The Hashemite Kingdom of Jordan

National Center for Human Resourses Development

Evaluation of Prevocational Education Program in Jordan *

Publication Series (54)

1997

* This study was prepared for the National Center for Human Resources Development by Dr. Ghazi Rawagah and Prof. Ahmad Odeh through the Center of Consultation and Society Service. Yarmuk University.

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Chapter One

Significance of the Study

Background:

Since the 1950s educational policies in Jordan have continued to promote formal learning. Concern has been concentrating on overcoming the problem of schools, inability to house ever increasing numbers of learners at all levels.

Local markets as well as those of neighboring Arab countries attracted professionals with capabilities and expertise to develop socio-economic sectors. As such, a great majority of learners have chosen to major on studies needed for economic and/or social development.

Local communities as well as those of neighboring Arab countries have witnessed economic recession during the mid eighties. Such recession was accompanied by major changes in the socio-economic structure of those communities. Consequently, it was deemed necessary to develop an educational system that provides opportunities to invest human potential to the maximum.

It is not enough that vocational education be part of public schooling curricula to relate education to the world of work. Social as well economic problems, often associated with political transformations, are normally accompanied by reform programs. Educational system is viewed as a major part of such reform

programs. As vocational educational is part of public education, its improvement as well as enactment are essential. Reform attempts to promote vocational education may not be based on personal endeavors, but on a well defined philosophy reflecting societal orientations.

Since the 1950s efforts to promote vocational education in Jordan have lacked a comprehensive theoretical framework that looks upon vocational education as a fundamental constituent of public education. In order that public education system fulfills study needs of learners, it is important to make available for learners a wide range learning activities to choose from.

Similar to other Arab countries vocational education in Jordan has developed gradually. Those who are interested in investigating development of vocational education in Jordan note that it has been carried out by private organizations such as philanthropic Islamic societies and churches. Such organizations founded training and/or apprentice centers for orphan and needy children to prepare them to make living.

Between 1921 and 1950 Jordan has undergone an era of political instability accompanied by social and economic inequalities among social classes. Public education opportunities were available to a very few number of individuals. Only those who were financially capable had access to private schools. Educational progress was characterized as being slowly going, as educational policies focused only on preparing individuals to occupy governmental positions. Vocational education was almost ignored until 1939 when an

educational law was passed, emphasizing agricultural education and appointing an agricultural inspector in some districts of the kingdom.

Throughout the second half of the twentieth century, major developments in Jordan's educational system have taken place. Elementary education became free and compulsory. During the decade of the sixties of the present century, mandatory education for nine year's became a reality. Also, in accordance with educational law numbered (16) of the year 1964, the Ministry of Education has adopted a policy to expand vocational education. Theme of vocational education has evolved to capitalize on preparing mandatory cycle students to practice an activity in areas of agriculture, industry, commerce or home economics. In secondary schools; vocational education curriculum aimed at preparing students professionally according to current and future needs of Jordan's society during that era.

During the decade of the eighties a temporary educational by-law numbered (27) of the year 1988 was passed. Such by-law has been considered as one of the most important legislative efforts in education. Article number (4) of that by-law has pinpointed the matters of learning as well as dealing with technology appropriately. The article emphasized that learners acquire general as well as specific professional skills, and invest special capabilities to develop this creative traits. To move from theory into practice, a ten year plan between 1989-1998 for educational development in Jordan has been proposed. In accordance with such developmental plan, "Prevocational Education"* has been emphasized as a new terminology for vocational.

As a concept "Prevocational Education" is introduced recently into formal learning in Jordan and worldwide. Its origin (Career Education) goes back to the early seventies of this century in the United States of America. It "prevocational education" is defined as an educational program specially designed to absorb varied roles of individuals including social, economic, environmental, hobbies and entertainment, and other life tasks. In addition as an attempt to make available for learners professional opportunities, and to plan for proper selection of future occupation.

From a different perspective, "Vocational Education" is viewed as a byproduct of coordinated efforts by public schooling and society as a whole. Such efforts are meant to assist individuals to be aware of the work merits and to integrate such merits into their value system. Such integration enables individuals to enact work merits in their lives so that "work" becomes meaningful and/or productive in society.

Reviewing outlines of basic schooling vocational education curriculum for the 1992 reveals that curricular contents consist of five main areas: Agriculture, Industry, Commerce, Home Economics, Hygienic and Public Safety Principles. Within such areas of study concepts, values, attitudes, orientations, practical activities and manual skills are studied. Course contents of basic schooling emphasize educational objectives at different levels including comprehension, observation, note taking and application. Classification of educational objectives in that manner is necessary to coordinate between levels of professional activities and stages of vocational education development at basic and secondary schooling. Those stages consist of: stage of awareness starting at nursery until fourth grade;

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* "Prevocational Education "and Vocational Education" are used interchangably in this study.

stage of orientation which starts at fifth grade until eighth grade; stage of exploration including ninth and tenth grades; and finally stage of preparation which includes eleventh and twelfth grades in secondary as well as after secondary schooling.

Many developmental theorists assert that individual learners go through well-defined cognitive development stages. Vocational education theorists believe that consecutive development of such stages enables learners to learn and gain expertise gradually. Furthermore, developmental structure of educational objectives makes it easy for educationalists to design objectives that fit chronological age of learners at different schooling stages. Also, such developmental structure objectives enables educationalists to assist individual learners to select vocational choices according to their interests, intellectual and/or physical capabilities, and affective traits

Philosophical framework of vocational education is entirely based on philosophy of educational system in Jordan. Emphasis is on creating positive interaction between individual learner and her/his surrounding in order that her/his personality is well developed cognitively, effectively and at the psychomotor level. Also, emphasis is placed on creating balance between individual as well as societal needs, and on equipping individual learners to adapt to ongoing information revolution as well as technical innovations. Among philosophical aspects on which vocational education is based are: **Removal of misconception that intellectual work is better than manual labor, and relating theory into practice.**

Current state of affairs of vocational education in Jordanian schools is surrounded by more questions than answers. Following are a number of questions and/or issues to be treated as main substance of present study: Are vocational education activities carried out according to well-defined plan or objectives? Are vocational education

activities executed by well-trained, well informed teaching staff? Are vocational education activities carried out in well-equipped vocational workshops? Can vocational workshops in schools house increasing numbers of learners? Added to those questions; is the issue of learners' attitudes toward vocational education, and role of schools and society in shaping those attitudes.

Purpose/s of the study

It was stated earlier that compared to other school subjects such as Math, Arabic language, Islamic Education, basic schooling prevocational education in Jordan's schools is fairly new subject. Therefore, a very special preparation of all constituent elements of prevocational education program is required.

As evaluation process is critically important of any school program, this study is intended to evaluate basic constituent elements of vocational education program including its objectives, execution procedures at school workshops, and the context where the program takes place. As such, this study aims to investigate the following questions:

1. What are the qualifications of vocational education teachers?
2. What are the training requirements of vocational education teachers?
3. What are the obstacles of achievement of vocational education objectives?
4. What are the weaknesses and strengths that characterize vocational education program?
5. What are the students' attitudes toward vocational education program?
6. Are school workshops adequate to achieve practical objectives of vocational education?

Researchers attempt to answer preceding questions through investigation of the following domains:

First: Teachers Qualifications and Competencies

1. What are the scientific and educational qualifications of basic schooling vocational education teachers?
2. What are the specializations of the prevocational education teachers; and to what extent it is related?
3. What experience do vocational education teachers have, including number of years of teaching, and training sessions?
4. How many class periods are assigned to vocational education teachers?

Second: Training Requirements of Vocational Education Teachers as Viewed by Teachers, School Principals and Supervisors.

5. What are the requirements of vocational education teachers with regard to planning of teaching activities?
6. What are the requirements of vocational education teachers with regard to carrying out teaching activities?
7. What are the requirements of vocational education teachers with regard to evaluation of teaching?

Third: Students' Attitudes Toward Vocational Education.

8. Do students exhibit certain attitudes toward vocational education subject matter?

Fourth: Obstacles of Achievement of Vocational Education Objectives.

9. What are the most serious obstacles of achievement of vocational education objectives?
10. How are those obstacles different qualitatively and quantitatively with regard to objectives of vocational education program, and the context where the program takes place?

Chapter Two

Methods and Procedures

Samples of the Study:

Evaluative studies require varied sorts of information from multiple sources. Such studies investigate questions pertaining to several communities located within certain geographic areas. As to this current study, researchers distinguish between target population and experimentally accessible population. North Shunna, Irbid and Mafraq have been selected representing Al-Aghwar, the Center, and Al-Badiah consecutively as different regions in Jordan. Experimentally accessible population has been selected from those geographically defined regions to represent target population. Attitudes of eighth and tenth grades toward vocational education were investigated. Choice of those two grades of basic schooling was based on scientific justifications manifested in stages of vocational development. Evaluation of vocational education needed to be based on collection of information from students, teachers and supervisors coming from Educational Directorates in Irbid and Mafraq.

There were no lists of numbers of vocational education teachers at the Educational Directorates included in the study. However, it was clear that vocational education subject matter was among the assigned curricula for all grades of basic schooling. Class period/s assigned for teaching vocational education was one or two per week. One teacher of each school included in the sample of the study was

selected. Schools included in the study were 70% of all schools located in Educational Directorates investigated. Principals of all schools participating in the study were included. Two samples of participants were included, those of teachers and school principals.

Table (1) Distribution of schools of Educational Directorates according to schooling stage.

Schooling Stage	Educational Directorate							
	Irbid 1	Irbid 2	Ramtha	Bani Kananah	Al-Aghwar	Al-Koorah	Mafraq 1	Mafraq 2
Basic	106	98	30	61	39	37	90	146
Secondary/ below 9th grades	27	24	16	20	14	22	19	37
secondary/ starts at 9th grade	7	1	1	0	1	0	1	3
Secondary/ Starts at 10th grade	3	1	1	1	0	1	1	1
Secondary	8	2	0	1	0	0	2	0
Total	151	126	48	83	54	60	113	187

Note: (1) Both samples of teachers and school principals were selected from 70% of schools located in Educational Directorates represented in the study.

Table (1) shows distribution of public schools according to schooling stage, and Table (2) shows distribution of basic stage schools according to Educational Directorate. Gender and Supervising authority. All, UNRWA as well as private schools fit the criteria used to create population of the study. Classes housed in those schools start below ninth grade.

Students participating in the sample used for measuring attitudes toward vocational education were selected from basic schooling grades in general, and eighth and tenth grades in particular.

The sample was collected following the multistage cluster random sampling technique. Schools sections representing different grade levels were chosen randomly. As students' responses were supposed to be independent, each single student response was used as a unit of analysis, and each single section as a unit of selection.

Table (3) shows distribution of students within the target population, numbers of participating students, and numbers of sections represented in the study.

Table (2) Distribution of schools included in the population of the study according to Educational Directorate, Gender, and Supervising authority.

Educational Directorate	Ministry of Education				UNRWA				Private Agencies			
	Male	Female	Co-ed	Total	Male	Female	Co-ed	Total	Male	Female	Co-ed	Total
Irbid 1	37	37	32	106	12	13	0	25	1	0	48	49
Irbid 2	42	28	28	98	0	0	0	0	0	0	9	9
Ramtha	14	8	8	30	1	1	0	2	0	0	6	6
Bani Kananah	22	14	25	61	0	0	0	0	0	0	0	0
North Ghour	15	9	15	39	7	7	1	15	0	0	1	1
Al- Koorah	14	8	15	37	0	0	0	0	0	0	0	0
Mafraq 1	25	7	58	90	1	1	0	2	1	0	0	1
Mafraq 2	47	14	85	146	-	-	-	-	-	-	-	-

Statistics available at educational directorates concerning distribution of schools shows the following:

(1) Among schools run by UNRWA or private agencies none are rented or follow the two-period school day.
(2) 26% schools by Ministry of Education were rented.
(3) Percentages of numbers of schools owned by Educational Directorates listed above in Table 2 are: (74%, 73%, 71%, 100%, 70%, 72%, 89%, 70% consecutively).
(5) Percentages of numbers of schools that follow the one period school day in Educational Directorates listed above are: (84%, 50%, 40%, 85%, 88%,_,_,_, consecutively).
(6) Private schools are limited to Irbid 1, Irbid 2, Ramtha, and in Irbid 1 extensively.
(7) UNRWA schools are located in Irbid 1, and North Ghour more than other Directorates.

Table (3) Distribution of numbers of students and sections included in the population and in the sample of the study according to Directorate, Supervising authority, and Gender.

Directorate	Sex	M.O.E		UNRWA		Private	
		8th grade	10th grade	8th grade	10th grade	8th grade	10th grade
Irbid 1	Male	3406 102 (3)	2918 88 (3)	933 28 (1)	759 23 (1)	310 9 (1)	277 8 (1)
	Female	4382 131 (4)	3251 98 (3)	853 26 (1)	745 22 (1)	168 5 (1)	108 3 (1)
Irbid 2	Male	1803 54 (2)	1581 47 (2)				
	Female	1774 53 (2)	1432 43 (2)				
Ramtha	Male	1060 32 (1)	798 24 1	37	24		
	Female	1089 33 (1)	855 26 (1)	26	19		
Bani Kananah	male	1060 32 (1)	804 24 (1)				
	Female	841 25 (1)	772 23 (1)				
Al- Ghour	Male	576 17 (1)	347 10 (1)	306 9 (1)	226 7 (1)		
	Female	567 17 (1)	371 11 (1)	311 9 (1)	245 7 (1)		
Al- Koorah	Male	1082 32 (1)	836 25 (1)				
	Female	1082 32 (1)	817 25 (1)				
Mafraq 1	Male	973 29 (2)	836 25 (2)	44	32	44	
	Female	988 30 (2)	846 25 (2)	43	30	13	-
Mafraq 2	Male	1248 37 (2)	813 24 (2)				
	Female	1023 31 (2)	732 22 (2)				

Table (3) shows the following;

(1) Averages of numbers of students per section in schools attached to Irbid and Mafraq governmental directorates, UNRWA, and private agencies are as follows: 34, 27, 34.6, 24.8, 25.6, 30.1, 30.6 19.1, 40.5, 23.

