

# Obstacles Faced by Heads of Departments and Faculty Members in the Jordanian Public Universities in the Implementation of Vocational and Technical Education Programs from their Perspective

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## Abstract

The purpose of the study is to find out the obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs from their perspective, and to find out the effect of gender, experience, and academic rank on their perspective. To achieve the aim of the study a questionnaire was distributed among 70 heads of departments and faculty members (38 males and 32 females) from six public universities. The questionnaires were collected and data was analyzed statistically using suitable statistics. Results showed that there are statistically significant differences in the heads of departments and faculty members perspectives about the obstacles they faced in the implementation of vocational and technical education programs, it also showed that there are statistically significant differences at ( $\alpha= 0.05$ ) in the heads of departments and faculty members perspectives about the obstacles they faced in the implementation of vocational and technical education programs due to the gender variable, and there are statistically significant differences at ( $\alpha= 0.05$ ) in the heads of departments and faculty members perspectives due to experience variable and academic rank variable.

**Keywords:** vocational and technical education, obstacles, public universities, programs, heads of departments

## 1. Introduction

If education is the key to any developmental strategy, then the vocational and technical education is the basis that would change the world of work and economy and to reduce poverty and preserve the environment and improve the quality of life.

Because of its pivotal role in the economic and social development, it is seen as a necessity for many countries to expand educational opportunities and to address unemployment among young people and a means of earning a living product, including the countries of southern and eastern Europe, which re-established strategies to guide education and vocational and technical training to the needs of the labor market (UNESCO, 2005)

Many governments all over the world are doubling their efforts in promoting Technical and vocational Education with a firm and strong belief that skill formation enhances productivity and sustains competitiveness in the global economy. Strong debate on Tech/Voc Education has been going on in many countries including those in Africa since the late 1990s (Archoarena, 2005). This is because the subject was envisaged as a panacea to technological competencies in the education system and as an instrument for use in the reduction of youth unemployment. The debate has led several countries in Africa (Zimbabwe included) to reviewing their curricular at all levels of education with efforts to incorporate Tech/Voc Education, thus making the education system more efficient and effective (Nziramasanga, 1999 and Holmes, 2005). Tech/Voc Education was introduced in the then Rhodesia in the so called F2 secondary schools which were specifically designed for the less academically gifted learners (Chinyamunzore, 1995). According to Nherera (1999), the learners in such schools were to be prepared as low skilled workers for industry. The discriminatory curriculum was subsequently abandoned soon after the country attained political independence in 1980. Together with many other changes introduced the then Ministry of Education incorporated Tech/Voc subjects into the conventional school system with special emphasis on Technical Education which is more of general education as opposed to skills training, the main focus for Vocational Education.

Recently there is a trend in Jordan towards technical and vocational education, but when comes to application there are many challenges.

### 1.1 Statement of the Problem

Based on the reality in which it appears that the demand for vocational education in Jordan is low, even many of the students enrolled in vocational education they enrolled because of the impossibility of admission to the academic education due to low grades or perhaps because they are unable to cover the costs of academic study, this means that very few enrolled in vocational education enrolled motivated by personal convictions of the usefulness and the importance of vocational education, so this study came to find out the reasons behind this and the obstacles faced by heads of departments and faculty members in Jordanian universities in the implementation of vocational and technical education.

### 1.2 Purpose of the Study

The purpose of the study is to find out the obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs from their perspective, and to find out the effect of gender, experience, and academic rank on their perspective.

### 1.3 Questions of the Study

1. What are the obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs from their perspective?
2. Are there any statistically significant differences in the perspectives of heads of departments and faculty members at Jordanian public universities about the obstacles facing them in the implementation of vocational and technical education programs due to their gender (Male, Female)?
3. Are there any statistically significant differences in the perspectives of heads of departments and faculty members at Jordanian public universities about the obstacles facing them in the implementation of vocational and technical education programs due to their experience (less than 5 years, 5 years or above)?
4. Are there any statistically significant differences in the perspectives of heads of departments and faculty members at Jordanian public universities about the obstacles facing them in the implementation of vocational and technical education programs due to their academic rank (Associate Professor, Professor)?

