



The Higher Population Council



Policy Brief

The Integration of the Concepts of Work, Vocational Work, Entrepreneurship, and Creativity in School Textbooks in Jordan



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This paper provides procedural suggestions for reducing youth unemployment in Jordan, which is mainly caused by the reluctance of young Jordanians to take up vocational and manual work in sectors such as agriculture and other services, although they have the potential to do so if adequately prepared. Consequently, these professions are currently occupied by large numbers of foreign labor. The paper proposes four policies for promoting and reinforcing interest in work and entrepreneurship among young people from an early age by integrating the concepts of work, vocational work and entrepreneurship in Jordanian school curricula, as well as enhancing practical exercises in school curricula as they play a key role in sharing the personality of individuals and helping them acquire positive attitudes and desired behaviors towards manual work, entrepreneurship and creativity.

A study conducted by the Higher Population Council in cooperation with ESCWA to analyze the content of selected school textbooks to determine to what extent they integrate the concepts of work, vocational work, entrepreneurship and creativity revealed that there is a need to enhance and

increase these concepts so as to encourage interest in work and entrepreneurship among young people.

The four policies proposed in this paper aim to encourage interest in work and entrepreneurship and help youth gain creative and entrepreneurial thinking skills. These policies are:

1. Promote the culture of appreciating work and entrepreneurship among young people by enriching school curricula with concepts and skills related to work and entrepreneurship.
2. Ensure the development and proper application of vocational and entrepreneurship education and raise awareness of staff of basic education schools about its importance.
3. Teach methodological creative and entrepreneurial thinking
4. Develop teaching strategies based on movement and manual activities.

Each of the above policies has advantages and limitations, which can be overcome with continuing awareness and education.



Introduction :

Being able to respond to the ever-changing job market requirements in a global knowledge-based economy, skilled and knowledgeable human resources are the cornerstone of national economic growth. As basic education is an essential building block of a rich system of national values, capacity development, determination of personal preferences and student guidance, the integration of the concepts and values of work, vocational work, entrepreneurship and creativity in basic education curricula cultivates a strong interest in work and a positive attitude towards vocational work, including entrepreneurial and innovative work.

Jordan, similar to other countries around the World, suffers from high unemployment rates, reaching 30.6% in 2015 among youth (ages 15-24), which is significantly above the global rate of 13.2% for this age group (Department of Statistics, 2016). As such, the Government of Jordan has been keen on reinforcing the values of work, vocational work, entrepreneurial skills and creativity among students so as to build a creative and entrepreneurial generation capable of facing challenges.

Despite the attention it receives from official entities, enrollment rate in technical and vocational education and training is still less than hoped, with only 14.5% of students transitioning to vocational education from basic education in the scholastic year 2012-

2013 and increased to 15.8 % in 2016-2017 (Ministry of Education, 2016). As studies show, this is due to lack of vocational guidance and advice for students especially in the basic education level (Higher Population Council, 2014).

Considering the demographic transition which Jordan is witnessing towards a more youthful age structure, more investments should be directed towards increasing the productivity and competitiveness of young people in the local, regional and international markets by cultivating the values of work, vocational work, entrepreneurial skills, creativity, and supplying the Jordanian labor market with qualified and trained workforce.

As such, academic curricula play a key role in shaping the personality of individuals and reinforcing a positive attitude and desired behavior towards manual work, entrepreneurship and innovation, according to established studies and research in education (Hendi, 2009).

Researchers often stress the importance of creative thinking and ways to stimulate thinking during the school day by providing students with the tools they need to interact with any type of information and deal with any challenges they may face in the future on the personal and professional levels alike. Experts agree that integrating these tools into school curricula is key (Mbeidien, 2011).

Introducing vocational education as a course in the basic education curricula is vital since it provides students with work skills and basic values, enables them to adapt to a rapidly changing society, encourages self-development of students and their appreciation of work and professional ethics, provides them with skills that help them choose the learning paths that fit their preferences and interests, and motivates them to apply thinking skills to understand the current technology around them (Ministry of Education, 2013).

