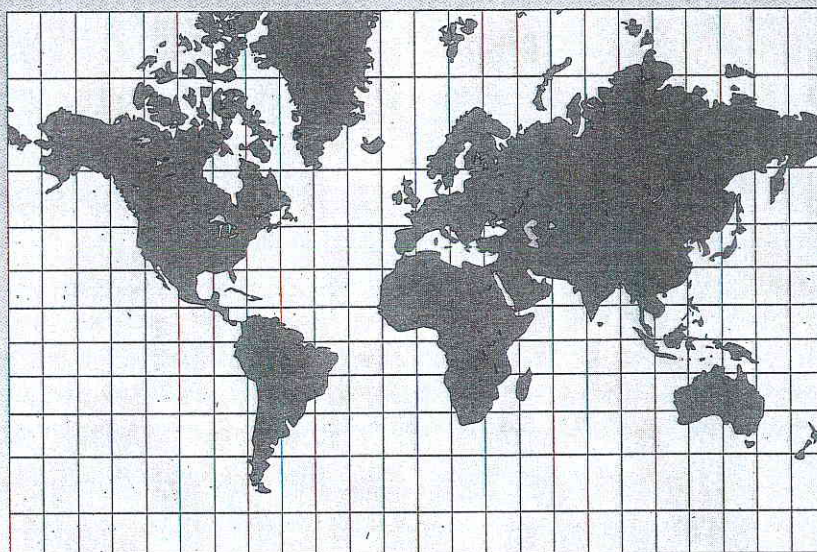


# EDUCATION



**AROUND THE WORLD**

Volume 131

ISSN: 0013-1172

SPRING/2011

Number 3

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Serving Educators Across the World for more than 125 Years



# EVALUATING SOCIAL AND NATIONAL EDUCATION TEXTBOOKS BASED ON THE CRITERIA OF KNOWLEDGE-BASED ECONOMY FROM THE PERSPECTIVES OF ELEMENTARY TEACHERS IN JORDAN

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Knowledge-based economy is a new implemented trend in the field of education in Jordan. The ministry of education in Jordan attempts to implement this trend's philosophy in its textbooks. This study examined the extent to which the (1st – 3rd grade) social and national textbooks reflect knowledge-based economy criteria from the perspective of Jordanian teachers. The quantitative questionnaire addressed five evaluation criteria of knowledge-based economy that incorporate 40 evaluation aspects. The main findings highlighted that the content of the social studies textbooks does not refer to the philosophy of knowledge-based economy directly. More attention to the thinking skills criterion is needed.

**Keywords:** Knowledge-based Economy Criteria; Teachers' Perspectives; Evaluation; Elementary Education; Social and National Textbooks

## Introduction

The increasing concern as we approach the new millennium is to help our children to be successful in their lives within the complexity of their society. Currently, the basic goal of education is to provide the learner with skills to be a thoughtful, creative and caring human (Yunus, 2001). As a result the main question is that: are our children ready and well-prepared for the 21st century? The answer of this question needs a collaborative work of the policy-makers, the educators, the families and the larger community to focus on the quality

of our educational practices. This paper highlights the results of evaluating knowledge-based economy criteria's presence in (1st – 3rd grade) social and national textbooks in Jordan from the perspective of elementary teachers.

## Review of literature

Recent OECD reports stress the important role of communities in preparing for a knowledge-based economy and society by improving both their human and social capital (Alumari, 2004; Faris, 2003; Livingstone, 2005). In the 21st century people



must deal with an ever-increasing amount of raw information. It is noticed that the amount of information available to us is doubling increasingly. As a result, everyday uncounted numbers of ideas, thoughts, and scientific articles appearing on the internet and other media tools (Sánchez, 2003). As educators our main concern is our children and how we as parents and educators can help them be well-prepared for this 21st century requirements (Talafha, 2009). It is not enough to prepare them academically. Our children need to be 'information literate' by enhancing their ability to read, search, find, critique and apply the information in their daily life (The Ministry of Education, 2010). The knowledge of this 21st century community is characterized by being intangible asset that has no physical form. With this in mind, our children should be critical thinkers in dealing with knowledge and open-minded regarding the useful knowledge and how it can serve them in their life (Giroux, 1996).

