at knowing how the faculty study is related to students' concerns; they will be preceded by a sentence such as; "I suppose that you will be a teacher after you finish your study here", then ask the following questions:

1. Would you tell me about your study at the faculty?

2. What do you think of the present training study at this faculty?
3. What do you find useful and not useful in your study?
4. What do you expect yourself to get from this study? Did you get what you expected until now?
5. Is there anything you think should be changed/ modified? If yes, what and how?
6. What is your advice to improve teacher training? How?

Finally, a list of concerns, which did not come up in the responses of set 5 questions, will be drawn and questions, concerning the connection between student concerns and their study, will be asked.

There are a few remarks worth mentioning regarding the conduct of interviews:

1. The questions are based on the definition of a 'concern'.
2. It will be noted that some questions sometimes in each set are more or less the same, and the aim was to explore more in case something was missed and to remind the interviewees.
3. It was planned to take for granted as little as possible so as to get maximum information from the students themselves.

4. I aimed to avoid being invited to give answers.

5. I tried to conduct the interview in an informal way so that they would talk at ease and reveal information. That was achieved by, among other things, friendly conversation at the beginning and during the interview, using more or less the colloquial language and avoiding the use of formal language. Respondents were encouraged to talk freely by showing interest in what they were saying whether by facial expressions or by nodding and appreciative words, avoiding at the same time being over interested which might lead to exaggeration.

6. It was planned that if general questions of the interviews did not lead to elaborated answers, then hints would be used. In actual practice I conducted interviews for the majority of those in the first stage in relation to the general questions only. Then, having looked at their responses as a group, one was able to know the main areas of concerns in the Yemeni context. From then on, I had noted hints to be used in later stages of the first phase of the research. However, it was found at the end of phase one that the main areas of concerns of the whole group with respect to answers to the general questions are more or less the same as the answers

of all interviews in the first phase of the investigation. Even when hints were employed the respondents were still free to express themselves freely. Indeed hints and probing worked well as reminders and helped to make the conversation run smoothly and interestingly.

7. When and where necessary, examples were requested when a respondent started talking in an abstract and general way.
8. It took several occasions to finish the interview for each individual student-teacher. In some cases it proved difficult to do so.
9. Interviews with each individual, by and large, went as planned in that it started by attempting to know student-teachers' concerns, followed by clarification questions to know how they construe these concerns and how they set about them in practice. Finally, questions related to socializing agents were put to them, as well as questions on and the relevance of their study to their concerns.

Interviews were conducted in places which were suitable to the interviewees. Most of them were interviewed either in the room I had from the Faculty of Science or in the students' residence halls within the

university campus in their own rooms. As I said earlier, I planned to interview between 15 to 20 science student-teachers. In practice, I decided to interview as many as time would permit to overcome the possibility of drop-outs in later stages. In fact, I interviewed more than 31 student-teachers in the first phase, but because of the shortage of time, I had to drop a few student-teachers at later stages, even though they were willing to cooperate.

3.5 Negotiation

It was planned that negotiation at the different levels should be managed and accomplished in such a way that would facilitate the data collection. In other words, negotiation should be handled so that student-teachers would tell their views without feeling inhibited.

The negotiation stage began by a letter from the research supervisor, to the Minister of Education of the Yemen Arab Republic, stating that I am hoping to do research into the professional preparation of science teachers and that the research would require interviewing the science student-teachers in the third year of the Faculty of Education. As the Minister of Education was, then, the Chairman of the University Council, he

addressed a letter to the Principal of the University for facilitating the research. The Deputy Principal referred me to the Dean of the Faculty of Education and he in turn referred me to his deputy. I was asked by the Deputy about the kind of help he could offer and I asked him to refer me to the science teaching method lecturer since I wished to interview the science student-teachers. Finally, I asked the method lecturer to introduce me to the third year science student-teachers and to leave me with the class so that I could talk to them at ease and in an informal way. The introduction was to tell them that I was a postgraduate student abroad and had come to do research which would require interviewing them at four different times. The lecturer introduced me as asked, and left. I then added that I am the graduate of the Faculty of Education of Sana'a University Science section and that I preferred to do my research in Yemen and 'especially with you as you are the prospective teachers' so as to benefit from such research, and asked them for help and co-operation. I also explained that this research was not meant to assess them and would be confidential in the sense that names will be kept anonymous and would not be told to lecturers or whomsoever. That was the 'justification' offered for seeking the information as suggested by Moser and Kalton: "the request for information needs justification" (p.274). I then requested them to come after their lecture to the next room where I was waiting for them to

tell me of a suitable time for interview. I spoke to more than thirty students in the lecture room. It was envisaged when designing the research to have between 15 and 20 student-teachers, but the turn out was over 30; so I was encouraged by this positive response.

I intended to tape the interviews in order to preserve the raw data which would prove useful during the analysis stage and that required a quiet place. Luckily enough I was offered a little room at the Faculty of Science which proved to be ideal for privacy, and quiet. For the interest of getting a better understanding of student-teacher concerns, I tried to stress my status as a student to avoid being given expected answers (rather than actual) by either lecturers or government officials.

I thought my data would be distorted if they perceived me as a potential inspector evaluating work. Hence, I associated myself with them rather than any other group in the setting. I, therefore, used to pop into the Coffee Bar and chat with the students almost everyday; that was at the Faculty of Science where I had my little room for the purpose of interviews.

This kind of rapport was enhanced by the fact that I am a Yemeni, by the insignificant difference in age and by being a science graduate of their faculty who would understand what they are talking about. Nevertheless, I was not too familiar with details of their own

experiences as I had left the university some time ago and many things have changed. In a way I had the benefit of knowing and not knowing which would justify my probing of what might seem unproblematic in their answer. All of these precautions were taken to develop the trust and confidence of the subjects, and I would claim that I achieved that to a very large extent. This negotiation stage lasted for around two weeks from the middle to the end of March 1983.

3.6 The Pilot Study and the Lessons Learned for the First Phase of the Study

Because we are studying this complex phenomenon in a different context, it was decided to conduct a small pilot study in the beginning to establish some guidelines for the interviews. As I explained earlier, I postponed conducting the interviews with my main group of student-teachers to establish a good relationship. In the meantime I started conducting the pilot study interviews particularly with the fourth year student-teachers.

The pilot study involved interviewing eight science student-teachers in their second term of their fourth year, and five beginning teachers of science. The lessons we learned from the pilot study for the first and for later phases of the study were, among other things:

First, general questions did not yield elaborated answers. Furthermore, if we were to stop the interview at this stage, it would have been frustrating and embarrassing for the respondents and consequently jeopardize the relationship. For, if the first meeting, on which the rest of the research will depend, has taken a very short time with a feeling from the side of the respondents that there is no back up conversation, then it will be embarrassing to them and damaging to the whole endeavour. Hence, hints and probing do not only serve to reveal and explore more information, but also help in improving the rapport and make the interview go smoothly.

Second, set five questions were phrased in terms of the Faculty of Education, to reflect teacher training. But it was found that if they were asked in this way we would have missed part of their training, that is their study at the Faculty of Science. This was due to the fact that student-teachers study educational subjects only at the Faculty of Education. The students spent the first two years in the Faculty of Science and in the last two years of their study, their time is split approximately in half between the Faculty of Education and the Faculty of Science. Set five questions, therefore, were phrased in terms of the university preparation in general. I managed to draw their attention in the interviews to both faculties. This issue is crucial because the two faculties are at

different sites and they might easily think only of one of these when asked about Faculty of Education.

Third, though I conducted the interview questions on the basis of my conceptualization of a 'concern', the pilot study taught me that this kind of clear-cut dichotomy of an important thing and a problem/difficulty was not true of the student-teachers' thinking. Yet it was helpful in revealing more information, but to the student-teachers the two kinds of concern were somewhat interrelated and consequently it was difficult to get a separate answer for each. However, this would help in the analysis of the data.

Fourth, practical constraints such as difficulty in getting them for interviews because of their being busy; this needed patience and flexibility. I had to change appointments and even the place of interview when required, in such a way as to suit their circumstances.

3.7 Interviews

I decided, after getting the little room for the purpose of interviews, to be available between 8 am and 2 pm or even beyond when required. All of the students came to know the place and where to find me. We had difficulty with appointments for many reasons but I was available there to fix another if necessary. Moreover, I

tried to appear unconcerned about changing the appointments and as a result it was easy to come or to leave a note if they could not make it for one reason or another. Then, I felt that I could start my interviews after having attempted to let them know that I neither belonged to the Faculty of Education nor to the Faculty of Science but was a student and that was emphasised by me sitting and chatting with them during their breaks.

I realized that the opening interview was crucial and had to be dealt with wisely. For that reason I used to have a friendly conversation before we started the actual interview so that the student could talk at ease. In the meantime I discussed the purpose of the research and my position and almost repeated what I told them during my introductory meeting when I talked to them as a group. I used to stress, among other things, that my aim was not to see who talked better but rather to listen to their own views, however trivial it might seem to them. I also pointed out the possible use of the research findings for the interest of Yemen, avoiding exaggerating the benefits. Furthermore, I assured them of the anonymity of their names. I told them that due to the difficulty of taking notes of what they were saying, I had to tape the interviews. All these considerations were spelled out during the friendly conversation which preceded the interview for the purpose of clarification, justification and doing away with any apprehensiveness which might

exist.

3.8 The Research Subjects

When I interviewed the research subjects for the first occasion, I came to know that some of them had already taught in schools. I found that their concerns, at least for some of them, reflected their experiences as teachers, mostly in rural schools. A short questionnaire was then designed to know the following aspects:

- Whether they were graduates of Primary Teachers Training Institutes or not and if so at what stage they joined them.
- Whether they had teaching experience or not, and if so for how long and at what stage they taught and if yes for how long and at what stage they taught and in what sort of school i.e. rural or urban.
- Whether they held any administrative posts or not.
- Where they had their primary, preparatory and secondary education (i.e. in rural or an urban school).
- Where they were expecting to teach (i.e in rural or an urban school).
- The kind of post he/she was expecting to hold (i.e teaching or administrative post).

First, it should be noted that about one-third of the research subjects were undergraduate physicists and chemists, and two-thirds of them were undergraduate

biologists. Less than one-third were graduates of Primary Teacher Training Institutes who had taught for at least two years before joining the Faculty of Education. About four of the student-teachers taught in primary schools for one year before joining the Faculty of Education. Generally, about half of the total number of subjects had teaching experience before joining the Faculty of Education. Most of those who had teaching experience taught in rural primary schools. Very few of the subjects had held administrative posts.

It might also be worth mentioning that most of the student-teachers whom I interviewed came essentially from rural areas. About half of the subjects had their primary schooling in rural schools and the other half in urban area schools. About one-third of the subjects had their preparatory schooling in rural schools and about two-thirds in urban schools. Most of the subjects had their secondary schooling in urban schools.

With regard to the subjects, expectations of their future careers about one-third expected to teach in a rural school, about half expected to teach in an urban school and the rest were undecided. In other words, most of them were already decided. About two-thirds expected to teach, whereas less than one-third were undecided. This implied the possibility of holding administrative jobs.

3.9 Interviews Transcription

All interviews were taped in order to preserve the raw data. I hoped that this would be of great importance during the time of analysis, because the purpose of the study was to know student-teachers' understanding of the issues under investigation.

The content of the interviews for each individual throughout the different phases was transcribed. Minor parts of the interviews were omitted which were thought to be irrelevant during analysis period. The cases omitted were:

-Introductory conversation for creating a friendly atmosphere such as asking about their relatives whom I know or studied with, about how he was keeping, and the like. Such questions are suitable and compatible with the Yemeni culture.

-Personal conversation, resorted to during the interview to avoid boredom. Such as talking to the interviewee about study abroad, or things like the way to get teaching aids from the Teaching Aids Centre, job placement and so on. One was here careful not to influence student-teachers views by not giving definite answers.

-My repetition of previous interviews, for the sake of linking interviews and reminding him/her of what

he/she had said earlier.

-If he/she repeated the same thing.

-His/her detailed discussion of a particular topic in their courses, or a lesson they taught. Nevertheless, I did outline such topics and lessons.

Chapter Four

**Science Student-Teachers' Concerns
(Phase One)**

Chapter Four

Science Student-Teachers' Concerns: Phase One

4.1 Introduction

In this chapter is set out the analysis of the first phase data, gathered by interviewing the research subjects during the second term of their third year of university training. First a brief description of the third year context is given, followed by an account of how the data was thematized and analysed. Then, the content of student-teachers' responses is set out and discussed, with quotations from some of the student-teachers' answers being used to illustrate the generalisations made. In each theme, which reflects the concerns of the student-teachers as a group, it is aimed to describe how they perceive a concern and how it would be dealt with in practice. Where possible, an account is given of any incidental reference to an experience or factor which might be seen to represent an influence on how student-teachers perceive this theme.

Generally, the aim of this chapter is to report what at this point in their science teachers' training, are the students' concerns; how these concerns are perceived; how the students would deal with them in practice; and what are the socializing agents which are seen to have an effect on

student-teachers' concerns at this particular time, as deduced from references made to different factors affecting each concern, and also from student-teachers' answers to the set of questions which are specifically asked about socializing agents.

The terms used to denote student-teachers' concerns were mainly drawn from the language which at least some of the student-teachers used and from what generally reflected the content of what was expressed by the student-teachers as a group. It should be noted that some of the student-teachers' responses were found to be too general to be put under any particular theme. Consequently, a heading entitled 'general comments' was used to group them together.

Finally, it was attempted, when possible, to sequence and order the reported themes in order that the reader can read the relevant themes together so that he could see how themes are interrelated to get a better picture of student-teachers' concerns.

4.2 First Phase Data Analysis

More than thirty science student-teachers were interviewed either once or on several occasions. This depended on different factors, such as student-teachers' responses to the questions asked; the allocated time for the interview, which in turn depended on their decision on how

much time they could spare for one interview; the time available for the researcher particularly when there were different scheduled interviews in one day, and so on. Due to later time constraints, thirty-one science student-teachers were interviewed whom I followed in later phases, and the analysis is confined to these thirty-one students. In this phase the student-teachers were in their third year. They have finished their first and second year of university in which they studied their specializations only. Educational subjects started to be taught in the third year. Their learning time was divided evenly between the Faculty of Science and the Faculty of Education. The group of students, whom I interviewed, were in the second term of the third year. During the first term of the third year they had taken some educational courses for the first time. These were: Methods of Teaching, Islamic and Comparative Education, and Educational Psychology (Development and Learning). The Educational Courses studied during the second term were: Methods of Teaching, Curriculum Studies, and Educational Aids. Interviews were conducted after student-teachers had studied more than a month in their second term. Interviews were conducted, as was mentioned earlier, in the building of the Faculty of Science or in their residence, mostly at the university campus.

4.3 Thematization of Student-Teachers' Talk

By looking crudely at the fourth year student-teachers'

responses i.e the pilot study, and those of the main research subjects in the third year, in relation to the first set of questions, it was found that there were general areas student-teachers as a group talked about. These general areas were later used as a source of hints for elaboration and clarification. The areas of discussion relating to the school context were mainly: the school administration and its relationship to the teacher; other teachers; the class in general and/or the pupils in particular; the curriculum (the textbook); and the school in general.

Other areas of discussions, out of the schools, were mainly: the home or parents; the ministry; and possibly the society in general.

As a result, these general areas of discussion were used as 'hints' for probing.

After transcribing the taped interviews, as was explained earlier, the student-teachers' talk was thematized. Thematization was based on the primary focus of student-teachers talk. Student-teachers' responses to the first set of interview questions showed the focuses of their talk as they listed their concerns. The later responses mainly followed, and were based on, the first set of responses. A new focus might come later if a student-teacher remembered a new concern he or she forgot to

mention earlier or a hint was posed to remind him or her of what might have been talked about, the hint in turn having been drawn from the general areas of student-teachers' talk as a group. The difference between hints and primary focuses is that hints were intended to be used in a general form lest a specific form might be leading.

It should be noted that there is a possibility of referring to a theme within another theme. That is because the primary focuses were based mainly on student-teachers responses to the first set of questions. Consequently, a student-teacher might refer to other themes when asked to elaborate on his/her concern and how he/she set about dealing with it in practice. This kind of overlapping seems to be normal, because one's normal views and behaviour do not consist of separate and isolated entities. In fact this ramification of a concern and how it might be seen as related to other concerns might help us to understand the complexities of students' thinking and concerns.

However, all the themes reported here do not necessarily reflect each student-teacher's concerns. They rather reflect the concerns of the student-teachers as a group. Again the labels or the cover terms, for most of the themes reported, have been used by at least some of the student-teachers. In other words, the adopted labels are meaningful for both the researcher and student-teachers. In addition to using the similarities and meaningfulness of the

primary focus within the group, the researcher, as he is part of the culture and went through the same process of becoming a science teacher, was at an advantage in the recognition of the primary focus in its general form and of what is included under this focus.

4.4 Themes of Concern to Student-Teachers

4.4.1 The Ministry of Education

Student-teachers' responses are included under this theme only when the student-teacher directed the discussion primarily towards the ministry. That is when the student-teacher from the beginning made the Ministry a theme of discussion and spoke about aspects related to it; or in answering the hint 'Ministry'. Here, it should be noted that some aspects might be relevant to this theme, but were discussed separately on their own namely 'professional status' and 'salary'. Here in this case a response is included in this theme if in the first place the student teacher discusses mainly the ministry, but made a mention of 'salary' or the 'professional status as aspects of the theme 'Ministry'. On the other hand, responses related to 'professional status' and 'salary' would be included under their distinct themes if the student-teacher refers to either of them separately as one of his/her concerns.

All science student-teachers presented criticism of the Ministry of Education. Some statements tended to be general such as:

"..The most important thing is how the Ministry deals with teachers.. ..if the ministry is more concerned with teachers this will lead more teachers to join the profession.. ..unfortunately there is no encouragement".

"..It should be more concerned with teachers.. ..for, social status depends on both the surrounding and the Ministry.. ..one thing is bad about the Ministry that is, no appreciation for the teacher.."

"..The Ministry problems are too many.."

"..The Ministry should look at the teachers' problems, and give him his required rights: social as well as material.."

"..It is not concerned with the teacher.. ..it gives him the chalk and tells him to go.."

"..It is the worst Ministry I have ever seen.."