As per the National Strategy for Human Resource Development (2015-2025), the numbers of technically and technologically skilled youth and adults who meet labor market needs will significantly increase by 2025, which will make suitable jobs attainable and pave the way for them to enter the world of entrepreneurship. Therefore, integrating the concepts of work, vocational work, entrepreneurship, and creativity in academic curricula and textbooks contents will help achieve the goals of the National Strategy on this front.

In line with its vision for this stage, the influential role it assumes in formulating policies related to population growth and socio-economic development, and its needed involvement in the formulation of educational policies, the Higher Population Council

prepared this policy brief in cooperation with the ESCWA and the Ministry of Education to increase awareness of vocational work and entrepreneurship by including the concepts of work, vocational work and creativity in school textbooks.

This study relies mainly the findings of the study and qualitative research on “the Integration of the Concepts of Work, Vocational Work, Entrepreneurship and Innovation in School Textbooks in Jordan” which analyzed the content of school textbooks to determine to what extent they include the concepts of work, vocational work, entrepreneurship and creativity and suggested policies in this area.



Current Situation

The study revealed the following:

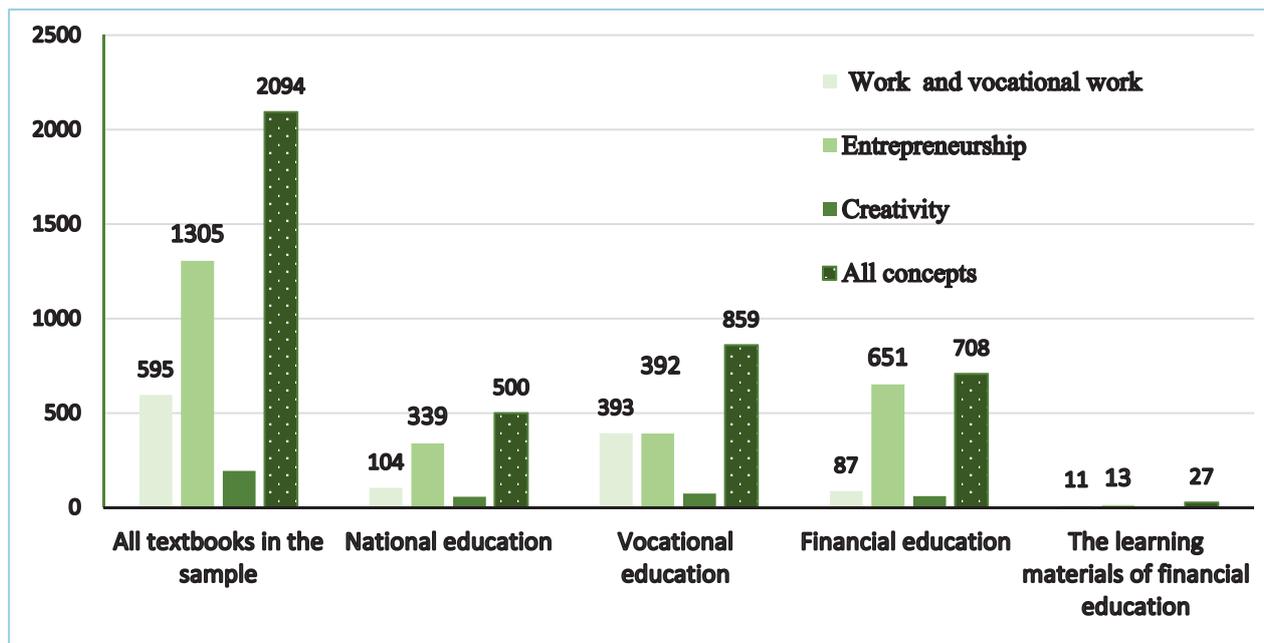
- The inclusion of the concepts of creativity and vocational work in school textbooks is low. The below figure shows the frequency of the concepts of work, vocational work, entrepreneurship and creativity in selected textbooks, namely vocational education, national education, and financial education as well as the learning outputs of financial education. The figure indicates that the occurrence of the concepts of creativity, work and vocational work is low and needs to be increased;

