

**Skills required for technical education students of printing and packaging  
Department to keeping up with the Egyptian labor market**

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**Introduction:**

The productivity of the individual is measured by the type, quantity and quality of education obtained and the compatibility between the outputs of education and the requirements of the labor market. The skills required of them and put them within the objectives of the curricula to achieve industrial development in Egypt.

**Key words:** Technical education-Egyptian labor market.

**Research problem:** The current curriculum does not suffice to qualify the student with the knowledge, professional and quality skills needed to meet the requirements of the Egyptian labor market.

**Goals:** This research seeks to achieve the following

- 1- Involving the beneficiary in defining a general framework for the skills, technical and professional knowledge and the quality required to be included in the printing and packaging curricula for investment in today's student and tomorrow's worker.
- 2-Providing the labor market with well trained workers in the field of printing and packaging to achieve the industrial development of the country in this field.

**Research Methodology:** Research depends on the statistical analytical method

**Search Plan:** In pursuit of research objectives

**The first axis:** industrial technical education and the labor market

**The second axis:** the unified skills available between the outputs of technical education and the labor market.

**The first axis: industrial technical education and the labor market**

**Philosophy of Secondary Industrial Technical Education** The philosophy of industrial secondary technical education is to prepare the technical category in various fields of industry and provide students with the technical skills and academic skills necessary to contribute to the overall development<sup>3</sup>

**Dual Education and Training Project:** An experiment in industrial secondary education to connect the industrial school with the labor market was the beginning of the Mubarak-Cool twin-education agreement in 1994, a German-Egyptian technical cooperation program funded by the German government..

**Printing and Packaging Section in Dual Education:** The current curricula do not meet these requirements. They also deal with many topics that have emerged from the Egyptian market, the gap between the outputs of technical education and the requirements of the labor market and the increasing social and economic problems due to unemployment of the labor.

**The second axis: the skills necessary to achieve alignment between the outputs of technical education and the printing and packaging and labor market**

Focusing on the relevance of the curriculum and educational programs to what students should acquire from skills and skills can be a major reason for reducing the gap and harmonizing the outputs of technical education with the requirements of the labor market

Skills needed to adapt graduates to the labor market:

- |                                      |                       |
|--------------------------------------|-----------------------|
| 1-Knowledge and understanding skills | 2-Intellectual skills |
| 3-practical and professional skills  | 4-General skills      |

The following statistical methods were used:

1-**Statistical descriptive measures (mean - standard deviation - coefficient of variation relative importance).**

2-**coefficients Cronbach's Alpha (stability) - transactions honesty**

3- **Internal consistency.**

4- **Test one sample.**

5 - **Tests of differences**

**The study community:** The role of the printing department in the printing press in the place of the training of the students, and the graduates of the printing and packaging department of the school of education and double training in Esco .

**The sample of the study** was distributed to 120 forms for the purpose of scientific research, and response to forms was 106 of the total distributed forms. Nine forms were excluded for lack of validity for the analysis. The sample was based on 97 individuals. Therefore, the response rate was 88.3%

$$N = \frac{(Z_{\alpha})^2 * P * Q}{E^2}$$

\* N, sample size, P, the ratio of the population to be studied, and in case of non, the ratio is used as much as possible (50%), Q the complementary ratio, Z, the standard score (0.05 = 1.96 & 0.01 = 2.58) ( 0.05 or 0.01

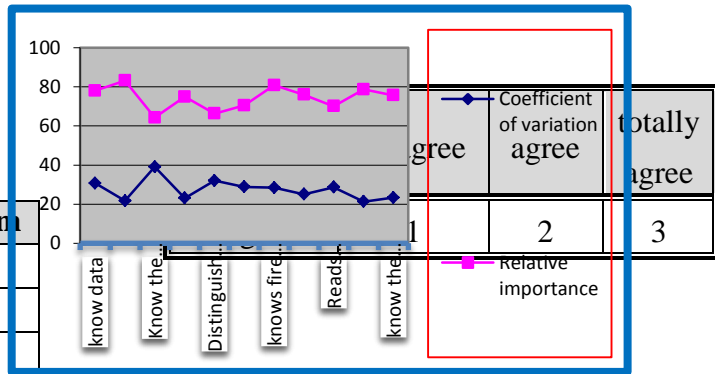
• Assuming available community ratio (50%), the complementary ratio (50%), the standard (1.96) and the sampling error 0.05, the sample size is 384 individuals.).

