



Content Analysis of the English Language Textbooks Based on Education for Sustainable Development

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ABSTRACT

The concept of Education for Sustainable Development should become part of education in all fields. The present study aimed at analyzing English language textbooks of 6th grade at Saudi schools based on the concepts of Sustainable Development. This objective was achieved through developing a valid and reliable checklist that can be used for different subjects at different levels of education. The checklist covered the main-themes and the sub-themes included in Sustainable Development which were derived from the official site of UNESCO. Validity and reliability of the checklist was established using the suitable statistics. The content analysis of the textbooks was used to answer the study questions. The results suggested that there was a big disparity in the spread of SD themes and that some of the themes, in spite of their importance, are never mentioned throughout the textbooks. The study stressed the importance of covering all the sub-themes embedded under each main-theme and recommended that all of the sub-themes should be considered in the English language subject and all other subjects in different fields of education.

KEYWORDS

Sustainable Development Themes, Education for Sustainable Development, English for Sustainability

Introduction

Education for Sustainable Development (EfSD) started by Bruntland Commission report in 1987 and is currently guided by the UNESCO. UNESCO is now responsible for coordinating the efforts of governments, educators and students to integrate the theme of sustainable development in educational systems, both formal and non-formal, at all levels (UNESCO, 2005). Education for Sustainable Development means "including key sustainable development issues into teaching and learning" (UNESCO, 2005). EfSD covers different dimensions and among others is social, economic and environmental.

Quality education suggests integrating life concepts like SD concepts in all scientific areas and disciplines and not standing as a separate subject (WWF, 2008). It aims at presenting educational experiences that facilitate the change towards more sustainable societies (Bowden, 2010). "Educational content and methods must be oriented more clearly towards the goals of sustainable development from nursery school to university" (UNESCO, 2005). There is a strong orientation towards EfSD which calls for every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future and consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way (UNESCO, 2005).

EfSD is the type of education that emphasizes collaborative working, intercultural awareness and interpersonal skills to clarify how individuals are connected to communities, nationally and globally. Schools should include education for sustainable development in their educational curricula as it proved to play an important role in providing support to the widespread concern about environmental sustainability and other types of sustainability (Mahto, 2014).

English language teaching is becoming a necessity in almost each country around the world as it is the official language of science, medicine and many other fields. It is the language to communicate with the whole world (Crystal, 2003; Bowden, 2010) and the way to have more chances to gain good jobs in companies and government departments. Thus English language teaching should come in harmony with the intended learning outcomes. Gueye (1990) argues that English language teaching should encourage students to understand their roles in the educational and social development of their nations.

In the teaching and learning process, textbooks are considered

very important sources of knowledge and should provide authentic and life-related materials that can be of interest to the learner. Tok (2010) emphasizes that textbooks play a prominent role in English language teaching as they make the existent knowledge apparent and available for the students. However, the knowledge and information provided in the textbook should be authentic and strongly linked to society problems and students' needs. Hutchinson and Torres (1994) state that textbooks provide the necessary input into classroom lessons through content, explanations and activities. Richards (2001) suggests that without textbooks, a program may have no impact.

However, there are many precautions that have to be mentioned in the selection and use of textbooks materials. Many researchers and practitioners suggest certain conditions for textbooks to be valuable and beneficial for the students. Tok (2010, p. 509) mentions that "the problem with textbooks is not that they may be socially and culturally biased but in the fact that they are too contrived and artificial in their presentation of the target language." He adds that many textbook language models and dialogues are unreal and inappropriate for communicative and cooperative language learning. He further contends that the unreal scripted materials in textbooks can lead to oversimplification by students and gives unreal views about real life. It can also provide inaccurate advice about society which can be dangerous for the students using that language.

Thus to build a society that believes and encourages SD, the content of textbooks must share in the teaching and learning process by providing a content that discuss special concepts and such textbooks are the English language textbooks. It should include titles that are related to worldwide problems and how to react towards them. Here the scientific knowledge is not sufficient but should be complemented by values and consequent behaviors that can lead to a more environment-friendly lifestyle (WWF, 2008). The essential role of textbooks in the teaching and learning process and the worldwide claims for infusing the concept of SD in all fields of learning encouraged the researcher to analyze the content of the English language textbooks in the Saudi schools to check to what extent do the presented materials support the concept of EfSD. The researcher believes that content analysis is beneficial for making replicable and valid inferences about the availability of SD concepts in the English language textbooks (Krippendorff, 1980). The use of content analysis will help to provide a condensed and broad description of the texts in light of different

themes of EfSD (Kyngas & Vanhanen, 1999).

