

Content Analysis of Science Text book For the first grade class According to standards of Aesthetic education

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Abstract Search

The current research aims to "analyze the content of the science book for the first intermediate grade according to the standards of aesthetic education" for the academic year (2021-2022 AD) and for the purpose of achieving the research objective, the researcher adopted the descriptive approach - the method of content analysis and the explicit idea as a unit of analysis and the research community was a science book for the first intermediate class and its sample the content of this book is in the first and second parts, and an analysis tool was prepared based on the standards of aesthetic education, after the researcher reviewed the tool included four previous books, literature and studies close to the current research main criteria (religion, family and school, health and food, design) and for each criterion (10) indicators with a total of (40) indicators in its final form after verifying the validity and reliability of the tool, the researcher also adopted the following statistical methods: (Holstey equation, percentages and frequencies).

The results indicated that the science book for the first intermediate grade was achieved, the first part (881) repeatedly and the second part (491) iterated, and according to the results reached by the researcher, he presented conclusions, recommendations and suggestions.

Keywords: content analysis, science book, first intermediate grade, standards of aesthetic education.

Search Problem

Aesthetic education is a necessary and basic thing since childhood. This is to educate the student in a general and adequate education that produces an innovative mentality that has the ability to be creative. The need for aesthetic education is not a matter of luxuries only, but rather a basic need that the student needs to educate himself, his mind, his soul and his body. Rather it must be achieved in all scientific disciplines and for any stage of study, and the content of the curricula must include a large part of the standards of aesthetic education due to its importance in the growth of the student's personality in its multiple aspects (psychological, emotional, mental) (Abdel-Al, 2005: 377).

Through the researcher's review of many educational literature, and studies related to aesthetic education, he the analysis of middle school books recommended in particular science books such as a study (Matar, 2015) and a study (Mohsen, 2015), as it recommended many conferences, including the "Arab Child conference blown by the various cultural influences" which was held in Alexandria - Egypt corresponding to 9/27/2005 AD by adopting the standards of aesthetic education in form and content in a way that contributes to attracting learners' interest and developing their creative abilities, and empowering them with knowledge, values, concepts and behaviors that meet their needs, enhance their rights and consolidate their cultural affiliation (The Arab Child Conference, 2005).

As a result, there is a need for more studies and researches that are concerned with aesthetic education and its standards. This is what gave the researcher a sense of the existence of a problem with the lack of inclusion in the content of the science book for the first intermediate grade of aesthetic education standards, so he decided to conduct the current research to verify their inclusion and determine their proportions because they are among the valuable topics that have a great impact on the environment, society and all areas of life, and to the knowledge of the researcher is this the first research, as it did not find a study conducted to analyze the content of the science book for the first intermediate grade according to the standards of aesthetic education, and from the above, the problem of the current research can be determined by the following question:

(What is included in the science book for the first intermediate grade according to the standards of aesthetic education?).

Research importance

- The current research shows the extent to which the content of the science book for the first intermediate grade includes the standards of aesthetic education.
- Show the relationship of aesthetic education to innovation and creativity.
- This research may provide those interested in the Curriculum Directorate - the Iraqi Ministry of Education, with the results to benefit from them when developing curricula and textbooks.

Research Objective

The current research aims to (analyze the content of the science book for the first intermediate grade according to the standards of aesthetic education).

Limitation of the research

- 1 -Scientific knowledge limits: analyzing the content of the science book for the first intermediate grade (parts one and two) the fifth edition for the year (2021 AD) issued by the General Directorate of Curricula - the Iraqi Ministry of Education according to the standards of aesthetic education.
- 2 -Temporal limit: The study was conducted during the academic year (2021 / 2022 AD).

Definition of the terms

- **Content analysis:** Al-Saadi and Miqdad defined it as “the set of steps that the authors of the study rely on to divide the educational tasks into the elements that make up the content” (Al-Saadi and Miqdad, 2021: 128).

-**The researcher defines it procedurally:** as dividing the content of the science book for the first intermediate grade into its components and extracting ideas that include aesthetic education standards and describing them quantitatively according to the analysis tool prepared for the study.

-**Aesthetics Education:** Shehata and Zainab defined it as “an expression intended for the educational aspect that softens the individual’s conscience and feelings and makes them sensitive and aware of taste and beauty, so that this brings happiness and satisfaction to themselves and elevates his conscience and refines his emotions and behaviors” (Shehata and Zainab, 2003: 98).