It could be seen that criticism of the Ministry has taken different forms or related to different aspects. In other words, 'Ministry' concern is manifested in different ways. First, some of the student-teachers were critical of the Ministry in relation to the teacher's salary. Student-teachers' responses in this matter addressed the issue in two ways: one is concerned with the amount of money the teacher gets, and the other is the way a teacher receives his salary. Some of their responses were:

"..you could see the teacher wastes a week to get his salary.. ..he is supposed to get his salary without delay.. ..I have seen it with a teacher in our village.. ..that has an effect on both the teacher and pupils.."

"..Salaries should not be delayed.. ..they are not received on regular basis.."

"..Teachers tend to leave their school to get their salaries.."

"..The ministry is not concerned with teachers.. ..it does not give them their rights.. ..teachers should get the same salary as other government establishments' employees.."

"..teacher's salaries should be equated with other similar graduates in the other government establishments.."

Further criticism was mentioned by a few student-teachers, which is related to the school needs either by saying that the ministry should provide whatever the school needs; or specifying, but still in a general form, such as asking the ministry to provide the school with apparatus and laboratories, or by being more specific such as suggesting that the ministry should make textbooks available, which tended to be mentioned by student-teachers who had teaching experience in primary school. Some extracts from student-teachers responses were:

"..The Ministry should provide laboratories, apparatus, chairs and lighting.."

"..Books, apparatus, laboratories, and whatever the school needs should be made available by the Ministry.."

Other student-teachers emphasised the problem of bad organisation in getting one's rights. A few of them discussed it in relation to the process of getting a job in teaching itself. Student-teachers' responses can be seen to argue that this routine matter is difficult and lengthy. This might be due to, among other things - which

seems to centre around the Ministry officials - employees are not punctual, practice favouritism, lose the documents, tend to prolong the work and even if they look into the matter they look at it partially, and their work is governed by their temper rather than by regulations. Here are some of the comments:

"..Time is wasted in the routine during the process of getting a job.."

"..it would take you more than a month to finish the official routine procedure for employment in the Ministry of Education, which is quite different from the other government ministries.."

"..They don't deal equally with all people.. ..that is what happened to me when I tried to get (.....) for the school I was teaching on.."

"..The routine at the Ministry discourages one from being a teacher.."

"..Employees aren't punctual.. ..you don't find them in their offices.."

"..Sometimes after working for one thing for so long, you find either the document lost or your name dropped.."

"..The employees deal with you according to their mode and temper, or look at the issue partially.."

"..if you don't follow your right, you will not get it.."

"..they make things more difficult than what they are supposed to do.."

Furthermore, some student-teachers tended also to argue that the Ministry employees are not qualified for the job they are doing.

"..they are lazy, because they are not educationally qualified.."

"..Many of the officials are not qualified.. ..even if they have certificates, their place

is not the Ministry of Education.."

"..the Ministry lacks the qualified cadre.."

"..the Ministry hierarchy such as inspectors and directors are not well qualified.."

Having continuous contact with schools and accepting teachers' views in relation to curriculum and pupils also mentioned though rarely, in order to improve the quality of the teaching-learning process.

"..the Ministry should have direct and continuous contact with the school.."

"..they should not isolate the school.. Inspectors and supervisors should have a continuous contact.. ..for, direct supervision will help the teacher to know the subject matter better, and his problems will be solved without wasting time.."

"..the Ministry should take teachers' views regarding curriculum and pupils' understanding in consideration, for he might be better informed in these matters than experts.."

It seems however that the underlying assumption for this concern is that a psychologically content and materially satisfied teacher will help to encourage more students to join the teaching profession, encourage them to stay on, and also benefit the pupils in terms of improving the quality of teaching.

It might be worth mentioning that, though not exclusively, student-teachers with experience in teaching tended to talk more about the Ministry and tended to be more specific, where they could quote from their own experiences.

Whereas those who had experience tended to talk less, and if they talked they referred to more general things which

they had heard about, from these experienced teachers whom they knew, or just heard from others.

Hence, it seems that student-teachers here refer to different events, to support their views: either what they themselves experienced such as the one who said "that is what happened to me"; or what was experienced by somebody he knows such as the one who mentioned an example from his village though he has no teaching experience; or he/she heard others saying it and thus he may say it with less confidence, as one who said:

"..I have not dealt with the Ministry, but it is said that the routine is difficult.."

4.4.2 Salary

Here the theme refers to the way student-teachers talked about the inadequacy of teachers' salaries, who is responsible, the consequences for the teaching - learning process, and how to cope with it in practice.

Most of science student-teachers consider the inadequacy of teachers' salary as one of the outstanding problems teachers are facing in their careers. They argued that it is insufficient to cover even basic requirements in order to live. Some of them are already married with children, their parents are expecting them to support them as well, their needs for accommodation, food, transport and other necessities, all of these make it difficult to live on the

Ministry salary. Furthermore, they commented that this is unjust in the sense that others with the same level of education in other government offices are highly paid. Some they claimed to be even better paid with less qualifications. In addition, other government employees have also a chance of getting more money through bribes whereas teachers get their own salary only. Not only were Yemeni teachers unjustly treated in comparison with other government employees, but even with other non-Yemeni teachers, particularly in rural areas. Non-Yemeni teachers get, in addition to their salaries, more money from the parents whilst the Yemeni are considered to be paid by the Ministry and consequently get nothing. In addition, to both the cost of living demanded by the Yemeni teachers' responsibilities towards his family - the extended family - and the unjust treatment from both the Ministry and parents, the salary is also linked with professional status which is considered to be a source of concern. Here are some of student-teachers comments regarding what we have said.

"..the income is very low.. ..other government employees in the other state establishments are getting more money.. ..further they are getting more money as bribes.. ..a friend of mine who works in customs bought a car within a month.."

"..the financial situation for teachers is very bad.. ..our families are expecting much from us.. ..also we are married with children.."

"..the most important thing I am thinking of is that of salary.. ..my father is expecting me to support him.. ..in rural areas the non-Yemeni teacher is getting a lot of money whereas the Yemeni no one cares about him.. ..they say that the Yemenis are paid by the Ministry and thus does not need.."

"..it is important to have an adequate salary..
..as a teacher you need a home and a car.."

"..the teacher is getting less than any other government employee.. ..when I was teaching in primary school a graduate of secondary school, i.e. the same qualification, gets twice as much as I used to get simply because he was working in another establishment.."

"..salary is not sufficient.. ..I don't want to be a millionaire. I want the necessities: food and a home.. ..I want to know what is the difference between the teachers' work and other state employees.. ..in fact teachers work more.. ..my father is not here and I have to support my family.."

"..you want a home, to get married.. ..the cost of living is high.."

"..we do not want much. They should give us as much as others who have equivalent qualification.."

It should be noted here that female student-teachers do not consider the salary as a problem particularly in terms of the amount. That is due to the fact that, according to the Islamic Shariah, females should be supported by males before and after marriage even if she is working. But, as one female student-teacher pointed out, salary is linked with professional status.

"..to some extent people's perception of the teacher is influenced by the amount of money he gets.. ..I personally don't consider it as a problem.. ..but with regard to male teachers it is insufficient.."

"..Salary is O.K... ..but with regard to male teachers it is insufficient.."

Poor salaries also , as some student teachers commented, have a damaging consequence on teaching. When the teacher's mind is preoccupied with thinking of the demands on his money, that will affect his feelings, his relationship with

pupils, and even the lack of time for preparation if he was forced to get a part-time job. All of these will impinge upon his teaching and consequently will have an effect on the quality of teaching. Furthermore, unsatisfactory salary might lead, as was mentioned by several student-teachers, to some leaving the teaching profession.

"..to get less than other state employees will make you go into the classroom with less enthusiasm, resulting in a bad quality of teaching.."

"..owing to insufficient salaries, the graduates of the Faculty of Education give up teaching and search for other jobs.. ..when other graduates get more than you, ultimately that will have an effect on your feelings and your teaching as well.."

"..If the Ministry does not resolve this problem I shall leave the profession and the certificate.."

"..inadequate salary will lead to some problems even will effect your relationship with others.. ..you will not teach as you should be teaching.. ..if I found, after serving the five years of teaching as the contract stated, that the salary is not enough I shall leave the job of teaching.."

"..Salary is important because it is linked with the people's perception of the teacher.."

Although the Ministry has the responsibility of providing teachers with adequate salaries, student-teachers have contemplated different ways to cope with this problem. There is a clear difference between the ways of tackling it in a rural area from an urban area. In an urban area they might seek any possible additional work whereas in a rural area the possible work is more specific. In a small community like a village the teacher is bound to think of the relation of his status as a teacher and the kind of

work, which is very limited in the village. To have a small business or to have an additional contract with the Ministry of Education to teach in the afternoon period might be the only possible ways of overcoming the problem of poor salary.

Otherwise, they would not do any other work which might affect others respect of him as a teacher. In cities the chance of work is better, either as a teacher in the afternoon period or any other possible job. However, some would think that in the first year of teaching one will need more time, and the teacher might seek another additional job later. Other student-teachers were not decided. They argued that if they found that additional work would not affect their teaching they might accept it.

"..I shall open a small business besides teaching.."

"..I shall do additional work which is relevant to teaching.."

"..I might work in business in the village, but it is impossible to do some work which is not suitable for you as a teacher.."

"..if I am in a city I might teach in the afternoon period if it does not affect my teaching.. ..but in the village I will not do anything.."

"..if I found work which does not affect my teaching I shall take it.."

It might be worthwhile to mention that this concern became more clear when they compare themselves with other state employees with similar qualifications and even with non-Yemeni teachers. To support this, examples from their own experience as teachers and other friends' and non-friends' situations in the teaching profession and other

professions were cited.

It can also be added that there are clear differences which may be specific to the Yemeni context in relation to the salary concern. First, the existence of non-Yemeni teachers, the rural and urban distinction regarding seeking additional work, and the male and female distinction concerning the responsibility of the male towards his extended family and their early marriage, and the less concern with the salary on the part of the female student-teachers. Both of these have something to do with the Islamic teachings in relation to the family.

A further tentative point is that, even though the majority of student-teachers, whether they had previous teaching experience or not, mentioned the inadequacy of teachers' salary, it appears that student-teachers with previous teaching experience tended to discuss the problem in a more elaborate manner. Few of those without experience in teaching failed to refer to it. However, those who did comment on this concern commented generally and in a less elaborated form. This possibly suggests the influence of experience in encouraging student-teachers to discuss it more clearly, because they have experienced it in reality. However, one cannot claim that poor salary is of less concern to the student-teachers who have no previous teaching experience.

4.4.3 Professional Status

This theme refers to student-teachers' statements when they are primarily focused on how badly others perceive them. Within this concern there will be reported student-teachers' understanding of how others view the teaching profession; the claimed consequences of the bad perception of the profession and teachers; ideas about why such perceptions exist; and ideas about how to overcome such a perception.

4.4.3.1 Bad Perception of the Profession

This is one of the most frequent concerns reported by science student-teachers. Some of them consider it as the most important, or the only profound problem they are thinking of. Indeed some of them reported it as the only thing they worry about in being a teacher. "The most important problem is Society's view of the teaching profession", one of them said. "The only thing that worries me in relation to the teaching profession is people's view and the status", another student commented. Generally, they seem to hold the opinion that society's view of the profession is bad in comparison with other professions. "Society views the teacher as a second class member of society", one student commented. This view starts to accompany the student from the time he/she enrolled at the university to be a teacher. "The society's view is

reflected by the way they behave towards you as soon as you enter the Faculty of Education particularly if your grades are high", a student said bitterly. When students discussed society's bad view they tend to refer to both families and friends. This view is reported as being sarcastic, and discouraging, to the would-be teacher or the teaching profession in general. "My friends are laughing at me because I am a prospective teacher", a student said. "When you are asked which faculty you are studying in, if you replied, in the Faculty of Education, they would say 'what a crime'", another responded. "The difficulty I faced when I wanted to be a teacher was the rejection and discouragement of my family", a student said. A third group of the society they tend to emphasize more is the educated strata of the society. Science student-teachers are critical of the biased view held by the educated of the teaching profession. It seems that the view of educated people hurts the student teachers more than society's view in general. "There is ridicule particularly from the so called educated (who are really not!) I do not mind the view of the public.." a student argued.

In addition to the educated, the family, friends and society at large, student-teachers found it astonishing to find even the Ministry which is seen as the symbol of the state as far as the teachers are concerned, reflecting the society's perception. Moreover, at the university, lecturers of their specialization subjects and other faculty

students behave in the same way as the society at large does. "Even here at the university", a student commented in surprise. "You tend to hear, from lecturers as well as students about student-teachers, the phrase "he is just a student-teacher!", a student exclaimed.

4.4.3.2 The Bad Perception's Consequences

This disparaging view appears to have a very damaging effect as seen by science student-teachers. This view was seen to affect three kinds of people: the student-teacher himself, the teacher, and the secondary school pupils. Some of them argued that one of the causes which make pupils refrain from getting into the teaching profession is society's bad view of teachers. Hence, it is the key for introducing more pupils to the teaching profession. "Most of the pupils refuse to be teachers because of this biased view", a student argued. "Some of the secondary school graduates would prefer to terminate their education rather than get into the teaching profession", another commented. Not only pupils are affected by this perception, but even the student-teachers and teachers might share it in that as one student commented "some of my friends might change from the Faculty of Education, or might not teach later on". Moreover, student-teachers or teachers who have no intention of leaving the teaching profession are affected psychologically, which affects their teaching performance. "People view the teacher in a wrong way; the teacher himself

feels that his other colleagues are better in status than him, this in turn affects him and lessens his performance" a student argued. "Peoples perception is very bad, I feel ashamed to say I am a student-teacher; if I was asked I would say I am a student in the Faculty of Science.. ..it is a humiliation.. ..and this is the worst problem that worries me", another argued. "People's view of the teacher is very bad, so the teacher feels as though he is lacking something", a third commented.

Student-teachers feel very frustrated when hearing this view. It leaves them doubtful, despite the fact that Yemen has a desperate need of native teachers. "It becomes a shameful thing to be a teacher, though we still bring teachers from outside" a student-teacher emphasised. Student-teachers tended to attack such people who have this biased view of teachers. Arguments such as "have they not been taught by teachers?", "if they persist in holding such views who will teach our pupils?", and "who educates the would-be doctors, engineers.. ..etc?", were continually voiced.

4.4.3.3 Why does such a Bad Perception Exist?

The student-teachers are, more or less, of the opinion that the state in general and the Ministry of Education in particular is where such biased views originate at least partially. "The problem we are facing is the lack of

concern of the state", a student complained. "Society's view is the reflection of the state view", another responded. To support this view they tended to quote how teachers are highly respected in rural areas. "The way they treat teachers in rural areas is a lot better than anywhere else", a student said. "In a village the teacher is more respected; they are offered free accommodation, and extra money", another said. "Rural areas representatives in the People's Assembly were on the side of increasing teachers salary, whereas the educated opposed a motion in the People's Assembly", a third pronounced.

Furthermore, supporting evidence is that when the government recently increased teachers' salaries people's views started to change. "The bad perception began to diminish when the government increased teachers salary", a student said. Moreover, some student-teachers pointed out that because the state seems to be concerned with military colleges, then there are more people who want to join them. They have more privileges than teachers according to student-teachers. "Soldiers and officers have good status in society. For instance, the graduates of the police college have two certificates: in law and policing", a student said. It is also seen that the societal view is tied to money. Their view of a person is based on how much he/she earns. "Society's perception is based on money, we shall face frustration in future. It will start from my family, when they find out that I spent four years at the

university and became a teacher, whereas my friends have already bought a car and built a house of their own", a student said. Hence, they appear to argue as some of their responses show, that the Ministry is the one to blame. "Society can be pardoned, but the state should be concerned more with teachers" a student-teacher complained. The lack of concern of the state can be found, as students argued, in the salary the teacher gets, and the unfairness of treating teachers unlike their colleagues in the different government offices: the teachers are getting lower salaries than other government employees, even though both have equivalent university degrees. "The teacher has the same certificate as any other employee, yet he gets paid less", a student complained.

4.4.3.4 Overcoming the Poor Perception

Having discussed the bad professional status teachers have, questions were posed to science student-teachers about the way such views can be changed.

Student-teachers tended to level their criticisms regarding their status against the Ministry and its policy in relation to teachers. Phrases such as "it is unfair", "the Ministry shows little or no concern for teachers", were frequently heard. Hence, the solution of such a problem was perceived as lying mainly in the hands of the state. The responsibility of the state as seen by student teachers,

lies on the shoulders of two Ministries: the Ministry of Education which is the essential one, and the Ministry of Information. Again the Ministry of Education is seen as having two kinds of responsibility in this respect: improving the financial aspect, and creating an awareness about the importance of the teacher. The role of the Ministry of Information is also seen as one of pointing out to the public the important role the teacher plays in the country's development. Some of the students teachers responses were:

"If the state gives incentives and increases teachers salaries the view will change.."

"..People's view of the teaching profession is the reflection of the state's view. if the state views the teacher in the same way as it views doctors, engineers, people will view teachers as such. Other graduates in a very short time got their own houses and settled.."

"..The teacher's pay is not enough. If the financial situation of the teacher improves, people's view will change, for, people's views are based on how much the teacher earns.."

"..If the teachers' job was appreciated by the state, rather than giving false slogans, then this might help.. ..no accommodation.. ..no sufficient salary.. ..people's view is materialistic".

"..The solution is that the state should be more concerned.. ..give adequate salary.."

"..Within a very short time, other graduates got their own houses and settled.. ..people's view is materialistic, we want just a decent house and sufficient salary".

Sometimes student-teacher mention the slight concern of the Ministry but when they are asked to elaborate they tend to mention, mainly, two aspects: the salary, and creating an awareness of the importance of teachers. However, they seem to find it difficult to tell exactly how to create this awareness, apart from the role of the Ministry of Information.

"..It is the Ministry of Information which should create awareness in people's minds of the significant contribution of teachers in the country's development.."

"..We hardly hear any songs about teachers.."

"..The mass media in its different forms should convey to the public the importance of the teacher.."

"..People are ignorant, so the mass media should overcome this.."

Incentives were also mentioned by some of the teachers.

"..The solution depends totally on the Ministry. Some teachers think they are forgotten when they become teachers, so the Ministry should encourage them by promotion, scholarships for postgraduate studies, etc.."

