Analyzing the Verbal Questions Included in 11th Grade Textbook of New Palestinian Curriculum in Light of Aims and Purposes of Teaching Mathematics

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Abstract: This study aimed to analyze the verbal questions 11th grade textbook of the new Palestinian curriculum in light of the aims and purposes of teaching mathematics. The study used the qualitative approach and quantitative analytical method. The sample was a complete sample that included all verbal issues in the mathematics textbooks for 11th grade textbook of the new Palestinian curriculum. It included (50) verbal questions in the first book, (60) verbal questions in the second book. The study used a content analysis as the main tool of study. It was prepared in light of the aims and purposes of teaching mathematics, which were monitored in the final form (10) general targets, (5) aims, and (5) purposes. After the analysis and coding and the collection of ratios, frequencies and grades, the results showed that the percentage of inclusion of the aims in general was in the first book (75%) and in the second book was slightly higher and reached (80%), and the proportion of the purposes included in general in the first book (60%), in the second book it was slightly lower and reached (57%), which is a medium and a small percentage. For each aim, the general aim was "to unleash the potential of the students and develop their preparations and tendencies" is the first rank in the first book by including (88%), which was taken in the second book the second rank by including (95%), and the first purpose in the first book was "to acquire the basic skills associated with language and symbols" by including (84%), which was taken in the second book the first rank too, is also the highest at all by including (98%), and in both books, the general target of "understanding the correlation between mathematics and modern technological communication" was ranked at the final level by including (12%) in the first book and (0%) in the second book, and that there are significant differences at the level (α=0.05) in the level of inclusion of the aims and purposes of teaching mathematics in the verbal questions of the first-grade secondary scientific book of the new Palestinian curriculum between the first and second books in favor of the second book.

Keywords: Analyzing, Verbal Questions, Aims, Purposes, Teaching Mathematics

1. Introduction

1.1. Background to the Study

The curriculum is the straight path to reach, and it is the ladder of success for any desired work, and the educational curriculum has four main elements: the content represented in the textbook, the goals related to the content, the activities to achieve the goals and the implementation of the content, and finally the calendar to issue judgments on all these elements, including the evaluation itself.

Abdulaziz and Al-Balawi [1] said that developing educational systems and modernizing them requires modifying existing curricula, experimenting with new curricula that meet the requirements of modern life, and achieving students' aspirations and aspirations, and developing their creative abilities and higher mental skills, so developing curricula reflects its impact on textbooks, methods Education and its techniques, various classroom activities, assessment methods and tools.
The truth is that the examiner of the interconnected curriculum elements says in full that the curriculum can only be corrected if all its components have been reconciled without exception, so no new methodological book will succeed unless the design criteria are set and then tested, after formulating its objectives with ability from its derivative sources, and setting its activities Varied, living and modern through experts and specialists in the educational field, and do not forget the evaluation and continuous analysis of researchers for this curriculum and its components for the purpose of development and improvement.

"The process of analyzing and evaluating books and school curricula can be considered a diagnostic and therapeutic process at the same time that leads to developing the curriculum and improving the level of textbooks, either through deletion, addition, or amendment. The analysis process may be useful in understanding the content of books, and clarifying the means and activities in them, increases the effectiveness of their use in the teaching process.

Abu Zina [2], Al-Duwairi [3]

And if the analysis and evaluation is confirmed for all books and curricula, then it is therefore confirmed for the subject of reason, art and thinking, the subject of mathematics which is considered the mother of science and its servant.

The goals are the compass for any curriculum or book, among which are very general general goals, which are the goals and represent the desired results for any curriculum, and medium-term goals which are the purposes and goals that relate to a specific course of study and not others, up to the special behavioral goals.

Among the goals and purposes of teaching mathematics is the development of students' thinking, as Halpern [4] said is through academic subjects in general, and mathematics in particular, given that students who suffer from a decrease in thinking capabilities find it difficult to understand scientific concepts and principles, as well as applying them in Solve the life problems they face.

