

The Degree Of Contribution Of The Vocational Education Curriculum In Development Of Professional Creativity Among Students From The Point Of View Of Vocational Education Teachers In Jordan

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Abstract

The study aimed to investigate contribution of the vocational education (VE) curriculum in development of professional creativity among students from the point of view of VE teachers in Jordan. A sample of (100) teachers of VE for basic classes in government schools affiliated to Irbid Governorate. The study use questionnaire which consists of two parts, the first relates to demographic variables (Gender, Experience), and the second part relates to the dimensions: Rational Approach, Personality and Traits, and Social and interpersonal factors. The study found that there's an effect of VE curriculum in development of professional creativity among students from the point of view of VE teachers in Jordan, which came to a medium degree. The results indicate that there are no statistically significant differences in the estimations of the study sample attributed to the gender, while there are differences according to the experience. The study recommended that VE curricula must include a set of concepts related to creativity and entrepreneurship in order to develop professional creativity among students.

Keywords: Professional Education, Professional Creativity.

Introduction:

Vocational education is one of the subjects that must be taken care of and developed. Occupational education is no less important than other subjects in terms of developing the learners' personality and skills.

The society needs to inculcate the values of work and professional work, and the values and skills of leadership and creativity in its youths. The importance of the curricula in forming the personality of the individual and its role in giving him positive attitudes and desirable behaviors towards manual work, leadership and creativity, as stated in various educational research and studies (ESCWA, 2017).

The importance of teaching the subject of vocational education at a stage concerned with providing students with basic education skills at work and its basic values, making them able to adapt to a society witnessing rapid changes, helping them develop themselves, appreciating professions and their ethics, and providing them

with skills that help them choose the path of their education according to their trends and inclinations and help them practice thinking skills that contribute to understanding the modern technologies that surround them (Ministry of Education, 2013).

Vocational education has an essential role in preparing a qualified workforce to deal with modern technology capable of facing rapid changes and their repercussions on the nature of the labor market needs of changing professions and skills (Abu Asba, 2005).

Bani Abdo (2017) emphasized the importance of vocational education in school curricula, and its role in developing practical skills for students in all areas of life. The curriculum, which affects the outcome of professional creativity among students.

Students face a rapidly changing and volatile world. Therefore, curricula and teaching methods must be changed so that students can adapt to the great momentum of variables in the era of

globalization and be more flexible to deal with these variables. To crystallize their impressions and develop them themselves (Primožic, et, al, 2008).

Therefore, professional curricula aim to present basic topics in the external world of professions so that students can clearly identify the requirements and skills that the professions need. These curricula also depend on activities that are developed with realistic application in the classroom to reflect the objectives of the curriculum and teachers help students develop their knowledge, attitudes and skills to Discovering and developing their options (Airout, 2010).

Vocational education curricula play a crucial role in shaping and refining the attitudes of primary school students with regard to vocational education, and coexisting with the school environment and the local community in a healthy way, as it contributes to motivating students to engage in various activities in a way that reflects their inclinations and professional abilities in a creative way (Al-Labadi, 2018).

Jawarna (2015) indicates that the general trends of UNESCO in the field of vocational and technological education provided to students within general education programs prompted many educational authorities in countries to include the vocational curriculum in the educational process. To make vocational education more effective, it must be included in all educational stages, and the transition of the individual to higher professional levels must be linked according to his abilities and preparations (Tawalbeh et al., 2014).

The vocational education curriculum in Jordan is taught in the basic stage through two seminars. The first cycle includes the intermediate basic classes (fourth, fifth, sixth, seventh grades) and the second cycle includes the upper basic classes and includes (eighth, ninth, and tenth grades), according to the Ministry of Education Education (Hawartha and Al-Saeeda, 2020).

Occupational education includes three aspects: the mental aspect, which represents theoretical knowledge that's connected to different professions, the skill aspect, which is the performance dimension of the theoretical aspect, and the emotional aspect related to forming

attitudes towards professions (Al-Saeeda and Mahasna, 2015).

Innovation&creativityemerged as new conceptsduring the modern era at the level of individuals and institutions. Creativity was portrayed as generating new and useful ideas. Innovation is generally considered as the production of ideas that are creative and then implementing them (Amabile, 1996).

The concept of creativity is broad and comprehensive and is characterized by multi-dimensionality, so we cannot put a comprehensive definition of all its tasks (Kharroub, 2016). The concept of creativity has been widely discussed in various disciplines including psychology, pedagogy, sociology, organizational behavior and information systems (Khedhaouria & Belbaly 2011).