Knowledge-based economy is one of the key phrases that is used repeatedly in the modern society, especially in the field of education policy discourse (Rinne, 2007). Knowledge-based economy; as a source of economy that depends on using, implementing, creating, and producing knowledge that improve the quality of life by using technology implications and human resources (Arabeyat, 2005); is one of the new implemented trends in the field of education in Jordan. This topic resonates to the global belief that knowledge economy is the most important source of economy in the 21st century (Galbreath,

1999; Livingstone & Sawchuk, 2005). Focusing on Knowledge-based economy is particularly powerful because it is related to the real issues of local communities. It is a road-map for active learning by all who wish to play more effective roles as citizens, workers and family members (Faris, 2003). The ministry of education in Jordan attempts to implement this trend's philosophy in its textbooks. The objective of doing so is to transform the education system at the early childhood, basic, and secondary levels to produce graduates with the skills needed for the knowledge economy (The Ministry of Education, 2003).

#### Research methods

This study examined the extent to which the (1st – 3rd grade) social and educational textbooks in Jordan reflect the criteria of knowledge-based economy from the perspective of elementary teachers. The questions posed were: (1) As a teacher what is your evaluation of knowledge-based economy criteria's presence in the (1st to 3rd grade) social and educational textbooks? (2) Is there a difference in the extent of presence of knowledge-based economy criteria in each grade level?

The researchers used the descriptive approach screening, so as to be relevant to the objectives of the present study. The quantitative questionnaire addressed evaluation criteria of the textbooks that include five criteria. These knowledge-based economy main criteria include: thinking skills, self-evaluation skills, life and communication skills, technology skills, finding information and research skills. Each criterion has eight paragraphs that clarify the



needed skills of each criterion. The total number of the questionnaire paragraphs is (40) items. The following paragraphs describe data collection process.

#### *Population of the study and its sample*

The study population and its sample consist of all teachers in the primary stage in schools in the Governorate of Madaba in Jordan who work in the first semester of the academic year 2009/2010. Fifty eight elementary schools in Madaba (Jordan) responded to the questionnaire. The total number of the distributed survey was 209. The number of the received surveys was 174 teachers, and make up rate (83%).

#### *Data collection instrument*

The researchers designed a questionnaire to evaluate the social and national education textbooks for the elementary level in Jordan. The evaluation criteria was build based on the basic standards of knowledge-based economy, and consisted of (40) paragraph covered eight main aspects thinking skills, self-evaluation skills, life and communication skills, technology skills, finding information and research skills. The questionnaire has adopted a scale which started with number (5) which indicates that this sub-criterion exists a lot and continuously in the textbooks. The lowest number in the scale is (1) which indicates that the criterion does not exist in the social studies textbooks (see Table 1).

#### *Validity and reliability of research instrument*

In order to verify the authenticity of the questionnaire, the researchers gave it to twelve specialists in the field of social studies curricula and teaching methods. Where they were asked for their views regarding the paragraphs of the questionnaire in terms of representation of knowledge-based economy standards and criteria as well as the clarity of the paragraphs and the accuracy of linguistic formulation. The proportion of the agreement adopted was (90%) in order to adopt the paragraph or delete it. Based on this process the final designed questionnaire consists of (40) paragraphs.

In order to verify the stability of the research instrument internal consistency of the scale was calculated by using Cronbach Alpha equation. The reliability coefficient of the questionnaire as a whole has reached (91.3%).

#### *Variables of the research and statistical treatment*

The independent variable in this research is the grade of the social and national education textbooks that consist of: 1st grade, 2nd grade, and 3rd grade. The dependent variable in this research is the presence of knowledge-based economy criteria in the textbooks of social and national education. In this study a variety of statistical treatments were applied. The statistical instruments included: the mean, the standard deviations.