(2) 4% of the sample selected is distributed according to Directorate, Gender and Supervising authority.

(3) Sample of the study is selected following the stratified cluster random sampling procedure. The section represented is used as a unit of random selection according to: Directorate, Gender and Supervising authority.

According to preceding statistics, questionnaires used to collect data were distributed as follows:

Questionnaire/Group	(A) Vocational Education Teacher	(B) Vocational Education Supervisor	(C) School Principal	(D) Eighth and Tenth Graders.
Identification of Obstacles	x	x	x	-
Identification of Training Needs	x	x	x	-
Identification of Students' Attitudes	-	-	-	x

(A) One teacher per school represented in the sample of the study.

(B) All vocational education supervisors.

(C) Principal of each school represented in the sample.

(D) 4% of the population.

Available sample schools that house vocational education workshops were selected following the semi random or judgmental

sampling technique*. Schools selected were the ones where teachers, enrolled in the vocational education program at Yarmouk University.

Data Collection Instruments

One of the characteristics of evaluative studies is that data employed in such studies come from multiple sources. As such instruments used to collect data needed, must be valid and reliable.

To investigate questions of the study stated earlier, the following instruments were used to collect data:

First: Identification of Obstacles Questionnaire

A questionnaire was designed to identify obstacles of achievement of vocational education objectives at basic schooling stage as viewed by vocational education teachers, supervisors, and school principals. It consisted of twenty seven items (see Appendix 1) covering all potential educational aspects affecting achievement of vocational education objectives. Such educational aspects were related to educational objectives, curricular activities, textbook, class periods assigned to teaching vocational education, school workshops, all parties and/or educational authorities concerned with vocational education, available resources, teacher qualifications, training or theory into practice programs, and vocational education supervision.

Participants in each of the three samples, included in the study, were asked to rate extent of the constraint on a four-point scale characterized of controlling the response style of tendency toward the

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* Worthen, B. and Sanders, J. (1987). Educational Evaluation. Longman: New York.

mean, which facilitate sorting out the obstacles according to classification criteria which fit this scale.

Second: Identification of Teachers' Training Needs Questionnaire

To identify training needs of vocational education teachers as perceived by school principals, supervisors and vocational education teachers themselves, a questionnaire consisting of two parts was developed (see Appendix 2). The first part was intended to identify teachers' qualifications, their majors of study, teaching load, number of years teaching vocational education subject matter, and courses of training in vocational education. In a special section of this part, school principals and supervisors were asked to evaluate some complimentary information.

Training needs stated in the second part of the questionnaire consisting of (37) thirty seven items, were divided into three domains: planing for teaching, implementation, and evaluation. Important elements relevant to teaching practices, contained in each domain, were like: analysis of course content, preparation of study plans, writing of educational objectives, educational media and activities, teaching styles, enactment of vocational workshops, trips, library and site visits, classroom management, reinforcement procedures, individual differences, workshop management and equipment maintenance, association between evaluation and educational objectives, development of appropriate evaluation instruments of vocational education objectives, and use of evaluation outcomes for diagnostic as well as improvement purposes. Items stated in this part of the questionnaire were refereed in view of: reports prepared by vocational education supervisors and approved

by the Ministry of Education, as well as present researches' experience in education in general, and vocational education supervision in particular.

Participants in each of the three samples; teachers, principals and vocational education supervisors, were asked to rate degree of necessity of training need on a four- point scale.

Third: Measure of Student Attitudes Toward Vocational Education

Statements or items included in measures of attitudes are usually emotionally charged with different loads. The sum of charges refers to type and magnitude of their attitudes. the rating scale could be of two or more choices, usually determined by the scale's developer using some criteria such as age of examinee.

"Attitude" is commonly defined as a collection of feelings, ideas, and perceptions guiding individual's interactive behaviors and determining their stand on thing and events (Kerlinger, 1973). Hence, attitude of students toward vocational education in this study is operationally defined as a collection of perceptions, ideas and feelings of students selected to respond to this measure of attitude consisting of (20) twenty items (see Appendix 3). Each item is emotionally charged of a positive or negative direction with equal numbers. It is assumed that all items have the same contribution in measuring the attitude trait. The answer of each item may be Yes or No which is equivalent numerically to (1 and 0) for positive items, and (0 and 1 for negative items, which means that the theoretical range of the scores is (0-20).

With regard to the psychometric properties of measure of attitudes at hand, all statements making procedures are considered indicators of face validity. Eyeball factoring indicates that the measure employed is unidimensional. Edward's criteria concerning writing of measures of attitude statements were taken into account. Also, similar measures of attitude were helpful in selection of items for the measure used in this study. Those similar measures were like: Thurston's measure of student attitudes toward school subject matters (see Payne, 1974, p.173), and Abdel-Gaid's measure of attitudes toward the computer (Abdel Gaid et al., 1986). Reliability of the measure was estimated through the split- half procedure applied on the sample of the study itself.

Fourth: Observation Checklist of Workshops, Teaching Methods and Evaluation

Questionnaires described earlier are viewed as important sources to obtain data. Procedures followed to a certain cross-validity of data obtained from teachers, principals and supervisors, coupled with their (data) comprehensive nature, ensure adequacy of such data. However, it is necessary to note that this study is only about an atomistic evaluation of vocational education and its objectives, curricular activities and text book used, and vocational workshops and activities.

Compared to other school subjects, interest of the Ministry of Education in vocational education is relatively new. In view of the educational development objectives, the Ministry has started to develop a series of textbooks to be taught in basic schooling grades.

Four of these textbooks intended for first, second, fifth and sixth grades have been completed.

Introduction of textbooks intended for the fifth and sixth grades reveals that their main topics deal with vocational literacy in view of five domains including: agriculture, industry, commerce, home economics, and hygienic and public safety principles. Each domain is composed of (17) seventeen single units including:

- Plantation,
- Care for plants and harvesting skills,
- Raising of livestock,
- Utilization of simple equipment,
- Basic metal works,
- Carpentry and painting,
- Industrial drawing,
- Electric works,
- Financial affairs,
- Management skills,
- Food and nutrition,
- Household tasks management,
- Clothes and sewing,
- Personal hygiene and home nursing,
- First aid principles,
- Traffic literacy.

Each of those two grades i.e., fifth and sixth, was assigned 37 (thirty seven) lessons. Within each domain, those lessons were complimentary in nature.

Although a textbook has been decided, selection of course contents and development of curricular activities were left to concerned teachers. That was critical since the main purpose of implementation of activities described in those textbook was to help discover potential abilities and interests of students, and to further positive attitudes toward hand and/or practical work. As such it was difficult to develop universal criteria of evaluating vocational education, the optional selection of vocational activities by teachers. and lack of class periods of vocational education subject make it a minor subject compared with other school subjects.

Variety and multiplicity of activities involved in vocational education, which are about (111, 146) in the eight and tenth grades respectively, reveal that achievement of vocational education objectives requires the following:

1. Well- equipped and easy accessible workshops for many collective and cooperative schools.
2. Well-trained as well as highly qualified teachers.
3. Allocation of adequate class periods to fit the multiple and varied number of activities involved.
4. Coordination as well as cooperation with concerned local agents including individuals, corporations, establishments and associations to implement vocational activities according to a specified timetable.

An observation checklist was developed to evaluate the teaching methods and instrumental activities through class periods of

vocational education, and to evaluate the workshops directly by using a well-structured observational checklist (see Appendix 4).

Methods and Procedures

Research methods and procedures followed in this study included: identification of relevant data sources and how to collect such data. Samples of teachers, principals supervisors and students were identified. Schools represented in the study were selected according to the stratified random sampling technique. To obtain data needed, properly designed questionnaires were distributed in schools during the last two months of the 1995/96 school year. Distribution of the questionnaires was carried out by research assistants under supervision of educational directorates of Irbid and Mafraq.

Participating supervisors were asked to respond to questionnaires sent to main offices of their educational directorates. Thirty vocational supervisors and teachers, pursuing their graduate education programs at Yarmouk University, were trained to be familiar with the observation checklist used, and to record their observations of vocational workshops, teaching methods and procedures, and evaluation procedures of students' achievement in thirty basic education schools.

Prior to analysis of data obtained, all forms of questionnaires returned from respondents were examined to determine which ones had to be excluded from the sample, as well as, to find out the mortality due to not returning the questionnaire and incomplete responses.

Data Analysis

Multiple statistical methods were adopted for analysis of data obtained as sources and types of such data varied. Qualitative as well as quantitative data were obtained; particularly, that related to the observation checklist. Although attempts were made to quantify some observations in view of their frequency of appearance, it may be said that data resulted from observation checklist were predominantly qualitative in nature. Also, it is important to note that some of such data resulted from self-observation and open-ended interview questions.

Data obtained by other data gathering instruments used in the study were mainly quantitative. Therefore a statistical program designed for social sciences known as SPSS was run on the computer to analyze data gathered by the following instruments:

First: Training Requirements Questionnaire

1. Computation of frequencies and percentages of some information made available from the general information section such as class periods, scientific and educational qualifications. Averages of years of experience and number of class periods were computed also.
2. Teacher training requirements were classified according to calculated averages of estimations of such requirements as viewed by teachers, supervisors, and principals. Numeric combination of teacher training requirements whether in planning, implementation, or evaluation was computed also.

Second: Identification of Obstacles Questionnaire

3. Obstacles of achievement of vocational education objectives were classified according to: calculated averages of estimations made by teachers, supervisors and principals.

Third: Identification of Students' Attitudes Questionnaire

4. Identification of type and strength of attitudes held by students in view of calculated average of estimations compared to a particular criteria derived from the measure itself.

Fourth: Observation Checklist of Workshops of Vocational Education and How to Teach Its Curriculum.

5. Data resulted from the observation checklist were analyzed based on individual statements or items. Frequencies and percentages of most statements were computed. In light of observations recorded, equipment as well as usability of vocational education workshops were described.

Chapter Three

Results of the Study

Data obtained were analyzed. Discussions included in this chapter were related to: characteristics, qualifications, and experiences of vocational education teachers; training needs of vocational education teachers; obstacles of achievement of vocational education objectives at basic schools; attitudes of students toward vocational education, and reality of school workshops and methods of teaching vocational education.

First: Characteristics, Qualifications, and Experiences of Vocational Education Teachers.

Results shown in Table (4) indicated that numbers of male and female vocational teachers were relatively balanced. However, qualifications of majority of vocational teachers (85%) were community college diplomas. 87% of teachers with educational qualifications were community college graduates who joined teaching training programs at the University. 76% of school principals have at least a bachelor's degree, and 70% of them have at least a teaching diploma. As a very small proportion (around 5%) of those principals are qualified vocationally, chances that school principals provide teachers with technical or administrative support are reduced.

Table (4) Percentages of vocational teachers and principals classified according to sex, degree, specialization, and education.

		Teacher	Principal
Sex	Male	47.7%	54.9%
	Female	52.3	45.1%
Qualification	Community College	85%	24%
	Bachelor	14.5%	68%
	Master	.5%	8%
Specialization	Vocational Education	45.8%	4.6%
	Others	54.2%	95.4%
Educational qualification	Education	6.4%	10.5%
	Diploma in education	6%	50.8%
	Community college	87.2%	28.7%
	Master	.4%	9.9%

- Average number of teaching experience in general and range= 9.7, 0-37
- Average number. of teaching experience in vocational education and range= 6.8, 0-32
- Average number. of weekly vocational education class period and range= 15, 1-28
- Average number. of grades per teachers and range= 4, 1-10.
- Percent of schools owing vocational education workshops= 66.3%
- Number of vocational education teachers supervised by one supervisor= 40 in the average and 26-112 range.

Concerning experiences of teachers and their teaching loads, results indicated that distribution of years of teaching experience was described as normal (Ku= 0.119, SK= 0.645) with a mean of 9.7, range of 0-37, and median of 9.8. However, distribution of years of vocational education teaching experience was positively skewed (SK= 1.143) with a mean of 6.8, range of 0-32, and median of 4.8. Such results indicated lack of experience in teaching vocational education

due to recent introduction of vocational education into school curriculum, and lack of its weekly class periods. Vocational teachers were required to complete their weekly teaching hours from other school subjects.