Although the term “creativity” is rooted in psychology, it is used in different contexts (Bessant & Tidd, 2011).

Rank et al. (2004) indicate that creativity mainly includes the cognitive processes within the individual, while innovation represents the social processes between individuals in the place they work at.

Lucas & Spencer (2013) reported that there are social and economic reasons behind addressing creativity through the curricula of schools. It should be noted that creativity is the most important competencies during 21st century.

Treffinger (1996) summarized a group of approaches that emphasize creativity. Those approaches are: (Türkmen & Sertkahya, 2015):

- Rational Approach: Based on this approach, creativity is a cognitive and mental act. It'snot considered as an unusual or mysterious phenomenon. It's a way in which individuals use their mind in an efficient and authentic manner.
- Personality and Traits: The decisive personality traits of creative individuals were determined.
- Interpersonal factors and social ones: These factors include definitions, values,roles and expectations. They include: norms, and

definitions of creative expressions. They are rewarded

Hence, it is necessary to link the outputs of the VE curriculum to increasing the professional creativity of students. It is necessary to focus on increasing the concepts related to leadership and creativity in the educational field in general and VE curricula in particular.

The Study Problem

The vocational education curriculum has an important role in developing the intellect and creativity of students in schools. Students need to continuously develop their creative abilities, especially that one of the goals of vocational education is to create a spirit of mastery among students, and to establish various professional skills that they can use appropriately during their working life and in the labor market.

Several studies in Jordan, such as the study of the Economic and Social Commission for Western Asia (ESCWA, 2017) have shown a low percentage of concepts of creativity and professional work in school textbooks, in addition to the low incidence of concepts related to work, professional work, entrepreneurship and creativity in the form of a complete lesson that contains all activities, knowledge and trends.

A major challenge facing the process of cultivating creativity in schools is represented in their nature that's subject-dominated. Creativity may manifest in all areas. It is not limited to art. There're conflicts that are inherent in assessing cross-curricular concepts (Lucas & Spencer, 2013).

Therefore, the problem of the study is to answer the following main question: What is the degree of contribution of the vocational education curriculum in development of professional creativity among students from the perspective of VE teachers in Jordan?

Study Aims and Questions

The study aimed to reveal the degree of contribution of the vocational education curriculum in development of professional creativity. To achieve this goal, the two questions of the study will be answered:

The First Question: What is the reality of the degree of contribution of the vocational education curriculum in development of professional creativity among students from the point of view of vocational education teachers in Jordan?

The Second Question: Are there significant differences in the estimates of the study sample of vocational education teachers for the degree of contribution of the vocational education curriculum in development of professional creativity attributed to (gender, experience)?

The Importance Of Studying

The importance of the study stems from the following points

- Revealing the importance of the vocational education curriculum in developing students' creative skills, because most of the focus and attention is usually focused on scientific subjects and language, and additional subjects are neglected as a vocational education subject, so it is important to discuss the role of the vocational education curriculum in developing creativity.
- Helping school principals and vocational education teachers to enhance and develop creativity among students at different academic levels.
- Providing recommendations and proposals for solutions that play a vital role in developing VE curriculum with the aim of developing professional creativity.

Study Terms and Procedural Definitions

The terms of the study are determined by the following:

Vocational education: It is the life skills that an individual needs in life in various areas (home affairs and public life, hotel and tourism, engineering skills and light maintenance, agriculture and environment, economics and technology, health and public safety) (Mahasneh & Al-Azmi, 2015, 6).

Vocational education teacher: is a teacher prepared for scientific, rhyming and professional preparation who assumes the modern role of the teacher as a basic key to the educational process, a

guide, a guide, a facilitator for learners and a leader of their educational activities. He works on teaching learners how to learn and how to think (Khames & Hammud, 2018, 142).

Professional creativity: creating new and unfamiliar ideas and applying them in the organization to improve the various system operations, including providing a service, commodity, behavior, processes or new ideas, such as developing procedures and work methods, goals and policies of the organization or its organizational structures, or identifying technological methods, or changing the trends of individuals and groups. and their behaviors (Al-Nafi'i, 2005, 15).

The Limits Of The Study

The limits of the study are as follows:

- **Site limits:** This study is limited to public primary schools in Jordan.
- **Time limits:** The investigation was carried by the researcher during the first quarter of 2022.
- **Human limits:** This study is limited to teachers of vocational education for the basic stage in government schools in the Directorate of Education in Irbid Governorate.