### 1.4 Definition of Terms

**Vocational education:** It is the kind of formal education which includes educational preparation and acquisition of skills and vocational knowledge which is displayed by educational institutions of level of secondary education and later at university for the purpose of preparing skilled workers in various industrial, agricultural, health, administrative and commercial disciplines and they have the ability to implementation and production.

**Obstacles:** difficulties felt by professionals and faculty members in the Jordanian universities and they believe hinder the development of the educational sector and pose no vinegar in the lives of future students.

## 2. Review of Related Literature

Technical and Vocational Education may be defined as the aspects of an educational system that involve the study of technological and other related science as well as the acquisition of practical skills, attitude understanding and knowledge relating to occupations in various sectors of economic and special lives of individuals (UNESCO, 2003).

In agreement, Gordon, Parks and Castro (2012) concur by broadening the definition, they look at Tech/Voc Education as that which leads learners to the acquisition of knowledge, skills and technical knowhow necessary for employment in a particular trade, occupation or group of occupations. Both definitions fundamentally indicate that Tech/Voc Education is a field of human Endeavour responsible for developing practical skills and knowledge in preparation for work or future studies. It

is therefore seen as a vehicle for the development of marketable and entrepreneurial skills needed for national development and sustainability of the country's economy.

Hoover, Buttram and Hord (2012) emphasized this when they point out that Tech/Voc Education entails preparation of learners mainly for occupations that require manipulative skills, this involves understanding of practical application of the basic principles of Mathematics and Science.

Holmes and Hannah (2005) present the aim of Tech/Voc Education as mainly to prepare learners for entry into the field of work either through employment or self-help projects. They further outline the objectives as: to meet manpower needs of a country or society; to enable learners to select careers wisely; and for poverty alleviation, thus addressing the first MDG.

Kigombe (2012) justifies the need for Tech/Voc Education by outlining its historical background, what is important to this study is the fact that most education came about through participation and preparation for work and adult life, thus, through interaction of knowledge and skills acquired with available technology. Contextualizing the purpose of Tech/Voc Education to Zimbabwe, Mupinga, et al (2005) identified several objectives: Tech/Voc Education was adopted in Zimbabwe to produce students who can come up with technological designs to solve problems. It was to provide a wide range of Tech/Voc subjects from which learners could choose, and to link Tech/Voc subjects to relevant Science and Engineering courses in tertiary institutions. In support to this, the then Minister of Education, Sport, Art and Culture added that Tech/Voc was meant to link learners with economic activities around their school environment, (Coltart, 2012).

Kingston (2011) and Teferi (2011) assert that children turn to their parents for advice. The unfortunate part is that most of the parents will be ignorant about the current value of Tech/Voc Education therefore urge their children to follow the traditional academic route.

Kingston (2011) further points out those employers are also reluctant to recruit Tech/Voc graduates and would rather employ those with no background at all and offer on-the-job training. This is attributed to the employers' uncertainty that Tech/Voc practitioners would successfully predict the needs of industry and effectively respond to them.

Greenan, Wu, Mustapha and Ncube (1998) express with deep concern the fact that school administrators encourage their pupils to stick to the academic route so as to keep open the possibility to go to university at a later stage. They also push the blame on the corporate world in the Tech/Voc sector and teachers for not giving the learners adequate advice on career guidance.

Hoover, et al (2012) and Greenann (1998) pointed out that the teachers appreciate the value of Tech/Voc Education but fail to convince their pupils and they attribute this to pupils lack of trust of their teachers, they feel pushed down a particular route and left with very limited or no options.

Azubuikwe (2011) however further pushes the blame on some academic subject teachers and school heads who openly look down upon Tech/Voc subjects, thus destroying the esteem of those pupils taking the subjects.

### **3. Design and Methodology**

#### **3.1 Population of the Study**

The population of the study consisted of all heads of departments and faculty members at Jordanian public universities.

#### **3.2 Sample of the Study**

The sample of the study consisted of 70 heads of departments and faculty members, 38 males and 32 females from six public universities; a questionnaire was distributed among them.

#### **3.3 Instrument of the Study**

After reviewing the previous literature in the field of vocational education, and revising many studies and make use of the tools used in these studies, the researchers designed a questionnaire and distributed it among the heads of departments and faculty members, it consisted of 25 items. Many variables were included such as the gender, experience, and academic rank.