Results also showed that a large number of training sessions were held in general as well as specific to vocational education areas. Most important training sessions stated by vocational teachers were summarized as follows:

1. Educational development,
2. Ninth grade new curriculum,
3. Vocational education-Electricity, Carpentry,
4. Agricultural vocational education,
5. First three grades,
6. Civil defense,
7. Arabic language new curriculum,
8. Management in model school,
9. Commercial guide information,
10. Development of new curriculum,
11. Development of teaching methods,
12. Bed care,
13. Workshop on teaching vocational education,
14. Grade teacher,
15. Orientation of new teachers,
16. Analysis of curriculum content,
17. Sewing,

18. Domains of educational objectives,
19. Educational media,
20. Nursing,
21. Textile,
22. English language,
23. Educational supervision development,
24. Upgrading qualifications of vocational teachers,
25. Vocational education new curriculum,
26. Art education,
27. Home economics,
28. Bookbinding,
29. Wood carving,
30. Leather sewing,
31. Identification of electric sewing machine,
32. Teacher training,
33. Measurement and evaluation,
34. Engineering and industrial drawing,
35. Copper carving,
36. Music,
37. Photography,
38. Home economics,
39. Lecturing skills,
40. Guidance and counseling,
41. Development of art education curriculum,
42. Food production,

43. Tree trimming.

44. Food preservation.

45. School furniture repair.

46. Vocational education teaching methods/ First secondary grade.

47. Mechanic embroidery.

48. Animation.

49. Population and housing statistical surveys.

50. Basic schooling laboratory training.

51. Vocational education workshops.

52. Secondary schooling laboratory training.

53. Evaluation of hygienic education curriculum.

An important set of observations concerning those training sessions was made:

1. Average of numbers of training sessions attended by an individual teacher was 2.8 with a range of 0-7.

2. They were varied.

3. Some were general; related to skills shared by teachers in general, and others were specific to other school subjects not related to vocational education area.

4. They need evaluation in order to determine their adequacy, their consideration of teachers' needs, and their role in achievement of vocational education objectives.

5. Duration of those training sessions ranged from one day to two years. Most of them lasted one to three weeks.

Second: Training Needs of Vocational Education Teachers.

Expected training needs of vocational teachers were classified according to three areas: planning, implementation, and evaluation. Training needs were identified as viewed by supervisors, school principals, and teachers themselves on a verbal scale of four estimations (very high, high, low, very low) matched by a four-point numerical scale of (4, 3, 2. 1) respectively. According to means of estimations, training needs were classified in groups as follows:

3.5- 4.0 very high.

2.5-3.4 high

1.5- 2.4 low

less than 1.5 very low.

Based on actual and detailed means resulted from findings of data analysis shown in Tables (5, 6, 7), analysis of variance findings related to means of estimations shown in Table (8), and rank correlation coefficients shown in Table (9). It could be noted that:

Means and estimations of all three groups of the sample size, as shown in Tables (2, 3, 4), indicated that vocational teacher needed to be trained on most activities and practices related to planning, implementation, and evaluation of instruction. Means were:

* 2.55-3.10 of needs in the area of planning with an average of 2.85.
* 2.50-3.01 needs in the area of implementation, with an average of 2.83.
* 2.51- 2.86 of needs in the area of evaluation, with an average of 2.73.

Table (5) Ratings means and ranks of training needs in planning stage of basic schooling vocational education teachers as perceived by teachers, principals, and supervisors.

No.	Item in **Instructional Planning**	Teacher		Principal		Supervisor		Total	
		X	Rank	X	Rank	X	Rank	X	Rank
18	Defining the course content.	2.88	5	2.88	4	2.69	5	2.94	3
19.	Analyzing the course content into its basic elements	2.87	6	2.80	7	2.85	2	2.89	6
20.	Preparing semester as well as annual instructional plans	3.16	1	3.05	1	2.54	9	3.10	1
21.	Preparing daily instructional plans	3.15	2	3.01	2	2.76	4	3.08	2
22.	Writing up acceptable instructional objectives	2.95	3	2.89	3	2.77	3	2.93	4
23.	Classification of cognitive, psychomotor, as well as affective instructional objectives	2.84	8	2.78	9	2.92	1	2.82	8
24.	Identification of appropriate evaluation methods	2.89	4	2.81	5	2.69	5	2.85	5
25.	Selection of appropriate instructional media	2.80	9	2.79	8	2.62	7	2.79	9
26.	Identification of properly designed instructional activities	2.87	6	2.81	5	2.62	7	2.83	7
27.	Planning for work site visits, field trips, as well as extra curricular activities	2.49	11	2.74	10	2.31	11	255	11
28.	Planning for utilization of vocational workshops	2.61	10	2.70	11	2.38	10	2.64	10
	Grand mean	31.66		31.27		28.85		31.38	
	S. d	6.51		6.23		4.74		6.40	
	Mean/ item	2.88		2.84		2.62		2.85	

Table (6) Ratings means and ranks of training needs in implementation stage of instruction in basic schooling vocational education teachers, as perceived by teachers, principals, and supervisors

No.	Item in Implementation Stage	Teacher		Principal		Supervisor		Total	
		X	Rank	X	Rank	X	Rank	X	Rank
29.	Knowing how to utilize instructional plans	2.94	7	2.91	4	2.62	12	2.92	4
30.	Grasp of instructional methods	2.97	4	2.81	8	2.69	8	2.91	5
31.	Knowledge of teaching methods specific to vocational education	3.04	1	2.96	1	2.92	1	3.01	1
32.	Ensuring that students execute the practical part of vocational education curriculum	2.95	6	2.85	6	2.92	1	2.90	7
33.	Knowing how to utilize models and other practical instructional materials available from the local community	2.81	10	2.80	10	2.77	3	2.80	10
34.	Knowing how to put the library facilities in service of vocational education	2.46	13	2.57	13	2.69	8	2.50	14
35.	Knowledge of basic principles of workshop public safety	2.96	5	2.85	6	2.77	3	2.91	5
36.	Undergoing a course of training to plan for work site visits as well as field trips by vocational education students	2.46	13	2.63		2.69	8	2.51	13
37.	Knowledge of classroom management and its organization	3.04	1	2.96	1	2.69	8	3.00	2
38.	Knowledge of appropriate reinforcement and punishment techniques	2.92	8	2.81	8	2.46	14	2.86	9
39.	Awareness as well as recognition of individual students' differences	2.98	3	2.92	3	2.54	13	2.94	3
40.	Undergoing a course of training to utilize vocational education workshop's apparatus	1.90	9	2.89	5	2.77	3	2.88	8
41.	Knowing how to run vocational education workshops	2.80	11	2.78	11	2.77	3	2.78	11
42.	Knowledge of maintenance of workshop equipment	2.72	12	2.74	12	2.77	3	2.70	12
	Grand mean	40.00		39.25		38.08		39.65	
	S. d	8.44		8.14		7.16		8.37	
	Mean/item	2.86		2.82		2.72		2.83	

Table (7) Ratings means and ranks of training needs in evaluation stage of instructional process in basic schooling vocational education teachers as perceived by teachers, principals, and supervisors.

No.	Item in Evaluation Stage	Teacher		Principal		Supervisor		Total	
		X	Rank	X	Rank	X	Rank	X	Rank
43.	Knowing how to relate evaluation techniques to instructional objectives	2.89	1	2.85	1	2.85	2	2.86	1
44.	Knowing how to evaluate vocational education students' visits to work sites	2.62	9	2.75	6	2.62	8	2.66	9
45.	Knowing how to evaluate students' projects	2.89	1	2.82	2	2.31	11	2.85	2
46.	Undergoing a course of training to construct checklists and rating scales as evaluation tools.	2.52	12	2.53	12	2.31	11	2.51	12
47.	Undergoing a course of training to construct achievement tests designed for evaluating cognitive domain objectives	2.77	6	2.81	3	2.62	8	2.78	5
48.	Knowing how to develop proper criteria to evaluate vocational education students' activities	2.74	7	2.75	6	2.77	5	2.73	7
49.	Undergoing a course of training to utilize observation method in evaluating vocational education objectives	2.81	4	2.75	6	2.46	10	2.78	5
50.	Knowing how to uncover students' potential vocational interests.	2.87	3	2.81	3	2.83	4	2.84	3
51.	Undergoing a course of training to prepare student's vocational profile using the evaluation results.	2.57	11	2.61	11	2.69	6	2.58	11
52.	Knowing how to invest outcomes of students' evaluation improvement vocational education instructional activities	2.66	8	2.74	9	3.00	1	2.69	8
53.	Knowledge of grading procedures as feedback information obtained from various vocational education evaluation techniques.	2.79	5	2.78	5	2.85	2	2.79	4
54.	Knowledge of use of the norm-referenced as well as criterion-referenced tests in the achievement of vocational education instructional objectives.	2.62	9	2.69	10	2.69	6	2.65	10
	Grand mean	32.85		32.79		31.58		32.76	
	S. d	6.71		7.32		5.23		6.73	
	Mean/ item	2.74		2.73		2.63		2.73	

Table (8) Results of testing the differences of ratings means concerning training needs of vocational education teachers in planning, implementation, and evaluation in teaching process due to job, sex, degree, specialization, and education.

Variable	Wilks λ	Sig.
Job in general	0.993	0.680
Sex- teacher	0.999	0.935
Sex-principal	0.972	0.109
Degree- teacher	0.975	0.246
Degree-principal	0.965	0.282
Specialization- teachers	0.979	0.084
Specialization-teacher	0.996	0.826
Education-teacher	0.987	0.892
Education-principal	0.966	0.597

Table (9) Matrix of Spearman rho correlations between the means of needs ratings of vocational education teachers as perceived by principals, supervisors, and the teacher themselves.

Pairs of variables	Planning	Implementation	Evaluation
Male- female	0.98*	0.96*	0.90*
Teacher- principal	0.91*	0.95*	0.89*
Teacher-supervisor	0.33	0.06	0.13
Principal- supervisor	0.01	0.09	0.35
College-BA	0.91*	0.97*	0.90*
College-MA	0.17	0.39	-0.02
BA-MA	-0.04	0.42	-0.10

Consequently, according to the scale used, training needs of teachers were classified as high. None of those needs was reported as very low or low. Although, none was found to be very high, and means obtained were characterized by restriction of range, priorities of needs organized according to theoretical means of estimations were determined.

Training needs were noted to be in areas of:

* Within the area of planning, preparation of daily as well as annual teaching plans was highest among obtained means; whereas, planning of: field trips, work site visits, instructional activities and utilization of workshops was least.
* Within the area of implementation, particular teaching methods of vocational education, and classroom management and organization, were highest among obtained means. However, ways of implementing field trips and work site visits, as well as, employment of library resources were least.
* Within the area of evaluation, reality evaluation methods to instructional objectives, evaluation of students' projects, and identification of their interests and/or predisposition's were highest among means obtained. Training needs intended to help teachers develop checklists and rating scales, and how to utilize evaluation results in drawing of student's vocational profile were least.

It was noted that supervisors, school principals and teachers agreed on level of training needs in all three domains: planning, implementation, and evaluation. In addition agreement existed among all three groups with respect to variables of gender, scientific qualification, major of study, and educational specialization of teachers and principals. All of that was reported in Table (8) showing

results of multivariate analysis and level of significance of differences between means tested by Wilks Lambda.

Congruence between means and estimations encouraged researchers to use grand means to determine training needs of vocational teachers. Rank correlation's between rating means of different groups in each variable (sex, job, and scientific qualification) which were presented in Table (9) add new indicator of using such grand means, which means that vocational education teacher possess the same training needs as they perceived by principal, and teachers themselves. The shrinkage of some rank correlation's, particularly for master groups in the sample is due to small sample size, and restriction of range in these means.

Third: Obstacles of Achievement of Vocational Education Objectives at Basic Schools.

With regard to obstacles leading to nonachievement of vocational education objectives at basic schools, discriminatory level among those obstacles' contribution to nonachievement of objectives was evident. Means of estimations of potential obstacles as viewed by school principals, supervisors, and teachers, as well as, male and female means of estimations were calculated as shown in Table (10). Also, in order to determine congruence of ratings, rank of each obstacle was identified according to those means, and ranking correlation's of estimations were calculated as evident in Table (11) showing a high degree of congruence in means of estimations of those obstacles by male and female teachers and principals. Such results obtained made it easy for researchers to determine most serious obstacles, and provided a strong evidence of cross-validation among means of those estimations that portrayed the following:

Table (10) Ratings means and ranks of obstacles of achieving vocational education objectives perceived by teachers, supervisors, and school principals.