-**The researcher defines them procedurally:** as the ideas included in the science book for the first intermediate grade from the standards of aesthetic education and represented by the four main criteria (religion, health and nutrition, family and school, design) prepared by the researcher to achieve the goal of the current research.

Theoretical aspects and previous studies:

Theoretical aspects include the following:

First: Content analysis:

Content analysis consists of two terms, one of which is Analysis and the other is Content. Analysis is defined as the distribution or disaggregation of the whole into sections or vocabulary and its connection to its main elements. As for the content, it means the communication material that will be subject to the analysis and study process. (Al-Jadri and Yaqoub, 2009: 5).

Second: Aesthetics Education:

“Aesthetic education” consists of two parts: education and beauty. Education is a science and an art that has its origins and rules. In order to employ that science in reality, its rules, methods and strategies must be perfected in order for its results and applications to emerge and its effects to be reflected on students. (Abdul Kareem, 2011: 18).

Sources and standards of aesthetic education:

The sources and standards of aesthetic education can be clarified as follows:

First: Religion : is the greatest and first source of aesthetic education because it is the divine curriculum and a law since God created the universe. It is an educational necessity for the development of a righteous individual who carries habits, values and a thinker to reach the degree of creativity. (Atta, 2005: 48).

Second: The family and the school : The family is the first educational institution that establishes the elements of aesthetic education in the hearts of its children. Perhaps the family derives its importance from providing young people with the principles of aesthetic education, and the family is seen as the first cell of which the social component consists.

(Al-Qadi, 2002: 146).

Third: Health and Food: Health is the concept of non-disease, not coexistence with disease, and the individual has practices of healthy habits such as washing hands and eating healthy food free of pollutants, which can spare you from **doctors and medicines**. A healthy environment and provision of a measure of peace and psychological satisfaction by believing in God Almighty and not accepting acquired habits and traditions that are harmful to health and harmful food, and it is known that good nutrition is the basis of health.

(Abu al-Fotouh, 2006: 5-9)

Fourth: Design: According to "Herbert Read", design corresponds to sensory objects in areas related to design, such as visual and plastic, through the senses of sight and touch to discover the design (composition) of an object.

(Abu al-Hija, 2008: 35)

Aesthetic education and content Science books:

Aesthetic education deals with topics that most of the study subjects share about the environmental aesthetic aspects (such as air, water, pollution, living organisms and the role of man in refining environmental beauty). The student studies animals and plants in the environment in ecological balance. (Aziz et al., 2019: 286)

In light of the foregoing, the (researcher) sees the multiplicity of aesthetic aspects in the natural sciences, and their development is a means to build and integrate the student's personality. The aesthetic aspect and its taste is essential to his life, and it has no impact on society.

Previous studies: The researcher dealt with studies that focused on aesthetic education, such as a study (Matar, 2015) and a study (Mohsen, 2015), as shown in the following table:

Table(1)
Studies that dealt with aesthetic education

T	search objective	Study tools	Study Approach	the sample	Statistical means	results
1-(Matar, 2015) Iraq	"Analysis of the content of the biology book for the third grade according to the standards of aesthetic education"	A list of aesthetic education standards	Descriptive analytical method	Community and sample biology textbook for middleschool.	Frequencies, percentages, and Holste equation	following results: The highest percentage of the health and food criterion (89.42%), followed by the religion criterion (5.44%), and the family and school criterion, the lowest percentage (5.14%).
2-(Mohse, 2015) Iraq	Analysis of biology books in the light of aesthetic education and the extent to which teachers include them in their teaching.	A list of the fields of aesthetic education and the aesthetic education question-aire for teachers.	Descriptive analytical method	The content of biology books for the intermediate stage and (202) for male and female teachers.	Frequencies percentages, Holstey equation, chi-square, t-test for two independent samples, Pearson's correlation coefficient, Cronbach's alpha.	The resultsof the study found the following: that the book of biology for the third intermediate grade is the most concerned with the fields of aesthetic education, with a percentage of (40.46%), and the book of principles of biology for the first intermediate grade ranked second with a rate of (29.30%), then the book of the second average ranked last with a percentage of (27.23%).