#### **3.4 Reliability of the Instrument**

To ensure the questionnaire reliability, the researchers applied it to a pilot sample of (15) heads of departments and faculty members excluded of the study sample in the same universities from which the sample was chosen with a two-week period between the first and second time it was distributed. The reliability of the questionnaire was calculated using correlation coefficient; it was found 0.89 which is suitable to conduct this

study.

### 3.5 Statistical Criterion

Likert scale was used to correct the study tool, by giving each item one grade of the five grades:

- |                       |                       |
|-----------------------|-----------------------|
| 1.(Strongly agree)    | represents (5 grades) |
| 2.(Agree)             | represents (4 grades) |
| 3.(Neutral)           | represents (3 grades) |
| 4.(Disagree)          | represents (2 grades) |
| 5.(Strongly disagree) | represents (1 grade)  |

The length of the cells of five-grade scale was calculated (lower and upper limits) relying on the following methods:

- The extent of the scale was calculated:

$$(5-1=4)$$

- Divide the number of categories in the scale for the accurate length of the cell:

$$(4/5=0.80)$$

This value was added to a lower value in the scale (or the beginning of the scale, which is number one) and up to the upper limit of the scale, as follows:

1. Arithmetic mean range between (1 to 1.80) and indicates a "very low"
2. Arithmetic mean range between (1.81 to 2.60) and indicates a "low"
3. Arithmetic mean range between (2.61 to 3.40) and indicates a "moderate"
4. Arithmetic mean range between (3.41 to 4.20) and indicates a "high"
5. Arithmetic mean range between (4.21 to 5) and indicates a "very high"

Taking into account that the arithmetic means the study reaches for the general trend of dimension after the overall values will be dealt with to explain the arithmetic means as follows:

High	Moderate	Low
(3.68-5)	(2.34-3.67)	1-2.33)

### 3.6 Procedures of the Study

A questionnaire about the perspectives of heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs was distributed among 70 heads of departments and faculty members (38 male, and 32 female). After that the researchers collected the questionnaires and collected data, and then this data was analyzed statistically.

### 3.7 Statistical Analysis

The results were analyzed for each item in the questionnaire using suitable statistical methods such as mean and standard deviation. The researchers also used figures to clarify the results more.

## 4. Findings of the Study

The purpose of the study is to find out the obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs from their perspective, and to find out the effect of gender, experience, and academic rank on their perspective. A questionnaire was distributed among 70 heads of departments and faculty members, 38 males and 32 females from six Jordanian public universities. Means and standard deviations and T-test were used to analyze the results.

**Results related to the first question:** What are the obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs from their perspective?

To answer this question, a questionnaire was distributed among heads of departments and faculty members and means and standard deviation were calculated. Results were shown in table (1)