Improving the financial situation of teachers, and creating awareness among the public, giving more incentives, and being more concerned generally with teachers not only will change people's bad perception of teachers but consequently will help in getting more people into the teaching profession.

"..If teachers' salaries were increased, the perception will improve, and consequently more pupils will get into the teaching profession.."

However, student-teachers did suggest other factors for improving teachers status, of course in conjunction with the main factor: the State in general or the Ministry of Education in particular. The contributory factors are the teacher and time; though the teacher was mentioned more frequently than the time. But whenever they are mentioned they are mentioned together with action by the state and with salary in particular.

"..Peoples' perception is bad.. ..it will change by time.. it is a political decision.. ..if the state provides incentives and increased teacher salary.. ..the view now is a materialistic view one.."

The contribution of the teacher himself, in conjunction with what the state ought to do, takes different forms. Being a good example in terms of behaviour and good performance is seen as one way of improving people's perception of teachers:

"..And it can also be said that the good behaviour of the teacher and his excellence in performance will make people respect the teacher and the profession. On the contrary if his behaviour is bad people will devalue him and the profession.."

Educating the pupils to behave well, so that they can impress their parents is also seen to help in changing parents perception of teachers.

"..Learning of good conduct by pupils is important. When the father sees his child's good behaviour, he will judge the school as good.."

Telling pupils about the importance of teaching and teachers might help.

"..When we show our excellence in teaching and tell our pupils about its importance, the view

will change.."

And lastly, expanding the teacher's job to the outside world is also seen a helpful thing to do in improving people's perception.

"..And the teacher ought to get in touch with people.. ..he should not restrict his job to the classroom, he might teach adults, get involved with them, then they might like him and consequently change their perception of the teacher.."

From what the student-teachers' comments on this particular concern showed, it appears that the concern is not new to them, but rather accompanied them since they made their decision to join the Faculty of Education, if not before, till now. This could be seen in the way their families, friends other people, lectures, educated people and society in general view the teaching profession and reacted to student-teachers at different occasions.

4.4.4 Curriculum

The term 'curriculum' denotes here a rather restricted meaning. It refers mainly to the way student-teachers judge the quality of textbooks and how closely they should stick to them. Thus, this theme is defined in terms of two sub-themes. The first deals with the quality of science textbooks and the second deals with the extent of freedom and flexibility the teacher has over the use of textbooks.

4.4.4.1 Science Textbooks

Curriculum was criticized by many of the

student-teachers on various grounds. It should be noted that the curriculum they talked about refers to textbooks. The major criticism of the curriculum was that it is not relevant to the Yemeni environment. This is seen as an important aspect in curriculum development to help pupils understand their environment, to get them interested and understand the subject matter, and also to help pupils not to forget what they learn. When they talked about environment they referred to the examples cited in the present textbooks from the Egyptian environment, and also relating the subject matter to Islam. The irrelevance of the curriculum is criticized mainly in relation to the Egyptian textbooks which are still in use in part of the secondary school curriculum, but also even in relation to those which were Yemenized but mainly by non-Yemeni authors.

Some of the student-teachers' comments were:

"..sometimes you find the school textbooks are still not relevant to the environment.. ..for instance, you encounter unknown names of plants and animals.."

"..it should be relevant to the reality of Yemen. Islam is the reality of the Yemeni life.. ..it should be related to the Creator of the universe so that pupils recognize the unity of sciences.."

"..the present curriculum is Egyptian, and taught in a Yemeni environment.. ..it is vague.. ..examples from the environment should be cited.."

"..if it is relevant pupils will be motivated to learn. Otherwise, they will forget what they have learned very quickly.."

"..when we were in school we were Yemeni in nationality but studied about Egypt.."

"..some of the textbooks are Yemeni in their

outside cover. Because non-Yemenis have re-written them and the title of Yemen Arab Republic was written on the textbooks front cover.."

"..Curriculum cannot be imported.. ..every environment has its distinctive characteristics.."

Furthermore, a few student-teachers commented that the curriculum was not written according to pupils levels of understanding and not logically sequenced, while a few others added that the textbooks cover too much and are too theoretical.

"..it is above the pupils' level of understanding.."

"..textbooks are neither psychologically written nor logically sequenced.. ..topics in the third year of preparatory school textbooks included what we came to understand only at the university.. ..or you find a topic at the beginning of the textbook, and the definition at the end.."

"..the practical side is very scant in the texts.."

"..there are equations in the texts difficult to understand by pupils at such level.."

"..Our curricula emphasise only the quantity of knowledge.."

To overcome such criticisms student-teachers were inclined to see the need for change from the Ministry through Yemenizing the curricula by well qualified and experienced Yemeni teachers and experts who pay attention to both the subject matter as well as the curricular, psychological and environmental considerations in re-writing the textbooks. However, different considerations were mentioned by different student-teachers in relation to

different criticisms:

"..their stress is on the quantity.. ..thus, they should consider psychology in curriculum development.."

"..they should be changed and re-written;.. ..that could be done through discussion between teachers and experts.."

"..curriculum developers should be well qualified and experienced Yemenis..The Yemeni knows his environment better.."

A few others mentioned another way of surmounting such a problem. They commented that they will try their best to relate what they teach to the Yemeni environment through their personal knowledge as well as taking pupils into the field.

"..I shall attempt to arrange visits to the field with the pupils.."

"..the teacher may take his pupils on a field trip.."

It can also be noted that some of the student-teachers' views were influenced by the university programme, particularly psychology and their experience as pupils in schools. Furthermore one can also tentatively conclude with regard to the curriculum that student-teachers with no previous teaching experience tended to comment only in general terms such as the curriculum is not relevant, they need to be changed, and the like.

4.4.4.2 Teachers' use of the Curriculum (Textbook)

Some student-teachers considered sticking to the textbook content as a problem whereby the teacher is

restricted to the content and hence the teacher is not free to elaborate, change, delete or even modify the content. Thus, teachers should be given the freedom to add or delete.

Also the timing for covering the subject matter in teaching is seen as not realistic, because the pace of teaching depends on pupils' understanding. Hence, the teacher needs to use the text in a more flexible way. He might find things which need elaboration, so he can add, or things scientifically wrong which he can delete. This freedom should be given at least in years where there is no national examination.

"..they should allow the teacher to add to or delete from the information given in the textbooks.. ..particularly in the stages where there is no national examination.."

"..one of the most important issues is how to teach the textbook without any restriction.."

"..they restrict you by the content of the textbook and its timetabling.. ..suppose pupils did not understand.. ..there should only be the names of topics and the teacher could feel free to add or delete.."

"..the teacher is limited in his teaching to the content of the textbook.. ..there may be things which are not scientific any more.."

Most student-teachers who advocated this view had no teaching experience.

4.4.5 School Administration

Here student-teachers discussed matters related to the school administration. Generally, student-teachers' responses could be grouped under two sub-categories. It is

difficult to demarcate in clear-cut terms the boundaries between them. Nevertheless one could crudely refer to one sub-category when student-teachers discuss matters related to how the school administration should be and should act generally; whereas in the second, student-teachers discuss the reciprocal and the mutual relationship between the teacher and the school administration; i.e. what is required of both sides towards each other.

4.4.5.1 A. School Administration

The bulk of science student-teachers' argument was mainly focused on being critical of the present state of the Yemeni school administration and how it ought to function. The most frequently mentioned criticism, in its generalized and abstract form, is that most school administrators are not educationally qualified in most, if not all, of the Yemeni schools in general and in rural areas in particular, and how such a state of affairs has resulted in school administrators' widespread apathy and lack of concern with schools and teaching. Some of the science student-teachers statements were:

"..Qualifications of school administrators do not exist.."

"..Most school administrators are unqualified.."

"..Most of school administrators, particularly in rural areas are not qualified and even their experience is narrow and limited.."

"..When I studied in secondary school administrators were apathetic and

unconcerned.."

"..The present administration is old, not conscientious and not qualified.."

"..School administration is not conscientious, which has resulted in apathy and lack of concern.."

They correspondingly advocated that school administrators should be educationally qualified, aware, conscientious and understanding.

"..One of the important things is the availability of educationally qualified administrators who know their job and others'.."

"..We are in need of an educated headteacher who is educationally qualified so that you can communicate with him.."

They seem to emphasize this because the success of school administration is seen as a contributory factor to teachers success in teaching.

"..School administration is an important factor in the teachers' success.."

"..One should start thinking of school administration before thinking of teaching..
..the teacher without good administration can hardly move.."

"..The school administration creates the atmosphere for education, so it is essential.."

School administration apathy and lack of concern is seen by science student-teachers to be reflected in a general apathy and lack of concern among teachers and pupils. This is manifested in truancy and disruptive behaviour.

"..The school administrators' apathy yields pupils disruptive behaviour; and lack of concern among teachers and pupils is an expected result of school administration apathy.."

In addition to student-teachers' advocacy of providing

the Yemeni schools with educationally qualified personnel, which is seen as an underpinning factor of teacher success, there are some specific aspects of school administration they appeared to stress when clarification questions were asked.

They stressed, among other things: that the teacher ought to find it easy to communicate with school personnel; the school administration should make things available to the teacher such as textbooks, laboratory apparatus, teaching aids and the like; it should also appreciate the teachers' work, be responsive to whatever he needs, do away with the bad view of Yemeni teachers which some headteachers are perceived to have, and show no favouritism among teachers.

"..you need an understanding headteacher who responds to the teachers' requirements. Whenever you ask him he never hesitates.."

"..The qualified school administrator is the one who appreciates the teachers' work so as to give encouragement to do more.."

"..It is the responsibility of the school administration to make textbooks available, and teaching aids.. .. laboratories, from my experience textbooks used to arrive late and used to have no laboratory.."

"..Some headteachers look at Yemeni teachers in a mocking way. Why? Is it because our bodies are small, we are shy and not talkative and do not speak loudly?.."

"..The headteacher should be fair and never pay attention to some and leave others.."

Concerning pupils, the school administration should have a clear disciplinary policy whereby absenteeism, truancy and disruption can be overcome without resorting to rough ways

of dealing with such problems. It should have not only a set of rules but to apply them in practice indiscriminately. It should be more concerned with pupils' problems so that it can help whenever possible. School administration should create an awareness among pupils to respect teachers and others and show no favouritism to pupils.

"..There is no discipline in the school.. ..the school administration cannot control pupils' truancy.. ..may be because of the huge number of pupils.."

"..there is no awareness on the part of school personnel and that is what I found when I was in secondary school. For instance the headteacher could not control pupils. He used to be rough and pupils tended to play truant.."

"..The most important thing is to have a disciplinary system not on paper but in practice.."

"..Disruption and truancy exist because of the unawareness of school administration.."

"..school administration should have a good relationship with all pupils and view at all pupils equally.."

"..Awareness of respect for teachers and others should be spread by school administration among pupils.."

Two student-teachers were in favour of school uniform as part of the general ethos of the school.

"..There ought to be a school uniform instead of letting pupils into the school with daggers.."

The headteacher should not engage in any other activities apart from school administration and should be in direct supervision of everything happening in the school. The school should also have general activities such as trips, sport, and the like, so the school administration should make

available what is needed. It should be concerned with the general cleanliness of the school, and never keep the school isolated.

"..from my experience we suffered a lot because the headteacher was not free for the school.."

"..The school should not only concern itself with inculcating knowledge but also trips, sport, cultural activities etc. would be part of its activities.."

"..He should keep always a continuous contact with teachers and co-operate with them for the benefit of pupils' learning.."

"..The school should be concerned with the general cleanliness of the school.."

"..An active administration is needed which keeps the school in contact with the Ministry to know everything new.."

Fulfilling all the needs mentioned depends, as it was seen by student-teachers, upon some conditions. Appointing an educationally qualified headteacher is seen by most, if not all, as a prerequisite for coping with many difficulties. A qualified headteacher, as was apparent from student-teacher responses, would be a graduate of the Faculty of Education who possibly had studied school administration. Moreover, experience seems also to be an important condition together with the qualification. Indeed a few of them would see that experience sometimes might be better than qualification. For those who are already school headteachers without qualifications, student-teacher arguments seem to suggest that in-service training would be a way out of the problem.

"..The headteacher is essential.. ..there should be educational qualification and experience, and I think that experience is more important than the qualification because

experience means reality. Our headteacher was active and things were going as they should be.."

"..Both qualification and experience are important. He should be a graduate or have attended in service training.."

"..Most of the headteachers are not educationally qualified. An attempt ought to be made to replace the present unqualified headteachers or organize in-service training for them.."

"..The headteacher should have studied about school administration, know about other headteachers' experiences and attend in-service training.."

"..it depends on the individual, he might not be qualified, (i.e not a graduate of the Faculty of Education), but he might have good experience which might prove to be better than the qualification. He might have learned through his mistakes.."

In addition to the importance of having qualified headteachers, there should be a supervisor of the headteachers' work from the Regional Education Department and the Ministry of Education. Student-teachers' responses seem to reflect such a view.

"..There is no supervision of the headteacher's work; it ought to exist.."

"..Administrators should be supervised by the Regional Education Department.. ..the headteacher is an essential; it does not matter if he makes mistakes as long as he learns from them.."

The student-teachers see themselves, if they were confronted with unqualified and unresponsive headteachers, as employing strategies of suggesting, proposing, and advising the headteacher in what is best and ought to be done. If there was a response then it would be a good thing; if not, they seem to argue that

they would do their best in teaching and carrying out their job of teaching and would leave everything as it is, i.e. accommodating themselves and adapting their work to the existing system. Then there would be nothing left that the teacher could do. It would be up to the Ministry to do anything.

"..One would try to correct things through offering his opinion.. ..and it depends on your work; the most important thing is to be a good example in your work.. ..if you are exerting your utmost effort, then when they see you they will tend to imitate you. Then if they hear your view, it is more likely they would accept it.."

"..I shall suggest improvements, then it is up to them to accept or not.. ..at the end it depends on your conscience and sincerity.."

"..It depends on the Ministry of Education, I myself would do my best regardless, I would adapt myself to what is there as long as they do not intervene in what I am teaching in the classroom, if they did I would not accept it.."

As it could be noted from student-teachers' comments, that they tended to make references mainly to their experiences as pupils, but also as teachers in primary schools and to their general experience where they reflected on what they saw for instance in the schools of their area of residence.

4.4.5.2 School Administration - Teacher Relationship

Many of the student-teachers referred to the relationship between the school administration and teachers in one way or another. Though they touched on the nature of the relationship from different angles, the main argument centred around the importance of understanding, and

co-operation for the purpose of changing the situation for the better. Some of them said:

"..As I have seen in my village school..
..there is tension between the school
administration and teachers.."

"..the co-operation between the school and the
school administration is very important.."

"..we need a co-operation based on brotherhood
and exchange of views.."

"..one should try to build up a good
relationship between himself and the school
administration.."

In this respect some of the student-teachers pointed out some of the problems in dealing with school administration for the teacher in general and the Yemeni teacher in particular. Some of these problems were: they do not accept the teachers' views particularly those related to his pupils, they look down on the Yemeni teachers, they don't listen and respond to teachers' opinions and requests concerning equipment, and steal public money, they quarrel with the teacher on personal grounds rather than educational, they write reports against teachers, and just like to issue orders to be followed. Some of the relevant extracts are:

"..the teacher's view is not accepted by the
headteacher or anybody else.. ..for instance,
the headteacher would tell you to pass some one
who failed.."

"..some of the headteachers look down on the
Yemeni teachers.."

"..if we found understanding people, interested
in improving the situation, the teacher would
have an impact, but here you find the opposite;
no one listens to the teacher.."

"..Some headteachers have been accustomed to

use the public money for their own interest..
..if one attempted to reform, it would lead to
tension and then he might write a bad report
about you which might also lead to your
transfer to another school.."

"..they tend not to respond positively to your
requests regarding, for instance, Audio-visual
Aids and laboratory apparatus.. ..they keep on
promising you, to the extent that they force
you (indirectly) to buy things at your expense,
or just leave the activity.."

"..they put pressure on the teacher.. ..if he
was absent they report him without knowing the
circumstances.. ..they like to order.."

"..sometimes differences in views not related
directly to the school activities lead to
tension.."

However, some of those student-teachers and others also
added and argued that the improvement of the situation
needs, among other things, to let you know the regulations
of the school, the timetable and the different school
activities, to be consulted in matters related to the
pupils, to respect your views, to make textbooks and
apparatus available, and also to keep the school clean.
Some of student-teachers' responses were:

"..One of the important things is to know the
school regulations which organize the school
activities and to know your timetable.."

"..I want the headteacher to respect my
views.."

"..I want the school administration to be
concerned with the teacher.. ..for instance,
anything it does against the pupil, it should
consult me, so that your respect is not
affected.. ..it should provide me with the
textbooks and laboratory apparatus.."

"..they should not feel that they have
authority over others.. ..I should participate
by putting my views across and to be consulted
in matters related to my pupils because I am
the one who deals with the pupils directly.."

"..they should respond to the teacher's requests and make what he needs available.."

In dealing with this concern in practice student-teachers differed widely according to the specific aspect of the relationship and themselves as individuals. Some might react very generally and talk about the need for qualified administrators, while others might talk about a specific action for instance, lodging a complaint against the school administration. Also, some might start with an attitude of despair, and others might advocate an attempt to build up a rapport and friendly relationship or trying to convince the administration, or complaining to the Ministry.

Further, it might include other strategies such as moving to another school or just accepting the status quo, after the attempt to reform, with resentment. One student-teacher went so far as to propose that if the tension was so great, particularly if the differences were personal, he might leave the job altogether.

One can view the coping strategies suggested by the student-teachers as starting with the Ministry, who might train qualified school administration, or respond to the teachers' complaints positively, then seeking support from school administration, if it is co-operative. If not, an attempt should be made to convince the school administration to respond to the teachers requests. If nothing happened (though some are optimistic that whatever the circumstance one can bring about some change even if it is not dramatic),

either accept it with resentment, move to another school, or leave the teaching profession altogether.

"..one should not despair, (when the headteacher looks down at you), the pupil will stand beside you.. ..the school is not the headteachers' property, we can complain to the Ministry.."

"..if there is no response: try once, twice and for the third time.. ..if nothing happened.. ..you are a human being. You just do what's possible.."

"..if they do not provide me with what I need I shall complain to the Ministry.."