Research Methodology and Procedures:

First: Research Methodology: The researcher adopted the descriptive approach, through which he aims to analyze the content of the science book for the first intermediate grade according to the standards of aesthetic education.

Second: the research community: it means "all the units of the phenomenon under research that are intended to obtain data" (Habib, 2021: 46). The researcher has identified the current research community represented in the science book for the first intermediate grade (C1, C2), F5, for the year 2021 AD.

Third: The research sample: To organize the information for the research, the researcher adopts one of the two methods, either dealing with the entire community or choosing a sample from the studied community to represent it. (Al Mahmoudi, 2019: 158). The sample of the study material is represented by the content of the science book for the first intermediate grade of the academic year (2021-2022 AD) and its first and second parts, after the researcher excluded the introduction to the book and the questions of the chapters.

Fourth: The research tool: To achieve the goal of the current research, the researcher built an analysis tool according to the standards of aesthetic education. Its goal is to find out the percentage of inclusion of aesthetic education standards (religion, family and school, health and food, design) in the content of the science book, which is to be taught for the first intermediate grade in the Republic of Iraq.

Fifth: Validity of the tool: The researchers presented the analysis tool to experts and specialists to verify its validity after adopting the percentage of agreement between experts (80%) and upwards using the "Holisti" equation, and taking all the observations they made, so the tool became ready in its final version, Annex (1).

And then presenting a sample of the analysis to experts and specialists, and they unanimously agreed on the positivity of the analysis, and this is what the researchers considered the validity of the analysis.

Sixth: The stability of the analysis: To verify the stability of the tool and the analysis, the researcher calculated the stability in two ways:

A - Stability through time: The researcher re-analyses after a period of time estimated at about (4-6) weeks, and compares the first and second analyzes to verify stability (Habib, 2021: 54). The researcher re-analyzed the same sample after (30) days (equivalent to approximately four weeks), and the reliability coefficient was (96%) using (Holsti equation), which is a high value that can be adopted.

B - Stability with other analysts: The researcher used other analysts to verify the stability And Table (2) shows the values of the stability coefficient using the Holsti equation.

Table (2)
Percentages of the stability coefficient in the analysis

Stability type	Analysis type	Analysis Stability Coefficient
Agreement over time	researcher with himself	96%
agreement between two analysts	The researcher with the first analyst	92%
	The researcher with the second analyst	95%
	The first and second analyst	91%
Final agreement rate	The researcher with the first and second analyst	94%

Seventh: Statistical Means:

The researcher adopted several statistical methods to process the data, including the following:

- Microsoft excel program.
- Percentages and frequencies.
- Holisti equation: It was used to calculate the stability of the analysis.

$$R = \frac{2A}{N1 + N2}$$

R : coefficient of stability

A: The number of times the researcher agrees in the two analyzes, or the number of times the researcher agrees with another analyst.

N1: the number of times the first parse agreement, or the number of times the first parser agrees

N2: The number of times the second analysis agreed, or the number of times the other analyst agreed (Al-Bassiouni, 2013: 299) .

Search results and their interpretation:

The results of the analysis of the science book for the first grade were classified into two categories as follows:

First: The results of analyzing the content of the science book for the first intermediate grade, the first part, reached a total of (881) recurrences, distributed according to the indicators of the tool adopted in the analysis prepared for this purpose. Its contents can be collected to know the sequence of each standard and its percentage at the level of the chapter and the book, as shown in the following table:

Table (3)
Frequencies and percentages of aesthetic education standards for the content of the science book, first intermediate grade, part one:

T	Standard	P1	P2	P3	P4	P5	P6	Sum	The Ratio	Rank	Sig
1	Religion	1	0	5	5	2	4	17	1.93%	4	not sig
2	family and society	30	19	29	28	50	63	192	21.79%	2	not sig
3	health and food	0	1	2	36	7	2	48	5.45%	3	not sig
4	the design	102	115	110	99	87	111	624	70.83%	1	sig
	the total	133	135	146	168	146	153	881	100%		
	The ratio	15.1%	15.32%	16.57%	19.07%	16.57%	17.37%	100%			

The results are shown in Table (3) To achieve the four criteria adopted in the analysis tool in varying proportions, as the design criterion achieved the highest percentage (70.83%), followed by the family and society criterion with a rate of (21.79%), the health and food criterion with a percentage of (5.45%) and the lowest percentage is the debt criterion with a percentage of (1.93%).