**Table 1:** obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs

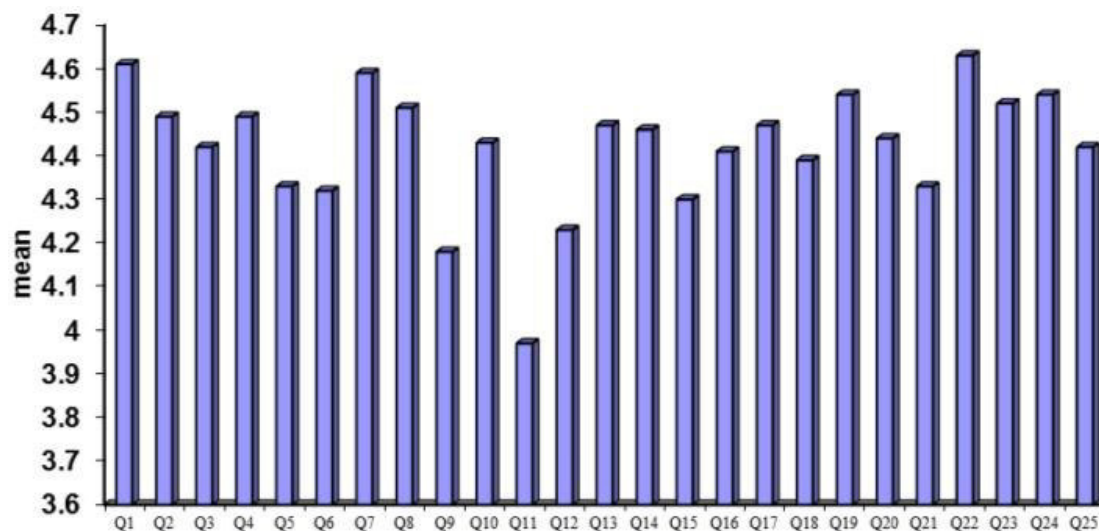
	Item	Mean	Std. Deviation	Rank
1	Vocational education doesn't show creativity	4.61	.698	High
2	Vocational education never help eliminate unemployment	4.49	.715	High
3	Demand for vocational education is necessary to meet the labor market needs of skilled hands.	4.42	.805	High
4	I think that vocational education doesn't contribute to economic prosperity.	4.49	.858	High
5	I think that the ignorance of the importance of professional study reduce the trend towards it	4.33	.848	High
6	financial payoff of vocational education is not suitable	4.32	.767	High
7	The nature of the profession of a parent has an impact on the trend towards vocational study	4.59	.693	High
8	The lack of demand for vocational education because of lack of job opportunities for graduates	4.51	.732	High
9	Orientation towards vocational education may reduce the social status	4.18	.907	High
10	The social status of the family does not enhance the trend towards vocational education	4.43	.877	High
11	vocational education doesn't provide guaranteed income in the future	3.97	1.000	High
12	Jordanian curriculum does not enhance the trend towards professional study	4.23	.884	High
13	Parents do not like the trend towards vocational education	4.47	.905	High
14	Orientation towards vocational education may not be compatible with academic trends of the student	4.46	.880	High
15	The desire of students to have comfortable future business enhance them to study academic stream	4.30	.837	High
16	Lack of vocational guidance that enhance the student to the vocational study	4.41	.806	High
17	Students believe that vocational education is dedicated to the failures in the study	4.47	.759	High
18	There is risk in the application of some types of vocational education	4.39	.879	Moderate
19	There are no qualified instructors for vocational education	4.54	.741	High
20	Libraries in universities are not supplied with enough books on vocational education	4.44	.784	High
21	The equipments for vocational education are very expensive	4.33	.945	High
22	Universities are not equipped enough to fit vocational education	4.63	.679	High
23	There is geared towards vocational education by female students, it is much less than male students	4.52	.755	High
24	There are no governmental plans for vocational education	4.54	.672	High
25	There is no governmental financial support for the universities to equip the labs	4.42	.812	High
	QALL	4.42	.584	High

Table 1 shows there are statistically significant differences in the obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs from their perspectives. It shows the results of the questionnaire which was distributed among (70) heads of departments and faculty members about the obstacles they faced in the implementation of vocational and technical education programs. Means and standard deviations were calculated and results show that item 22 (Universities are not equipped enough to fit vocational education) got the highest mean which was (4.63); question 11 (vocational education doesn't provide guaranteed income in the future) comes next with a mean of (3.97). Standard deviation for question 22 was (0.679) which is higher than ( $\alpha \leq 0, 05$ ) so it means that it is statistically



significant. Standard deviation for question 11 was nearly the same; it was (1.000) which is also statistically significant.

**Diagram 1:** Obstacles faced by heads of departments and faculty members at Jordanian public universities in the implementation of vocational and technical education programs



It is clear in the diagram that the mean of question 22 was the highest mean, question 1 comes next. The mean of the (4, 8, 19, and 24) are nearly the same, so heads of departments and faculty members perspectives in the implementation of vocational and technical education programs are positive perspectives.

**Results related to the second question:** Are there any statistically significant differences in the perspectives of heads of departments and faculty members at Jordanian public universities about the obstacles facing them in the implementation of vocational and technical education programs due to their gender (Male, Female)? To answer this question means and standard deviations were computed and table 2 shows the results.