As the study pertains to Palestinian curricula, it was mentioned by the Palestinian Ministry of Education and Higher Education in the reference framework document for the development of national curricula [5]. This document appeared when the curricula became obsolete and the document originated from the Declaration of Independence document in Algeria, (1988), and from the amended Palestinian Basic Law For the year (2003), and from the plan for the first national curriculum for the year (1998), the general objectives for teaching the Palestinian curriculum have been listed and stated:

i. Preparing a citizen who is proud of his religion and language, who belongs to his country and contributes to building the homeland, keen on national unity.

ii. Providing the individual with different life skills, such as effective communication, thinking, problem solving and the use of technology.

iii. Openness to different human cultures, interacting with them positively and participating in building human civilization.

iv. Create positive trends towards manual work and estimate the professions associated with it.

v. Deepening the relationship between the earth and the human being and sustaining the intergenerational temporal communication.

vi. Preparing the human being who interacts with his community, and who is able to adapt to the requirements of the age of knowledge.

vii. Providing the individual with scientific facts, concepts and theories, and harnessing them to serve man.

viii. Strengthening the relationship between the individual and the state in accordance with the law and human rights, focusing on rights and duties.

ix. Rehabilitation of the person who contributes to the process of national liberation and social development.

x. To acquire lifelong self-learning skills, and to use sources of knowledge of various forms

xi. To develop students' attitudes towards preserving the environment, its cleanliness, its potential and its wealth.

xii. To develop students' competencies and talents in all fields, and to provide a nurturing environment for these talents.

xiii. To develop students' appreciation for artistic work, and to produce artwork according to their abilities and capabilities.

xiv. The same document [5] also mentioned the general secondary education goals associated with this study stating:

xv. Providing students with the knowledge and skills that qualify them to continue their educational achievement or become involved in the labor market.

xvi. Keeping pace with technological development and application of technology in all walks of life.

xvii. Establishing awareness and national and religious affiliation among students and employing their competencies to serve the community.

xviii. Enabling students to possess various basic knowledge in religions, languages, mathematics, and others.

xix. To create positive awareness among students about their societal and national rights and duties, and respect for the law.

xx. Establishing concepts of human rights, social justice, the role of women and their rights.

xxi. To enhance students' capabilities and their different preparations in developing scientific thinking, research spirit and self-learning.

xxii. Enabling students to possess the necessary competencies and knowledge to continue self-development.
xxiii. To enhance students' self-confidence, self-discovery, human appreciation and respect for their freedom.

xxiv. Linking learning with life and theoretical knowledge with application through providing practical learning capabilities.

xxv. Realizing the facts and facts related to the Palestinian national cause and its history.

xxvi. Students' mastery of the English language as a foreign language and their ability to communicate and communicate through it.

xxvii. To deepen students' awareness of environmental and local issues.

When the researcher examined these goals of building the analysis questionnaire, and after reviewing some of the considerations directed at this document, he found the goals sufficient and expressive, with some confusion, repetition, and overlapping in some of them, which led him to see the general objectives of the curricula in other countries such as the general objectives of teaching mathematics as mentioned in the mathematics curriculum document in Saudi Arabia [6]:

i. Provide students with the necessary mathematical knowledge to prepare them for life and solve problems.

ii. Providing students with mathematical skills, and building mathematical insight and understanding.

iii. Accustom students to sound ways of thinking.

iv. Contribute to the formation and development of sound sporting trends and tendencies.

v. Gaining the ability to taste and appreciate the aesthetic aspects.

vi. To develop the capacity for detection, innovation and self-learning.

vii. Create a modern mathematical culture around concepts, facts, symbols and methods of treatment.

viii. Highlight the importance of mathematics to other sciences.