No.	Obstacles	Teac-hers	Princi-pals	Super-visors	Male	Fema-le	Total
5.	Lack of understanding of philosophy of vocational education	2.65 (19)	2.74 (17)	2.39 (21)	2.67 (18)	2.62 (17)	2.64 (18)
6.	Lack of understanding of vocational education curricular goals	2.45 (23)	2.64 (21)	2.33 (22)	2.58 (21)	2.49 (20)	2.54 (20)
7.	Absence of specific objectives for vocational education.	2.47 (21)	2.57 (22)	1.83 (27)	2.50 (23)	2.47 (21)	2.50 (21)
8.	Absence of specific curriculum for vocational education	2.70 (13)	2.54 (23)	1.94 (26)	2.61 (19)	2.57 (18)	2.60 (19)
9.	Absence of specific textbooks for vocational education.	3.10 (12)	2.65 (20)	2.89 (14)	2.77 (17)	2.88 (14)	2.84 (15)
10.	Inadequate weekly class periods of vocational education curriculum	2.25 (26)	2.38 (25)	2.22 (23)	2.28 (27)	2.32 (24)	2.31 (26)
11.	Lack of understanding of the significance of vocational education by student parents.	3.43 (3)	3.43 (3)	3.50 (1)	3.46 (2)	3.42 (4)	3.43 (3)
12	Lack of understanding of the significance of vocational education by students	3.20 (7)	3.26 (6)	3.29 (5)	3.29 (7)	3.18 (5)	3.23 (5)
13.	Lack of understanding of the significance of vocational education by school administrative body	2.46 (22)	2.03 (27)	3.28 (6)	2.37 (26)	2.17 (27)	2.27 (27)
14.	Lack of available vocational education workshops	3.05 (13)	3.36 (13)	3.28 (13)	3.35 (13)	3.05 (13)	3.20 (13)
15.	Lack of societal appreciation of vocational education as a school subject	3.45 (2)	3.43 (3)	3.44 (3)	3.44 (3)	3.45 (3)	3.44 (2)
16.	More appreciation of other school subjects by student parents	3.61 (1)	3.62 (1)	3.44 (3)	3.59 (1)	3.62 (1)	3.61 (1)
17.	More appreciation of other school subjects by students themselves	3.43 (3)	3.45 (2)	3.28 (6)	3.39 (4)	3.49 (2)	3.43 (3)
18.	More appreciation of other school subjects by school administrative body	2.67 (17)	2.29 (26)	3.28 (6)	2.60 (20)	2.42 (22)	2.50 (21)

Table (10) Cont'd

No.	Obstacles	Tea-chers	Princi-pals	Super-visors	Male	Female	Total
19.	Lack of funding for vocational education	3.04 (11)	3.01 (10)	3.50 (1)	3.24 (8)	2.83 (15)	3.04 (9)
20.	Non availability of facilities needed to conduct work site visits and field trips	3.26 (6)	3.41 (8)	3.17 (11)	3.33 (6)	3.09 (6)	3.21 (6)
21.	Lack of grasp and/or understanding of vocational education varied subject matters, and teaching activities	2.57 (18)	2.87 (14)	2.94 (13)	2.78 (16)	2.66 (16)	2.71 (16)
22.	Poor preservice training of vocational education teachers	2.92 (15)	3.16 (7)	3.06 (12)	3.08 (10)	3.00 (8)	3.03 (10)
23.	Poor on service training of vocational education teachers	2.50 (20)	2.85 (16)	2.50 (19)	2.79 (15)	2.54 (19)	2.66 (17)
24.	Vocational education teachers lack enthusiasm	2.04 (27)	2.68 (19)	2.67 (16)	2.49 (25)	2.21 (26)	2.35 (25)
25.	Vocational education course contents do not fulfill students needs as well as the needs of family and society	2.27 (24)	2.53 (24)	2.00 (24)	2.50 (23)	2.26 (25)	2.38 (24)
26.	Nonavailability of appropriate instructional media and model for vocational education	2.97 (13)	3.02 (9)	2.67 (16)	3.06 (11)	2.91 (13)	2.98 (13)
27.	Difficulty of conducting small group instructional settings due to large student enrollment	3.27 (5)	2.86 (15)	3.22 (10)	3.17 (9)	3.00 (8)	3.08 (8)
28.	Difficulty in putting together a program to benefit from local as well as work site expertise deemed necessary for vocational education	3.05 (9)	2.96 (12)	2.83 (15)	3.05 (13)	2.97 (11)	3.01 (12)
29.	Nonavailability of vocational education textbooks and references	3.16 (8)	2.92 (13)	2.67 (16)	3.06 (11)	3.00 (8)	3.03 (10)
30.	Poor efficiency of vocational education supervision programs	2.26 (25)	2.69 (18)	2.00 (24)	2.52 (22)	2.36 (23)	2.46 (23)
31.	Lack of appropriate local work sites to be visited by vocational education students	2.93 (14)	2.97 (11)	2.44 (20)	2.91 (14)	2.94 (12)	2.94 (14)

Table (11) Spearman rho correlation between obstacles of achieving vocational education objectives rated by males, females, principals, teachers, and supervisors

Teachers- principals	= 0.80
Teachers- supervisors	= 0.71
Principals- supervisors	= 0.54
Males- females	= 0.95

- Parents of students more appreciation of other school subjects at the expense of vocational education was one of the most serious existing obstacles. Grand mean of estimation was very high (3.61). Means of estimations for a set of ten obstacles were 3.00-3.50, and means of estimations for another set of obstacles were 2.5-3.00. Those findings indicated that means of six obstacles (less than 2.50) were marginal or insignificant. Considering nature of such obstacles, it was noted that most serious obstacles were related to:

1. Level of understanding and/or appreciation of vocational education significance by parents, teachers, and members of society at large.
2. Nonavailability of workshops specific to vocational education, lack of equipment and tools due to financial difficulties, increased numbers of students against limited area and equipment of workshops, and nonavailable resources and facilities to carry out field trips and work site visits necessary for implementation of instructional activities.
3. Nonavailability of specific vocational education curriculum with clearly defined objectives and well-prepared textbooks. As such, arbitrary and/or unplanned endeavors were followed in selection of appropriate course content taught in vocational education. Such obstacle was exasperated by: inadequate and

weak teacher pre-service training programs ranked number (10) with a mean of 3.03; impoverished library resources in the area of vocational education as reported in teachers' estimations of item 29 in Table (10), and inability of vocational teacher to come to grips with widely varied vocational activities and topics related to agriculture, industry, home economics, nursing and others.

Obstacles perceived as less serious; with means of less than 2.50 and ranks of above 21, were those related to: school management, vocational supervision, enthusiasm/excitement evidenced by vocational teachers inappropriate course content, and lack of weekly class periods assigned for vocational education. Reasons of such obstacles were probably due to vagueness of course content, and teacher's arbitrary or unplanned selection of whatever activities available.

Obstacles inferred from responses made to the open-ended question at the end of the questionnaire, it was noted that many of such obstacles were similar to those stated differently in different part of the questionnaire. Obstacles added to ones described earlier were summarized as:

1. Nonavailabe skills needed by vocational teachers to utilize new or relatively sophisticated apparatus available at workshops.
2. Stereotypical inferior image or perception attached to vocational education and vocational teachers by members of society at large.
3. Less attention paid to vocational education compared to other school subjects; such that weekly class periods assigned to vocational education curriculum were viewed as additional activities students could do without.

Fourth: Attitudes of Students Toward Vocational Education.

Naturally, attitude of an individual or a group of individuals toward a certain issue, event or activity determines the nature of practices related to that issue, event or activity. As student was viewed as the center of education process, and educational objectives were designed clearly and properly to facilitate her/his learning, it might be assumed that her/his positive attitudes toward a certain subject matter would act as a major factor leading to achievement of its objectives. As an illustration of the preceding arguments, attitudes of students toward vocational education were investigated.

Results shown in Table (12) indicated that mean of estimations revealed relatively weak positive student attitudes toward vocational education, with a percentage score of 66.25. Those findings implied that development of better student attitudes toward vocational education, might be influenced by a number of procedures followed by adults around students (parents, teachers, principals, and supervisors) such procedures might be: looking upon vocational education to be as important as other school subjects; increasing weekly class periods assigned to vocational education; increasing student participation in implementation of vocational activities as long as such participation was not viewed as an additional burden to student's home assignments (see items 8 and 9), and developing students awareness of significance of vocational education for purposes uncovering vocational interests. That awareness might, in turn, foster feelings of significance attached to vocational education when students read about and/or execute vocational activities as indicated by.

Table (12) Ratings means, ranks, and signs, concerning the attitudes of the students towards vocational education

		%mean	rank	sign
1.	I hate vocational education subject matter	72	8	-
2.	Vocational education is one of the worst subject matters I learned	79	2	-
3.	Study of vocational education is punishment to students	79	2	-
4.	Any school curricular that excludes vocational education subject matter is incomplete	58	16	+
5.	Any increase in vocational education class periods is welcome	47	19	+
6.	Study of vocational education is a waste of time	77	5	-
7.	I do not recommend the study of vocational education to any student	79	2	-
8.	I like to participate in activities related to vocational education	63	13	+
9.	I enjoy working on vocational education home assignments	63	13	+
10.	A few number of students benefit from vocational education subject matter	53	18	-
11.	Vocational education subject matter is difficult to grasp	74	6	-
12.	Vocational education contributes to the development of essential skills for students	81	1	+
13.	Vocational education practical gains can be felt directly by students	69	12	+
14.	Vocational education subject matter dose not enhance students intellectual ability	74	7	-
15.	I feel that vocational education is very useful	72	8	+
16.	I am not interested in vocational education	72	8	-
17.	I enjoy the study of vocational education very much	61	15	+
18.	I wish vocational education subject matter were not part of school curricula	70	11	-
19.	I do not prefer other subject matters to vocational education	27	20	+
20.	In my free time, I prefer to read about vocational education	55	17	+

Attitudes of students toward vocational education were, in general, positive. However, it was noticed that attitudes of male students toward vocational education were better than those of females. There was a statistically significant difference between the means of both groups (males and females) as shown in Table (13). Such finding might reflect part of the socialization process male and female students undergo; where male students would be more oriented toward vocational work and/or education upon leaving basic schools.

Table (13) Means (x), Standard deviations (s.d), and t-test of the differences between means due to sex

Group	N	x	s.d	t-test	sig. level
Male	538	13.51	5.72	4.09	0.001
Female	769	12.16	6.02		

Table (14) Means (x), Standard deviations (s.d), and t-test of the differences between means due to grade

Group	N	x	s.d	t-test	sig. level
8th grad	878	14.31	5.22	7.82	0.001
10th grade	880	12.12	6.26		

As to the stages of vocational development, and, in particular, at the end of both "Orientation" and "Discovery" stages, results shown in Table (14) indicated that at the end of stage of orientation, attitudes of students were better and statistically significant than those of their colleagues at the end of discovery stage. That finding was viewed to

be against exceptions. Attitudes of students at the end of orientation stage might be influenced by getting closer to decide the study stream at secondary schools. In other words, it could be argued that vocational education program at basic schools might be effective in helping tenth graders develop specific vocational interests or dispositions.

Fifth: Vocational Workshops and Methods of Teaching Vocational Education.

Data made available from the observation checklist designed for vocational workshops and methods of teaching vocational education were analyzed. Results of such analysis indicated that:

1. In some schools there were two vocational teachers, and some others there was none.
2. Varied vocational activities were carried out in most schools. However, such activities were ordered in terms of frequency as follows: agricultural; metal works; home economics; wood works; and nursing. Vocational activities related to commerce were almost neglected.
3. Number of workshops available in schools ranged between zero (i. e., none) and three. 50% of schools had one workshop. Proportion of schools that had workshops was 70%, and of schools with no workshops was 30%. As to working conditions characterizing workshops, it was reported that 50% of workshops were appropriate, well- equipped and prepared to receive vocational students.
4. Concerning management of workshops and their capacities, it was found that: only 14% of workshops were run by permanent

supervisors; 50% of workshops could house more than 50% of the single class students during practice lessons at the same time; whereas, the other 50% of workshops could house 20% to 40% of the single class at the same time; number of work stations (tables) available at a single workshop ranged between (1-17) with arithmetic average of X=5.7 table/ workshop, and 2 to 20 students were able to use a single table with arithmetic average of X= 7.0 per each table, and 50% of workshops were accessible to students at extra times. As to abidance by general safety and prevention principles and guidelines, it was found that in some workshops such principles and guidelines did not exist, while in others they were strictly applied. However, it was evident that majority of workshops abided by general safety and prevention principles.

5. As to workability of workshop equipment or tools, and their suitability to students activities, results indicated that workability of workshop equipment was between 50%-100% with arithmetic average of X= 83%, and suitability of such equipment for students' use was described as "fair" or "very good". Overall, equipment of workshop were "in" "good" state.

6. Results concerning implementation of vocational activities were concentration on practice versus theory activities was between 10%-75% with arithmetic average of X= 50.4%; proportion of assigned class periods executed at workshops was between 20%-80% with arithmetic average of X= 55%. Besides workshop, vocational activities were often executed in places like classroom and school yard, and selection of vocational activities was mainly done (55%) according to curriculum outlines; whereas, (45%) of such activities were selected according to

other factors as follows: (30%) according to resources available at school, (10%) according to resources available at local environment, and (5%) according to students' needs and desires.

Concerning equipment and materials available at workshops, results indicated that: number of pieces of electric equipment available at a single workshop was between zero (i. e,. none) and 12 with arithmetic average of X= 5.60, and total number of electric pieces available at a single workshop was zero (i.e., none) and 23 with arithmetic average of X= 7.65; number of pieces of manual tools available at a single workshop was between zero (i.e., none) and 30 with arithmetic average of X= 12.50, and total number of manual tools available at a single workshop was between zero (i.e., none) and 200 with arithmetic average of X= 82.80, and number of pieces of adequate materials available at a single workshop was between zero (i.e., none) and 14 with arithmetic average of X= 6.45, and number of pieces of available, but inadequate materials, at a single workshop was between zero (i.e., none) and 8 with arithmetic average of X= 2.55. Results also showed that some necessary materials were inavailable at some workshops.

8. With regard to teaching and evaluation methods of vocational activities, results revealed the following: 50% of teachers included in the sample demonstrated for students steps of the practical activity, then asked them to carry out such activity; 35% of teachers explained the activity while students took notes, then asked students to carry out the activity, 10% of teachers asked students to carry out the activity, while they (teachers) gave instructions and /or directions, and only 5% of teachers left

to students decisions to choose the activity as well as the way of its implementation.

As to methods of evaluating vocational activities, results showed that: 30% of vocational teachers took evaluative notes during implementation of the activity; 15% evaluated the final product, and teachers who took evaluative notes of their students' performance during implementation, as well as, completion of the activity were 30%. Added to those proportions was 25% of vocational teachers who did state clearly how they evaluated their students' performance of vocational activities.