**Table 2:** Means, standard deviations and t-test according to gender variable

Gender	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Male	38	4.31	.685	-2.542	168	.012
Female	32	4.53	.425			

Table 2 shows there are statistically significant differences due to gender variable. It shows the results of the questionnaire which was distributed among (70) heads of departments and faculty members at Jordanian public universities about their perspectives about the obstacles facing them in the implementation of vocational and technical education programs. Means and standard deviations were calculated and results show that female faculty members got a higher mean than male faculty members which was (4.53, and 4.31) respectively; this indicates that the gender have an effect on the heads of departments and faculty members perspectives. Standard deviation for female heads of departments and faculty members was (0.425) which is higher than ( $\alpha \leq 0, 05$ ) so it means that it is statistically significant. Standard deviation for male heads of departments and faculty members was higher; it was (0.685) which is also statistically significant. So, table 2 shows there are statistically significant differences due to gender variable in favor of females. i.e. females believe more that there are more obstacles facing the application of vocational and technical education.

**Diagram 2:** Means, standard deviations and t-test according to gender

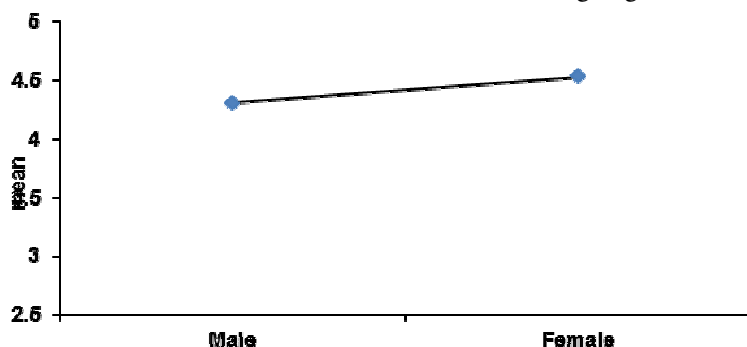


Diagram 2 shows that male heads of departments and faculty members' perspectives are less positive about the obstacles facing them the implementation of vocational and technical education programs in the Jordanian public universities.

**Results related to the third question:** Are there any statistically significant differences in the perspectives of heads of departments and faculty members at Jordanian public universities about the obstacles facing them in the implementation of vocational and technical education programs due to their experience (less than 5 years, 5 years or above)? To answer this question means and standard deviations were computed and table 3 shows the results.

**Table 3:** Means, standard deviations and t-test according to experience variable

Experience	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Less than 5 years	29	4.26	.722	-3.387	168	.001
5 years or above	41	4.55	.385			

Table 3 shows there are statistically significant differences due to experience variable. It shows the results of the questionnaire which was distributed among (70) heads of departments and faculty members at Jordanian public universities about their perspectives about the obstacles facing them in the implementation of vocational and technical education programs. Means and standard deviations were calculated and results show that heads of departments or faculty members whose experience less than 5 years got a lower mean than heads of departments or faculty members whose experience above 5 years which was (4.26, and 4.55) respectively; this indicates that experience have an effect on the heads of departments and faculty members perspectives.

Standard deviation for the heads of departments or faculty members whose experience less than 5 years was (0.722) which is higher than ( $\alpha \leq 0, 05$ ) so it means that it is statistically significant. Standard deviation for heads of departments or faculty members whose experience above 5 years was lower; it was (0.385) which is also statistically significant. So, table 3 shows there are statistically significant differences due to experience variable in favor of five years or above. Which means those whose experience is longer they believe that there are more obstacles facing the application of vocational and technical education.

**Diagram 3:** Means, standard deviations and t-test according to experience variable

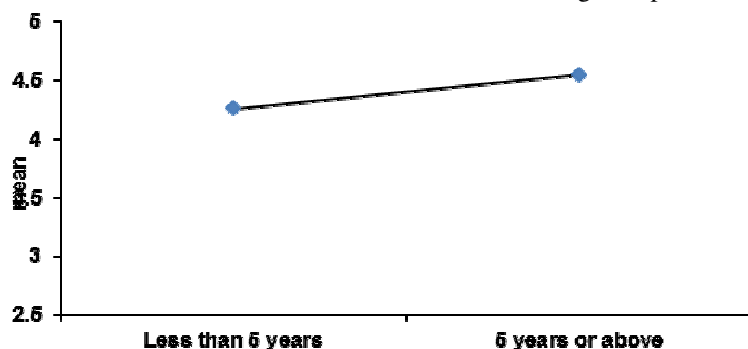


Diagram 3 shows that the heads of departments or faculty members whose experience is 5 years or above got more positive perspectives about the obstacles facing them in the implementation of vocational and technical education programs than heads of departments and faculty members whose experience less than 5 years.