"..if I found that the headteacher is not co-operative, I shall approach him and attempt to convince him.. ..if I could not I will keep silent, because if you complained I don't think you will get anything.. ..you just do whatever you can do.."

"..I don't think the school administration will be that bad.. ..but if it was what can you do?!.."

"..it depends on the kind of the differences. If it is educational, one can put up with it.. ..but if it is personal it will be difficult.."

However, it could be concluded that there is interest in improving the situation as long as a pre-requisite requirement is met by the school administration, that is, an understanding and qualified school administration: co-operative, listening to the teacher's views and requests, consulting him, and having the desire to improve the situation. Student-teachers differed in adopting one strategy or another according to their perceptions of the issue and indeed according to the particular kind of issue which concerned them. Their strategies differed also in terms of their final decision. One might expect that he will be able to change things; another that he may find

difficulty due to the constraints, from the school side. After unsuccessful attempts at reform, one might expect to accept the situation and do what he can, though he may not like it. Another would leave the school to go to another school, and a third would leave teaching.

It may be worth noting as well, that the supporting evidence which were mentioned occasionally by some of them indicate the influences. Here, there were events which happened to a friend in one of the schools, that the teacher heard about, another event which also the teacher heard about, of tension between the teachers and school administration in his village, or an attitude taken on the basis of the teacher's experience as a pupil.

4.4.6 Teacher-Teacher Relationships

This theme simply refers to the kind of relationship between the teacher and his/her colleagues and how it should be.

A co-operative relationship is seen by many student-teachers as important and useful for enhancing teaching. Specific problems of this relationship were also mentioned. In addition to anticipating the possibility of teaching with unco-operative colleagues, student-teachers were concerned about teachers commenting on other teachers in the class and about bad views held by the non-Yemeni

teachers of the Yemeni teachers.

"..One of the problems is that there is no co-operation among teachers.."

"..Sometimes we observe, when a teacher comes in the classroom, that another teacher might come in and start commenting on what was written on the blackboard by the previous teacher. This is a bad phenomenon.. ..even if the teacher was wrong the other teacher can correct him privately.. ..not in front of the pupils.. ..because the kind of relationship between teachers has consequences on the actual teaching in the classroom.."

"..the (....) teachers have a bad view of the Yemeni teachers.. ..they looked at them as if they did not know.."

"..they may work against me and I may become unjustly treated.."

However with regard to the last problem student-teachers thought that sincerity in work, good teaching, and good relationship with pupils would help in attempting to overcome it.

"..One can overcome this by good teaching and relationship with pupils.."

"..Anyway one should be sincere in his teaching.. ..and let them do what they want.. ..however, the end will be that I shall be ill-treated.."

In addition to student-teachers' justifying the importance of this co-operative relationship between teachers in terms of improving teaching in general, they mentioned specific benefits for such a relationship. Among these benefits were: to co-ordinate the different common activities such as trips, and the preparation of teaching aids, to help each other in solving pupils problems, to advise each other, to consult those who are experienced in the subject matter or the teaching method, and to replace

each other in case of absence. It should be noted that student-teachers in their responses in relation to this particular aspect tended to show the need for good relationships with teachers of the same specialization. Thus, it is clear that most of the specific aspects of the relationship centre around the functions of science teachers.

"..good relationship with other teachers is important to improve the situation.. ..for instance to plan for trips.."

"..co-operation is important.. ..if a teacher is not doing his job as he should be, I can advise him.. ..if he needs help I could offer him the help he needs.."

"..one cannot dispense with other teachers experience.."

"..we have to have mutual co-operation.. I may consult him, for instance, regarding problems with pupils.."

"..good relationship helps.. ..for example if one is absent, another teacher will replace him.."

"..the relationship should be a co-operative one e.g you want to plan for a trip, to make teaching aids.. etc.."

If the relationship was not good between teachers, student-teachers suggested that one should attempt to develop it gently by advice, and good and friendly attitudes from their side. If nothing happened, "what can one do?!", as one of them said.

"..one should not be hard, by soft means one can exchange views with other teachers.."

"..one should attempt to improve the relationship, if nothing happened what one can do?.."

Finally, one can also note that student-teachers with no

previous teaching experience stressed more the need for the co-operation of other teachers. This need of a particular kind of relationship with other teachers focused more on a particular kind of teachers, i.e. science teachers. They did not mention that; but from their comments, it seems that their comments centred around, for instance, the need for others experiences in teaching method, in the subject matter and in making teaching aids. This also reflects the specific needs they felt as beginning teachers. As a result of this perceived particular and immediate felt need for others co-operation, those student-teachers appear inclined to make use of all possible gentle means to improve the relationship if it was not good. On the other hand, student-teachers with previous teaching experience talked about the problem of how badly other teachers perceived Yemeni teachers. In other words, they talked first about teachers in general rather than the need for science teachers, or they talked about other kinds of specific problems such as commenting on other teachers or replacing one another in case of absence. Although student teachers argued for the importance of the co-operation between teachers, yet there seems to be no clear distinction between experienced or non-experienced student-teachers in terms of being optimistic or pessimistic about the expected nature of teachers' relationship. Tentatively, among those who commented on this theme it appears, generally, that those who expected a difficult relationship were more numerous than those who expected a good one. Also an example of a

student-teachers' experience as a pupil who observed the nature of the relationship between his teachers was also referred to in this theme.

4.4.6' The School and Classroom Physical Conditions

This theme refers to student-teachers' discussion of matters related to the physical conditions of the school such as the school buildings, toilets, windows, doors, ventilation, chairs, cleanness, lighting, etc.

Reference to the unsuitability of school buildings and location in general and the classroom conditions was made by some of the student-teachers. In fact most of those who commented on this aspect stressed more the conditions of the classroom in which they would be teaching. Having a chair for those who have no chairs and comfortable chairs for those who already have chairs, good lighting, proper ventilation, a suitable colour for the blackboard, and a comfortable atmosphere in the classroom in general appear to be the main aspects referred to. The student-teachers seem to argue that the availability of such things will provide pupils with a good atmosphere which in turn will enhance the teaching-learning process. The responsibility lies, as student-teacher, commented, on both the state and pupils' parents.

"..There should be enough chairs for all pupils.. ..also good lighting.."

"..the problem is that there is no proper

school building.. ..teachers sometimes teach under trees or in a very small classroom.. ..proper school buildings should be available in order to improve teaching.."

"..classroom atmosphere in general is important e.g. the colour of the blackboard, chairs, ventilation, all are necessary things.. ..when I was a pupil in primary school I used to stand until I felt as though my back was broken.."

"..This is the responsibility of the state first and the pupils' parents in the second place.."

"..the classroom conditions affect the pupil's learning.. ..the chair may be painful.. ..when I was a pupil during the hot weather there were no fans in the classroom.. ..it was very tiring.. ..things can be improved gradually.."

"..school location is important.. ..also there should be a proper school building.. ..we need a healthy and suitable school building.."

"..It is important to have a suitable school building not a school made of aluminum which becomes hot very quickly.."

It can also be noted here that some of the student-teachers refer to their life in schools as pupils or as teachers, or talked about the issue on the basis of the school in their places of residence in either rural or urban areas, which indicate the source of influence.

4.4.7 Teaching Methods

This theme includes student-teachers' responses focused on the teachers' activities related to teaching the subject matter to pupils. It includes what ought or ought not to be done by the teacher in the classroom with regard to his/her teaching of the subject matter so as to maximize pupils' understanding.

It should be noted that when student-teachers talked about using teaching aids, laboratory equipment and the like, they tended to talk about these in an overlapping way.

As a result, it was difficult to see, for instance, using teaching aids and carrying out experiments as two different things, though academically the distinction might be viable.

Consequently, it should be taken into account when reading the analysis that there is no clear-cut distinction between the two at least in the student-teachers' talk. However, teaching aids used to be frequently referred to by biologists, whereas doing experiments used to be mentioned more frequently by physicists and chemists.

A further point should be noted that when a student-teacher's response talked about lack/availability of teaching aids and laboratory equipment, then it was put under the theme 'Teaching Aids'. But, when a student-teacher talked about the importance of using teaching aids or practical teaching generally, then such a response is put under the theme 'Teaching Methods'.

The focus of this concern is the classroom. This is the only concern which was stressed by all science student-teachers without any exception. Probing general responses, given by student-teachers, yielded enormous information. Such statements centred around the idea of getting the subject matter across and making pupils

understand what they are taught. Some of these statements were:

"..Following the methods of teaching by which we achieve success.."

"..The most important thing is the pupil and the extent he understands the subject matter.."

"..The good teacher is the one who can make pupils understand.."

"..to get the subject across to pupils.."

"..to interact with pupils and make them understand.."

"..To know how to get the subject across to pupils.."

"..Getting pupils to understand and assimilate the subject is an important matter.."

"..I do not want the pupil to go out the classroom without understanding.."

"..Using the different teaching methods to get the subject across.."

"..The issue of pupils' understanding is very important.."

"..In teaching, you have to use different teaching methods.."

"..I will use the best teaching method which makes pupils understand.."

First of all they seem critical of the present approaches of teaching, although they might admire some parts of it when recalling their own experiences as pupils. To quote some of the criticism levelled against methods of teaching today:

"Teaching today is totally dependent on lecturing."

"..We learned things we did not understand, for they give examples from the Egyptian environment."

"..No practical teaching even if the equipment is available, and that we found when we were in secondary school.."

"..We should not encourage rote learning,..
..when I was a pupil I myself memorized chemical equations without understanding."

As I said earlier students sometimes tend to recall good parts from their experiences as pupils. One of the students, for instance, while explaining how a teacher should teach said "he should use all the possible means in teaching. When we were in the third year of secondary school, our teacher used to start talking generally to attract pupils' attention so that they do not lose their interest and concentration".

From student-teachers' quotations one could note that student-teachers talked about the teaching method they aspired to use generally with reference to some of its aspects such as the importance of pupils' interest and motivation, teaching which is based on interaction between the teacher and pupils, giving more attention to practical teaching, the relevance of teaching, and less emphasis on rote learning. All of these are meant to maximize pupils understanding. In other words, pupils' understanding is seen, at least at this stage, as the underlying major criterion of adopting the appropriate teaching methods.

Some of the contributory factors in helping pupils to understand better, which were mentioned by science student-teachers were as follows.

4.4.7.1 Relevance to the Yemeni Environment

One of the criticisms student-teachers levelled against the present method of teaching is that it bears no relevance to the Yemeni environment. Some of the general comments in relation to this aspect of teaching were:

"..it (teaching) should be related to pupils' reality.."

"..The subject matter ought to be employed.."

"..The content should not be presented in an abstract way.."

"..The teacher ought not to comply literally with the textbook in teaching.."

Student-teachers arguments about relevance are concerned with several different types of relevance. First, in order to enhance pupils' understanding, the teaching of the subject should be relevant to their surroundings. For instance, through citing examples of what they are studying such as animals, plants, minerals, natural phenomena and the like which can be more emphasised by trips, visits, films, etc.

"..Whenever the subject becomes relevant to pupils, become more interested in what they study.."

"..It should be related to the environment, so that the subject becomes easy to understand.. ..most of the examples are from Egypt which pupils do not understand.. ..until now some of the fishes I do not know though I studied them in secondary school.."

Second, when teaching, the teacher should point out to pupils how the scientific principles are being translated into action. In other words, he ought to extend his

teaching to include explaining the applications of science. In doing so, pupils again get interested and like the subject and consequently understand better.

"..Without discussing science applications, teaching science becomes meaningless.."

"..pupils can repair minor electricity faults.."

Third, in a Muslim society, it was argued, Iman in Allah should be emphasised through understanding Allah's creations.

"..the subject should not presented in an abstract manner, Iman (faith in Allah) should be developed.."

"..When explaining the complexity of any creation, it should be explained that such complexity cannot come out of nothing, but there must be a Creator.."

"..To relate pupils' understanding to the power of Allah the Exalted.."

Fourth, teaching ought to be relevant to the social life of society in general as one student-teacher stated:

"..When pupils understand, for instance, the co-operation between animals and plants, then teachers should point out to them the importance of co-operation within the family and outside.."

Another example, given by another student-teacher, was:

"..Whatever the pupil studies in the classroom, for instance in health, he should be encouraged to practice it at home and in society at large.."

4.4.7.2 Yemeni Teachers

Above all, to make the teaching relevant to pupils

lives, the teacher, so to speak, should be relevant. Without the teacher being a Yemeni, then no relevance can be achieved. Yemeni teachers will not only help in making the subject matter relevant and understood by pupils but also will use an accent which would be more understandable by pupils.

"..the accents used by non-Yemenis teachers are not understandable by pupils particularly in rural areas. This of course leads to lessening pupils' understanding.."

4.4.7.3 Practical Teaching

Due to the fact that the interviewees are all science student-teachers, this aspect of teaching was generally affirmed. It appears that since the subject is science, as it was argued, then the real teaching of science is experimentation. Lecturing and inculcation is not the suitable style of teaching, though one cannot do away with it. Practical teaching should be used for many reasons, as it was argued: to succeed in conveying the subject matter, to make pupils understand quickly and firmly, to get pupils interested in studying the subject and so that pupils do not lose their interest, and to make performance of teaching productive and successful in general. This is done through experiments, in laboratories or field visits.

"..Theory should be connected to practice.."

"..concentrating on the practical side of teaching and avoiding lecturing and inculcation even if there was no apparatus.. ..it is possible to make some simple aids from the local environment.."

"..One can succeed in conveying the subject by using scientific apparatus and teaching aids.."

"..Experiments should be carried out to ease the abstractness of scientific principles.."

"..Connecting theory to practice is a very important thing, understanding becomes easier and quicker; if there was no connection the pupil will tend to forget what he learns quickly.."

This aspect of the teacher teaching, particularly science teaching, was emphasized even more strongly due to the fact that science student-teachers themselves had begun to understand some scientific concepts only after getting into the university laboratories.

"..The practical teaching of science is very important.. ..in secondary school we did not get into the laboratory. We entered the university without a real understanding of science.."

"..A long time was spent in secondary school in teaching us 'qualitative analysis' in chemistry! Nonetheless, we did not understand; by doing it in the laboratories here at the university it was simple.."

In relation to what science student-teachers emphasised here, i.e. doing science and not talking about science, they tended to speak about teaching aids in general. In other words, they seem to argue that if you want to teach more effectively, to make pupils understand and indeed to be a science teacher you have to use teaching aids and encourage pupils to make them if not available. Such teaching aids would be better, as they seem to argue, if they are suitable to the age group you are teaching and preferably made from the local environment. Some of the students-teachers responses were:

"..The teacher should use teaching aids as far as possible.."

"..Even if teaching aids are not available, he should encourage his pupils to make them.."

"..The teacher might find some teaching aids from his local environment.."

"..Teaching aids should be suitable to his pupils and made from the local environment.."

4.4.7.4 Teacher-Pupil Interaction

"..If the pupil understands, then the teacher is successful.." Understanding seems to be the underlying concept of student-teachers arguments. It is the reciprocal nature of teaching they seem to advocate or what they sometimes call "discussion". Discussion between teachers and pupils can serve, among other things, three purposes. First, for assessment which is two-fold: to assess pupils' understanding and how far objectives have been achieved, and to assess the suitability of one's teaching, i.e. to assess oneself from pupils' progress.

"..By discussion you know the extent to which pupils understand the subject, and the extent of teaching success.."

"..By discussion you know how far objectives have been achieved.."

"..He (the teacher) should allow all his pupils to ask and discuss, to know whether he is using a good approach or not.."

"..You know pupils understanding from their answers at the end of the lesson, if they do not, one might change his approach.."

Second, other purposes are reported also, to exchange thoughts with pupils, to free pupils of embarrassment, to

discourage rote learning, to draw pupils' attention and generally to make the teaching simpler.

"..Through discussion the teacher and pupils can exchange thoughts. The teacher might learn from his pupils."

"..Allow pupils to discuss to get them out of the habit of being embarrassed by asking or discussing.."

"..When discussion is reciprocal the teacher enhances pupils' understanding and discourages pupils' rote learning. when I was in secondary school I used to memorize by heart the chemical equations.."

"..By discussing one might catch a pupil sleeping.."

Moreover, discussion is the way to interact with pupils which is seen crucial to student teachers.

"..Interaction with pupils is necessary so that they will understand and pass their exam.."

"..Interaction encourages pupils to understand rather than memorize and pass exams.."

Third, discussion or interaction in general helps the teacher to know the level of pupils performance and their different abilities.

"..From your discussion with your pupils you will know the different abilities of pupils, then you will act accordingly.."

"..Through random questioning, you can easily know pupils of different abilities.."

4.4.7.5 Keeping Attention

Student-teachers argued that pupils should be attending to what is said to them by teachers. Different methods seemed to be suggested to do that. Making the subject liked

by pupils seems, in their view one way to catch pupils' interest and consequently attention. The students were, to some extent, vague on how to make one's subject liked.

"..The teacher should make the subject liked by pupils.."

"..The most important thing is pupils' interest, so one should make his subject liked by his pupils.."

How to make one's subject liked by pupils is not clear from student-teachers' responses. One suggested vaguely that "creativity in teaching method and mastering the subject will make pupils like the subject taught".

Adopting different styles of teaching is also seen as another way of catching pupils attention. Cracking jokes and starting with a general introduction at the beginning of the lesson were also mentioned as means by which the teacher might draw pupils attention to what he will say afterwards.

"..Our teacher in the third year of secondary school was not used to start the topic straight away, rather he used to discuss something general to attract pupils' attention. So no one will lose his interest.."

"..Crack jokes in case you see your pupils started to lose their interest.."

4.4.7.6 Understanding Pupils Abilities

Some of the student-teachers pointed out the importance of knowing the different abilities of pupils within the class. This is needed, according to student-teachers, for two reasons. Firstly, to adjust one's general approach in

teaching, and secondly to help the slow learners in particular. This can be achieved, they say, through teaching them, sitting and talking with them, reading their profiles if available, asking other teachers, discussion in the classroom and so on. Some of students' responses in this respect:

"..It is important to know pupils' standard intelligent: or slow.."

"..you know your pupils through observing and sitting with them.."

"..you have to get to know your pupils, and the extent to which they understand so that you do not give them more than what they could understand.."

"..you have to know the different abilities in your class,.. ..we found, for instance, pupils in primary five cannot read or write.."

"..He (the teacher) should help the slow learners in their answers.. ..and not just say you are a donkey.."