Evaluation instruments used as reported by vocational teachers were: 80% of teachers, included in the sample, utilized theoretical examinations in addition to practical test, or observing students activities, or evaluating final product of accomplished by students. 10% utilized vocational training record, and 10% of teachers took notes about students readiness to work, abide by regulations including those related to attendance; utilize environmental resources, keep vocational education notebook in good condition, and collaborate with her/ his colleagues to carry out vocational activities.

Compared to size of work done by students at workshop, size of home assignments to carry out activities related to vocational education was viewed to be little as indicated by 60% of members of the sample included. 20% of the sample viewed size of home assignments to be very little, and 15% viewed it as not existing while 5% was missing.

Regarding extracurricular activities including field trips and visits to work sites, results showed that 25% of the sample included viewed such activities to be few, 55% as very few, and 20% viewed them as not existing.

Chapter Four

Conclusions and Recommendations

The present study aimed at evaluating vocational education program at basic schooling stage. Such evaluation was conducted in view of a set of criteria related to: qualifications, experiences, and competencies of teachers; teachers' training needs; obstacles of achievement of vocational education objectives; attitudes of students toward vocational education, and reality of vocational workshops and their appropriateness to carry out vocational activities.

Evaluation of factors related to teacher and vocational workshops was necessary as both: teachers and workshops were viewed as vital to achievement of objectives of vocational education program.

Data analyzed were related to: qualifications of teachers, their training needs, obstacles of program achievement, and student attitudes toward vocational program. Data obtained from responses to an observation checklist, specific to vocational workshops, were also analyzed. Based on findings obtained, a number of conclusions and recommendations were made. Applied properly, such conclusions and recommendations might contribute to improvement and/or development of vocational program. Conclusions and recommendations were presented as follows:

1- Post bachelor's teaching diploma programs were established at universities to accommodate teachers holding bachelor's degree. Teachers holding community college diplomas were denied access to educational programs at universities. Vocational teachers were not excepted. As they represented varied fields of study, and only 46% of them specialized in vocational education. it would be imperative to train vocational teachers with community college teaching diplomas at universities. Specializations of vocational teachers were limited to commence. agriculture, nursing, sewing, and home economics. Hence. coordination would be critically essential between the Ministry of Education and colleges of education at Jordanian universities in order to fulfill vocational teachers' training programs, and increase numbers of teachers enrolled at presently available programs.

2. Due to variety of topics associated with vocational education subject matters, researchers recommended that a number of teachers teach a single subject to a single class according to specialization. If several teachers with different specialization's were inavailable, researchers insisted that such orientation of teaching be enacted among neighboring or collaborative schools.

3. Variety and/ or multiplicity of vocational activities, existing conditions of workshops. and relatively increasing number of students, made it vitally important to increase number of weekly class periods assigned to vocational education in order to accomplish vocational education objectives. Such accomplishment would need easily accessible workshops so that students work at their own pace. and organization of school schedule based on

individual differences, and students' vocational interests and dispositions.

4. For the time being, enactment of available weekly class periods assigned, would be the minimum requirement toward promotion of vocational education. Evidence of such enactment, whether it originated from school principals, supervisors, or teachers themselves, had to be sought. As it might be viewed as an effective procedure in such enactment direction, reduction of teaching load of teachers was recommended.

5. Characterized by relatively high and proximate values, means of estimations of school principals, supervisors, and teachers revealed that teachers needed to be trained on instructional skill related to planning or implementation or evaluation. That necessitated organization of comprehensive training sessions for vocational teachers, and planning for such training sessions in light of training needs specified in the questionnaire designed for identification of teachers training needs. Sorting by ranks might be helpful in terms of determining priorities of needs, and level of concentration on priorities when carrying out those needs.

6. Results related to obstacles of achievement of vocational education objectives revealed that parents, members of society at large, and students themselves did not realize significance of vocational education. Compared to other school subjects, their appreciation and/or recognition of vocational education was poor. Certain practices evidenced by teachers and members of school administration staff might foster feelings of disinterest or

disregard of vocational education. As an illustration, teachers and school administration staff, very often, pay more attention to some school subjects at the expense of other subjects including vocational education. Such undersited state of affairs demanded informing of parents of vocational education significance, and securing such significance through: pinpointing the functional as well as practical value of vocational education, and emphasizing the role of such subject in developing vocational interest and orientations, especially in light of recent increasing interest in vocational education.

7. Investigation related to obstacles of achievement of vocational education objectives, revealed that unfortunate existing conditions of schools as well as dissatisfactory overall educational environment in Jordan might be an accurate representation of undesirable reality of vocational education. Existing reality of vocational education might be characterized by: inadequate as well as ill-equipped vocational workshops: undefined and/or loose school curriculum; and lack of appreciation and recognition witnessed among parents and students of vocational education as a significant school subject. Such unfavorable state of affairs required development of appropriate mechanism in order to: increase concern and attention paid to vocational education; enrich school environment through establishing well-equipped workshops and introducing properly designed instructional materials, and develop a comprehensive cooperative program to be implemented by all parties concerned. In this regard, researchers recommended that well-equipped workshops be

established where implementation of activities would be a shared project coordinated by neighboring schools.

8. Researchers maintained that preservice as well as inservice teacher education and training programs were advantageous. Elsewhere, vocational education was characterized as composed of multiple and/or varied specialization's. As such, it would be important that teacher education and training programs were directed toward fulfillment of specific instructional content related to each specialization. That, in turn, would necessitate creation of integrative workshops specific to teacher education and training programs.

9. Recognition of individual differences was considered as one of many principles influencing teaching-learning process. Concerning attitudes of students toward vocational education, results showed that differences between male and female students existed in favor of male students. Hence, researchers asserted that it would be necessary to develop a program to account for male/female differences related to skills, interests and concerns, and vocational needs of each group in Jordan. Due to varied vocational needs and interests of female and male students, researchers recommended that course content and activities be developed based on awareness and/or recognition of distinctive features of such differences between them. Some of the activities shared by both groups (i.e., males and females) might be optional.

10. Development of positive attitudes toward any school subject would be desirable. Such attitudes would be expected to grow

and be manifested consistently due to chronological and physical maturation. Viewed in that content, interests of tenth graders would be better crystallized than those of eighth graders. As such, attitudes of students toward vocational education program would influenced by their overall satisfaction of the program as they get closer to choose appropriate schooling stream. In view of the preceding argument, it would vitally be important to enrich and/ or provide vocational education programs with necessary resources and facilities needed to assist students to develop as well as uncover potential interests and abilities through appropriate evaluation procedures including identification of student's vocational profile.

11. Researchers emphasized the indispensable awareness of practices that might, directly or indirectly, negatively influence vocational education. Whether such practices originated from school principals, vocational education teachers or parents of students, informing them of unfavorable consequences of those practices would be essential. As an illustration, to show their appreciation and recognition of vocational education, school principals had to take actions related to: appropriation of certain percentage of school budget to establish vocational workshops; organizing field trips and visits to work sites; exchange of experiences and expertise with other social and/or educational agencies; utilization of local surroundings for purposes of implementation as well, and enactment of activities and lessons of vocational education; bringing about awareness and recognition of vocational education through execution of public awareness campaigns utilizing schooling broadcasting and mass

communication, and pinpointing practical aspects of vocational education.

12. Teachers specialized in vocational education were still scarce. In many schools vocational education teachers were not available As a result, school principals entrust vocational education tasks to other teachers at school in order to complete their teaching load. In some cases, availability of vocational education teachers at a single school was based on size of such school and number of students enrolled in it.

13. Overall "Educational Development Plan", initiated in 1987, was still under investigation particularly in areas such as: school textbooks of vocational education; teacher training; school buildings, and development of skills and competencies of school administrative personnel. Related to school buildings, it was clear that a big proportion lacked spaces assigned to set up vocational workshops. 50% of schools housed vocational workshops was deprived of all forms of support expected from educational development project. Consequently, activities related to vocational education were predominantly theoretical. Also, most of equipment available at vocational workshops, mainly electric tools, did not fit students' age. In addition to that, those tools were not initially designed to perform educational purposes.

14. Vocational teachers were not sufficiently qualified to conduct and evaluate vocational activities. As such, their practices in those areas were influenced by their personal experience. Reasons for teachers' inability to evaluate vocational activities.

were: unclear purpose/s for carrying out the activity, inability of teachers to design appropriate evaluation tools, and inability of teachers to observe their students while carrying out vocational activities due to lack of workshops and large number of students in class.

15. As part of vocational education, extracurricular activities were found to be very few. Scarcity of such activities might be due to: lack of financial support to provide for field trips and visits to work sites; lack of transportation at schools, and lack of cooperation between schools and other institutions associated with public as well as private sectors.

16. The amount of work performed by students to carry out vocational activities beyond school day was insignificant. That might be due to lack of appreciation and recognition of vocational activities by students and their parents, who viewed implementation of those activities devoted to implementation of activities related to other school subjects.

Based on preceding conclusions related to workshops of vocational education, and its teaching methods, availability of well-equipped and safe vocational workshops was viewed to be critical. Materials and equipment needed for such workshops had to be selected in view of appropriate criteria and/or specifications derived form vocational curriculum outlines.

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Appendix 1

Identification of the possible obstacles of achievement of vocational education curricular objectives in Jordan schools: Views and perceptions by school principals, teachers, and supervisors of the possible obstacles

Dear school principals, teachers and supervisors:

Following is a list of potential obstacles of achievement of basic schooling vocational education curricular goals. Please put an (x) in the appropriate place on the rating scale that corresponds to your perception of the obstacle. Your responses will be used for research purposes. Nothing you say will be traced to you, or used against you in any manner.

With sincere appreciation and warm greetings of the research team for your cooperation.

Part 1: General Information

1. Position ☐ Vocational Education Teacher ☐ School Principal
   ☐ Vocational Education Supervisor
2- Directorate ☐ Irbid# 1 ☐ Irbid#2 ☐ Bani Kananah
   ☐ Ramtha ☐ North Shuna ☐ Koorah
   ☐ Mafraq# 1 ☐ Mafraq#2
3. Educational Authority ☐ Public(Governmental) ☐ UNRWA
   ☐ Private
4. Gender ☐ Male ☐ Female

Part II: Potential obstacles

No.	Obstacles	Very significant	Significant	Insigni-ficant	Very insignificant
5.	Lack of understanding of philosophy of vocational education				
6.	Lack of understanding of vocational education curricular goals				
7.	Absence of specific objectives for vocational education.				
8.	Absence of specific curriculum for vocational education				
9.	Absence of specific textbooks for vocational education.				
10.	Inadequate weekly class periods of vocational education curriculum				
11.	Lack of understanding of the significance of vocational education by student parents.				
12	Lack of understanding of the significance of vocational education by students				
13.	Lack of understanding of the significance of vocational education by school administrative body				
14.	Lack of available vocational education workshops				
15.	Lack of societal appreciation of vocational education as a school subject				
16.	More appreciation of other school subjects by student parents				
17.	More appreciation of other school subjects by students themselves				
18.	More appreciation of other school subjects by school administrative body				
19.	Lack of funding for vocational education				
20.	Non availability of facilities needed to conduct work site visits and field trips				

No.	Obstacles	Very significant	Significant	Insigni-ficant	Very insignificant
21.	Lack of grasp and/or understanding of vocational education varied subject matters, and teaching activities				
22.	Poor preservice training of vocational education teachers				
23.	Poor on service training of vocational education teachers				
24.	Vocational education teachers lack enthusiasm				
25.	Vocational education course contents do not fulfill students needs as well as the needs of family and society				
26.	Nonavailability of appropriate instructional media and model for vocational education				
27.	Difficulty of conducting small group instructional settings due to large student enrollment				
28.	Difficulty in putting together a program to benefit from local as well as work site expertise deemed necessary for vocational education				
29.	Nonavailability of vocational education textbooks and references				
30.	Poor efficiency of vocational education supervision programs				
31.	Lack of appropriate local work sites to be visited by vocational education students				

Part III: Other potential obstacles/problems. Please list underneath:

A)

B)

C)

D)

Appendix 2

Identification of training needs of basic schooling prevocational education teachers: Views and perceptions of school principals, teachers, and supervisors

Dear school principals, teachers, and supervisors:

Following is a list of potential training needs of vocational education teachers in Jordanian schools. Please put an (x) in the appropriate place on the rating scale that corresponds to your perception of the need. Your responses will be used for research purposes. Thank you for your cooperation.

Part 1: General Information

1- Directorate ☐ Irbid# 1 ☐ Irbid#2 ☐ Bani Kananah
☐ Ramtha ☐ North Shuna ☐ Koorah
☐ Mafraq# 1 ☐ Mafraq#2

2. Educational Authority ☐ Public(Governmental) ☐ UNRWA
☐ Private

3. Gender ☐ Male ☐ Female

4. Degree ☐ Community College Diploma ☐ BA., B.Sc.,
☐ Master

5. Specialization ☐ Agricultural ☐ Industrial ☐ Commercial
☐ Home Economics ☐ Vocational Education ☐ Nursing
☐ Sewing ☐ Others

6. Qualifications in Education:
☐ Minor study in Education
☐ Graduate Diploma in Education
☐ Community College Teaching Diploma
☐ Master Degree in Education

7. Position ☐ Teacher ☐ School Principal ☐ Supervisor

Items 8-13 are specific to teachers

8. Number of years you taught in schools ( )

9. Number of years you taught vocational education in schools ( )

10. Number of weekly class periods you teach in schools ( )

11. Number of weekly vocational education class periods you teach in schools ( )

12. You teach vocational education in the following grades:

☐ First ☐ Second ☐ Third ☐ Fourth ☐ Fifth

☐ Sixth ☐ Seventh ☐ Eighth ☐ Ninth ☐ Tenth

13. Number of educational training sessions you had in general, and, in vocational education in particular.

Topic of the training session	Date and Duration
A.	
B.	
C.	
D.	