Questions of the Study

- What are the main themes of EfSD?
- What are the sub-themes of EfSD that are used to clarify each main theme?
- To what extent are the themes of EfSD available in the English language textbook of the 6th grade in Saudi schools?

Methodology and Design of the Study

Method of the study

The study adopted the content analysis method which is based on summarizing and interpreting the written data to make valid inferences. The researcher chose content analysis because it can be conducted with any written material and can be applied to examine large amounts of texts (Cohen et al., 2007). The data are collected through scientific analysis of meanings, themes and pictures that may be manifest or latent in the textbooks of the English language based on EfSD themes and through counting the number of the theme availability in the text.

Sample of the study:

The targeted textbook under analysis is "Smart Class" series published by "mm Publications". The "Smart Class" series is a collection of textbooks designed for the English Language Development Project in Saudi Arabia. The series consists of Student's Book, Teacher's Book and CD's. The students' textbook is one of the textbooks in the series specially designed for teaching the main content of the curriculum. The Student's book is divided into two textbooks; one for the first semester and the other for the second semester in this study "Smart Class 5 and Smart Class 6".

The 6th grade is selected in particular because it is the preparatory grade for high school where learners are introduced to a broad range of knowledge, skills and behaviors they need to succeed in life. Furthermore, the 6th grade is selected because at this stage learners begin to acquire an acceptable standard of the English language and can be introduced to different themes related to their authentic daily skills.

Tool of the study

The data are collected from the content analysis of the English language textbooks through the use of a content analysis checklist prepared by the researcher. The checklist is the primary data source used as reference for the analysis. The checklist was constructed on the basis of the UNESCO official site which is considered to be the lead agency for the application of the United Nations goals of Sustainable Development in Education. The checklist consists of (5) main themes and each main theme includes (5) sub-themes. Each of the checklist items is followed by columns concerning the availability of the theme, and how many times it appears in the context. The evaluation checklist consisted of six columns; the first one for the main themes. The second for sub-themes, the third was concerned with availability of the sub-theme and is divided into (Available and Not available), the fourth was about how the theme appeared in the context, and the fifth was for quantitative evaluation which accounted how many times the concept appeared. The final form of the evaluation checklist consisted of (5) main-themes and under each theme there were five sub-themes.

Validity and reliability

To establish validity of the tool it was given to a committee of experts led by five judges from different Faculties of Education. They were asked to examine the definitions of the main theme and the extent of relationship between the main-theme and the sub-theme. The results proved that it was valid for the objectives of this study. However, the researcher made some modifications for the statements of the checklist and the number of sub-themes. The modifications were selected to cope with the jury's recommendations and the Islamic and cultural specificities of the Saudi society.

The reliability of the tool was established by applying the method of content analysis of the units twice. The time between the two processes was one month, and then the number of agreement

and disagreement between the two analyses was calculated. The researcher chose Holsti formula (1969) to calculate the reliability.

The percentage of agreement rate reached to 80% which is an acceptable level of reliability.

Results and Interpretation

The results of the study are presented according to the answers of the study questions as follows:

What are the main themes of EfSD?

To answer the first question, the researcher referred to the different dimensions that have to be covered in teaching and learning of SD on the official UNESCO site, the principle of the three pillars of sustainability and the different dimensions concerned with learners' comprehensive growth in Developmental Psychology. The dimensions of SD found on UNESCO were as follows; Biodiversity, Climate Change, Disaster Risk Reduction, Cultural Diversity, Poverty Reduction, Gender Equality, Health Promotion, Sustainable Lifestyle, Peace and Human Security, Water Reservation and Sustainable Urbanization. The principle of the three pillars of sustainability suggests that for the complete sustainability problem to be solved all three pillars of sustainability must be sustainable. The three pillars are social sustainability, environmental sustainability, and economic sustainability. To be more concise and comprehensive, the researcher grouped these eleven main dimensions into five themes which represent the main themes in the study tool and they were as follows:

Environmental: environmental sustainability is the rates of renewable resource harvest, pollution creation, and non-renewable resource depletion that can be continued indefinitely.

Social: social sustainability is the ability of a social system to function at a defined level of social well being indefinitely that is to provide quality of life for the people living in it and their descendants.

Cultural: cultural sustainability is concerned with "actions and issues that affect how communities manifest identity, preserve and cultivate traditions, and develop belief systems and commonly accepted values" (Werbach, 2012)

Personal: The scope of personal sustainability is to improve one's awareness and identity, to reinforce one's talents and potentials in order to facilitate employability and enhance one's quality of life.

Economic: economic sustainability is the ability of an economy to support a defined level of economic production indefinitely.

What are the sub-themes of EfSD that should be included to clarify each main theme?