"..Stupidity does not exist, it is a matter of different abilities, so the teacher should help the slow learners. He can know them by questions or exams.."

4.4.7.7 Teachers' Lack of Skill

A few students referred to the problem of being embarrassed by pupils and provided some practical suggestions of how to cope with it.

"..Do not show your incapability in front of your pupils, otherwise they will make fun of you.."

"..Do not discuss irrelevant things to your topic you are teaching, lest you might be asked and you cannot answer.."

"..if you could not answer, instead of being embarrassed, pose the question to them and praise the pupil who asked and give it as homework to pupils, while you find the answer.."

"..If you were embarrassed cover it with a joke with the class.."

Hence, some of the student-teachers are expecting some sort of embarrassment from pupils. The origin of such embarrassment is pupils questions to which the teachers have no answer. The thing they are afraid of is if they could not answer, then pupils will start laughing and then the teachers will lose their respect. From these quotations it seems that student-teachers had developed some practical suggestions to cope with such dilemma once confronted.

4.4.7.8 Pupils' Talents

Encouraging pupils to pursue their own interests and predispositions is one of the teaching aspects reported by some of the student-teachers.

"..Pupils should be encouraged to pursue and develop their predispositions.."

"..Encouraging pupils' interests is important, not encouraging them to memorize.."

"..If you want to develop pupils' aptitudes, do not restrict yourself to the textbook, because it is based on memorization and is not relevant to the environment.."

"..Develop pupils' predisposition by all possible means.."

Having looked at these different facets of teaching method in this way, one could also note that the first four aspects concern methods for achieving goals, especially but

not only that of pupils' understanding, and the other three refer to goals and how they can be achieved. These goals range from an altruistic concern to foster pupils' disposition and talents, through the professional practical concern of attaining pupil's attention, to the self-concern of not being humiliated by appearing incompetent.

Referring to student-teachers' quotations, they generally appear to perceive both the goals and the methods of achieving them as things known to them and are optimistic about attaining them.

Other aspects of teaching were also mentioned by a very few student-teachers such as:

Using Homework

"..The teacher should give his pupils homework and correct it.."

Praising Pupils

"..Praise the pupil who answers correctly, and do not rebuke those who answer wrongly.."

Lesson Timing

"..The lesson should suit the lesson duration.."

Blackboard Planning and Clear Writing

"..One should think in advance how to plan the blackboard.."

"..The writing on the blackboard should be clear.."

Teaching Pace

"..Explanation should be slow.."

"..Avoiding being in a hurry in one's teaching, for pupils do not dare to ask and the subject becomes complex and difficult.."

Giving notes, working out many problems to understand the law, not teaching loudly, and giving extra time if a pupil requires it, were also mentioned by one student-teacher.

In talking about teaching methods, they tended to refer to specific good or bad experiences in their lives as pupils namely at secondary school. This reflects that student-teachers' views of teaching methods at this stage are drawn, at least partly, from such experiences before getting to university. Also, reference was made to at least some courses or experiences at the university. Their use of "discussion" method indicates the influence of the university at least at the level of using the terminology. Sometimes even their general experience is reflected in some aspects of their discussion within the teaching methods theme, such as their distinction between urban and rural areas.

4.4.8 Teaching Aids

This theme deals with student-teachers' responses concerning what is needed for science teaching which

includes laboratory apparatus, audio visual aids or textbooks. These responses were in terms of the lack of all of these aids and how to cope with such shortages.

For most science student teachers it seems that the most important thing is to have sufficient laboratory equipment in particular and teaching aids in general. They commented that, to understand science, it is necessary to link theory with practice. Carrying out experimental work is the most effective way of teaching science and in turn developing pupils' understanding. They themselves found that from pupils' complaints about the difficulty in understanding science without doing experiments when they were teaching in primary school. Furthermore, they experienced it at the university where they realized the importance of doing experiments when they themselves carried them out. In discussing the importance of science laboratories they referred to the lack and shortage of laboratory apparatus in the Yemeni schools in general and in rural areas in particular. Even if it exists, sometimes the laboratory apparatus is poorly stocked and even the laboratory can be considered as a store rather than a proper laboratory. Partly, this can be attributed to the unavailability of laboratory assistants. Some of the student-teachers, particularly those who had previous teaching experience, talked about the insufficient supply of textbooks for all pupils.

"..laboratories are not available.. ..and if there is, you don't find the laboratory

assistant.. ..it is really a store!.."

"..to understand the subject and to make the method of teaching easy, there should be a laboratory.. ..pupils always complain about the difficulty of understanding the subject.."

"..laboratory should be available to relate theory to practice.."

"..textbooks are not available.. ..it is worse in rural areas owing to the difficulty of sharing textbooks between pupils.."

"..laboratories are not available.. ..we, ourselves, understood science when we started doing the experiments at the university.."

"..textbooks should be made available.. When I was teaching in a rural area there was a shortage of textbooks.."

"..There is not sufficient apparatus.. and to teach science particularly you need that.."

"..there is a lack of laboratory apparatus.. ..in rural areas you you might not find any.. ..and even in towns.. ..if you find a few pieces of apparatus, you will find them covered with dust.."

"..I don't think I will be able to teach science as it should be taught if there is no science laboratory.."

"..it is important to have sufficient apparatus and teaching aids in general.."

In case the teacher did not find the adequate science laboratories, student-teachers suggested different things. Among these were: using more demonstration experiments if available; trying to get the school administration to help in making them available; making use of the local environment, more particularly for biologists rather than physicists and chemists; buying things from their own money; the cooperation of teachers and pupils in financing and making teaching aids; and as a few commented, to teach as

they were taught in schools. It ought to be noted that those who said that they will teach in the same way they were taught, in case of the unavailability of laboratory apparatus, were student-teachers with previous teaching experience. In other words, although it is difficult to find a clear difference between those who had previous experience and those who had not, nevertheless it could be said tentatively that experienced student-teachers tend to be less optimistic about improving the situation and more specific than those who had no teaching experience whose suggestions to improve the situation were more optimistic and more general. With regard to the shortage of textbooks, dictating notes, though they do not like it, was the agreed method of coping with the problem.

"..if we were able to do something from the local environment we will do it.. ..if there is anything I can afford to buy, I shall buy it instead of the administration routine.. ..but with regard to apparatus I shall explain to them through the use of drawings and pictures.."

"..if textbooks were not available or not enough for all pupils, I might be forced to dictate notes.."

"..if they are not available, I shall first ask the responsible body.. ..then if there is anything I can do from the local environment I will do it.."

"..we shall teach pupils to make teaching aids.."

"..I shall try to use alternatives from the local environment.. ..otherwise I might just teach the way we were taught.."

"..we shall try to find some of them.. ..make use of demonstration experiments and as time goes on things will get better.."

"..the headteacher should try to get them from the ministry, or collect money from parents to buy.."

"..it is possible to collect little money from pupils and I can also payd from my own money to buy.."

"..just do what you can i.e. what is available.."

"..it depends on the school administration first, then what I and pupils can do from the local environment and also depends whether I have sufficient money to buy.."

In this theme, as student-teachers' quotations show, experience in teaching, one's life as a pupil, hearing from others, and one's general experience are all seen to play an important part in shaping concerns and opinions at this particular phase of student-teachers' training regarding this concern.

4.4.9 Teacher-Pupil Relationships

Included in this theme are responses about what the teacher should know about his/her pupils and how to deal with them.

The real work of teaching occurs in the classroom and it is the pupils whom the teacher will work with there. And so, student-teachers stressed the importance of the teacher pupil relationship and how it should be. "Your relationship with pupils is more important than your relationship with the headteacher", a student said. And another argued that having good relationship with pupils is one of the concerns

of a good teacher. The underlying assumption in the responses is that it is good to get pupils closer to the teacher, to make them like and respect the teacher which in turn will make them like the subject and hopefully, understand it better. Not to be harsh or hard appears to be a desirable teacher quality in dealing with pupils. He should be humble and have friendly relationships in or out of the classroom. To be arrogant, to feel that you are everything, to see yourself as superior, or to expect your orders to be obeyed without question is seen as a bad quality with bad consequences. On the other hand, to have a softer and friendly relationship leads to a better and more useful outcomes. Among these were: pupils will like the teacher and in turn like the subject, pupil's understanding of the subject will improve, barriers to easy understanding are removed, the subject is got across easily, you avoid pupil's antipathy, pupils do not feel inferior, you do not diminish your status in their eyes, you let pupils communicate easily with you, and avoid weapons being brought into the class! Here are extracts from some of student-teachers responses:

"..He should not be hard with his pupils..
..liking the subject matter comes as a result
of liking the teacher.."

"..Dealing with pupils should not be harsh..
..from my experience as primary school teacher
there were snobbish teachers and used to deal
with pupils harshly.. ..they, then, lost their
status and respect.."

"..Respecting the pupils does not make them
feel inferior.. ..also he should not be abrupt
as happened to us in secondary school.."

"..Even if the teacher is good at his subject but deals with pupils in a harsh manner pupils will just switch off.."

"..There are some teachers when they get in the class, they feel as if nobody likes them and everything is in their hand, and the pupils have no value.."

"..He should not reproach the pupil, for this will lead to antipathy, and that is what happened to me when I was a pupil.. ..no dictatorship over pupils in the name of order and regulations if he was 5 minutes late he should not be blamed and forbidden from the lesson.."

"..Your relationship should not be tyrannical.. ..but rather of mutual respect.. ..no pride but humility in this way you attract the pupil to you and your subject.."

"..He should not feel that he is superior to his pupils, so that the pupil will feel at ease and like the teacher. Hence he will have a better respect and status in his pupils' eyes.."

"..rebuking pupils and being hard with them might lead some of them to bring weapons into the class.."

However, not to be harsh with pupils means to be like a friend or a brother to them. This kind of brotherly manner will remove the obstacles which may hinder the kind of relationship the teacher needs which is considered to be of great importance to facilitate their understanding of the subject. Here are some extracts:

"..The relationship is supposed to be a brotherly or friendly one.. ..understanding is dependent on the kind of the relationship.."

"..the relationship should be as between a father to a son or brother to a brother.."

"..the most important thing the teacher should consider is to attract his pupils to let them understand and that comes about when you consider them as your brothers.."

"..I shall establish a brotherly relationship with pupils.. ..from my experience at the university.. ..Dr.A at the Faculty of Science used to deal with us as brothers, and thus I used to present my seminar without being nervous; even better than when I used to present my seminar at the Faculty of Education.."

"..I do not know how to deal with pupils, but I will deal with them as sisters.."

This brotherly relationship would require the teacher to know his pupils, not to have ill-feeling or a bad opinion of his pupils, to accept their opinions, not to insult or swear at them, to be fair, and not to be apprehensive of their questions even if they are silly. Here some extracts:

"..You have to know your pupils before teaching them.."

"..Be close to them, let them discuss, avoid rebuking or laughing when a pupil answers a simple or silly question, he may hate learning.."

"..Good manners and good perception of the pupil.. ..even if he asks a question which seems irrelevant to the lesson do not perceive him badly.. ..the teacher might misunderstand the pupil and start using bad words and the pupil become victimized.."

"..The teacher should not get angry when the pupil asks him.. ..he might not mean to embarrass the teacher.. ..he should be wise in dealing with them.."

"..let pupils be free to discuss at any time not like us at the university where lecturers refuse to answer.."

"..The teacher ought to let the pupils put their opinions across.. ..not just insist on his own views.."

"..We used to be annoyed by the teacher who is not understanding and did not answer our questions.. .. he just comes, gives the lesson, and goes and that's it.. ..sometimes used to laugh at pupils questions.. ..that is

alienating.. ..the teacher should answer his pupils questions in or out the classroom.."

"..The teacher should deal with pupils equally.. ..no favouritism.."

"..should be no bias.. ..some teachers deal with pupils on the basis of family and individualism.."

"..He should not differentiate between pupils and say: this is intelligent and that not.. ..this is the son of a well off man and that is a son of a poor man.. ..rather he should let them feel that he is their older brother.."

Furthermore, brotherly relationship requires the teacher to know the pupils' circumstances and his problems in or out of the school, for they may be seen as an obstacle in the way of improving pupils understanding and teachers' respect.

To cite some of the student-teachers responses:

"..You ask the pupil about the problems he is facing.. ..through his answers in the lesson, ..you will know he's got a problem. Later you can ask him about his problems at home.. ..he then will tell you. Then you or the school administration will help him. In that way he will understand the subject better.."

"..He should be concerned with pupils problems.. ..help them in solving their problems.."

"..Interact with the pupils without feeling superior, and solve their problems even if they are out of the school.."

"..Try to know their problems because they affect teaching and learning.."

"..To get the subject matter across better, you have to know pupils problems.."

"..In order to be respected, try to solve their problem.."

"..Solving pupils' problems be they social or otherwise, it leads to respecting the teacher and attracting their attention.."

To let pupils tell their problems, student-teachers seem to suggest that through answering their questions, talking to them in a brotherly manner, not rebuking them and being concerned with their understanding in general will make them feel at ease to tell their problems and worries. Generally, student-teachers here talk about the brotherly relationship with pupils mainly from pupils'/students' perspectives. This could be clearly seen from their references to the way they were treated at both the school and at the university. That also obvious from the overt way of talking, by student-teachers, about what is classified as "relationship". Although some of the student-teachers with previous teaching practice reflected on their previous teaching such as being fair in treating pupils, and not to be either too harsh nor too soft, nevertheless, all student-teachers with previous experience or without previous experience, appeared to advocate a brotherly and sympathetic attitudes towards pupils which in turn reflect their pupil/student perspectives.

However, some of them also added that being too friendly might lead to a counter productive result, i.e. less respect to the teacher. Hence, the middle position seems to be preferred by some of them. In other words, the middle between the two extremes of being too firm or harsh and too friendly or brotherly. One way of translating it into practice seems, as mentioned by some of them, to be firm in the class and friendly outside of the class.

Here are some extracts:

"..to be respected don't be hard or soft, rather something in between.."

"..don't control them too hard, nor leave them lest they make fun of you.."

"..be firm but not too firm; for it may lead to rejection. For instance, rebuking him, in front of his classmates.. ..or you threaten him to do something and then you did not.."

"..Belting is counter productive.. ..deal with your pupils in such a way that they will respect you. By solving their problems, for instance, you let them respect you.."

"..deal with them like a brother neither firm nor soft.."

"..dealing with pupils should not be hard i.e. mutual respect.. ..out of the class brotherly relationship, but inside the class act as a teacher.."

From what was said one also can tentatively conclude that student-teachers' responses are based on a background knowledge which they have built up ever since they were at school. You could note how they tended to support their views either by citing examples from the school or university: from the school as pupils, or primary teachers in case of those who had taught; more particularly to the way teachers or lecturers behaved towards them or others. The examples from the university do not reflect the courses but the way lecturers behave towards them.

4.4.10 Pupils' Problems and Manners

This refers to the problems of pupils perceived by student-teachers in relation to their teacher and teaching

and the manners which should be adopted by them.

About two thirds of the student-teachers, in discussing pupils problems, spoke about general problems such as apathy, bad academic standard, differences in abilities. Others referred to specific problems such as poor reading and writing ability, being occupied with another job, particularly in evening schools, or escaping from the school during the break.

"..One of pupils problems is their apathy, particularly those pupils who study in the evening. Many of the students feel that they are forced to study to get a certificate.. ..pupils particularly in rural schools, are not able to read.."

"..The academic standard is very bad.. ..some of the pupils joined the science section not on the basis of academic ability but on the basis of ambition.."

"..You sometimes find a pupil in his final year of secondary school not able to write grammatically correct.."

"..Some of the problems regarding pupils are the differences in pupils abilities and poor attendance. For instance, pupils escape from the school during the break.."

"..Pupils have different levels of understanding. Some do not care about learning. They don't respond to you.."

"..Pupils come to school as if they are forced by their parents.."

"..Some pupils are apathetic. They don't react when you are teaching.."

"..the Yemeni pupil is both studying and working, and that affects his performance.."

In addition to the above concerns, and rather more frequently, most of the student-teachers referred to pupils

behaviour towards the teacher in both its negative and positive aspects. In other words, they were concerned with the manners, mainly related to respect for teachers, which should be adopted so that teachers could do their job effectively. Some of the bad manners of pupils reported by student-teachers were: not following what the teacher says, misunderstanding the teacher, challenging the teacher and showing off, laughing at the teacher, preferring the non-Yemeni teacher to the Yemeni teacher, throwing chalk at the teacher or fighting him.

"..Some pupils don't follow what the teacher says.. ..as a result of their bad view of the teacher.."

"..The Yemeni pupil prefers the non-Yemeni to the Yemeni teacher despite the fact you teach him better. The non-Yemeni teacher still give them notes and the pupils memorize them, and write them down in the examination. That is what really happens in schools as one hears from those who have had teaching practice.."

"..Some don't appreciate what they are learning as we do sometimes; if a lecturer was mistaken we laugh. That might happen in school as we heard from those who had teaching practice that there is no respect for the teacher.."

"..Laughing at the teacher is a problem.. ..they do not appreciate the Yemeni teacher.."

"..They may consider the teacher as mistaken if he wants to explain in depth.. ..also the pupils who try to show that he knows while he does not.."

"..A pupil might ask the teacher irrelevant questions as a result of his readings.. ..this becomes a problem particularly if the teacher does not know.."

"..The pupil should respect the teacher whether he is good at his subject or not, because some pupils pelt the teacher with chalk and sometimes attack the teacher.."

In addition to describing the problems of pupils, the student-teachers also stressed some of the manners which should be adopted towards their teachers. Some started by commenting that manners come first; without good manners one cannot learn. Hence, respect for teachers is of paramount importance to facilitate learning. Respect for the teacher in particular and others in or out of the school in general was also referred to. Other specific manners such as giving attention to what the teacher is saying, being hard working, being quiet, accepting the teacher's directions, and the rejection of bad customs were also emphasised.

"..The pupil should be hardworking.. ..respect his teachers, respect his classmates, and should have the good manners before learning. Being intelligent is not as important as having good manners.."

"..He should be quiet in the classroom, respect everyone in or out of the school.."

"..He should be hardworking and ask if he did not understand.."

"..He should reject the bad customs in the society, and not just follow their fathers in this respect.."

"..He should give attention to the teacher.. ..it happened to us when we were pupils.."