Literature Review

A number of previous studies were referred to, and they are arranged chronologically from newest to oldest as follows.

Ade & Mujiarto (2020) explored empowerment of the potential of teachers in vocational school in the scientific writing form to function as a vehicle for dissemination and communication of works for teachers and other people. Creativity is the capability of changing actions in drafting research papers. Those actions are designed through empowering and using the potentials of teachers in vocational schools in the methods of inquiry, compiling and editing the results of articles to develop society. Research methods include workshops and training scenarios. Such workshops are held through using class systems on the job training and presenting the outcomes at the end of the workshop. A web-based scientific / research writing contest was held. The latter contest was held through using science and technology media that was designed through

vocational teachers. It was found that the realization of the birth of (teachers) in the aforementioned schools, especially in Bandung in writing web-based research and digitizing in Management of Multicultural Education with supporting the Education and National Identity in an integrated manner which fits with the process of developing society.

The ESCWA study (2017) conducted by the Higher Population Council in cooperation with the Economic and Social Commission for Western Asia (ESCWA), which aimed to determine the extent to which the concepts of work, professional work, entrepreneurship and creativity are included in a sample of textbooks. The study showed that there is a need to enhance and increase the concepts of work, professional work, leadership and creativity in Jordanian textbooks, which leads to enhancing the love of work and pioneering work among young people. Policies have been proposed, all of which promote love of work and entrepreneurship, and provide students with creative and entrepreneurial thinking skills, including: spreading a culture of appreciation for work and pioneering work among young people by strengthening school curricula with concepts and practices related to work and leadership; Teaching systematic creative and entrepreneurial thinking; And the development of learning strategies based on skills, motor and manual activities.

Bani Abdo (2017) examined the reasons for the low level of academic achievement in vocational education among students in Ma'an Governorate schools from the teachers' point of view. To achieve this, the researcher developed a questionnaire consisting of (23) items. The study sample consisted of (74) male and female teachers. The descriptive survey approach In order to achieve the objectives of the study, the results showed that the most important teachers' estimates of the reasons for the low level of academic achievement in the subject of vocational education among students in Ma'an Governorate schools from the teachers' point of view were in the following descending order: reasons related to the student, reasons related to the family, reasons related By teacher, reasons related to school administration.

Türkmen & Sertkahya (2015) explored creative thinking skills of students in vocational high school. They used a "creativity scale" that includes (7 items). This scale was designed by Hu and Adey (2002). It was translated to Turkish. It's was used to obtain data from 59 students in vocational high schools. The grades of those students include 9th, 10th and 11th grade. When ompare students' GPA scores and responses on the scale of creativity. This scale involves 4 rating categories. The results suggest that there is positive limited relationship between students'creativity and academic successes. A similar result was reached by Türkmen & Sertkahya (2015). The latter researcher adds that creativity develops students' creative thinking. They add that knowledge is positively correlated with creativity.

Lucas & Spencer (2013) offered a definition of creativity that's five dimensional. This definition was trialed by teachers in two field trials in schools in England. The researchers offered a theoretical underpinning for assessing and defining creativity along with several practical suggestions about the way in which creativity can be tracked and developed in schools. Two clear benefits of assessing progress in the development of creativity are identified. Those benefits are: 1) teachers are able to be more confident and precise in promoting creativity among young people, and 2) Learners are capable of understanding the meaning of being creative. They are capable of using such understanding to identify their progress. The result indicates that learners can show their creativity in many areas.

Likar (2007) analyzed the challenge that face students' innovation. He represents the roots of the problem. He presents the reasons behind showing low performance. Based on the study, the article shows the influential key success factors, where the role of the teacher remains essential. The researcher shed a light on the importance of the systemic approach and the important role of the economy and supporting environment.

Maisuria (2005) aimed to track the demise of creativity in the national curriculum in Wales and England. He adds that the creative dimensions in the national curriculum are purged by several

government directives since the Ruskin speech in 1976. All the dimensions aim for introducing provisions of standardisation, centralisation, and vocationalisation of education. The plethora of centralised testing regimes and quality assurance measures damaged the esteem of pupils and teachers. They turned education into game in which teachers teach the art of passing exams, and pupils acknowledge the academic threat of nonconformity. The researcher found that despite New Labour's infatuation with measurable standards, it seems that the assault on creative subjects is being reversed somewhat. Much effort has been introduced for emphasizing creativity through national curricula with re-energizing the creative spirits of pupils and teachers.