### Research results analysis and discussion

The study results reveal that as we move from the 1st grade to the 3rd grade, the presence of knowledge-based economy criteria appears clearly. This means the social and national textbooks of the third grade have more attention to the aspects of knowledge-based economy that should be implemented in this grade. One reason could be the growth of children which enables them to handle more complex skills that required by adopting the knowledge-

based economy's philosophy.

Table (1) shows that the total mean of knowledge-based economy criteria in the social and national textbooks of the first three grades in Jordan is (3.59). The specific mean of social and emotional textbooks of the 3rd grade is the highest (3.82). Then the second grade's mean is (3.68). The lowest mean is the first grade (3.14). The following table shows the details of the results.

*Table 1. Knowledge-based Economy Criteria's Presence in*

*Social and National Textbooks of 1<sup>st</sup> to 3<sup>rd</sup> Grades*

Knowledge-based Economy Criteria	Grade Level							
	1 <sup>st</sup> Grade		2 <sup>nd</sup> Grade		3 <sup>rd</sup> Grade		Total	
(1) Thinking Skills	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Display the information from easy to difficult	3.35	1.42	3.33	1.32	3.67	1.11	3.48	1.27
Depend on logic in presenting ideas	3.42	1.30	3.41	1.24	3.86	1.07	3.60	1.20
Balance between direct presentation, thinking, and problem solving	2.83	1.51	3.96	0.89	3.94	1.03	3.64	1.24
Enhance creative abilities of learners	3.08	1.05	3.67	1.13	3.69	1.11	3.52	1.13
Enhance creative thinking skills of learners	3.04	1.35	3.56	1.14	3.61	1.22	3.44	1.25

Enhance critical thinking skills	3.21	1.27	3.67	1.06	3.42	1.04	3.44	1.12
Evaluation questions cover different levels of thinking	3.21	1.27	3.52	1.33	3.97	0.90	3.62	1.19
Evaluation methods enhance thinking	3.25	1.18	3.52	1.18	3.78	1.17	3.55	1.19
Total	3.16	1.25	3.58	1.12	3.74	1.04	3.53	1.15
<b>(2) Self-evaluation Skills</b>								
Evaluation focuses on all growth aspects	2.96	1.44	3.85	1.09	3.97	1.02	3.66	1.24
Evaluation stems from Social and national textbooks goals	2.96	1.29	3.38	1.39	3.89	1.08	3.48	1.29
Incorporates both formative and summative evaluation	3.08	1.40	3.44	1.00	4.00	0.98	3.57	1.17
Enhancing self-regulation of students	3.25	1.47	3.85	1.19	3.50	1.05	3.54	1.23
Take into account the needs of students, orientation and self-esteem	3.17	1.42	3.37	1.23	3.61	0.99	3.41	1.20
Information presentation enhance self-learning	3.21	1.27	3.78	0.84	3.92	1.10	3.68	1.11



Take into account theoretical and practical aspects	3.25	1.14	3.89	0.92	3.92	1.04	3.72	1.07
Evaluation methods enhance self-evaluation	3.13	1.14	3.48	1.24	3.81	0.88	3.52	1.11
Total	3.13	1.25	3.61	1.07	3.83	0.92	3.57	1.10
<b>(3) Life and communication Skills</b>								
Enhance both verbal and written communication skills	3.50	1.37	3.78	1.14	4.11	1.06	3.84	1.20
Enhance the skills of dialogue and negotiation and persuasion and influence to the learners	3.33	1.29	3.19	1.10	3.92	1.04	3.53	1.18
Viability of scientific material for the application to everyday life and employment and strengthen life skills	3.38	1.30	3.59	1.04	3.72	1.18	3.59	1.17
Include issues that enhance desire for team work	2.71	1.32	3.85	1.28	3.86	1.09	3.54	1.32
Enhance positive attitudes toward learning	3.25	1.49	3.78	1.14	3.83	1.02	3.66	1.22
Develop behavioural skills in children such as responsibility and innovation	3.21	1.30	3.74	1.08	3.81	1.06	3.62	1.16