Whereas, the general teaching objectives (the purposes) stem from the very general teaching goals (goals). The goals of modern mathematics teaching exceeded the understanding of the three parts of learning, represented in attitudes, skills, and knowledge, and the main goal of mathematics education has become to provide learners with experiences that contribute to becoming scientifically educated citizens. Ali, [7]

The goals of teaching and learning mathematics in the modern era are also highlighted by what was mentioned by Rafael and Joseph [8], and Mahmoud [9] as follows:

i. Keeping pace with the age and the advanced scientific reality, understanding mathematics as the language of the age and a tool for communicating with its symbols and concepts.

ii. Understanding integration in mathematics to understand mathematics itself with its branches, as well as understanding the various sciences and human life associated with mathematics.

iii. Encourage and teach types of thinking, discover patterns, and encourage students to be creative and creative.

iv. Using technology to teach mathematics and highlight its role.

v. To develop the capabilities of students, which makes them understand the relationship between mathematics and the real world.

vi. Economy in effort and time required to learn, given the acceleration of knowledge and its growing growth.

vii. Linking mathematics with realistic projects from the learner's environment that serve society.

viii. Attention to self-learning, developing communication skills and accepting the other opinion.

ix. Explain the role of Arabs and Muslims in developing mathematics.

x. Teaching some mathematical skills upon which some professions depend.

xi. Attention to human, social and national values.

To consider the efficacy of goals and others, it is necessary to evaluate through content analysis. Analysis is the best tool for achieving improvement and development after taking feedback from it about the strengths of stabilization and weaknesses to address them.

Among the reasons that developed education in China were the results of content analysis research for Chinese books and curricula, such as Li Chinese Research. Li [10], in which he made a comparison between the curricula in Hong Kong and the Chinese curricula in America, and found that there is a gap and a difference between these curricula in favor of the American curriculum, Which led to content development in some Chinese books.

Content analysis can be a powerful tool for exploring authors' opinions, interests, and attitudes by monitoring words and their vocabulary, such as examining the availability of criteria to measure the effectiveness of books, school curricula, and educational programs in achieving their goals. Stemler [11]

Mohammad & Abdel-Azim [12], Al-Hashemi and Attia [13], and Taima [14] stated that the objectives of content analysis relate to the following:

i. Knowledge of content particles, including concepts, ideas, principles, laws, directions, skills, and others.

ii. Improving the quality of books and school materials, reveal their strengths and shortcomings, and raise their sufficiency to achieve educational goals.

iii. Giving feedback to curriculum developers.

iv. Defining patterns of thinking and skills developed by the textbook.

v. Balancing the content, needs and inclinations of students.

vi. Knowing the cognitive levels and goals emphasized by the textbook.

vii. Determine the prevailing values in the content of its various types.

viii. Prepare tight quarterly and daily plans.

ix. Assisting in building tests according to specifications tables.

When talking about the content, we find that his heart has
questions and activities that express the desired goals clearly, especially verbal questions abundant in knowledge and their links with solving problems and general goals of goals and purposes.

Also, the questions that arouse the higher levels of thinking, especially in the levels of analysis, synthesis, and evaluation, make learning more effective because such questions need to express opinions, reach decisions and solutions, and give the learner an opportunity to think and learn on their own, and in return, the inclusion of lessons is an inspiring and creative thinking question. It does not mean neglecting questions that require retrieving information and facts because there is a dialectical relationship between lower and higher levels of thinking. Al-Shdooh [15], cited by Khalil (2012).

1.2. The Previous Studies

Many previous studies dealt with the topics of analyzing the content of books and curricula in all its parts, and the most recent and closest variables were chosen for this study, including the Tabaza [16] study that aimed to evaluate the content of Palestinian mathematics curricula for the fourth and eighth grade in light of the TIMSS standards, and the researcher used the descriptive analytical approach. The study sample consisted of the content of four Palestinian mathematics books for the fourth and eighth grades, and the study tool was a content analysis tool that was prepared in the light of the global solicitation standards 2015, and one of the most important results of the study was that the content of the mathematics textbook content in the fourth grade content came with the standards Seek (numbers 80.33%, geometric figures and measurement 14.81%, data display 4.86%), and after content for eighth grade (numbers 29.04%, algebra 33.03%, engineering 23.41%, data and probabilities 14.52%), but after cognitive processes for the fourth grade were (Knowledge 68.39%, application 18.75%, reasoning 12.86%), and after cognitive processes for the eighth grade (40.94%, application 33.83%, reasoning 25.23%).