- The concepts of work, vocational work, entrepreneurship and creativity are not introduced as complete lessons that include activities, information, examples of successful and innovative individuals in the field of vocational work, success stories, and discussions highlighting the importance of work from the perspective of the Islamic culture and other religions (Higher Population Council, 2017);
- The level of inclusion of the concepts of work, vocational work, entrepreneurship and creativity across school textbooks is inconsistent and is not gradual. (Higher

Population Council, 2017)

- Weak infrastructure for doing the practical activities related to vocational education and entrepreneurship.
- Lack of awareness of the importance of teaching vocational education
- Shortage of financial resources to cover the high cost of teaching vocational education
- Inadequate qualifications and experience of some vocational education and financial education teachers (Higher Population Council, 2017).

Figure (1) Frequency of the concepts of work, vocational work, entrepreneurship and creativity in the national education, vocational education and financial education textbooks and the learning materials of financial education



Source: The higher population council, ESCWA, Study on the Integration of the Concepts of Work, Vocational Work, Entrepreneurship and Creativity in Jordanian School Textbooks, 2017

Enhancing the vocational guidance system and increasing practical activities, especially in the basic education level, is key to cultivating a passion for work and entrepreneurship. If school textbooks and curricula are an essential element of vocational guidance, it could be said that they are still incapable of adequately instilling these concepts among youth to motivate them to voluntarily enroll in vocational education institutions, take up manual labor and seek self-employment opportunities instead of jobs particularly in the public sector. By doing so, young people can finish their education and be capable of entering the job market, thereby reducing poverty rates in Jordan, which are among the highest around the world.



Policies Options

Accordingly, this paper presents policies to help eliminate obstacles that preclude the enrollment of students in vocational education and the reinforce the values of work, entrepreneurship and innovation to address the growing numbers of graduates seeking employment in the public sector.

Policy 1

Promote a culture of love for work and entrepreneurship among youth by infusing school curricula with concepts and practices of work and entrepreneurship through the following initiatives:

- Improve curricula by integrating concepts related to work, vocational work and entrepreneurship in the form of full lessons;
- Improve curricula through integrating the concepts of work, vocational work and entrepreneurship by introducing them gradually depending on the level of growth of students, and present concepts in a balanced way to all age groups;
- Take into account entrepreneurship and innovation in curriculum policy-making
- Emphasize entrepreneurship and work in different subjects through a holistic approach by utilizing stories, discussions and practical activities.
- Expose students to basic skills of selected professions during classes
- Organize planned visits to industrial cities and vocational training schools and centers.
- Gradually introduce entrepreneurship as a course in the curricula of grades 7 to 10.
- Improve the vocational education course

so that it focuses on a specific number of professions in each grade beginning from grade 7 through 10 and increase the amount of practical skills offered at each grade.

- Reinforce volunteer work as well as practical and productive activities during after-school hours.
- Go back to distributing students to different educational streams from the grade 9 or introduce grade 10 vocational education.

Advantages of the policy :

- Helps to enhance vocational education guidance to cultivate the concepts of vocational work and entrepreneurship among students, teachers and relevant institutions.
- Helps students to understand their capabilities and preferences from an early stage
- Cultivates love for work and appreciation for manual labor among students
- Helps students gain self-confidence and self-reliance through productive and volunteer activities
- Helps to improve vocational education by increasing the number of training years through re-introducing the prevocational education year (preparation year).

Limitation of the policy

- A parallel social awareness campaign is required in which all civil society institutions, community-based institutions, mosques, conventional media and social media take part (along with the effective participation of parents and local communities).
- Trained and qualified professionals and continuous training is needed for the implementers entrepreneurship activities.
- Current educational programs need to be changed to conform to the initiatives under this policy.