Contain instructions on how to use the textbook	2.92	1.57	3.60	1.46	3.42	1.26	3.33	1.43
Enhance learners' presentation skills	3.42	1.80	4.00	1.37	4.31	0.97	3.97	1.41
Total	3.21	1.05	3.67	1.16	3.87	1.04	3.63	1.11
<b>(4) Using technology Skills</b>								
Employ technology in the exchange of information	3.13	1.31	3.52	1.33	4.11	0.86	3.65	1.22
Employ technology skills in the exchange of information	2.83	1.29	3.63	1.17	3.61	1.09	3.40	1.22
Web sites are consistent with the culture of the local community and value system	2.40	1.34	3.59	1.11	3.89	1.03	3.43	1.28
Employ technology skills in daily activities	3.00	1.27	3.96	1.27	3.78	1.01	3.62	1.23
Employing information and communication technology for the development of thinking skills to learners	2.88	1.38	3.81	1.20	3.52	1.04	3.42	1.26
Web sites are appropriate for educational content	3.42	1.37	3.81	1.13	4.19	0.91	3.86	1.16
There is a connection between textbooks content and technology implementation	3.13	1.21	3.56	1.14	4.03	1.02	3.63	1.17



Activities and applications contained in the textbooks employ technology	3.00	1.20	3.78	1.36	3.67	1.19	3.52	1.28
Total	2.95	1.18	3.71	1.17	3.81	0.98	3.54	1.15
<b>(5) Finding Information and Research Skills</b>								
Textbooks give an idea of the educational outcomes	3.00	1.54	3.96	1.03	4.03	1.05	3.72	1.28
Develop skills in research and discovery and work in a team	3.13	1.35	3.89	1.08	3.75	1.04	3.62	1.18
Activities promote research skills such as identifying the problem, planning, and forecasting	3.13	1.28	3.74	1.15	3.67	1.03	3.54	1.17
Contains new information kept pace with global developments	3.29	1.41	3.89	1.04	3.72	1.13	3.66	1.21
Supports the activities of problem-solving strategies	3.33	1.19	3.81	1.13	3.86	0.98	3.70	1.11
The book contains indicators on research methods and problem-solving	3.54	1.37	3.56	1.30	3.58	1.29	3.56	1.31
Scientific materials supports problem-solving method	3.21	1.24	3.78	1.24	3.89	1.11	3.67	1.21
The book includes references to additional research and information gathering	3.46	1.43	4.11	1.24	4.44	0.77	4.07	1.20
Total	3.26	1.24	3.83	1.12	3.87	0.99	3.69	1.13
<b>Total of the criteria</b>	<b>3.14</b>	<b>1.18</b>	<b>3.68</b>	<b>1.12</b>	<b>3.82</b>	<b>0.99</b>	<b>3.59</b>	<b>1.12</b>

In addition, Table (1) shows that the most implemented criterion in the 1st grade textbooks is *finding information* and research skills (mean 3.26). Similarly, 2nd grade has the same repeated criterion in its textbooks (mean 3.83). But the textbooks of the 3rd grade reflected more attention to both finding information and research skills criterion and the life and communication skills criterion (3.87). This could be related to the need of using knowledge-based economy in the children daily life as they grow in their academic acquisition.

When it comes to the different levels together, table (1) reveals that knowledge-based economy criteria distributed in the social and national textbooks in the following arrangement. In the First grade, the specific mean of each of the knowledge-based economy criterion is: Finding Information and Research Skills (mean 3.26), Life and communication Skills (mean 3.21). Thinking Skills (mean 3.16), Self-evaluation Skills (3.13), and the last criterion is Using technology Skills (2.95). In the Second grade the arrangement of the means of each criterion of the knowledge-based economy is: Finding Information and Research Skills (mean 3.83), Using technology Skills (3.71), Life and communication Skills (mean 3.67). Self-evaluation Skills (3.61), and the last criterion is Thinking Skills (mean 3.58).

In the Third grade the arrangement of the means of each criterion of the knowledge-based economy is: Finding Information and Research Skills (mean 3.87), Life and communication Skills (mean 3.87), Self-evaluation Skills (3.83), Using technology Skills (3.81), and the last criterion is Thinking Skills (mean 3.74).