To answer the second question, the researcher analyzed the content of the UNESCO Teaching and Learning for Sustainable Future Program. The aims of this program are; (1) to integrate the theme of sustainable development in educational systems, both formal and non-formal and at all levels, (2) to emphasize the inclusion of SD on the content and methods of education and its adaptation to the cultural context, (3) to encourage the involvement of basic education in the support of people's involvement in community life and decision making. The analysis of the program resulted in (5) sub-themes embedded under each main theme with a total of (25) sub-themes. These sub-themes are presented in detail in the following tables.

To what extent are the themes of EfSD available in the English language textbooks of the 6th grade in Saudi schools?

To answer the third question, the researcher analyzed the content of the two textbooks "Smart Class 5" and "Smart Class 6". The coding symbols were used to point at the appearance of the theme in the text. The researcher believed that this method will identify the theme and clarify if it existed, how it existed and how many times. The researcher used the theme as the unit of analysis for this research. The theme of EfSD is defined by different

concepts deduced from the UNESCO official site and the pages specified for EfSD.

The results of the analysis were recorded in tables according to which conclusions were drawn up. The summary of the results also provided some interesting viewpoints outlined by the researcher on the following sections.

Sustainable development themes are mentioned (279) times throughout the two textbooks. These themes are distributed in both textbooks over the five main themes of EfSD. However, the rate of the themes spread was not equal over the two textbooks or over the five main themes. On one of the textbooks the themes are extremely available as they were mentioned between 7-9 times while some themes are not available at all in spite of being very important themes like "Reducing green house gas emission" and "Providing lifelong learning opportunities". The themes that are extremely mentioned in the two textbooks are the social themes as they were mentioned (106) times. The personal themes came in the second level in rate of spread as they were mentioned (64) times in both textbooks, followed by the cultural with (44) times then the environmental themes with (38) times. The least themes were the economic themes with (27) times of appearance see table (1).

Table (1) The distribution of themes over Smart Class (5 and 6)

Main-theme	Smart Class 5		Smart Class 6		Total of frequency
	frequency	Percentage	frequency	Percentage	
Environmental	20	52.63	18	47.37	38
Social	52	49.06	54	50.94	106
Cultural	24	54.55	20	45.45	44
Personal	33	51.56	31	48.44	64
Economic	19	70.37	8	29.63	27
Total	148	...	131	...	279

Sustainable development themes are not distributed equally over the sub- themes embedded under a main-theme. The following is an explanation of SD themes rate of spread over each sub-theme in the textbooks.

The environmental themes rate of spread

The rate of spread of SD themes was not equal over different themes embedded in the environmental theme. Table (2) shows the rate of spread of SD themes in the environmental dimension throughout the textbooks. Some of the categories are not available at all like "Reducing greenhouse gas emission" with 0% while "Keeping balance among animals and plants" has got the highest rate of spread with 47.37%, followed by "Saving lives and preventing injuries" with 28.95%, then "Encouraging the consumption of healthy food" with 15.79%. Some themes were mentioned in a negative way as in "Developing effective educational materials on water management and protection" for there were some pictures that showed extravagance in the use of water.

Table (2): The rate of spread of the environmental themes

Environmental	Frequency	Percentage	Type of appearance
Encouraging the consumption of healthy food	6	15.79	Manifested
Keeping balance among animals and plants	18	47.37	Latent
Reducing greenhouse gas emission	0	0	Latent
Saving lives and preventing injuries	11	28.95	Manifested
Developing effective educational materials on water management and protection	3	7.89	Latent
Total	38	100	...

The social themes rate of spread

As for the social dimension the main stress was on "Enhancing and developing the crucial role of women" with 30.19% as it was manifested through many pictures and conversations. The woman appeared as a teacher, a doctor, nurse and a mother. The other theme that was mentioned extremely was "Acquiring knowledge, values, skills and attitudes for dialogue, cooperation and peace" with 28.30%, and "Making education content gender-sensitive and free from discrimination" with 21.70%. The theme that was concerned with poverty reduction "Equipping people with skills needed to improve their livelihood" got a normal spread rate over the textbooks as it reached to 16.98%. Finally, the theme "Increasing income opportunities for the poor" was very low in spread as it recorded only 2.83%. See table (3)

Social	Frequency	Percentage	Type of appearance
Making education gender-sensitive and free from discrimination	23	21.70	Latent
Enhancing and developing the crucial role of women	32	30.19	Manifested
Acquiring knowledge, values, skills and attitudes for dialogue, cooperation and peace	30	28.30	Latent
Increasing income opportunities for the poor	3	2.83	Latent
Equipping people with skills needed to improve their livelihood	18	16.98	Latent
Total	106	100	...