The two researchers believe that the high proportions of the design standard are due to the large availability of images, some tables and colors, and the interface of each lesson is distinguished.

Second: The results of analyzing the content of the science book for the first intermediate grade, the second part, has reached a total of (491) recurrences, distributed according to the indicators of the tool adopted in the analysis prepared for this purpose, and its contents can be collected to know the sequence of each standard and its percentage at the level of the chapter and the book as in the following table:

Table (4)
Frequencies and percentages of aesthetic education standards for science book first intermediate grade the second part

T	Standard	P1	P2	P3	P4	P5	P6	P7	Sum	The Ratio	Rank	Sig
1	Religion	7	8	18	4	6	0	0	43	8.76%	4	not sig
2	family and society	14	12	19	11	29	27	25	137	27.9%	2	sig
3	health and food	0	16	0	4	9	3	14	46	9.37%	3	not sig
4	the design	45	41	33	38	43	36	29	265	53.97%	1	sig
	the total	66	77	70	57	87	66	68	491	100%		
	The ratio	13.44 %	15.68 %	14.26 %	11.61 %	17.72 %	13.44 %	13.85 %	100%			

The results are shown in Table (4) The four criteria adopted in the analysis tool were achieved in varying proportions, as the design criterion achieved the highest percentage (53.97%), followed by the family and society criterion with (27.9%) and the health and food criterion with (9.37%) and the lowest percentage, it is the standard of debt at a rate of (8.76%).

The two researchers believe that the high proportions of the design standard are due to the large availability of images, some tables and colors, and the interface of each lesson is distinguished.

Conclusions :

- 1-The content of the science book includes standards of aesthetic education in varying proportions.
- 2-The design criterion achieved the highest percentages in all the content of the science book chapters.

Recommendations :

- 1-Holding awareness seminars about the standards of aesthetic education and its importance because of its positive repercussions on the educational process and the student, and thus its impact on society.
- 2-The necessity of including standards in the content of textbooks for curriculum preparation specialists for the Curriculum Directorate in the Ministry of Education.

Suggestions :

- 1-Conducting a similar study for other stages of study.
- 2-Conducting a content analysis study with another variable such as comprehension or thinking or one of its types.

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Annex (1)

analysis tool in its final form

First: the standard of religion	
T	Indications
1	It includes verses from the Holy Quran
2	It includes appreciating the greatness of God in creating the universe
3	It includes the origin of living things
4	Interested in natural science scientists, especially Arabs and Muslims
5	It contains religious and moral values
6	Contains directives to preserve public and private property and patriotism
7	Directs the conservation of environmental resources (not wasteful)
8	Includes the religious and moral aspect of human genetic cloning
9	Contains rejecting unscientific beliefs and superstitions
10	Respect animal welfare
Second: The standard of family and school	
T	Indications
1	It includes school cooperation with the students' families
2	Draws to respect family and others like classmates
3	Avoiding violence and violence inside and outside the school
4	Includes activities and laboratory tools
5	It takes into account the practice of cooperative activities and experiences and teamwork
6	It encourages self-discovery and development
7	Includes scientific processes and skills
8	It contains the stages of discovery and problem solving
9	It encourages seminars and scientific trips
10	Directs the use of the Internet and television to benefit from it for scientific and research purposes
Third: The standard of health and food	
T	Indications
1	Includes healthy food
2	includes a seriesfood relationships
3	It includes the harmful effects of smoking, alcohol and drugs on health
4	It includes maintaining the health of the body's organs
5	Directs commitment to personal and public hygiene
6	It includes diseases and their prevention
7	It encourages exercise for its health benefits

8	Includes immunology topics such as vaccines
9	Contains awareness instructions about medicines
10	The content is directed to avoid environmental pollution due to its harmful effects on health
Fourth: the design standard	
T	Indications
1	Contains natural graphics and photos
2	It includes three-dimensional shapes
3	Contains shapes and diagrams
4	Includes patterns and models
5	The content contains colorful misleading of important concepts and things
6	Includes concept maps
7	Includes descriptions of shapes and images that fit the content
8	Includes coloring pictures, shapes, and maps with noticeable colours
9	Includes clear framing of pictures, figures, maps, and tables
10	It contains a distinctive interface for the beginning of the chapter and lessons to bear the idea of the topic