When it comes to the mean of each of the knowledge-based economy criterion for the social and national textbooks in the first three grades together, the total arrangement is: Finding Information and Research Skills (mean 3.69), Life and communication Skills (mean 3.63), Self-evaluation Skills (3.57), Using technology Skills (3.54), and the last criterion is Thinking Skills (mean 3.53). Although the means are close among the five criteria, this result indicates that thinking skills criterion needs more attention.

The Statistical technique that the researchers used for determining the existence of differences among means was the analysis of variance (ANOVA) Table 2.



*Table 2. ANOVA Analysis of Evaluation of Knowledge-based*

*Economy Criteria in social and National Textbooks*

Knowledge-based Economy		Sum of		Mean		
Criteria		Squares	df	Square	F	Sig.
(1) Thinking Skills	Between Groups	9.92	2.00	4.96	3.90	0.02
	Within Groups	217.22	171.00	1.27		
	Total	227.14	173.00			
(2) Self-evaluation Skills	Between Groups	14.31	2.00	7.16	6.31	0.00
	Within Groups	193.87	171.00	1.13		
	Total	208.18	173.00			
(3) Life and communication Skills	Between Groups	12.60	2.00	6.30	5.37	0.01
	Within Groups	200.60	171.00	1.17		
	Total	213.20	173.00			
(4) Using technology Skills	Between Groups	23.68	2.00	11.84	9.81	0.00
	Within Groups	206.37	171.00	1.21		
	Total	230.04	173.00			

(5) Finding Information and Research Skills	Between Groups	12.19	2.00	6.09	5.01	0.01
	Within Groups	208.12	171.00	1.22		
	Total	220.31	173.00			
TOTAL	Between Groups	13.97	2.00	6.98	5.91	0.00
	Within Groups	202.13	171.00	1.18		
	Total	216.09	173.00			

*Table3. Multiple Comparisons Tukey HSD*

Dependent Variable	Level (I)	Level(J)	
		2nd Grade	3rd Grade
		95% Confidence Interval	95% Confidence Interval
		Upper Bound	Lower Bound
(1) Thinking Skills	1st Grade	-0.42	-.58(*)
	2nd Grade		-0.16
(2) Self-evaluation Skills	1st Grade	-0.48	-.70(*)
	2nd Grade		-0.22



(3) Life and communication Skills	1st Grade	-0.46	-.66(*)
	2nd Grade		-0.20
(4) Using technology Skills	1st Grade	-.76(*)	-.86(*)
	2nd Grade		-0.10
(5) Finding Information and Research Skills	1st Grade	-.57(*)	-.61(*)
	2nd Grade		-0.04
TOTAL	1st Grade	-.54(*)	-.68(*)
	2nd Grade		-0.15

In addition, the researchers used Tukey HSD test as another statistical technique. For the purpose of this study this multiple comparison test was used to determine the significant differences between group means in an analysis of variance setting. Table (3) shows the results of this test.

#### Recommendations and Conclusion

The main finding of this research highlighted that the content of the social studies textbooks does not refer to the philosophy of knowledge-based economy directly. The

research findings agree with the previous literature (Alumary, 2004 & The Ministry of Education, 2003) that there is an attempt to include Knowledge-based economy criteria in the social and national textbooks in the first three grades. But this attempt of the Jordanian educational system need to incorporate thinking skills criterion more effectively in order to have more implications of this criterion comparing to other implemented criteria (Talafta, 2009 & Giroux, 1996).

As a conclusion, Knowledge-based

economy is a new phenomenon which has impact on all aspects of social life. This research aimed at investigating elementary teachers' evaluation of (1st to 3rd grades) social and national textbooks in Jordan according to knowledge-based criteria. Teachers' perspectives varies and their evaluation revealed that there is a need to rethink regarding the extent to which thinking skills criterion in these textbooks. This finding can help policy-makers in Jordan to put more attentions to the content, activities, and evaluation of social and national textbooks to incorporate different levels of thinking skills more appropriately in the first three grades.

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