Items 14-15 are specific to school principals.

14- How many vocational education teachers in your school?

15 Are there vocational education workshops in your school?

☐ Yes ☐ No

Items 16-17 are specific to vocational education supervisors.

16 Number of years you worked as a supervisor ( )

17 Number of vocational education teachers you are currently supervising ( )

Part II : Vocational Education Teachers' Training Needs

No.	Item	Very High	High	Low	Very Low
	Instructional Planning				
18.	Defining the course content.				
19.	Analyzing the course content into its basic elements				
20.	Preparing semester as well as annual instructional plans				
21.	Preparing daily instructional plans				
22.	Writing up acceptable instructional objectives				
23.	Classification of cognitive, psychomotor, as well as affective instructional objectives				
24.	Identification of appropriate evaluation methods				
25.	Selection of appropriate instructional media				
26.	Identification of properly designed instructional activities				
27.	Planning for work site visits, field trips, as well as extra curricular activities				
28.	Planning for utilization of vocational workshops				
	Implementation Stage				
29.	Knowing how to utilize instructional plans				
30.	Grasp of instructional methods				
31.	Knowledge of teaching methods specific to vocational education				
32.	Ensuring that students execute the practical part of vocational education curriculum				
33.	Knowing how to utilize models and other practical instructional materials available from the local community				
34.	Knowing how to put the library facilities in service of vocational education				
35.	Knowledge of basic principles of workshop public safety				
36.	Undergoing a course of training to plan for work site visits as well as field trips by vocational education students				
37.	Knowledge of classroom management and its organization				
38.	Knowledge of appropriate reinforcement and punishment techniques				

No.	Item	Very High	High	Low	Very Low
39.	Awareness as well as recognition of individual students' differences				
40.	Undergoing a course of training to utilize vocational education workshop's apparatus				
41.	Knowing how to run vocational education workshops				
42.	Knowledge of maintenance of workshop equipment				
	Evaluation Stage				
43.	Knowing how to relate evaluation techniques to instructional objectives				
44.	Knowing how to evaluate vocational education students' visits to work sites				
45.	Knowing how to evaluate students' projects				
46.	Undergoing a course of training to construct checklists and rating scales as evaluation tools.				
47.	Undergoing a course of training to construct achievement tests designed for evaluating cognitive domain objectives				
48.	Knowing how to develop proper criteria to evaluate vocational education students' activities				
49.	Undergoing a course of training to utilize observation method in evaluating vocational education objectives				
50.	Knowing how to uncover students' potential vocational interests.				
51.	Undergoing a course of training to prepare student's vocational profile using the evaluation results.				
52.	Knowing how to invest outcomes of students' evaluation improvement vocational education instructional activities				
53.	Knowledge of grading procedures as feedback information obtained from various vocational education evaluation techniques.				
54.	Knowledge of use of the norm-referenced as well as criterion-referenced tests in the achievement of vocational education instructional objectives.				

Appendix 3

Attitudes of Basic Schooling Students Toward Vocational Education

Dear Student:

Following is a list of attitudinal statements toward vocational education. If you agree with the statement, fill in the sign (✔) between brackets beside the statement. If you disagree with the statement, fill in the sign (x) between the corresponding brackets.

Directorate	☐ Irbid#1	☐ Irbid#2	☐ Bani Kananah
	☐ Ramtha	☐ North Shuna	☐ Koorah
	☐ Mafraq# 1	☐ Mafraq#2	
Your school is:	☐ Public	☐ Private	☐ UNRWA
Grade level:	☐ Eighth	☐ Tenth	
Sex	☐ Male	☐ Female	

Response		***Item***
( )	1.	I hate vocational education subject matter
( )	2.	Vocational education is one of the worst subject matters I learned
( )	3.	Study of vocational education is punishment to students
( )	4.	Any school curricular that excludes vocational education subject matter is incomplete
( )	5.	Any increase in vocational education class periods is welcome
( )	6.	Study of vocational education is a waste of time
( )	7.	I do not recommend the study of vocational education to any student
( )	8.	I like to participate in activities related to vocational education
( )	9.	I enjoy working on vocational education home assignments
( )	10.	A few number of students benefit from vocational education subject matter
( )	11.	Vocational education subject matter is difficult to grasp
( )	12.	Vocational education contributes to the development of essential skills for students
( )	13.	Vocational education practical gains can be felt directly by students

( ) 14 Vocational education subject matter dose not enhance students intellectual ability

( ) 15 I feel that vocational education is very useful

( ) 16. I am not interested in vocational education

( ) 17. I enjoy the study of vocational education very much

( ) 18. I wish vocational education subject matter were not part of school curricula

( ) 19 I do not prefer other subject matters to vocational education

( ) 20. In my free time, I prefer to read about vocational education

Appendix 4

Observation Checklist of Vocational Workshops, and Methods of Teaching Vocational Education at Basic Schools

(1) Educational Directorate.....

(2) School.....from grade .....to grade.....

(3) Teachers of vocational education at school: Their qualifications and majors of study.

1.

2.

3.

(4) Vocational activities practiced more often in schools:

- Agricultural, Wood-work, Metal work, commercial work, Nursing, Home Economics, Hand Crafts-, None, others, please list

(5) Are there vocational workshops at your school?

(6) Is the building of the workshop designed for carrying out vocational activities?

(7) Are the workshops well-equipped to be used by students?

(8) Is there a permanent workshops supervisor?

(9) What is the proportion of students that vocational workshops is able to house?

(10) Does the workshop have first aid equipment and medications?

(11) How many work stations (i.e. tables) are available in school?

(12) How many students can use the same work station at the same time?

(13) Are workshop materials and equipment workable?

(14) What proportion of lessons is carried out in workshops?

(15) Are workshops accessible to students besides predetermined class periods?

(16) Are workshop's tools, equipment or facilities appropriate to carry out students' projects?

(17) Are public safety principles and prevention giddiness available at workshops?

(18) Proportion of practice versus theory part of vocational education

(19) What proportion of prescribed activities is carried out in workshops? Where does execution of remaining activities take place?

(20) How does selection of prescribed vocational activities take place?

(21) Equipment/ tools available at school workshop:

Electric	No.	Manual	No.
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

(22) Materials available at the workshop needed to carry out projects:

Type of material	Availability		
	Adequate	Inadequate	None
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

Teaching Methods:

(23) A brief description of commonly used method in implementing vocational education based on:

a. The teacher demonstrates the activity while students take notes. Students, then, carry out the activity in class or at home.

b. Selection as well as execution of the activity are left to students.

c. Students start execution of an activity while teacher provides guidelines and observations.

d. The teacher demonstrates need work steps, then students are asked to carry out activity accordingly.

e. Regardless of execution method involved, how does the teacher evaluate student work? Does this evaluation take place during or after execution of activity or both?

(24) How does the teacher evaluate achievement of students in vocational education? Are grades a warded to students based on clear, specific evaluative criteria? *Please state them.*

(25) In carrying out vocational activities, the size of work done by students at home compared to size of work done at workshop is:

- Bigger
- Both are equal.
- Smaller.
- None.

(26) Field trips and visits to work sites your school undertakes to carry out vocational activities can be described as:

- Many
- Few
- Very few.
- None.

(27) Any other comments. Please state.

تقييم برنامج التربية المهنية في المرحلة الأساسية

ملخص

هدفت هذه الدراسة إلى تقييم برنامج التربية المهنية من خلال جمع المعايير والمؤشرات التي تتعلق بمؤهلات المعلمين وخبراتهم وكفاءاتهم واحتياجاتهم التدريبية والتأهيلية، ومعوقات تحقيق أهداف التربية المهنية واتجاهات الطلبة نحو مبحث التربية المهنية، بالإضافة إلى واقع مشاغل التربية المهنية ومدى ملاءمتها لتنفيذ الأنشطة المتنوعة.

تكون مجتمع الدراسة من قطاع عرضي للمملكة الأردنية الهاشمية شمل مديريات التربية والتعليم في الشونة الشمالية، واربد، والمفرق، كتمثيل للشرائح الاجتماعية في الأغوار، والوسط، والبادية الأردنية وشمل مجتمع الدراسة الطلبة والمعلمين، ومديري المدارس، والمشرفين التربويين، في مديريات التربية المذكورة. أما عينة الدراسة فتكونت من ٧٠٪ من معلمي ومديري مدارس مجتمع الدراسة، ومن جميع مشرفي التربية المهنية، في مديريات التربية التابعة لمجتمع الدراسة. أما عدد الطلبة فقد بلغ ١٥٠٠ طالباً وطالبة، من طلبة الصفين الثامن والعاشر الأساسيين.

ولتحقيق أهداف الدراسة، استخدم الباحثان أربعة مقاييس على صور استبانات وهي: تحديد المعوقات، تحديد الاحتياجات التدريبية، اتجاهات الطلبة نحو التربية المهنية، واستمارة الملاحظة الخاصة بالمشاغل وأساليب التدريس والتقويم.

أشارت نتائج الدراسة الى أن ٨٥٪ من معلمي التربية المهنية هم من حملة دبلوم كليات المجتمع، وأن خبراتهم في تدريس التربية المهنية قليلة (من ٨ ٤سنة)، وأن ٥٪ من مديري المدارس متخصصون في التربية المهنية وبخصوص الاحتياجات التدريبية لمعلمي التربية المهنية، فقد أبدى المشرفون، ومديرو المدارس، والمعلمون أنفسهم، الحاجة الملحة إلى تدريب المعلمين على كثير من الأنشطة والممارسات، ذات العلاقة بالتخطيط، والتنفيذ، والتقويم في العملية

التعليمية. أما المعوقات فقد تمثلت في عدم تقدير المعلمين، وأولياء أمور الطلبة، لمبحث التربية المهنية، وأهميته في ممارسة المهارات الحياتية، وعدم توفر المشاغل المهنية، ونقص التجهيزات في بعض المشاغل، وعدم توفر منهاج وكتاب محددين. وأما بخصوص اتجاهات الطلبة نحو مبحث التربية المهنية فكانت إيجابية ضعيفة (٦٦,٢٥٪).

أخيراً فيما يتعلق بمشاغل التربية المهنية، وأساليب تدريسها؛ فقد أشارت النتائج إلى عدم توفر مدرس مختص في بعض المدارس، في حين يوجد مدرسان مختصان في مدارس أخرى. ويتم ممارسة الأنشطة المهنية في أكثر من مجال في أغلب المدارس، مع ملاحظة أن الأنشطة الخاصة بمجالي التمريضي والتجاري، تكاد تكون مهملة في معظم المدارس. بلغت نسبة المدارس التي احتوت على مشغل أو أكثر ٧٠٪، وأن ١٤٪ فقط من هذه المشاغل يشرف عليها مشرف دائم، وأن ٥٠٪ من المشاغل فقط، تستوعب أكثر من ٥٠٪ من طلبة الصف الواحد في الحصة الصفية الواحدة. أما عن صلاحية التجهيزات في المشاغل فقد تراوحت بين (٥٠٪-١٠٠٪)، وأن ملاءمتها للطلبة في الغالب (جيدة). وفيما يتعلق بتنفيذ الأنشطة، فقد بلغ متوسط التركيز على الجوانب العملية ٥٠,٤٪؛ وأن ٥٠٪ من المدرسين يقومون بعرض خطوات النشاط العملي أمام الطلبة، وأن ٣٥٪ يقومون بشرح النشاط، وأن ٨٠٪ من المدرسين يستخدمون الاختبارات النظرية، إضافة إلى استخدام أساليب الملاحظة للجوانب العملية في أساليب التقويم.

Evaluation of Prevocational Education Program in Jordan

Abstract

The Present study aimed at evaluating the prevocational education program at basic schooling stage. Such evaluation was conducted in view of a set of criteria related to: qualifications, experiences, and competencies of teachers; teacher's training needs; obstacles of achivevment of objectives; students' attitudes toward the prevocational education; and reality of prevocational workshops and their appropriateness to carry out related activities.

The target population was represented by experimentally accessible population. North Shunna, Irbid, and Mafraq were been selected to represent Al-Aghwar, the center, and Al-Badiah. The population included students, teachers, principals, and supervisors who belong to the Educational Directorates included in the study. Teachers and principals included in the sample were 70% of their populations. All vocational supervisors were included and 1500 students of 8.th and 10.th grades were participated.

Four questionnaires were built and used: Identification of obstacles; Identification of teachers' training needs; Measure of students attitudes toward prevocational education; and Observation checklist of workshops, teaching methods, and evaluation.

Results showed that 85% of the prevocational education teachers were Diploma holders, and their teaching experiences' mean was ($\bar{X}$= 4.8 year); and there were only 5% of the principals are qualified vocationally. Concerning the training needs of vocational education teachers; it was noted that supervisors, school principals, and teachers agreed on level of training needs in plainning, implementation, and evaluation. And regarding obstacles of achievement of vocational education goals; it was portrayed by: low level of appreciation of vocational education significance by teachers and students' parents; nonavailability of workshops and lack of equipment and tools; and nonavailability of specific vocational education curriculum and textbooks. Also, results indicated that student's attitudes toward vocational education were positive (66.25%).