However it can be added also that student-teachers with previous teaching experience tended to talk about problems particularly specific problems such as inability in reading and writing, and talked less about pupils' manners, whereas student-teachers without previous teaching experience tended to talk more about pupils' manners and how they should respond to the Yemeni teacher such as not to laugh even if he made a mistake, not challenge him with questions and so

on. It seems reasonable to conclude that student-teachers without previous teaching experience tended to think how pupils will react to them when they meet them, which might lead to the teacher losing confidence. Although, as will be discussed later, they wished to adopt a friendly relationship with pupils, when it comes to challenge and losing confidence, the student-teacher will take tough action against such an attempt by the pupil. "I should expel him from the class if I felt that he wanted to show off in questions", a student-teacher commented.

It ought to be noted that some of the salient influences which were mentioned here when discussing pupils' problems and manners were their experiences as pupils, and their experiences at the university. Their latter experiences are not related to the programme itself, but rather to the way they themselves reacted to their lecturers, and also their friends who have had such an encounter with pupils in schools in teaching practice. However, the influence of each source might differ from one concern to the other.

With regard to the coping strategies when confronting such problems, these will also depend on the kind of the problem. Three different agents should help each other in achieving this purpose: the teacher, the home, and the school administration. And again when the agent should play its role depends on the kind of issue or problem. Good manners, for instance, needs first the help of the home and

second the teacher whereas, for instance, escaping from the school calls for good discipline from the school administration and the teacher making his teaching interesting. Nonetheless, there is overlap between the three different agents, integrating with each other. The teacher's strategy is to present himself as a good model for his pupils in his behaviour. In dealing with them, he has to have patience, and to read more in case he was asked, and to make his method of teaching as interesting as possible. This could be done, for instance, by focusing more on the practical side, and also using the problem solving method of teaching. The school should have a disciplinary policy whereby absconding by pupils diminishes. Furthermore, it should try to arrange meetings to explain the teachers' role to enhance respect. The home role here is to help the school in implanting good manners in the children so that they respect others in general and the teacher in particular.

"..In case of escaping the teacher might not be able to stop it, but if the school administration is co-operative and disciplined, one can help in that direction by making the subject interesting to the pupils.."

"..As a result of my good relationship, they will come to me at anytime outside the classroom hour so that one can help towards solving the difference in abilities.."

"..We shall try to overcome the problem of apathy by making our teaching more relevant to their environment.. ..Anyway we shall try our best to improve the situation.."

"..The pupil may not be blamed for asking irrelevant questions.. ..hence, the teacher should be patient and should read more about the surroundings.. ..for, if a pupil considers

the teacher to be able to answer any question..
..if he did not answer pupils will lose
confidence in their teacher.."

"..If anyone wants to show that he knows
whereas he does not I shall get him out of the
class so that he becomes an example for
others.."

"..Holding meetings for the purpose of
appreciating the teachers' role, will develop
respect for the teacher.."

"..To relate what you teach to reality in
addition to home education pupils will be
motivated to learn and respect the teacher..
..however anyone who does not respond to his
mother and father you don't expect him to
respond to his teacher.."

"..Encouraging pupils to adopt good habits and
stopping them from having bad ones may help.."

"..Through helping pupils to understand and
giving more attention to the practical side
will help pupils to work hard.."

"..Being a good model for your pupils helps in
making pupils behave well in the class.. ..I
myself was influenced by my Yemeni English
teacher.. ..I liked her.. ..girls who were not
behaving well in other teachers classes used to
behave well in her class.."

However, it should be noted that adopting such
strategies will not overcome all these problems. Although
some expressed their willingness to reform and improve
things, some did not foresee that some of the problems would
be overcome totally or even at all. For instance, one
student-teacher argued that if something is related to the
subject he could do something about it, but if it relates to
manners, it might be difficult to do anything. Others may
argue that one can improve the manners of his pupils by
showing them a good example in one's own behaviour. Again,

this difference also depends on the kind of the problem. For instance, one student-teacher commented on the problem of having pupils who have other jobs, that this was something he could not do anything about.

One further note regarding this is that student-teachers' responses appear to reflect, among other things, their experiences as pupils and as students at the university, other student-teachers' teaching experiences, and their general experience as citizens. In other words, their views reflect the influence of their experience and what they hear about others' experiences. The student's views, at least with regard to this theme, are based on many different accumulated experiences such as what he saw at his village, what he experienced at school, how he behaved towards his teachers and what his friends, who had already taught in school, had experienced. The university example which was mentioned showed the importance of the interaction between the student and the lecturer, and not only what is being taught.

4.4.11 Class Control

Class control here refers to how student-teachers discuss class control as one of their concerns and the way to keep the class quiet in general, and the disruptive pupils in particular.

About one third of the student-teachers talked about discipline as one of their concerns, though it was expressed in different ways. Some of those referred to it in its broadest sense, and others referred to specific aspects of the discipline or classroom management such as "controlling the class", or "pupils' quarrels". Some of them in this respect said:

"..Class disturbance is the main problem.."

"..How to control the class is the most important thing to me.."

"..Pupils may hit or quarrel with each other.."

"..You may find the pupil disruptive in the sense that he might incite disruption or make fun of the teacher, even he may throw chalk at the teacher. In fact that is what I fear because we used to do it to our teacher.."

However, not all pupils were seen disruptive, "pupils were not born disruptive" a student said.

Concerning the reasons for such a concern, different student-teachers mentioned different reasons. Some of these were due to school administration, the teacher, pupils' stage of development, crowded classrooms, or the home. Here are some of their comments:

"..It really depends on the school administration or the teacher.."

"..When the teacher is lazy, the pupils become disruptive.."

"..May be the teacher's method of teaching is not adequate.."

"..Adolescents tend to be disruptive.."

"..Disruption is due to crowded classroom.."

"..A pupil may come disruptive from his home.."

In addition, those who discussed this concern differed widely in how to cope with such a concern according to the type of the discipline aspect which was mentioned. Some might start by attempting to know the reasons, and some others might think that it depends if it is a little problem or a big one. On the other hand, one might think that a soft attitude might be the best means of coping with the problem and another might think that he should rebuke the pupil to stop him or might make him leave the school altogether. However, the ways which were mentioned were: not using harsh measures, the attempt to win his respect by talking to him privately, contacting parents, by knowing the reasons and dealing with them according to the ideas they have studied in the educational courses, by advising them, by giving the subject matter its due attention, by being patient, by warning, rebuking, by rearranging disruptive pupils seating, by deducting from his marks, by getting him out of the class, and by referring him to the school headteacher. Further, their responses also showed the gradual use of means starting from being soft and moving to the use of harsh means; also starting with solving and working out one's problems in the class on one's own and leading to sending the pupil for the school headteacher to deal with him. That again could be understood, as seemed from the student-teachers' responses, in that when adopting a particular means, the pupils view of and respect for the teacher is one of the considerations which should be taken

into account.

Some of the responses were:

"..Well, it (disruption) depends on the school administration and the teacher.."

"..When there is disruption, don't adopt to harsh measures.."

"..If you could not control the disruptive pupils yourself, you can ask other teachers if they encounter the same thing in their lessons. Do pupils do the same with other teachers? If not then it might be your teaching method. Hence, it is not the pupils' problem it is the teacher who might have not taught the subject adequately. However, if the whole class is misbehaving and causing disturbance, in this case the school administration should deal with that.."

"..Start first with approaching disruption in an understanding way. If it does not work, refer it to the school administration. However, a disciplined class, and disciplined teacher will depend on a disciplined school administration in the first place.."

"..Deal with pupils in a way to win them.. ..don't expel him from the class, rather talk to him privately. If he continued, maybe he has problems, try to help him. If he persists sent him to the administration office.."

"..Adolescents tend to be disruptive. You might refer to the parents directly to know the problems and the reasons for such disruption.."

"..If anything happens in the class I should work it out myself. If it was difficult to handle, pass it to the administration office.."

"..I shall try to know the causes of the disruption, and then according to what we studied you might know whether, for instance, the pupil had been spoiled at home, so I can contact his guardian.."

"..Teach the subject matter adequately, i.e. when you are teaching.. ..pupils will like you, and consequently will be quiet, but if the teacher was lazy, pupils will cause disruption.."

"..The teacher should be patient, otherwise

disruption will accelerate. Pupils might make fun of the teacher if he was abrupt.. ..even they may throw the chalk at him as we were doing to our teachers in schools.."

"..Disruption might be due to two or three pupils sitting together, so separating them, or seating them in the front of the class while observing them closely may help.."

"..To control the class, I shall start introducing myself to pupils, and talk to them about the importance of mutual respect.. ..if it did not work, warn him or get him out of the class.."

"..I cannot bear the disruptive pupil. I may leave the school altogether.."

"..Advise the disruptive pupil first; warn and rebuke him second, then, deduct his marks, if nothing happens, or send him to the headteacher.."

It is worth noting that two of these quotation from student-teachers have shown two different influences. Firstly school experience as a pupil and secondly the programme of the university and psychology in particular.

It could be concluded that student-teachers, without previous teaching experience tended to talk about discipline in a more apprehensive way than those with teaching experience. A student-teacher without previous teaching experience commented: "The most important thing is how to control the class". "Thats what I fear (throwing chalk at teachers) as we used to do it to our teachers", another commented. A third student-teacher without previous experience, having commented on pupils' disruption in crowded classes said that patience is an important quality of a teacher in managing his class.

Generally speaking, with regard to classroom control student-teachers seem to be talking from a pupil perspective which shows that student-teachers' comments regarding this theme reflect the influence of the position one is taking in his/her argument.

4.4.12 Class Size

Again responses are included here when student-teachers discuss primarily the class size as a concern. It might be found for instance under the theme of class control but as a cause of what is of concern rather than as a concern itself.

On the other hand, the difficulty of controlling the class will be found here but as a consequence of the large classes reported here by student-teachers as a concern.

About a third of science student-teachers reported 'class size' as a concern which represents an obstacle precluding pupil's understanding. Hence, having large or crowded classes means less understanding which seems in their view to be the fundamental responsibility of a teacher. "The size of the classroom affects pupils understanding", a student said. Also giving more attention to the individual is made difficult, and makes the teachers's job less feasible. "The class size should be limited. You cannot follow up pupils' performance and mark their home work particularly in primary and preparatory schools", a student teacher responded. "You will not be

able to know every individual pupil", another argued. "You will not be able to be concerned with all pupils.. ..marking their homework and following all pupils performance", a third added. Inherent in what they said is that individual attention and homework are very important elements in improving the quality of teaching.

Furthermore, another difficulty created by large classes is the difficulty of controlling the class and keeping pupils quiet. "If the class size is large, controlling the class would be difficult", a student-teacher argued. "The teacher might not be able to keep the class quiet", another said. "Big classes might cause disruption", a third commented. Some of the student-teachers reported their view that such difficulties were partially surmountable. It appeared to them, as understood from their comments, that it is possible to overcome the disciplinary problems created by large classes, but it seemed difficult to overcome the difficulty of paying attention to individual pupils. Nevertheless, one or two of them think of the disciplinary problem as also unsurmountable. "You can control the class, but you will not be able to give the due attention to all pupils", one student argued. "Regarding discipline, you can control, but concerning performance and understanding is very difficult" another said. A practical method of coping with disciplinary problems is reported by one of the student-teachers. "The teacher should try his best in adopting the best manner of seating pupils. For instance,

by not putting all disruptive pupils close to each other, and by encouraging pupils to pay attention. By doing so, he might be able to cope with the problem of disruptiveness, but to pay attention to all pupils would be difficult. Hence, the ideal solution seen by student-teachers lies in the hands of the state and the Ministry of Education. In responding to questions of how to overcome the problem of class size, they tend to give answers such as, "from the side of the Ministry", "the solution is with the state", and the like.

Student-teachers thus appear to be optimistic about overcoming disciplinary problems of large classes but find it difficult to imagine how to make all pupils understand what they are teaching. The way to maximise pupils understanding, it seems from their argument, is to have smaller classes so that individual attention would be possible.

Most of the student-teachers who commented on this particular concern had taught previously. This indicates the influence of teaching in the appearance of this concern.

4.4.13 Home - School Relationship

Responses are included here when student-teachers mainly talked about the home or parents as one of their concerns or when their discussion was in response to the hint "the

home".

About one third of the student-teachers commented on the importance of school-home relationships. Some of those have criticized the existing relationship, and others advocate it as necessary for improving pupils' learning. The criticism and the advocacy of school-home relationship varied from one to another. But, the common factor is that if the relationship is good pupils will learn better. Some criticism is general (such as the family does not know its role), or specific, based on their experience as a teacher or a pupil (such as parents do not help their daughters to study), or parents accuse teachers of using money collected from parents for their self-interest, or of being tough with their children.

"..The family play an important role in the upbringing of the new generation. But, you find sometimes a family treats its children harshly.. as I have seen where I live.."

"..bad tribal customs are still prevailing.."

"..There should be a liason between the school and home.."

"..Home has the first and fundamental role, and school should be complementing and integrating with the home role.."

"..Home upbringing is not as it should be.."

"..Parents should know their role towards their children.."

"..These days the school in one side and the home on the other without any liason and contact between them.."

Looking at student-teachers' responses, different aspects of the home's role can be identified such as: to

teach, supervise, and train the children in good manners; to help them in their study at home; not to give him/them too many responsibilities at home; to be in touch with the school for consultation regarding the child's problems, attendance and progress; and to help the school financially to improve children's learning. Student-teachers regarding this said:

"..parents need to be consulted in matters related to their children's learning.."

"..Children should be helped at home.."

"..The father ought to have a direct contact with the school to see if his child attends or not, to see his progress.."

"..The home should supervise their children's behaviour.. ..if the child was not behaving well at home, the school will not be able to rectify him. The pupils behaviour in the class is a reflection of his behaviour at home.."

"..The school is in need of financial support. Parents should donate.."

"..Home and school should complement each other to implant good morals, values and manners.. ..the school work in this respect is not enough.."

To improve the school-home relationship, different student teachers offered different ways of handling this issue either by the teacher himself or by the school administration or by both. Sending a letter, inviting individual parent for discussion, inviting in parents and talking to them, using a parents' Council if it exists, or making them aware of their role as parents through programmes by the mass media, or through the programmes which are made available for illiterates. All were mentioned as an effective means for improving school-home relationship

for the betterment of pupils' learning. However, different means may be used for different aspects of the home role. Having a parents' council, for instance, is seen as a suitable means for making parents contribute to the school fund. Some of student-teachers commented:

"..Link the home with the school through the school administration, although I know the pupil better than the school administration does.."

"..We need parents. I may send him a letter without the knowledge to the pupil of course.."

"..I might send the parent a letter and fix an appointment for him to come and discuss.."

"..We might send a leaflet of instruction for parents, or call them for a talk to explain to them their role.."

Finally, it ought to be noted that a reference was made to what a student-teacher saw in his place of residence, which was reflected in his expressed view, which reflected in turn the influence of outside agents on the student-teachers views on educational matters.

4.4.14 Subject Mastery

This refers to the responses in which student-teachers discuss the importance of having command over the subject matter and how to cope with it in practice.

Having command over the subject or mastering it is seen by most of science student-teachers as a fundamental pre-requisite condition for the teacher. This is expressed by student-teachers in different ways such as "good

preparation of the subject matter", "mastering the subject matter", having command over his subject" and the like. If one tries to disclose the ground on which they have such an argument, one could find a variety of reasons or 'whys' for such advocacy. Among those were: to lessen the effect of nervousness or embarrassment, to have confidence in yourself, impressing pupils, to answer puzzling questions, and partly to be able to convey the subject matter. This emphasis was mentioned by some of them in reference to the first year of teaching, especially for the Yemeni teacher.

"..A teacher should be well-acquainted with the subject he is teaching.."

"..He (the teacher) has to have sufficient knowledge in the subject.."

"..The first thing he should concern himself with is the good preparation of the subject.."

"..When you get to the classroom it is pre-requisite to have command over your subject, otherwise a question might make you nervous, embarrass you and pupils will have a bad impression of you.."

"..I shall try my best to prepare my subject well so as to be able to answer all pupils questions. For pupils will tend to compare the Yemeni teacher to the non-Yemeni teacher.."

"..The most important thing is to master your subject, otherwise you will not be able to get your subject across.."

"..Make sure that you are well acquainted in your specialization, otherwise pupil will make fun of you and gossip about you.."

"..To overcome embarrassment you have to understand your subject well.."

"..The more you understand your subject matter, the more confident you become in the classroom.."

There are three ways of helping one in mastering the subject, which is to be taught, mentioned by student-teachers. First, getting more of the subject matter while they are at the university. "Making use of the study time left at the university in knowing more of our specialization" one of the students commented. Second, asking their colleagues who are teaching the same subject. "If I encountered any difficulty in the subject I might refer to my colleague" another student said. Third, which is seen by most of them as the most important way, reading more references about the subject. "One should not depend solely on the school text, but should refer to different sources for some of the topics in schools, we do not know much about them, and any question might embarrass you and that is what happened to me when a pupil, my neighbour, in secondary school asked me", a third explained.

It may also be noted that two or three student-teachers referred to the importance of being equipped with general knowledge so as to be able to answer pupils' questions which might not be relevant to one's specializing subject.

4.4.15 Teachers' Manners

Here the student-teachers' responses refer to the values the teacher should adopt. These might bear no direct relationship with the subject matter, but be related to his/her job as a teacher.

Almost two thirds of the student-teachers referred to this concern. The student-teachers appear to start with the assumption that a teacher is not only teaching the subject matter, but also teaching good manners which is part of the Yemeni life. Most of the student-teachers have stressed that considering good manners is part of the teachers' role. Moreover, though most of them restricted their discussion of this issue to within the school, a few of them extended their role to the school neighbourhood. It seems to be agreed that the teacher should have good manners and should behave accordingly.

It appears that the centre of the discussion of the student-teachers when talking about teacher's manners is to provide a good model for pupils as well as for the neighbourhood. Being a model referred, in their discussion, to both what the teacher says and does i.e. to behave in or out of the class in the same way. To be a good model, as it was explained by the student-teachers, requires adopting some characteristics and rejecting others. The teacher should be: religious, sincere to God in his work, respect time, work and pupils' views, compassionate, punctual, and in general adopt all good characteristics. He should also avoid arrogance, abuse, adopting any philosophy which does not belong to the Islamic philosophy of the country thus creating conflict in pupils' minds, or any bad characteristics in general.