**Study Tool:** The questionnaire was composed of two main sections:

**Section I:** addressing the dimensions of the questionnaire and included (52) paragraphs distributed on six sub-axes.

**Section 2:** The researchers designed the questionnaire list and the three-dimensional Likert scale was used to measure respondents' responses to the questionnaires according to Table

the scale	maximum	minimum
disagree	1.66	1.00
agree	2.32	1.67
totally agree	3.00	2.33



(1)

Table (1): The degrees of the five - dimensional Likert scale

In this case, the relative weight of each response is 33.33%. This is proportional to this response. The five-point scale used for the total axis in the study was calculated as follows: calculate the range =  $(3-1) / 3 = 0.67$ .

Table (2): The relative weight of the mean of the scale. The questionnaire was authenticated: Researchers verified the veracity of the questionnaire in two ways:

- 1-Honors of the arbitrators
- 2-Validate the scale (**Internal Validity - Structure Validity**)
- 3- **Stability of the questionnaire**                      4-Analytical study:
- 4-1- Reliability and consistency of the dimensions of the questionnaire.

**4-1-1 Stability coefficient of Cronbach’s Alpha**

**Coefficient 4-1-2 Validity**

Table (3): Stability and honesty coefficients for the study axes

axes	coefficient of honesty	coefficient of stability	Number of paragraphs
<b>Knowledge and understanding</b>	0.937	0.878	11
<b>The field of mental skills</b>	0.916	0.840	5
<b>Professional skills</b>	0.904	0.816	9
<b>Quality of the quality of the student</b>	0.877	0.769	6
<b>Printing and packaging department</b>	0.873	0.763	7
<b>Partnership between industrial education institutions and labor market institutions</b>	0.925	0.856	14
<b>total</b>	0.963	0.927	52

4-2- Internal consistency: The paragraphs represent the axis and reflect the purpose for which it is measured.

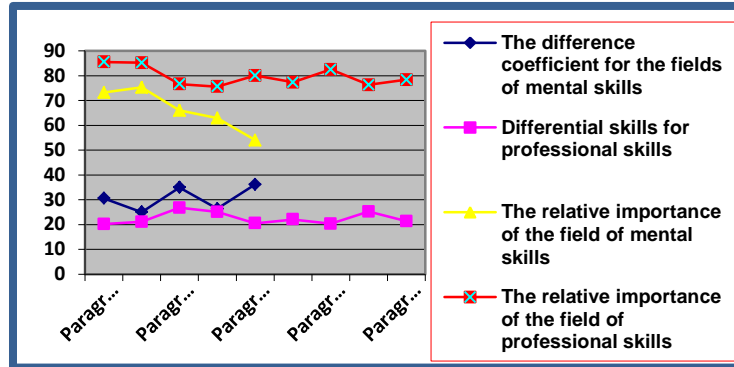
**the field of knowledge and understanding**

It was found that the average opinion of the sample was 2.23 with a standard deviation of (0.411) with a difference coefficient of 18.43%. The results indicate that the opinions of the sample members tended towards approval of the knowledge and understanding area, with an agreement level of 81.57%. Percentage distribution of application levels at the level of

knowledge and understanding. The overall approval rate was 92.8% of the sample size and 7.2%. Indicating the direction of opinions towards approval of knowledge and understanding Figure (1): coefficient of difference and the relative importance of the field of knowledge and understanding.