Table (3): The rate of spread of the social themes

c. The cultural themes rate of spread

In the cultural dimension there was a huge difference in the spread of themes throughout the textbooks. While some of the themes were extremely available with a percentage of 45.45% like "Accepting difference amongst cultural and ethnic groups" and 40.91% in "Living Peacefully and tolerating", other recorded only 2.27% like "Teaching the skills of re-utilization, recycling and changing" or even 0% as in "Providing lifelong learning opportunities". Only one theme was normal in spread with 11.36% which was "Presenting dialogues on the significance and role of heritage." See table (4).

Cultural	Frequency	Percentage	Type of appearance
Living peacefully and tolerating	18	40.91	Latent
Accepting differences amongst cultural and ethnic groups	20	45.45	Latent
Presenting dialogues on the significance and role of heritage	5	11.36	Latent
Providing lifelong learning opportunities	0	0	...
Teaching the skills of reutilization, recycling and changing	1	2.27	Latent
Total	44	100	...

Table (4): The rate of spread of the cultural themes

The personal themes rate of spread

In the personal dimension which was related to building students' skills and abilities, only two themes were covered extremely. These two themes were "Promoting critical thinking and problem-solving skills" with 56.25%, "Encouraging decision-making processes" with 21.88%. The other themes were either normally available like "Enabling learners to adopt caring and supportive attitudes to others" with 17.19%. and "Adopting a broad skills-based health education curriculum" with 4.69% or not available like "Respecting differences and diversities as well as building successful relations" with 0%. See table (5).

Table (5): The rate of spread of the personal themes

Personal	Frequency	Percentage	Type of appearance
Promoting critical thinking and problem- solving skills	36	56.25	Latent

Encouraging decision-making processes	14	21.88	Latent
Enabling learners to adopt caring and supportive attitudes to others	11	17.19	Latent
Enabling learners to adopt protective and health-seeking behaviors	3	4.69	Latent
Acquiring the capacity to live together peacefully	0	0	Latent
Total			...

The economic themes rate of spread

In the Economic dimension many themes has not been covered sufficiently. Only one theme was extremely covered that it has been mentioned more than 5 times which was "Creating a quality learning environment that promotes sustainability" with 45.45%. Two of the other themes were available either 5 times or less and that were "Encouraging Technical Vocational Education and Training" and "Helping youth to find employment in green jobs" with 15.15%. One of the themes was rarely available in the textbooks and that was "Encouraging economic consumption of energy and raw materials" with 6.06%. See table (6).

Table (6): The rate of spread of the economic themes

Economic	fre- quency	Percent- age	Type of appear- ance
Encouraging Technical and Vocational Education and Training	5	15.15	Latent
Helping youth to find employment in green jobs	5	15.15	Latent
Verifying that sustainable consumption means buying goods and services that do not harm the environment, society and the economy	6	18.18	Latent
Recognizing the effect of our daily choices as consumers on the lives of workers in distance places	15	45.45	Latent
Encouraging the economical consumption of energy and raw materials	2	6.06	Latent
Total	

The disparity in rate of spread between main-themes and between sub-themes under each main-theme suggests that there

is a weakness in the inclusion of SD themes in the English language textbooks for 6th grade in Saudi Arabia. This weakness recommends that more concern should be paid to certain themes as there are some themes like the social that has been paid more attention over other themes like the economic. Some of the sub-themes are not available at all and others are extremely available which means that there is unbalance in the rate of spread of the SD themes in spite of the fact that they are equally important for the success of EfSD.

Most of the themes are mentioned in a latent manner either through pictures or general conversations but no theme is mentioned explicitly except for very limited number of themes which are discussed through certain subjects like the ones concerning the traditions or customs of certain countries in comparison with the Saudi ones for example "Food all over the world", "The traditional Japanese house" and "Al-Murabba Palace" and "Buckingham Palace".

Conclusion

Education for Sustainable Development is a concept that has started earlier in this century, discussed by many conferences all over the world but still it is not covered sufficiently in public schools. The ignoring of all SD themes or any of them is a challenge that has to be handled in schools through textbooks and other curriculum components "The problems caused by the reduction of biodiversity are regarded as some of the greatest challenges facing humanity today" (Nayal, 2013: p. 55).

The results of the present study suggest that more attention should be given to this concept and specifically in textbooks as they constitute a steady reference for both teachers and students in all school levels and throughout different subjects.

The researcher suggests that more studies should be presented in the field of EfSD over all the levels explicitly in many texts and should be given equal importance. Also the classification of the sub-themes embedded under the main-themes should be reviewed and reconsidered intensively to make sure that they all have been covered and included under the most suitable main-category.

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