Policy 2

Enhance awareness and ensure the development and optimal application of vocational education and the concept of entrepreneurship among staff in basic education schools

The vocational education course is essential for enhancing the awareness and guidance of basic education students towards vocational education. The course as it is, however, only focuses on life-skills, which can be offered separately, but does not focus on the basic skills of certain occupations, thereby denying students the opportunity to have a serious and realistic introduction to different occupations or gain basic skills to enable them to take up these professions in

their practical life after completing school. Moreover, the vocational education course does not receive adequate attention from school administrations or teachers which consequently affects students' interest in the subject and in taking up vocational work.

Accordingly, the following initiatives are recommended with respect to the vocational education course:

- Consider renaming the course to be Applied Education so as to enhance the values of all forms of manual labor;
- Focus on a specific set of occupations in the 7th, 8th and 9th grades;
- Reinforce the fact that the vocational education course is equally important as other courses and treat it in the same manner as other courses with respect to the requirements of passing the course and including its score in the overall average score of students.
- Provide schools with qualified and specialized teachers and ensure continuous development of their skills.
- Apply a productive work system in vocational schools to basic education students by providing rewards to students and teachers
- Intensify productive activities and encourage exhibitions of the products of basic education students and organize competitions at the directorate and ministry levels.

Advantages of the policy :

- Develops sound positive attitudes towards work, vocational work and respect and appreciation for workers.
- Offers students the chance to learn about different occupations in detail and provide them with skills to increase their productivity.
- Reduces the spread of the taboo culture that causes youth to refrain from manual and vocational labor, and consequently reduce foreign labor.
- Allows students to know their career preferences for the future.
- The vocational education or applied education course is practical by nature, and therefore helps to enhance knowledge, attitudes and skills of students and enable them to gain skills and knowledge more effectively (through multi-sensory learning).
- Teach students self-reliance and increases their self-confidence.

Limitations of the Policy

- New legislation is needed.
- A review and improvement of current programs is needed to make them in line with the initiatives under this policy.

- Implementation requirements should be secured including the adequate infrastructure, financial resources and qualified human resources.
- Change the perceptions of professionals working in the field of basic education regarding the importance of vocational education and its role in shaping the personality of students.

Policy 3

Teach methodological creative and entrepreneurial thinking

Creative thinking is a mental process in which learners interact with different experiences to understand the situation and reach a new understanding or product to find a genuine solution for their problem or discover something new that has value to them or the community they live in (Saadah et al, 1996).

Creative thinking cannot happen without a creative environment that helps students unleash their creative potentials and come up with new and diverse ideas to solve their problems. This environment can be created through informed programs and trainings as well as the following proposed initiatives to enhance and develop creative thinking among students:

1. Organize national competitions that include :

- Recognition of hard-working creative teachers who encourage creativity and entrepreneurship among students, and sets specific competition criteria similar to the Queen Rania Award for Education Excellence (teachers, educational counselors, school administrators)
- Special national competitions for entrepreneurship and creativity projects by students of public and private schools.

2. Improve academic curricula, especially textbooks, to support creative thinking and innovation through:

- Developing school textbooks to ensure that they employ creative thinking tools and strategies through activities, open questions, and brainstorming promote freedom of thought.
- Restructuring academic curricula to help train students in using the skills of creative thinking, exploring, discussion, analysis, and defending personal opinions, and using cognitive and innovative mental processes, and adopting international models of teaching creative and critical thinking such as the Australian Thinker's Key model which is implemented in 27 countries around the world has proven to be successful, easy and flexible tools of embedding creative and critical thinking in school textbooks accord-

ing to a specific, organized well-planned and accessible model.

- Introduce an activity called “what if” at the end of each lesson to stimulate the imagination of students and enable them to express themselves, imagine, do role plays and tap into new approaches.
- Update textbooks by including stories about innovators, successful scientists, explorers, leaders and entrepreneurs in each learning unit to reinforce positive attitudes towards innovators, and especially pioneer scientists like Al Razi and Ibn Rushd and highlight their influence on global human civilization.
- Develop manuals for teachers to explain specific mechanisms, procedures and innovative strategies for implementing innovative activities, and specify the creative goal of each activity or strategy implemented
- Increase the use of images which are equally important as narrative, in school textbooks in this world of visual elements such as photographs, paintings, sketches, and prototypes of future inventions and creations which are suitable for the environment of children and the learning topics and give students the opportunity to express their thoughts in drawings and pictures to help students with “sensory awareness” and achieve balance between adult genius and child mastery when developing the images to achieve the goal of creative education.