**Results related to the fourth question:** Are there any statistically significant differences in the perspectives of heads of departments and faculty members at Jordanian public universities about the obstacles facing them in the implementation of vocational and technical education programs due to their academic rank (Associate Professor, Professor)? To answer this question means and standard deviations were computed and table 4 shows the results.

**Table 4:** Means, standard deviations and t-test according to academic rank variable

Academic rank	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Associate Professor	55	4.22	.853	-2.299	168	.023
Professor	15	4.47	.482			

Table 4 shows there are statistically significant differences due to academic rank variable. It shows the results of the questionnaire which was distributed among (70) heads of departments and faculty members at Jordanian public universities about their perspectives about the obstacles facing them in the implementation of vocational and technical education programs. Means and standard deviations were calculated and results show that the heads of departments and faculty members whose academic rank is Professor got a higher mean than those whose academic rank is Associate professor which was (4.47, and 4.22) respectively; this indicates that the academic rank has an effect on the heads of departments and faculty members' perspectives.

Standard deviation for the heads of departments and faculty members whose academic rank is Professor was (0.482) which is higher than ( $\alpha \leq 0, 05$ ) so it means that it is statistically significant. Standard deviation for the heads of departments and faculty members whose academic rank is Associate Professor was higher; it was (0.853) which is also not statistically significant. So, table 4 shows there are statistically significant differences due to academic rank variable in favor of Professor.

So, table above shows there are statistically significant differences in the heads of departments and faculty members' perspectives due to academic rank variable in favor of Professor. Which means that professors believe more that associate professors that there are more obstacles facing the application of vocational and technical education.



**Diagram 4:** Means, standard deviations and t-test according to academic rank variable

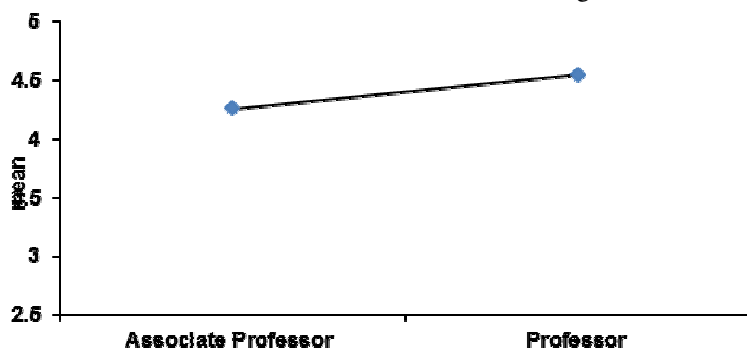


Diagram 4 shows that the academic rank "Professor" got more positive perspectives about the obstacles facing them the implementation of vocational and technical education programs in the Jordanian public universities than the academic rank "Associate Professor".

### Conclusion

Vocational education is spread greatly recently in most of the countries all around the world, Jordan also pay a great attention to it. In the secondary schools there were in the past only scientific stream and literary stream, but in the past two decades a new stream was added which is vocational stream. Then in universities the ministry of higher education also added new vocational specializations and the government in turn tried its best to offer jobs for the students who graduate from vocational specializations.

#### 4.1 The recommendations of the study

In light of the above findings, the researchers recommend the following:

1. Educating students about the vocational education through the media and indicative flyers and visits and field trips to colleges and professional institutes.
2. Working to raise the trends of society and the related environment of the school to the vocational education and to clarify its importance to the community and give children positive attitudes towards it.
3. Establish modern vocational and technical specializations and enhance students to enroll it and serve the changing conditions in the community.
4. pay attention to vocational colleges, institutes, and schools, develop it and providing it with Modern equipment and supplies to keep pace with changes in society.
5. Teaching students to Study in vocational education start at an early stage such as the fifth grade, for example, then it extends to the end of secondary stage

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