**Field of mental skills- Field of professional skills**

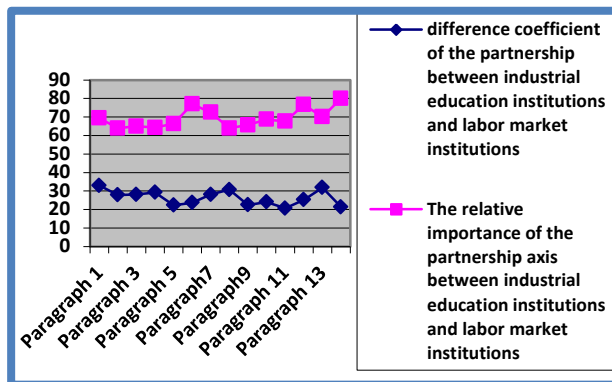
The overall approval rate was 76.3% of the sample size and the rejection rate was 23.7%. This indicates the tendency towards consensus on the importance of mental skills.



**Quality of the student's qualitative level Printing and packaging department:**

The opinion of the respondents indicates that the approval of the agreement reached 86.05% with a relative importance of 80.69%.

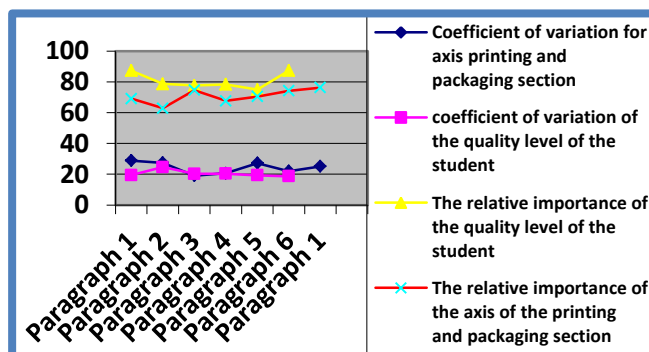
Figure (5) represents the graph of the coefficient of difference and the relative importance of the quality level axis of the student and the printing department.



**Partnership between industrial education institutions and labor market institutions:**

The approval rate reached 87.6% of the sample of the study and the study, while the approval rate reached 7.2%, followed by the rejection of 5.2%. This indicates the trend towards approval of the axis of partnership between the institutions of industrial education and labor market institutions.

Figure (8): Diagram of the coefficient of difference and the relative importance of the axis of partnership between industrial education institutions and the labor market



**Research results:**

- 1-Knowledge and understanding area reached 81.57% with a relative importance of 74.38%.
- 2-The field of mental skills degree agreement reached 76.19%, which is a relatively good proportion of 66.25%.
- 3-The field of vocational skills with a degree of agreement reached 85.70%, which is a relatively good ratio with 79.72%.
- 4-Strongly agree to the quality level of the student with an agreement level of 86.05%, which is a relatively good ratio of 80.69%
- 5-axis of printing and packaging with a degree of agreement reached 84.27%, a high proportion of the relative importance of 70.73%.
- 6-The partnership between industrial education institutions and labor market institutions reached an agreement level of 84.36%, which is a good percentage with a relative importance of 69.36%.
- 7-Based on the axes of the questionnaire after the statistical analysis and stability rates of importance from 69% to 86% in the development of technical education curricula printing and packaging section because it meets the requirements of the labor market within the limits of the sample research.

**Recommendations:**

- 1-Attention to technological content and knowledge in the technical education curricula for printing and packaging in accordance with the local and international labor market in addition to the educational aspects of curriculum development.
- 2-The student's thinking and problem-solving skills must be developed to meet the challenges of the age and the technological and informational revolution of the existing digital systems.
- 3-Activating the role of community participation and the role of printing in the preparation of technical students and determining the technical and technical specifications required for availability in the student and graduate.

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