In addition to teaching pupils good characteristics through offering good models, also the teachers should, as student-teachers commented, teach good manners, through the subject he is teaching.

The way towards achieving such features, as it seems from the student-teachers, is by means of preparing Yemeni teachers; selecting them, following up their behaviour, making them aware of the country's philosophy that is Islamic philosophy, which should lead to them adopting good manners according to that philosophy and hence presenting a good model for others.

During their discussion of this issue two student-teachers referred overtly to their experiences as pupils in schools to make their point clear, which indicates the influence of such experience in relation to these instances. This of course should not be understood as implying that there are no other influences, but these were the only mentioned examples to support the student-teachers' arguments while they were talking about the teacher's manners. Here are some extracts from the student-teachers responses:

"..Some teachers don't appreciate their role as educators. You are not only transmitting knowledge, rather you are an educator. The teacher should be a good model.. ..if he is teaching about cleanliness, he should present that himself. He should be a good model in that he should not adopt any other ideology which might lead to conflict between pupils and thus the pupils might develop hatred toward their society. His ideology should be drawn

from the society's.."

"..We are in a Muslim country, hence teachers, all teachers should embody the philosophy of the Muslim society. There should be an Islamic awareness.."

"..The teacher cannot be abusive. When we were at the secondary school, the teacher called us shoes. However, we've beaten him up in the class.."

"..The teacher should disseminate good manners to parents through being a good model.."

"..the teacher should be a good person.. ..who has values, who loves work, compassionate. Beside teaching his subject matter, he should teach good characteristics during his teaching. He should also appear well dressed, not like some teachers who teach dressed in their pyjamas.."

"..The teacher should be a Yemeni. Indeed a good Yemeni. Some teachers are influenced by alien cultures, and thus corrupt instead of reform. It happened that one teacher was singing and dancing with girls in the class.."

"..The teacher should recognise he is not only gaining money out of teaching, but he is also doing a duty which is a kind of worship to God for which he will give an account before God.."

"..He should be punctual, does not give question just to show off where by doing so he might think that he is intelligent. To me he is stupid.."

"..To have good teachers. We have to be self sufficient in Yemeni teacher. Their preparation should be based on careful selection, following up their behaviour, and an Islamic awareness should be created.."

It may be added here that it seems that there is no significant difference between those who have or have not previous teaching experience in relation to this particular issue.

4.4.16 Teacher's Apprehension

This is taken as a theme because some student-teachers answered the questions posed to them in terms of questions which reflect their apprehension. Hence, the primary focus was 'apprehension'. This should not necessarily mean that apprehension has not be expressed somewhere else. On the contrary, it might have been expressed for instance while talking about 'Subject Mastery', but it was not the primary focus. Here, in this theme the primary focus is apprehension about the whole activity of teaching rather than in relation to a specific theme. The term 'apprehension' is used by few of the student-teachers and also seems to reflect the nervous doubts and self questioning of others.

A few student-teachers reported their apprehension of secondary school pupils in their first year of teaching. Phrases like "how to face pupils?", "the first encounter is the most important problem", "how to overcome the fear of pupils?", "how I stand in the classroom", "embarrassment", and the like were among the ways of expressing their concern.

The fear of being embarrassed by pupils was expressed in terms of them asking questions which one does not know much about. Being taught by non-Yemeni teachers and getting used to their ways; and even the small size of Yemeni teachers

and pupils' negative perceptions of them in comparison with the non-Yemeni teachers. These are seen by student-teacher to increase the difficulty of meeting pupils in the first year of teaching. To attempt to overcome this problem the teacher, as it appears from student-teachers' responses, should know psychology to deal with pupils, control one's movements in the class and not laugh, and try one's best to make pupils understand by using teaching aids so that they can see that the Yemeni teacher is better than the non-Yemeni teacher. In addition, he might need diplomatically to avoid answering embarrassing questions, and sometimes might need to send the pupil out if he is not quiet. The teacher needs quiet pupils so that he can get on with teaching without any embarrassment. In other words, concern with self is clear with this group of student-teachers. But, it should be noted that all of those who expressed this concern were mainly student-teachers without previous teaching experience. It is worth mentioning that not all those without teaching experience expressed apprehension, on the contrary some of the student-teachers without previous teaching experience did not refer to this particular concern.

It is worth noting as well that a few student-teachers cited different examples to make their point. An experience as pupil, and experience of a friend on teaching practice, and experience in the programme of training in relation to the psychology course, or the way they react to their

lecturers, were all among the possible influences on student-teachers' responses. Here are some of the student-teachers comments:

"..How I shall avoid my fear of the pupils particularly in the first year of teaching; embarassment is the only problem. However, one can overcome it by explaining the lesson slowly and in a logical manner until every pupil understand. I can also use teaching aids and give them summaries. They might ask many questions, but one can avoid that in a diplomatic way.."

"..How to face pupils particularly in secondary school they are mature pupils. Moreover, pupils are used to non-Yemeni teachers. Hence, one is bound to be embarassed. The most important thing is how to set out on the teaching practice.."

"..There are Yemeni teachers who overcome the embarassment. For instance, the Yemeni teacher is small in size. Pupils perceive the non-Yemeni teachers as having no experience compared to others.."

"..There was a Yemeni teacher who overcome the problem by using teaching aids, and as a result pupils prefer the Yemeni teacher to the non-Yemeni teacher.."

"..The first year is the problem. I want pupils to have a good impression about the Yemeni teachers. Pupils started to change their perception about the Yemeni teachers because Yemeni teachers are teaching better and consequently pupils understand better.."

"..How one would teach after finishing his degree. Pupils might ask questions one does not know. One should know the psychology of pupils.."

"..The beginner will face difficulties. One should control his movements in the class, not to laugh, in order to keep respect.."

"..The most important thing to me is how I stand in the classroom. Teaching is full of embarrassing situations. As a beginner I am expecting to be embarrassed. Pupils might ask questions, I shall try to avoid like what the lecturers sometimes do with us. We tend to comment on that.."

"..Embarrassment comes only from questions. Other than that; I can get the pupil out of the class.."

From what we have said we can tentatively conclude that apprehensiveness comes as a result of two factors: The first is being a new teacher, and second being compared with non-Yemeni teachers by the pupils. The prime cause of embarrassment seems to be pupils questions which teachers may not know how to answer. To cope with such a situation, as it appears from student-teachers' responses, one may try to make pupils understand better than in the case of non-Yemeni teachers. This is a general argument, but the specific means to lead to that is to use teaching aids because it appears that non-Yemeni teachers are not seen as doing this.

Moreover, if a question was asked and the teacher was not able to answer, then one can avoid answering it in a diplomatic way rather than losing pupils' respect and confidence in the teacher who, it is assumed, is expected to know answers to all pupils' questions.

Student-teachers' ideas about how to cope with such problems seem to have been accumulated from much the same sources as those from which they have developed the concern itself. Among these are: their experience as pupils, their experience as students and that in turn came from the

content of the program such as psychology and teaching method or the actual interaction between them and their lecturers and their friends' experience as student-teachers in teaching practice or as beginning teachers in schools.

4.4.17 Teachers' Personal Concerns

Under this theme different concerns were grouped. These were: pursuing postgraduate studies, marriage, and teachers' accommodation. All these three different concerns are seen as falling under the term personal. The term 'personal' was not used by student-teachers or used during the interview. Owing to the small numbers of student-teachers who referred to the different concerns included under this theme it was decided to group them together as long as the term personal is meaningful.

4.4.17.1 Postgraduate Studies

Some student-teachers have expressed their desire and interest in continuing postgraduate studies. Because of the restrictions on post graduate studies either by the Ministry - because they have to teach - or the grades which they expect they might get, or the field of interest which might not be available for education students, or family constraints, this issue was considered as one of their problems.

"..One of the important things to me is to continue postgraduate studies if there is a chance. It depends on my family circumstances and the Ministry of Education.."

"..I am expecting myself to do a masters degree.."

"..The problem is that postgraduate studies for us might be possible only in educational subjects. My interest is in science.."

"..I would like to continue my education because the teacher's situation is not encouraging.."

Here how others perceive the teacher seems to have an impact on student-teacher regarding at least this concern.

4.4.17.2 Accommodation

Accommodation was also referred to by very few student-teachers as an important thing to have if one wants to teach without being distracted by thinking of the problem of accommodation. The Ministry is seen as responsible in providing a decent homes for teachers..

"..Accommodation should be made available for teachers however in our village many homes are vacant due to the absence of some migrants (i.e.who work outside the country).."

"..It is important to have a decent home particularly if you are teaching in a place other than your village.."

"..The state should build decent homes for teachers.."

The above quotations indicates that one's expected requirement could be considered as a source of this concern.

4.4.17.3 Getting Married and/or having Children

This concern is discussed by very few male and female student-teachers. It should be noted that quite a few male

student teachers were already married. Few of the male student-teachers talked about getting married, while female teachers, due to the country's culture, talked about what will happen after marriage i.e. the consequences of marriage which might affect teaching. For female student-teachers getting married means a new responsibility towards their husband and children. As a result, they discussed the problem which might arise as a result of both responsibilities or roles as a wife and as a teacher. It should be noted that they were talking about these possible difficulties though they were not married. In discussing this issue they raised the problem of the woman teacher having to stay at school from the beginning till the end of the school day even if she has no lessons, while one is married and has responsibility at home. Another, but related problem is that even if the female teacher had somebody to look after the children it will not be like their mother. Hence, they commented that if they are facing such situations they will stop teaching at least while children are in their first few years. In fact one of them stated and decided that she will teach for only one year.

"..It is a problem if they kept you at school from the beginning till the end of the school day even if you do not have a lesson, when you are married and have responsibility at home. If she followed such a regulation, that will require a babysitter for the children. However, she would not be like the mother. I am going to teach for one year. Otherwise who will look after my children?.."

"..It will be a problem when you have children. I might stop teaching, if I have children, and many go back to teaching when my children grow up.."

"..One of the issues I am thinking of now is to get married.."

4.4.18 Extra - Curricula Activities

This refers to activities of two kinds which are carried on out of the class teaching time. These are activities related to the subject taught such as science clubs or trips, and activities which are not related to the subject taught such as sport. The term or label used by some student-teachers is 'general activities'.

Around one third of the student-teachers refer to different aspects of extra-curricular activities, but only a few of them stressed it more than others. Such activities can be broken down into two different kinds according to student-teachers' responses. First, activities which are of direct relevance to the subject taught, such as trips for collecting animal and plant specimens or having a hobby centre at school so that pupils do scientific projects they would like to do; and other activities which are not directly relevant to the subject taught such as sport, religious and cultural activities. To quote some of what the student-teachers said in this respect:

"..I want to organize trips which serve the subject I teach, and if possible participate in other activities be it social, religious or cultural.."

"..I would suggest that every school have a hobby centre.."

"..The teacher should encourage his pupils to get engaged in any activity they like such as sport, art, etc.."

Among the benefits pupils are thought to gain from participating in extra-curricular activities, which were mentioned by student-teachers are: to develop their abilities of thinking and talents, to motivate them for the study of the subject taught and to acquire skills. More of the student-teachers who were concerned with extra-curricular activities refer to activities relevant to the subject he teaches than to any other activity.

"..General activities help in developing pupils' abilities to think creatively, such as writing in wall magazines and going on trips for collecting specimens.."

"..There should be a permanent exhibition room which shows pupils' work. When a pupil looks at his work, he gets motivated, and this also helps to develop his talent.."

"..I would like to have science societies in schools. In fact, I would suggest having a hobby centre, so that pupils go at anytime and do things for themselves under the guidance of science teachers. In that way he would be creative"

Concerning other activities some reported:

"..The teacher should encourage his pupils to participate in any activity he likes, such as sport, art, religious studies and cultural activities. He might gain skills and develop his talents.."

"..Trips for mutual visits between schools is a good thing to have.."

A few of the student-teachers tend to think that the teacher ought even to get involved in other activities, such as religious, social, sport and cultural activities. They see themselves as having been denied such activities when

they were pupils. "I want to participate in sport, for I was denied that when I was at school", one of them said.

However, to accomplish such activities, those concerned with these activities are of the opinion that they require two things: the availability of funds and the cooperation of school administration, without which extra-curricular activities would be restricted to a minimal level.

"..A teacher is in need of funding to carry out activities such as trips and in establishing science societies.."

"..I shall try to persuade the headteacher to establish societies for physics and chemistry. If I can't I'll just do what I can within the class I teach.."

It could be noted, however, that student-teachers made a reference to their lives as pupils which indicates the influence of their experiences as pupils.

4.4.19 Assessment

This refers to the examinations and methods of evaluating pupils' performance in schools.

The existing method of pupils' evaluation, that is an examination at the end of the academic year, was felt by a few to be an unreliable method of evaluation which teaches pupils to be lazy in studying. In addition, another view is that examination itself is not very valuable. Knowing the pupils as a result of continuous interaction is the way to evaluate. Another point made by the student-teachers is

that the results of pupils' examinations do not necessarily provide evidence of teacher success, although it might be part of what teachers achieve. The student-teachers suggested various alternatives to examinations. Among these were: that the evaluation of pupils can be done by monthly examination rather than annually, by using objective rather than essay examinations, through discussion and interaction between them and their teachers, and by keeping evaluation cards from the time the pupils get into the primary school till they reached secondary school.

"..The annual system of pupils' evaluation make pupils lazy. I think monthly examinations would be better.."

"..The results of examination is part of the teacher's success. The present method of pupil evaluation is not just. It discriminates against pupils who have family problems, etc. I suggest that monthly and objective examinations are more just than annual and essay examination.."

"..Assessment by examination is incorrect, you need more comprehensive assessment which can be done through the teacher interaction, pupils activities and so on.."

"..Examination should not be the way for assessment. Interaction is more important.. ..by pupils' participation in the classrooms' discussion you will know them better.."

"..It should be more continuous like here at the university, for it will help him to understand better.."

"..Questions should cover all the syllabus, so that the pupil can answer. Also a record of pupils' performance from primary to secondary school is needed.."

"..Examinations become frightening. I think examinations are not important.. ..from the pupils answers in the class during the discussion you can tell whether he is successful or not.."

"..Some say that the success of pupils indicates teacher success. I think that's wrong

Student-teachers here seem to be talking from pupils/students perspectives based on their experiences as pupils in schools and students at the university. In other words, it appears that both the school's experiences and university courses and lecturers may have influence.

4.4.20 Job Placement

Job placement refers to the question "where to teach?", and the term used by some of the student-teachers is 'work place'.

Some student-teachers, in fact seven of them, were concerned about the Ministry placing them in an area which they would not like to go to. A few of them for instance wanted to stay in a city and if they had to go to a rural area they would prefer to go to their own village where they could stay with their parents. Others would want to go to stay with their families because they feel responsible towards them.

"..The most important thing to me is that the Ministry of Education may send me to a place I don't want. If to a city I would not mind, but if to a village, then I would not go to any village except mine.."

"..One of the important things is that they may send you to a remote area.."

"..The first thing I am thinking of is to stay with my family.."

"..One of the important things is that I don't know where they are going to place me.."

"..One of the problems I'm thinking of now is that I want to go to (...), but they might refuse.."

"..I am expecting to go to (...), but they might transfer me though I don't expect it.."

"..I want them to send me to a place which suits myself and my family.."

"..I want to teach in (...), because there is no one to look after my family.."

4.4.21 Shortage of qualified Yemeni Teachers

Here we refer to the problem of not having enough Yemeni teachers.

A few student-teachers stressed the importance of increasing the number of well-qualified Yemeni teachers: Yemeni schools at present have either non-Yemenis or Yemenis who are not educationally qualified.

"..The percentage of Yemeni teachers is very limited, we are totally dependent upon non-Yemenis.."

"..The important thing is preparing more Yemeni teachers. Unfortunately most of the Yemeni teachers are not qualified.."

"..The teacher should be well qualified educationally in order to be able to know the differences in pupils' abilities.."

"..One of the problems is that most of the Yemeni teachers are not well qualified. They should organize in-service training for them. They should know psychology to know how to deal with pupils.."

It can be noted here that the influence of the university programme is clear in the student-teachers

arguments.

4.4.21' Private Tuition

Private tuition refers to teaching pupils a particular subject by a teacher outside the school teaching hours where the pupils should pay the cost of tuition prescribed by the teacher. The label used by the student-teacher is 'Private Lessons'. A few student-teachers referred to it as a problem which renders teaching into a business and which, when it is used, is taken by those who can afford it and ignores the poor. Thus, they argued that it should be prohibited by law and that law firmly applied.

"..Private tuition is an educational disease. Teaching has become a business activity. People should be made aware of its danger and it should be banned by law and this law should be followed up.."

"..I am against private lessons. Because this chance will be taken by the well off and the poor will be left and that is wrong in my view.."

4.4.22 Job Satisfaction

It refers here to teacher's being content, interested in and satisfied with the teaching profession.

Teacher interest and satisfaction in his job was referred to by very few student-teachers as important for having a better quality of teaching.

"..The teacher should be interested in teaching

his subject.."

"..He should be satisfied with his job otherwise it will affect his quality of teaching.."

4.4.23 School-Society Relationship

This refers to the role of school with its different agents towards the society. The term used for this theme has not been used by student-teachers, but it appears to reflect what is discussed by the student-teachers. Very few student-teachers commented on the role of the teacher outside the school. This should involve as these few see it, reconciling and settling difference between people and encouraging them to co-operate with each other. Also, by leading pupils to serve society through creating an awareness of good qualities during for instance, the different country festival occasions.

"..One should try to settle differences between people, participate in solving their problems, and develop the awareness for co-operation.."

"..Education in the school should be compatible with the home education.. ..pupils should be encouraged to offer services for the society e.g talking with people about the good qualities which should be adopted.."

4.4.24 The Change from the Teaching Job

It refers to the change of teacher's main job of teaching to another within the aducational system.

One of the problems, discussed by very few student-teachers, was that despite the need for teachers, beginning teachers are assigned in administrative jobs.

"..The problem is that as soon as they finish their study they become headteachers.."

"..A science teacher graduate might become a headteacher, as happened with one of my friends.."

"..One of the things which concerns me most is that they employ you in a job other than teaching, despite the fact that we are still in need of teachers.."