Discussing Previous Studies

Previous studies discussed the topics of vocational education curricula in general, including those linking them to creativity and the importance of including creative concepts in these curricula, such as the study of Ade & Mujiarto (2020); Lucas & Spencer (2013) ; Likar (2007); Maisuria (2005).

At the same time, the study by Türkmen & Sertkahya (2015) investigates creative thinking skills of vocational high school students., and Bani Abdo (2017) study in the reasons for the low level of academic achievement in vocational education among students

Most of the studies used the descriptive analytical approach through the use of the study tool represented by the questionnaire and its application to the sample. The study communities varied, as studies were conducted in different societies such as Malaysia, Britain, the United States of America and Jordan. The current study is distinguished from previous studies in that it aims to examine that contribution of the vocational education curriculum in development of professional creativity among students from the point of view of vocational education teachers in Jordan.

Methodology

The study followed the descriptive analytical approach, and this approach is the most appropriate for making this type of research

Study Population

The study population consisted of teachers of vocational education for basic classes in public schools in Jordan.

The study sample

The study sample was chosen by stratified random method from teachers of vocational education for basic classes in government schools affiliated to Irbid Governorate, as shown in Table No. (1).

Table (1): Study sample individuals

Variable	Category	Frequency	Percent
Gender	Male	42	42.0
	Female	58	58.0
	Total	100	100.0
Experience	Less than 5 years old	39	39.0
	From 5 years to less than 15 years	41	41.0
	15 years and over	20	20.0
	Total	100	100.0

Study Instrument

In order to identify the degree of contribution of the vocational education curriculum in development of professional creativity among students from the point of view of vocational education teachers in Jordan. The study tool was developed, which is the questionnaire, which consists of two parts, the first relates to demographic variables (Gender, Experience), and the second part relates to the dimensions of the study that was selected: Rational Approach, Personality and Traits, and Social and interpersonal factors.

The degree of agreement of the study sample with the tool's paragraph was estimated according to the five-point Likert scale, according to the following distribution: (to a very large degree, to a large degree, to a moderate degree, to a small degree, to a very little degree), and these categories represent the following points, respectively: (1, 2,3,4,5).

The Validity

The validity was tested by sending the tool to three experts, in order to express their opinion regarding the language, clarity and relevance to the objectives of the study. The questionnaire, its language integrity, and its relevance to the objectives of the study, and their recommendations were taken into consideration.

The Reliability

To measure the reliability of the tool, the values of the Cronbach alpha coefficient have been calculated, and the total value of this coefficient is

(0.883), and this value indicates that the reliability of the tool is high.

Statistical Analysis Methods

To reach the results, the SPSS program was used, and a set of statistical methods were used. These methods are as follows:

- Frequencies and percentages: They were calculated in order to present a description of the characteristics of the respondents.
- Means and standard deviations: they were calculated for each paragraph, in order to know the trends of the respondents.
- Cronbach's Alpha: It was calculated to measure the stability of the tool
- Multiple variance analysis.

The following criteria were used to classify averages:

- Low level from 1.00 to 2.33
- Intermediate level from 2.34 to 3.67
- High level from 3.68 to 5.00

Study Results

Results of first question: What is the reality of the degree of contribution of the vocational education curriculum in development of professional creativity among students from the point of view of vocational education teachers in Jordan?

To answer this question, averages and standard deviations were calculated for all target dimensions: (Rational Approach, Personality and

Traits, and Social and interpersonal factors), as shown in Table (2).

Table (2): Means and standard deviations of the dimensions of study

No	Variables	M	S.D	Rank	Degree
2	Personality and Traits	3.25	0.78	1	Moderate
1	Rational Approach	3.17	0.96	2	Moderate
3	Social and interpersonal factors	2.88	0.97	3	Moderate
	Total	3.01	0.96		Moderate

Based on Table (2), it was found that the degree of estimation of the study sample towards the degree of contribution of the vocational education curriculum in development of professional creativity among students came to a medium degree, because the mean was (3.01) and the total standard deviation value was (0.96).), and it was found that the degree of contribution of the vocational education curriculum in development of professional creativity according to the dimensions of study came in a medium degree, where the Personality and Traits field achieved the first rank with an mean of 3.25, and the field of Rational Approach came in the second rank with an mean of 3.17 and a medium degree, followed by the field of Social and interpersonal factors in the third rank with an mean of (2.88) and a medium degree.