Finally, concerning vocational workshops and methods of teaching; results showed that: some schools have two vocational teachers; whereas, some have none; varied vocacational activities were carried out in most schools, but activities related to nursing and commerce were almost neglected. Proportion of schools that had workshops was 70%, and only 14% of workshops were nun by permanent supervisors, and only 50% of workshops could house more than 50% of the single class students during a practice lesson at the sam time. As to workability of workshop equipment or tools, it ranged between (50%-100%), and suitability of such facilities was "good". Results concerning implementation of vocational activities, concentration on practice versus theory activities was (50%-50%), and 50% of the teachers used performance demonstrations in teaching activities, and 80% of the teachers utilized theoretical examination beside to notes and utilizing check lists as an evaluation instrument.

المركز الوطني لتنمية المصادر البشرية

تقييم برنامج التربية المهنية في المرحلة الأساسية

Executive Summary

أعداد

د. غازي ضيف الله رواقة أ.د. أحمد سليمان عودة

جامعة اليرموك

كلية التربية

١٩٩٧

خلاصة تنفيذية

الفصل الأول: خلفية الدراسة واهميتها

خلفية الدراسة:

يعتبر مفهوم التربية المهنية من المفاهيم الحديثة في التعليم النظامي على المستويين المحلي والعالمي. ويعود هذا المفهوم في نشأته الى بداية السبعينات في الولايات المتحدة الأمريكية. والتربية المهنية بمفهومها الحديث هي برنامج تربوي صمم لاستيعاب الأدوارالحياتية المختلفه للأفراد: الأدوار الاقتصادية والاجتماعية والبيئيه والهوايات والترويح، .... وغير ذلك. وتعتبر التربية المهنية محاولة منظمة لزيادة الفرص المهنية المتاحة للأفراد المتعلمين، ولتسهيل التخطيط المدروس والمبرّر لاختيار المهنة والإعداد لها.

ومن منظور آخر، تعتبر التربية المهنية نتاج الجهد الكلي للتعليم العام والمجتمع. وتهدف الى مساعدة الأفراد ليصبحوا على ألفة ودراية بقيم العمل وأهميته بجميع أنواعه والتي تحتاجها مجتمعاتهم، وتمكنهم من دمج هذه القيم في نظمهم القيميه بحيث يصبحوا قادرين على توظيف هذه القيم في حياتهم بطريقة يصبح معها العمل ممكناً ومفيداً وذا معنى ومقنعاً لكل فرد من أفراد المجتمع

وبالرجوع الى الخطوط العريضه لمنهاج التربية المهنية في مرحلة التعليم الأساسي لعام ١٩٩٢، وبالتحليل الأولي لمحتويات المنهاج نجد أنه اشتمل خمسة مجالات رئيسة هي: الزراعة والصناعة والتجارة، والاقتصاد المنزلي، والصحة والسلامة العامة. وتتضمن المجالات مفاهيم وقيم واتجاهات وأنشطة عملية ومهارات يدوية. ويتدرج محتوى المنهاج في صفوف المرحله الأساسية من المعرفه

الى التطبيق أو الممارسه مروراً بالمشاهدة وكتابة الملاحظات. ويأتي التدرج في محاوله للمزاوجه بين مستويات الأنشطه المهنية ومراحل التطور المهني في التربية المهنية الموازية لمرحلتي التعليم الأساسي والثانوي في الاردن وهي مرحلة الوعي (Awareness)وتبدأ من الصف التمهيدي (الروضه) وحتى نهاية الصف الرابع الأساسي، ومرحلة التهيوء (Orientation) وتبدأ من الصف الخامس الأساسي وحتى نهاية الصف الثامن الأساسي، ومرحلة الاستكشاف (Exploration) وتشمل الصفين التاسع والعاشر الأساسين. وأخيراً مرحلة الإعداد(Preperation) وتشمل الصفين الثانويين الحادي عشر والثاني عشر وصفوف مابعد الثانوية العامه.

أهداف الدراسة

حاولت الدراسة الإجابة عن الأسئلة العامه التالية:

١- ما هي مؤهلات و خصائص معلمي التربية المهنية؟

٢- ما هي الإحتياجات التدريبية والتأهيلية لمعلمي التربية المهنية؟

٣- ما هي المعوقات التي تحول دون تحقيق أهداف التربية المهنية؟

٤- ما هي جوانب الضعف والقوة في برنامج التربية المهنية؟

٥- ما هي إتجاهات الطلبة نحو مبحث التربية المهنية؟

٦- هل توجد مشاغل وتجهيزات مخبرية كافية لتحقيق الأهداف العملية للتربية المهنية؟

وتحاول الدراسة الإجابة عن هذه الأسئلة من خلال أسئلة تفصيلية وضمنية تغطي المجالات التالية.

أولاً: المؤهلات والكفايات للمعلمين.

١- ما المؤهلات العلمية والمسلكية لمعلمي التربية المهنية في المرحلة الأساسية؟

٢- ما تخصصات المعلمين الذين يدرسون مباحث التربية المهنية، ومدى مناسبتها لتدريس هذه المباحث؟

٣- ما الخبرات العامة والخاصة التي يمتلكها معلمو التربية المهنية من حيث سنوات الخبرة في التدريس، والدورات التدريبية؟

٤- ما الأعباء التدريسية لمعلمي التربية المهنية، وكيف يتم تغطية النصاب التدريسي؟

ثانياً: الإحتياجات التدريبية والتاهيلية كما يقررها المعلمون والمديرون والمشرفون.

٥- ماهي احتياجات المعلمين في مجال التخطيط للتدريس؟

٦- ماهي احتياجات المعلمين في مجال تنفيذ العملية التدريسية؟

٧- ماهي احتياجات المعلمين في مجال التقويم الخاص بالعملية التدريسية؟

ثالثاً: إتجاهات الطلبة نحو مبحث التربية المهنية.

٨- هل يبدي الطلبة إتجاهاً محدداً نحو مبحث التربية المهنية، وما مستوى هذا الإتجاه؟

رابعاً: معوقات تحقيق اهداف التربية المهنية؟

٩- ما أهم المعوقات التي تحول دون أو تساهم في عدم تحقيق أهداف التربية المهنية ؟

١٠- كيف تختلف هذه المعوقات كماً وكيفاً بإختلاف المدخلات والظروف المحيطة ببرنامج التربية المهنية؟

الفصل الثاني: الطريقة والإجراءات

عينات الدراسة ومجتمعاتها.

نظراً لطبيعة الدراسات التقييمية التي تتطلب معلومات متنوعة من مصادر متعددة، ووفقاً للأهداف المتوخاة من هذه الدراسات، فإن الحديث عن عدة مجتمعات ضمن حدود جغرافية معينه هو المألوف والمميز لهذه الدراسات. وبالنسبة لهذه الدراسة، فإننا نميز بين المجتمع الأصل (Target Population) والمجتمع التجريبي (Experimentally accessible pop)، فقد تم اختيار الشونة الشمالية واربد والمفرق مناطق أردنية ممثلة لكل من الأغوار والوسط والبادية على التوالي، وتشكل هذه المناطق المجتمع التجريبي للدراسة كممثل للمجتمع الأصلي من منظور جغرافي. أما المجتمعات المقصودة في تقييم التربية المهنية للمرحلة الأساسية، فقد إقتضت أهداف الدراسة وأسئلتها أن يتم التعرف على إتجاهات الطلبة نحو التربية المهنية، وقد حدد الصف الثامن والعاشر في ضوء مبررات علمية للتعرف على هذه الاتجاهات، كما اقتضت جمع معلومات من معلمي ومشرفي التربية المهنية بالإضافة الى معلومات من مصادر أخرى، وهذا يعني أننا نتحدث عن عينات مختلفة وهي: عينة الطلبة، والمعلمين، والمشرفين التي تم اختيارها في ضوء المجتمعات المناظرة لها وفق إحصائيات المديرية العامة لمحافظتي اربد والمفرق.

لا توجد في الإحصائيات المتوفرة لدى المديريات العامة قوائم خاصة بأعداد المعلمين الذين يدرسون التربية المهنية، أو الذين يمكن تسميتهم بمعلمي التربية المهنية. إلا أن المعروف أن مبحث التربية المهنية من المباحث المقررة لكل الصفوف في المرحلة الأساسية، بواقع حصة واحدة اسبوعياً أو حصتين، ولذلك تم الإختيار بواقع معلم من كل مدرسة في عينة الدراسة التي تشكل ٧٠٪ من المدارس في جميع المديريات المذكورة ومدير تلك المدرسة، لتشكل بالتالي عينة المديرين المقابلة لعينة المعلمين.

اما بالنسبة لعينة الطلبة الخاصة بمقياس الاتجاهات نحو التربية المهنية، فقد تم حصر اعداد الطلبة في المرحلة الاساسية بشكل عام، والصفين الثامن

والعاشر بشكل خاص وفقاً لمديريات اختيار هذين الصفين، وقد تم الإختيار العشوائي المتعدد المراحل (Multistage cluster random sampling) لعينة الطلبة حيث تم الإختيار العشوائي للمدارس أولاً، ثم الاختيار العشوائي لشعبة الطلبة من كل صف في هذه المدارس. ويفترض ان إجابات الطلبة في الشعبة الواحدة كانت مستقله، وحيث لا يوجد ما يبرر صحة هذا الافتراض، لذلك كانت إجابة الطالب الواحدة هي وحدة التحليل (unit of analysis)، مع أن الشعبة الواحدة هي وحدة الاختيار (unit of selection).

أساليب وأدوات جمع المعلومات

من الخصائص المميزة للدراسات التقويمية تعدد مصادر المعلومات، وبالتالي تنوع الأساليب والأدوات المستخدمة في جمع المعلومات الضرورية من مصادرها بحيث تتوفر فيها الخصائص السيكومترية المناسبة وفقاً لأغراض الدراسة وأهدافها، وللإجابة عن أسئلة الدراسة السابقة الذكر فقد تم اعتماد الأساليب والأدوات التالية.

أولاً: إستبانة تحديد المعوقات

حُددت المعوقات في قائمة من سبعة وعشرين نقطة غطت جميع الجوانب المحتملة للعملية التربوية ذات الصلة المباشرة بتحقيق أهداف التربية المهنية، وهي تلك المتعلقة بالأهداف والمنهاج والكتاب المدرسي، والحصص المخصصة لتدريس التربية المهنية، والمشاغل، ومدى اهتمام كافة الأطراف المعنية بالتربية المهنية، والإمكانات المادية المتوفرة، ومؤهلات المعلمين، وبرامج التدريب وإمكانية ربط الجانب النظري بالجانب العملي، والإشراف التربوي المهني. وقد تُرك المجال مفتوحاً لإضافة أي معوقات ومشكلات أخرى من وجهة نظركل من الفئات الثلاث.

ثانياً: إستبانة تحديد الإحتياجات التدريبية

طورت هذه الإستبانة بغرض تحديد الإحتياجات التدريبية والتأهيلية لمعلمي التربية المهنية من وجهة نظر المديرين والمشرفين والمعلمين أنفسهم، نظراً

للتواصل المستمر بين هذه الأطراف، وصلتهم المباشرة بالعملية التعليمية-التعلمية. وقد تكونت الإستبانة من قسمين أساسيين: القسم الأول، للتعرف على مؤهلات المعلمين العلمية والمسلكية، وتخصصاتهم، والعبء التدريسي، وسنوات الخبره في تدريس مبحث التربية المهنية، والدورات التدريبية والتأهيلية في مجال التربية المهنية. أما بالنسبة للإحتياجات التدريبية الواردة بالقسم الثاني من الاستبانة والمحددة في ٣٧ فقرة، فقد تم تقسيمها الى ثلاثة مجالات هي مجال التخطيط للتدريس، ومجال التنفيذ، ومجال التقويم.

ثالثاً: مقياس اتجاهات الطلبة نحو التربية المهنية

شمل المقياس عشرين فقرة تحمل كل منها شحنة انفعالية باتجاه (سلبي أو إيجابي)، وقد روعي تساوي الفقرات الإيجابية والسلبية، وأفترض أنها تحمل شحنات إنفعالية متساوية، ولذلك كانت أوزانها النسبية متساوية، وكان تدريج الإجابة من النوع الثنائي القطب (نعم، لا) بما يناسب الفئة العمرية للطلبة.

رابعاً: إستمارة الملاحظة للمشاغل وأساليب التدريس والتقويم

وللتعرّف على الواقع للجانب العملي والأساسي للتربية المهنية، تم تطوير استمارة بالعناصر الأساسية الخاصة بحصة التربية المهنية، ومشاغل التربية المهنية التي يمكن ملاحظتها. وكان الغرض من إعداد الاستمارة توجيه الملاحظه وتقنينها.

الفصل الثالث: نتائج الدراسة

أولاً: خصائص معلمي التربية المهنية ومؤهلاتهم وخبراتهم

تشير النتائج إلى التوازن النسبي في عدد الذكور والإناث من معلمي التربية المهنية، إلا أن الغالبية العظمى (٨٥٪) من المعليمن الذين يدرسون التربية المهنية هم من حملة الدبلوم في كليات المجتمع، وأن (٨٧٪) من الذين يحملون مؤهلاً مسلكياً هم من معلمي كليات المجتمع ضمن برامج دبلوم تأهيل المعلمين. وبالرغم من أن مديري المدارس في معظمهم (٧٦٪) من حملة

البكالوريوس على الأقل، وأن حوالي (٧٠٪) يحملون دبلوماً فرعياً على الأقل، إلا أن نسبة قليلة جداً منهم (حوالي ٥٪ فقط) متخصصون في التربية المهنية، مما يقلل من فرص مساعدتهم لمعلمي التربية المهنية في بعض الجوانب الفنية، والذي قد ينعكس على تفهمهم لضرورة توفير بعض المستلزمات الضرورية للتربية المهنية من الناحية الإدارية مقارنة بالمباحث الأخرى.