Here, as can be seen from the quotations above, this aspect of the teacher concerns could possibly reflect other teachers' experiences.

4.4.25 Pupil Drop Out

It refers to the decreasing number of pupils in schools as they go from one year to the next. Very few student-teachers referred to pupil drop out as a problem about which something should be done. To them, the desire for a job, the non-existence or inadequacy of school, and the lack of parents' understanding are some of the reasons behind pupil drop out. Hence, providing boarding technical institutes providing the opportunity of education in general with adequate facilities and prohibiting parents to withdraw their children from school are some of the suggestions offered by these student-teachers to overcome this problem.

"..Pupil drop out.. ..peoples' attention is taken from education to seeking immediate material gain.. ..e.g. one wants to get married, but due to the high dowry, pupils tend

to leave the school for work...one way of overcoming this is by opening boarding technical institutes, then he might continue his education.."

"..The problem of pupil dropout should be solved. To solve it you have to have schools with adequate facilities. Don't allow parents to withdraw their children from school by law and follow that up.."

4.4.26 Graduation

This refers to student-teachers' concern to pass their course at the university successfully. Very few student-teachers mentioned it.

"..At the moment I am concerned how to pass the course successfully in the remaining period of time.."

"..I want just to finish my degree. I am tired.."

4.5 General Comments

The responses included in this theme were found not be related to any theme and too general and thus grouped together. They seem to constitute one general argument. The term used to reflect student-teachers' responses was 'general comments'. Student-teachers' comments were diverse. To be a 'successful teacher', 'to serve the country', to 'build up a new generation', 'to participate in the development of the society', and 'to perform the message of teaching' were among their comments. However, all these general comments can be seen as interrelated to each other.

One way of relating them is that one can understand all comments in that the student-teachers wanted to perform their job well and be successful teachers in order to built up a new generation who will serve the society, because education in general and science in particular is an important aspect for the society's development.

"..I want to be a successful teacher.. ..to build up a new generation.."

"..To serve the country, to be a good teacher. Education and teaching science in particular is the foundation for development.."

"..I want to do my best to carry out my message.."

"..I am concerned with the pupils' future.."

"..I want to perform my duty in the best way I can. I want to feel that I have done my duty and contributed in the development of this country.."

"..To be successful in my profession, to work with my fullest ability and sincerity for the purpose of offering a good education for this generation, so that we can work together for the development of this country.."

"..To educate the pupil scientifically not just pass him.."

4.6 Socializing Agents

This section attempts to report the different possible influences on student-teachers concerns. The data here were drawn from two different sets of responses. First, the incidental and occasional references to different examples during the discussion of each theme. Second,

student-teachers' responses to a separate set of questions which centred around the sources of help and advice about how they might in future cope with concerns already established or as yet only anticipated. Both of these are assumed to help us to understand the influences on student-teachers' concerns. Hence, in section A sources which have influenced the concerns of student-teachers will be discussed, and in section B sources which student-teachers would in future approach for help with solution to problems also will be explored.

4.5.1 A. It was attempted during the foregoing discussion of each theme to point out student-teachers' occasional references in their comments to what were taken to indicate the sources and factors influencing their concerns. Looking at them generally, one could see the difficulty and complexity in explaining the phenomena. Nevertheless, there are possible conclusions which could be made to shed some light on these influences. At this particular stage of student-teachers' training, different sources and factors associated with student-teachers' concerns could be discerned. Student-teachers have frequently referred to their experiences as pupils in most of their discussions of the different concerns. Also, their experiences in teaching as well as other friends' experiences as student-teachers or teachers were also referred to. University was occasionally referred to; and when they did so they tended to refer to the practical experiences rather than the courses they were

taught, such as the method of teaching used, the way they were treated and the way they were assessed. On the few occasions student-teachers made reference to educational courses, they referred to methods of teaching and psychology courses, particularly in relation to teaching methods, class control and curriculum. In a sense, they referred to such courses either when they are critical of an existing issue or activity, or when they were looking for a strategy to cope with an anticipated difficulty. A further source which was referred to by some student-teachers is what they observed generally in their places of residence, such as their references to their village schools. Other factors were also found to be associated with some concerns. For instance, the sex factor in relation to salary, student-teachers' expectations such as in the case of job placement, teachers' apprehensions, etc., the time and the context of the interview such as the concern about passing the course referred by a few student-teachers.

In general, it is difficult to explain student-teachers' concerns by a single factor. The student-teachers' concerns are seen to be influenced by a variety of sources related to each other in a very complicated manner. Student-teachers' concerns appear to be drawn from different sources and to be based on accumulated knowledge. These involve, among other things, the student-teacher as a pupil, as a teacher, as a citizen, and as a student, It also involves others experiences as student-teachers, as teachers, and even

society with its different agents in general. Other factors also appear to be associated with the concerns such as sex, teaching experience, one's expectations, etc.

However, with some concerns, one finds some sources or factors are more pronounced than others. For instance it was mainly student-teachers with experience of teaching who were concerned with 'class size' at this stage. Male student-teachers were found to be more concerned with salary. 'Subject Mastery', 'Apprehension', and 'Job placement' seem to be related to student-teachers' anticipation of their teaching as beginning teachers. Whereas, for instance, professional status seems to be a function of their life process, from being a pupil in secondary school till now, with its different agents such as family, friends, lecturers, the state and society in general.

In short, the sources of influence and the factors associated with student-teachers' concerns at this stage depend, among other things, on the type of the concern.

A further tentative conclusion also could be made from what the student-teachers said. First, when the source of influence is what student-teachers have been taught (which is rare) rather than their experience, it tends to be general, abstract, less specific, idealised, and student-teachers showed optimism in their reference to their

future teaching job, such as the trust of some student-teachers in psychology in solving pupils' problems. This appears to be more likely associated with student-teachers without previous teaching experience. It should not be taken to mean that the source of idealism is the university, but there is another source of influence for such idealism which was noted, when student-teachers talk from a pupil or student perspective. By contrast student-teachers with teaching experience are more likely to be more specific, less idealistic. For instance he/she might advocate a brotherly relationship with pupils owing to the bad treatment he/she faced at school or at the university. In other words, when student-teachers talk from a pupil or a student perspective, as their comments showed their concerns tend to be more idealistic than those who talk from a teacher perspective.

4.5.2 B. Student-teachers seem to argue that consultation and seeking help depends on the kind of the concern itself. On this basis they named different possible agents: One's self, colleagues, school administration, pupils, inspectors, parents and others.

Before consulting or seeking others' help and support, as a teacher argued: "you have to seek the help of yourself and consult yourself first. It is better to depend and deal with your problems on your own". Hence, student-teachers seem to start with themselves and then as a last resort look for others' help.

"..I shall seek help from a colleague who has experience. However, one should depend on oneself instead of keeping asking people.."

"..I seek help only when I cannot work out the difficulty, whatever the difficulty is, on my own.."

Two main areas of concerns were mentioned by the student-teachers with regard to themselves as a first reference. First, subject matter that is one should try to understand the subject matter on his own on the basis of his accumulated knowledge of the subject and by referring to different references.

"..Having tried to understand the subject after reading references, then I might go to colleagues.."

Secondly, in dealing with pupils' problems. Student-teachers' comments seem to be saying that the teacher should work out his problems with his pupils on his own unless he cannot. This can be understood in the sense that the teacher does not want to show others his failure which would effect his self esteem and self-confidence. (the kinds of problems referred to others will be dealt with later)

"..Some definitions are difficult. I shall refer to friends, because lecturers do not encourage you to ask, so you feel embarrassed to ask them.."

"..If there is a problem with pupils I shall try to solve it for myself, before asking others .."

Referring to oneself regarding these two areas of concerns,

subject matter and pupils' problems, was emphasised very much.

Teachers, colleagues or most commonly friends were another important set of agents spoken about in relation to different aspects of one's teaching. There are a lot of different qualifications for such a teacher to whom one might refer: to be more experienced, to have the same specialization, to be educationally qualified, to be a friend, to be helpful, to have an interest in teaching, to share the difficulty, to have the same way of thinking, and to be a Yemeni. Although, not all student-teachers stated all of these qualities of the one whom they will refer to, it seems that they would prefer somebody whom they shared many qualities so that they can talk at ease and can reveal to them their real concerns. Thus, the more qualities the teacher shared with a person whom he consults and seeks help from, the more likely he will talk about what is real to him. This is evident when one of the student-teachers said that a good friend outside the school might prove to be more helpful than anyone at school. In other words, you cannot talk to a stranger about your private life. Thus, the teacher might seek another teachers' help even though he might not be at his school. However, it would be advantageous to have a friend who is a teacher, teaching the same subject, with the same way of thinking, with more experience and so on. So the teacher should work out the common ground he shares with different people in deciding

whom to refer to.

"..I consulted some of my friends in lesson preparation.."

"..I would expect help from my colleagues of the same specialization.."

"..I discuss at ease with some of my friends whom I have no problems with and if discussed he would not laugh at me.."

"..You would discuss more with friends with whom you feel at ease.."

"..I need to refer to colleagues of the same specialization and whom they have experience in matter related to the experimental work,..
..examples from the environment, etc.."

"..Seeking help depends on the way others reacting to you. If arrogant you would just leave him.."

"..Most help is offered by friends.."

"..I would rather refer to friends even if they are not teaching in the same school. In other words with whom you feel at ease to ask either a teacher, headteacher or whatever.."

"..Only with friends you feel that you discuss freely about the problems you face.."

"..I would consult someone who has the same specialization and educationally qualified.."

"..I shall discuss with my colleagues matters of common concerns such as the subject matter the problems of the Ministry of Education.."

As it is apparent from the previous extracts, student-teachers named colleagues in relation to a variety of

aspects such as the subject matter (which was the most emphasised aspect), carrying out experiments, knowing examples from the environment relevant to what one teaches, how to prepare a lesson, activities such as trips, the problems which one faces such as mainly how to deal with pupils, pupils' problems, problems with the school administration, problems with the ministry and others. It seems that most of these aspects, mentioned by the majority of student-teachers are related to the classroom in general and the subject matter in particular. This again might reflect their concern as beginning teachers, such as their emphasis more on the subject matter, lesson preparation, pupils' problems and the like, and generally with teaching more efficiently as qualified teachers. Also, the qualities of those whom the teacher will refer to in case of need regarding the above-mentioned aspects indicate the student-teachers' concerns at this particular phase of their preparation, with presenting themselves and functioning as competent qualified teachers, and keeping their confidence high at least in front of others.

School administration is seen as generally responsible, but student-teachers did mention it with regard to some aspects with more emphasis and other aspects with less emphasis. Teaching aids and pupils' problems in particular and pupils in general were the most emphasised responsibilities of the school administration and to a less extent issues related to teachers particularly teachers'

problems. Other issues referred to in relation to the school administration were: contacting parents, school discipline, problems with the Ministry, textbooks, chalk, and establishing societies. It should be noted that student-teachers also stated that they will refer to the school administration in case of problems only when they are severe or become too acute to deal with. The kinds of aspects mentioned by student-teachers could be understood in that most emphasis tended to be associated with issues of more concern to the beginning teachers though not exclusively such as pupils problems and teaching aids. With regard to the other aspects given less emphasis, some of them reflected the experience of some of the student-teachers such as chalk and textbooks, and others reflected most of the student-teachers' intentions to improve the quality of teaching in the school in general.

"..I would consult the headteacher if I felt that he wants to help.."

"..The help from the school administration is needed with regard to equipment, chalk and textbooks.."

"..If it is difficult to deal with the problem then I shall refer it to the administration.."

Parents are also seen by student-teachers to represent important agents whose help they could seek when in need as teachers. The aspect emphasised most by student-teachers was pupils' problems in general. However, among such problems which were mentioned were: bad manners, apathy,

arrogance, truancy, bad academic standard and problems which affect their school performance in general. Another need which was referred to, more particularly in relation to parents in rural areas, was financial assistance for buying apparatus and teaching aids in general. Further, female student-teachers tend to refer to mothers rather than parents generally, in relation to girls' problems and suggested the possibility of even visiting mothers if it is necessary. With regard to contacting parents it seems that there is a difference between student-teachers in the way of approaching parents. Some of them think that teachers can contact the parents directly and others seem to prefer the school administration as an agent which links both the teacher and parents.

"..You need the parents help in case of pupils' truancy and bad behaviour.."

"..It depends on the kind of the problem. I will refer to colleagues, administration, parents, etc.."

"..When it is difficult to solve the problem with the pupil I might refer to the mother.."

"..I would expect help from the parents at least financially to buy teaching aids.."

"..I might refer to the parents directly particularly in the rural areas.."

However, by looking at the data it was found, as some of the student-teachers argued, that if the teacher is in a rural area school then it is natural and easy to talk to the

father about his child whereas in a city this to some extent might prove to be difficult and as such the teacher may need the school administration to link both of them. Generally speaking, there is a tendency among student-teachers to prefer to talk to parents directly, and in fact that is what they see as likely to happen even if the school administration is involved. Hence, concerning parents there seems a difference between rural and urban areas parents in terms of the kind of help sought and the way of approaching them.

Pupils' help is also needed generally, but it may be more needed if there are problems. They are also needed in relation to teaching aids where they can contribute by bringing samples, more particularly for biologists, or drawing illustrative aids.

"..Pupils' help might be needed in relation to the teaching aids.."

"..I expect help first from the pupils themselves.."

Very few student-teachers mentioned the possible need for science inspectors only in relation to the subject matter.

"..you would talk with precaution with anyone who has responsibility over you such as headteacher inspector.. ..etc.."

Other agents seldom spoken about were: university lecturers in relation to the subject matter or carrying out

experiments, only if the student taught in the city where the university is; other industrial establishments for trips; or professionals such as doctors, counselling personnel in school if there is any in case of pupils' problems; and even caretakers for classroom cleanliness.

"..The help of local industry, doctors, might be needed for the purpose of science teaching.."

"..I might refer to lecturers of science and demonstrators.."

In general, the main recurring aspects or concerns referred to by most of student-teachers in relation to the different agents mentioned above were: the subject matter, pupils problems and teaching aids. In the case of the subject matter, it was emphasised when they spoke about the possible need for oneself, colleagues, inspectors and lecturers. Pupils' problems were mentioned when they talked about the possible need for help and consultation from one's self, school administration, parents, pupils', and colleagues. Teaching aids referred to in relation to school administration parents particularly in a rural area, and pupils. It appears that this greater emphasis on these aspects possibly reflects their perception of beginning teaching in secondary schools.

It ought to be noted that the sequence for seeking help and consultation from the different agents starts first with one's self. The student-teacher seems to say that he will

not go and ask help with regard to the subject matter unless he tries his best by reading all available references. Only then he can go to those who know better and are experienced such as university lecturers and inspectors. Also he might seek the help of an experienced colleague, more likely from the same specialization and also more likely one with whom he has a good relationship and preferably who has the same way of thinking. The sequence of pupils' problems is a bit different. First student-teachers seem to argue that one should work out the problem on his own. Then the second agent is more likely to be a good friend teacher, if the problem became difficult then school administration and parents are the most likely agents to refer to. However, this will depend on whether one is in a rural or urban area school. In relation to teaching aids student-teachers' comments seem to say that the teacher should see first what is available, then you refer to school administration as they are responsible. If nothing happened or you are still in need then yourself, other teachers, parents and pupils are the most likely to work together to overcome the problem.

It can also be tentatively concluded, according to the data we have, that there are diverse problems facing teachers which from the student-teachers perspective, are likely to affect others' confidence in him as a qualified good teacher. In such cases one should be very careful in seeking others help. Only intimate friends can be

approached, preferably teachers of the same specialization in the same school or in another school or even someone whose work is within education such as a headteacher or inspector as long as he is a friend whom one feels at ease to talk to and particularly if he looks at things in the same way as oneself. Other kinds of problem such as teaching aids, which do not injure one's reputation as a good teacher, but still affect the quality of teaching and which lie outside of your control i.e. mainly others' responsibility, can be referred to school administration, parents, pupils and so on even if one does not have good relationship with them. In this way one can see that, for instance, in some kinds of pupils problems the teacher can go and seek parents, school administration and others help. But other kinds which might cause the teacher embarrassment he will not reveal except to someone with whom he shared many qualities and especially with whom he is friendly and can talk informally and at ease.

"..Seeking help depends on the type of the problem. If it is with pupils, then I would solve it on my own without going to the school administration, whereas if it is with the school administration I would discuss it with colleagues. I would refer to the school administration in matters like apparatus. I would also refer to my colleagues and maybe inspectors in case of any difficulty concerning the subject matter.."

"..You need help in matters such as, the subject matter, setting up experiments, how to deal with pupils' problems.."

"..If the problem is between the teacher and the pupils it is better not to go beyond that.."

"..There was no problem in understanding the subject matter and thus I was not in need of seeking help.."

"..I did not refer to the lecturer though I was in need of his help I did not dare to ask him I went to him and came back from the door of his office.. ..because he rebuked me last time.."

In other words, it appears that it would be more likely that these agents could have more influence if they shared, among other things, the same way of thinking as the would-be teachers, became more friendly and informal.

It could be added that different agents seemed to have different influences which depend, among other things, on the kind of concern. For instance, how to deal with pupils would be the result of the experience of being a pupil, a student, or even what was heard from the experience of others. Although experience appeared to be cumulative, nevertheless concerns could reflect a single bad experience linked to a bad outcome, so one should avoid it; or a single successful experience which had led to a good outcome, so one should adopt it.

In the case of the university, the data seems to show that the influence was not restricted only to the content of the programme itself, as it is the case with parts of particular courses such as methods of teaching and psychology; but more importantly, the kind of interaction

which is part of the training, whether lecturers are aware of it or not, is likely to have an influence on student-teachers. In short, with regard to influences regarding teacher pupil relationships one could see, due to this kind of concern, that student-teachers develop their view on the basis of being a pupil and being a student, where one picked up instances of failure and success which lean most heavily on the procedures used by teachers and lectures as well as from the experiences of significant others who talk to the student-teachers. What is being practised in relation to the concern in general and the model in particular seems to be especially significant.

For other kind of concerns such as professional status, the influence seems to be the aggregate actual situation experienced by the student-teacher and other experience heard about, whether in terms of how the state or people as individuals or groups far or near from the student-teachers, express their views or behave regarding teachers and teaching. The point to be stressed is that the possible influences on student-teachers concerns and their views on these depend very much on the kind of concern.