These results can be explained by the fact that a rational approach is the closest to explaining creativity in general and professional creativity in particular in the educational field, as professional curricula must take into account the mental and intellectual abilities of students, where creativity in this aspect depends on the way students think and employ mental and cognitive intelligence In the field of professional study in the school through the prescribed professional curricula.

Personality and traits are important factors that emphasize the professional creativity of students, especially that some viewpoints and theories confirm that part of the creativity that individuals have is the product of the student's personality and traits, which helps the professional curricula to influence students in a positive way.

With regard to social and interpersonal factors, these factors often constitute the main sections of the environment in which the student lives, which develop his creative abilities in various dimensions, which helps him to adapt to the creative concepts in the vocational education curricula in schools.

The results consists with Türkmen & Sertkahya (2015) who reported that students having much more knowledge and expertise to have much more mental images related creativity scale items. Lucas & Spencer (2013) found that teachers are able to be more precise and confident in developing young people's creativity. The results do not match the study with ESCWA study (2017) which reported that there is a need to enhance and increase the concepts of work, professional work, leadership and creativity in Jordanian textbooks.

Results of second study question: Are there statistically significant differences in the estimates of the study sample of vocational education teachers for the degree of contribution of the vocational education curriculum in development of professional creativity attributed to (gender, experience)?

To reveal the significance of the differences between the respondents' attitudes towards the degree of contribution of the vocational education curriculum in development of professional creativity attributed to (gender, experience), the averages and standard deviations were calculated as shown in the table (3).

Table (3): Means and standard deviations of the respondents' attitudes towards the degree of contribution of the vocational education curriculum in development of professional creativity attributed to (gender, experience).

Variable	Category	No	M	S.D
Gender	Male	42	3.15	0.871
	Female	58	3.21	0.914
Experience	Less than 5 years old	39	3.11	0.591
	From 5 years to less than 15 years	41	3.22	1.011
	15 years and over	20	3.24	0.971

Table (3) indicates that there are apparent differences between the means towards the degree of contribution of the vocational education curriculum in development of professional creativity attributed to (gender, experience). To

determine whether these differences are statistically significant at the level ($\alpha = 0.05$) Multiple analysis of variance was applied, and the results of the analysis of variance came as shown in Table (4).

Table 4. The results of the multivariate analysis of variance

Source	Sum of Squares	Df	Mean Square	F	Sig. *
Gender	0.864	1	0.864	0.607	0.131
Experience	0.186	1	0.186	0.112	0.023
Error	87.015	97	0.532		
Total	1856.033	100			

The results presented in Table (4) indicate that there are no statistically significant differences at the significance level ($\alpha = 0.05$) in the estimations of the study sample of contribution of the vocational education curriculum in development of professional creativity attributed to gender, while there are differences according to the experience.

In order to reveal the source of the contribution of the vocational education curriculum in development of professional creativity attributed to experience variable, dimensional comparisons were made using the Schiffo method. As shown in Table 5.

Table 5. The results of Scheffe Test Method

	Category	Mean	Sig
Less than 5 years old	From 5 years to less than 15 years	-.47344	.363
	15 years and over	-1.215(*)	.213
From 5 years to less than 15 years	Less than 5 years old	-.04414	.198
	15 years and over	.72930(*)	.566
15 years and over	Less than 5 years old	-.82764	.029
	From 5 years to less than 15 years	.48764	.235

Table (8) shows that the differences came in favor of the category (15 years and over), which indicates the most experienced teachers are able to employ professional curricula to develop students' professional creativity

Conclusion:

It was found that there's an effect of vocational education curriculum in development of professional creativity among students from the

point of view of vocational education teachers in Jordan, which came to a medium degree. The results indicates that the most experienced teachers are able to employ professional curricula to develop students' professional creativity. The results confirmed the importance of the following factors (Rational Approach, Personality and Traits, and Social and interpersonal factors) in developing creativity among students in schools

Recommendations

Based on the findings of the study, the study recommends the following:

- The vocational education curricula must include a set of concepts related to creativity and entrepreneurship in order to develop professional creativity among students.
- Enrolling vocational education teachers in specialized training courses to increase their skills in employing creative concepts in teaching the vocational education curriculum.
- Conducting other studies that include focusing on other factors in the areas of creativity and focusing on a sample of students.