أما بالنسبة لخبرات المعلمين واعبائهم التدريسية، فتشير النتائج إلى أن توزيع سنوات الخبرة في التدريس يقترب من الاعتدالي (Ku= .119, SK= .645) بمتوسط= ٩,٧ ومدى (٠.-٣٧) ووسيط= ٩,٨. وبالمقابل فإن توزيع خبرتهم في تدريس التربية المهنية ملتوٍ التواء موجباً (SK= 1.143) بمتوسط= ٦,٨ ومدى (٠.-٣٢) ووسيط= ٤,٨، وهذه اشارة إلى خبراتهم القليلة في تدريس التربية المهنية نظراً لحداثة الإهتمام بهذا المبحث مقارناً بالمباحث الأخرى؛ ونظراً لقلة حصص التربية المهنية. وتشير النتائج أيضاً إلى انعقاد عدد كبير من الدورات التدريبية في مجالات مختلفة منها ما هو عام، ومنها ما هو خاص بمعلمي التربية المهنية.

ثانياً: الإحتياجات التدريبية لمعلمي التربية المهنية

لقد صنفت الإحتياجات التدريبية المتوقعة لمعلمي التربية المهنية في ثلاثة مجالات هي التخطيط والتنفيذ والتقويم. وتم الأخذ برأي كل من الأطراف الثلاثة المعنية مباشرة بتحقيق أهداف التربية المهنية، وهم المشرف والمدير والمعلم نفسه.

تشير المتوسطات والتقديرات لجميع أفراد العينة بفئاتها الثلاث على مستوى الفقرة الواحدة كما هو مبين في الجداول ذات الأرقام (٢، ٣، ٤) إلى أن معلمي التربية المهنية بحاجة واضحة وبدرجة عالية للتدريب على كثيرمن الأنشطة والممارسات ذات العلاقة بالتخطيط والتنفيذ والتقويم في العملية التدريسية حيث تراوحت المتوسطات بين:

٢,٥٥-٣,١٠ للإحتياجات في مجال التخطيط بمتوسط عام= ٢,٨٥.

٢,٥٠-٣,٠١ للإحتياجات في مجال التنفيذ بمتوسط عام= ٢,٨٣.

٢,٥١-٢,٨٦ للإحتياجات في مجال التقويم بمتوسط عام= ٢,٧٢.

وبالتالي يمكن تصنيف جميع الإحتياجات التدريبية بأنها عالية وفق التدريج المستخدم، ولم تكن أي منها بدرجة قليلة أو قليلة جداً.

ومن الملاحظات التي تسترعي الإنتباه اتفاق المديرين والمشرفين، والمعلمين على مستوى الإحتياجات التدريبية في المجالات الثلاثة، وكذلك كان الإتفاق بين الفئات المختلفة ضمن متغيرات الجنس، والدرجة العلمية، والتخصص الأكاديمي، والتخصص التربوي لدى المعلمين والمديرين.

ثالثاً: معوقات تحقيق أهداف التربية المهنية في المرحلة الأساسية

في تحديدنا للمعوقات المحتملة والتي يمكن أن تساهم في عدم تحقيق أهداف التربية المهنية في المرحلة الأساسية كان التمايز واضحاً في درجة مساهمة هذه المعوقات من خلال متوسطات تقديرات المديرين والمشرفين والمعلمين، وهي كما يلي:

- أن تقدير أولياء أمور الطلبة واهتمامهم بالمباحث الأخرى على حساب التربية المهنية من أكبر المعوقات.
- أهم المعوقات تتعلق بمدى تفهم أولياء أمور الطلبة أنفسهم والمجتمع بشكل عام، والطلبة أنفسهم لأهمية التربية المهنية واهتمامهم بها مقارناً بالمباحث الأخرى.
- عدم توفر المشاغل الخاصة بالتربية المهنية، وقلة التجهيزات لبعض المشاغل المتوفرة نظراً لقلة المخصصات المالية.
- عدم توفر منهاج محدد وكتاب محدد، وأهداف محددة، للتربية المهنية مما يؤدي إلى الاجتهاد وربما التخبط أو العشوائية في اختيار المحتوى.
- أقل المعوقات أو المشكلات حدة، تلك المتعلقة بالإدارة المدرسية والإشراف التربوي المهني، وحماس معلم التربية المهنية، وعدم ملاءمة المحتوى، وقلة الحصص الأسبوعية المخصصة لمبحث التربية المهنية.

رابعاً: اتجاهات الطلبة نحو مبحث التربية المهنية

تشير النتائج إلى أن متوسط التقديرات تعبر عن إتجاه ايجابي ضعيف نسبياً للطلبة نحو مبحث التربية المهنية، وأن القيمة المئوية للإتجاه= ٢٥ . ٦٦٪. وهذا يعني أن هناك مجالاً لرفع هذا الإتجاه من خلال الممارسات التي تعكس اهتمام الكبار من حول الطالب في هذا المبحث بدرجة لا تقل عن الإهتمام بالمباحث الأخرى.

خامساً: مشاغل التربية المهنية وأساليب تدريسها

بعد تحليل البيانات الواردة في «نموذج ملاحظة للمشاغل المهنية وأساليب تدريس التربية المهنية في المرحلة الأساسية» أشارت النتائج لما يلي:

١- في حين أن بعض المدارس يوجد بها مدرسان مختصان في التربية المهنية أو بأحد مجالاتها، فإن بعض المدارس لا يوجد بها مدرس مختص بالتربية المهنية.

٢- في أغلب المدارس تتم ممارسة أنشطة مهنية في أكثر من مجال، لكن الأنشطة المهنية الخاصة بالمجال الزراعي تأتي في المقدمة، ثم يليها أعمال المعادن، فإدارة المنزل، وأعمال الأخشاب، ثم التمريضية؛ أما الأنشطة المهنية الخاصة بالمجال التجاري، فتكاد تكون مهملة تماماً.

٣- تراوح عدد المشاغل في المدرسة الواحدة بين العدم وثلاثة مشاغل، وكان معظمها يحتوي مشغلاً واحداً حيث بلغت النسبة ٥٠٪. أما نسبة المدارس التي احتوت على مشاغل، فكانت ٧٠٪.

٤- وفيما يتعلق بإدارة المشاغل واستيعابها، فإن ١٤٪ منها فقط يشرف عليها مشرف دائم، وإن ٥٠٪ من مشاغل التربية المهنية تستوعب أكثر من ٥٠٪ من طلبة الصف الواحد في الحصة العملية في آن واحد، بينما يتراوح استيعاب بقية المشاغل بين (٢٠٪-٤٠٪) من طلبة الصف في الحصة العملية الواحدة. وتراوح عدد طاولات الشغل في المشغل الواحد بين (١-١٧) طاولة، وبمتوسط حسابي قدره ($\overline{س}$= ٥.٧) طاولة في المشغل الواحد. وتراوحت الطاقة

الإستيعابية للطاولة الواحدة من (٢-٢٠)، طالباً وبمتوسط حسابي قدره ($\overline{س}$=٧)طلاب لكل طاولة.

٥- وبخصوص صلاحية تجهيزات المشاغل وملاءمتها للطلبة، فقد أشارت النتائج إلى أن صلاحية المعدات في المشاغل تراوحت بين (٥٠٪- ١٠٠٪)، وبمتوسط حسابي مقداره ($\overline{س}$= ٨٣٪)، وأن مدى ملاءمة المعدات لأنشطة الطلبة في المرحلة الأساسية يتراوح بين (مقبول- جيد جداً)، وأنها في غالبيتها (جيدة).

٦- فيما يخص تنفيذ الأنشطة المهنية، أشارت النتائج أن مدى التركيز على الجانب العملي تراوح بين (١٠٪- ٧٥٪) مقابل الجانب النظري، وبمتوسط حسابي بلغ (٤٠,٥٠٪).

٧- بالنسبة لتجهيزات المشاغل فقد تراوح عدد أصناف المعدات والأجهزة الكهربائية بين (صفر-١٢)، وبمتوسط حسابي قدره ($\overline{س}$= ٥,٦٠) للمشغل الواحد. في حين تراوح العدد الكلي من المعدات والأجهزة الكهربائية بين (صفر- ٢٣)، وبمتوسط حسابي قدره ($\overline{س}$= ٧,٦٥) للمشغل الواحد. وبالنسبة للعدد اليدوية، فقد تراوح عدد أصنافها بين (صفر-٣٠)، وبمتوسط حسابي قدره ($\overline{س}$= ١٢,٥٠) للمشغل الواحد، في حين تراوح العدد الكلي للعدد اليدوية بين (صفر-٢٠٠)، وبمتوسط قدره ($\overline{س}$= ٨٢,٨٠) للمشغل الواحد.

٨- أما بالنسبة للتدريس وأساليبه وتقويم أداء التلاميذ، فقد أشارت النتائج إلى أن ٥٠٪ من مدرسي العينة يقومون بعرض خطوات النشاط العملي أمام تلاميذهم، ثم يطلبون منهم تنفيذ تلك الأنشطة، وأن ٣٥٪ من المدرسين يعملون على شرح النشاط حيث يطلبون من تلاميذهم كتابة ملاحظاتهم، ثم يكلفون التلاميذ بتنفيذ النشاط.

وفيما يخص أدوات التقويم المستخدمة، أشار ٨٠٪ من أفراد العينة إلى استخدام الإختبارات النظرية بالإضافة إلى استخدام امتحانات عملية أو ملاحظة نشاطات الطلبة أو اتقان الناتج النهائي الذي قام به الطالب.

الفصل الرابع: الاستنتاجات والتوصيات

هدفت هذه الدراسة إلى تقييم برنامج التربية المهنية من خلال جملة من المعايير والمؤشرات التي تتعلق بمؤهلات المعلمين وخبراتهم وكفاياتهم، واحتياجاتهم التدريبية والتأهيلية، ومعوقات تحقيق أهداف التربية المهنية، واتجاهات الطلبة نحو مبحث التربية المهنية، بالإضافة إلى واقع مشاغل التربية المهنية ومدى ملاءمتها لتنفيذ الأنشطة المتنوعة، باعتبار أن المعلم، والمشاغل من أهم مدخلات برنامج التربية المهنية، وأنها من أهم العوامل المحددة لنجاح برنامج التربية المهنية.

وقد تم تحليل المعلومات ذات العلاقة بالمؤهلات والاحتياجات والمعوقات والإتجاهات وفقاً للاستبانات المعدّة لهذا الغرض، بالإضافة إلى المعلومات الخاصة بالإستمارة المقننة المبنية على الملاحظة والمقابلة الخاصة بمشاغل التربية المهنية. ومن خلال هذه النتائج تم التوصل إلى بعض الإستنتاجات، وتقديم التوصيات التي قد تعمل في حالة الأخذ بها على تطوير هذا البرنامج. وفيما يلي عرضاً للاستنتاجات والتوصيات المنبثقة عن هذه النتائج.

١. من الضروري أن يتم التنسيق بين وزارة التربية والتعليم وكليات التربية في الجامعات الأردنية لاستكمال إعداد البرامج الخاصة لتأهيلهم وتدريبهم وزيادة أعداد الطلبة في البرامج الحالية، والعمل على تقييم هذه البرامج.

٢. زيادة عدد الحصص المقررة لمباحث التربية المهنية في الصفوف المختلفة.

٣. تفعيل الحصص المقررة حالياً لمبحث التربية المهنية.

٤. ضرورة عقد دورات تدريبية شاملة لمعلمي التربية المهنية، والتخطيط لهذه الدورات.

٥. إبراز القيمة الوظيفية والعملية لمبحث التربية المهنية.

٦. تطوير آلية مناسبة ترفع من مستوى الإهتمام بمبحث التربية المهنية، وإثراء البيئة المدرسية وبخاصة توفير المشاغل وتجهيزها وبرمجة المادة الدراسية، وبالتالي إعداد برنامج متكامل يتعاون في تنفيذه كل الأطراف المعنية.

٧. الإهتمام ببرامج تأهيل وتدريب المعلمين قبل الخدمة، مع عدم التقليل من أهمية التدريب أثناء الخدمة.

٨. تصميم برنامج موجه يراعي الفروق بين الجنسين من حيث المهارات والاحتياجات الخاصة بكل منهما.

٩. ضرورة إثراء برنامج التربية المهنية بكافة عناصره ومكوناته بشكل يساعد الطلبة على بلورة الميول واكتشافها من خلال التقويم الفعال، وتحديد خريطة الطالب المهنية (vocational profile).

١٠. الوعي بالممارسات التي يمكن أن تنعكس سلبياً على التربية المهنية بصورة مباشرة أو غير مباشرة.

١١. إيجاد مدرس مختص أو أكثر للتربية المهنية في المدرسة الواحدة.

وفي ضوء هذه الإستنتاجات الخاصة بمشاغل التربية المهنية وتدريسها، فإننا نؤكد على ضرورة العمل على توفير المشاغل المهنية وتجهيزها بالأدوات والمواد الأولية ضمن مواصفات ومعايير مناسبة لطبيعة الأنشطة المهنية الواردة في الخطوط العريضة للمنهاج، وتزويدها بمستلزمات السلامة العامة والوقاية من الحوادث.