3. Train and build staff capacity

- Train teachers in using creative thinking tools and techniques in and outside classrooms;
- Build the capacity of curricula developers in the latest international and global programs in teaching creative thinking such as “Scamper-TRIZ, Thinker’s Keys, and other creative thinking strategies by Edward De Bono.

4. Launch the entrepreneurship and innovation initiative through:

- Encourage community service at government and private institutions to showcase creative Jordanian examples and present to students inspiring creative and entrepreneurial role models.
- Share experiences in the field of creativity between schools and other educational institutions
- Schools to coordinate with local communities to deliver volunteer entrepreneurial projects to serve the community (creative community initiative) that aim to promote the sense of commitment and initiative among students and recognize students who engage in volunteer work by giving them certificates of appreciation and add their names to the list of honor in school.

5. Make time for creativity

- Utilize the 20% rule applied by companies which allocates a “genius hour” every week for creativity and innovation or entrepreneurship projects.

Advantages of the Policy

- Develops the creative capabilities of individuals and improves the level and effectiveness of thinking which will help build a generation of creative thinkers who can lead their lives using advanced thinking and problem-solving skills and creativity.
- Improves school textbooks to meet the requirements of the 21st century and achieves the National Strategy to increase creative capabilities.
- Develops creative teaching strategies for teachers when delivering the content of regular textbooks and refrain from the lecturing style.
- Launches creative competitions to encourage teachers and students to be creative and innovative and cultivate a sense of initiative and adventure in students.
- Promotes the culture of open and constructive discussions that engage students and build their learning skills instead of them being passive learners.

- Develops the capacity of students to communicate their ideas, express their personal opinion and accept the opinion of others which will help students in all aspects of their lives and prepares them to take confident steps towards the future.

- Allocates time for creativity and innovation during work (one hour per week) encourages students without forcing them and allows them to practice their hobbies and show their interests through planning and implementing innovative and intrapreneurial projects and ideas.

Limitations of the policy

- Resistance to change by education stakeholders;
- Changing the general style of developing academic curricula and textbooks which is influenced by the perception that the accumulation of large amounts of information and facts is necessary and enough to develop students' thinking skills;
- Securing the financial and human resources to develop and restructure academic curricula, training and building the capacity of curricula developers, and training teachers in creative thinking programs and strategies.

Policy 4

Cultivate students' interest in learning through developing teaching and learning strategies which are based on movement and manual skills and activities

Studies conducted at schools in the US (RARFT, 2013) revealed an achievement gap in US schools because schools overlook the importance of engaging students in learning, which creates an engagement gap that negatively impacts underachieving students more than their overachieving counterparts, and affects their interest and drive to learn. Practical trainings through movement and manual activities are considered as mechanisms to bridge this gap and stimulate students' interest for learning and drive for research. These activities link abstract concepts to the real world, thereby achieves the desired learning goals. The well-established educational rule of "I hear and I forget, I see and I remember, I do and I understand" reinforces this strategy.

Advantages of the Policy:

- Enhances participation and engagement in learning.
- Enhances critical thinking skills.
- Increases students' drive for learning and stimulates their interest in learning.

- Makes learning enjoyable for teachers and learners.
- Enhances students' communication skills
- Promotes group work and team spirit.
- Increases students' achievements.

Limitations of the policy

The safety of students, especially in lower grades, when using certain tools; Full awareness of the strategy and how to implement movement and manual activities; Provision of a suitable infrastructure, as well as financial and qualified human resources for implementation.



Conclusion :

From the review and analysis of the advantages and limitations of the proposed policies, it is recommended that all these policies are adopted and an action plan is developed through technical teams formed to set the necessary implementation procedures and undertake continuous reviews and adjustments.





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