The study of Abdul Qadir [17] that aimed to analyze mathematics textbook questions for the secondary stage in Palestine in the light of the mental processes of both sides of the brain separately, and the mental processes of both sides together. The study used the descriptive analytical approach, and the study tool was represented in an analysis card that included three dimensions: (9) Mental operations for the right side, (9) Mental operations for the left side, and (7) Mental operations for the two sides together. The study sample consisted of math textbooks for the first and second secondary grades scientifically, and the results showed that the percentage of mental processes activated in the math textbooks of the study sample was On the left side is the top, followed by the ratio on the two sides together, then the ratio on the right side finally.

Isaac's study [18] that aimed to analyze the mathematics book for the first secondary school in light of multiple intelligences, and the study used the descriptive analytical approach, and the sample was represented in all the content of my mathematics textbooks for the first secondary school in Saudi Arabia, and the study tool was an advanced content analysis card consisting of four Types of intelligence are logical, spatial, linguistic, and social, as the behavioral index indicating each type was identified, and the results showed that spatial intelligence was the most frequent, followed by logical intelligence, then linguistic intelligence, and in the last place came social intelligence.

Al-shahri study [19] that aimed to evaluate the content of mathematics books for the first secondary school in the Kingdom of Saudi Arabia in light of the standards of the National Council of Mathematics Teachers (NCTM), and the study used the descriptive analytical approach, and the study sample consisted of issues of numbers and operations on them, and the study used a content analysis tool. That was built in light of the NCTM standards, and the results showed that the percentage of achieving NCTM standards in issues of numbers and operations on them in the content of math textbook for the first year of secondary is very low and is not educationally acceptable and it does not exceed (13%).

The study of Shadooh [15], which aimed to analyze and evaluate homework and extra-curricular activities for the sixth basic grade in mathematics according to the levels of mathematical knowledge and Bloom's cognitive levels. The study sample consisted of notebooks (138) students from the sixth grade from Irbid Governorate, and the study tools were represented in two analysis cards. The results showed, in the light of the elements of mathematical knowledge, that most of the duties and activities came within the skills and generalizations questions by (77.8%), and the low duties that concerned with life scientific issues increased by (7.4%). The results also showed in the light of Bloom's cognitive levels that the duties came within the lower levels With a percentage of (86.9%), and lower duties within the higher levels by (13.1%).

Sharia study [20], which aimed to analyze the evaluation questions included in mathematics books for the fourth, fifth and sixth grades, the sample included six books, and the study used a content analysis tool and the unit of analysis in it was the paragraph indicating the question to classify them according to Bloom's cognitive levels, and the results showed the availability of Bloom levels Knowledge in all books for the three grades is arranged from memory to evaluation in proportions (61.94%, 22.15%, 5.55%, 4.70%, 3.36%, 2.30%), and the number of questions that measure minimum skills reached (66.64%) while those that measure higher skills reached (11.21%).

Al-Balawi's study [21], which aimed to determine the type of questions included in general exercises in the book of mathematics for the third year of high school, Department of Natural Sciences and to determine the cognitive levels of Bloom's classification of goals in general exercises in the book of mathematics for the third year of high school of the Department of Natural Sciences. The study sample was represented in all general exercises in the third-year high school mathematics book, Department of Natural Sciences, and the study used a content analysis tool that was prepared
in light of Bloom's classification, and the results showed that the minimum cognitive levels of the questions were represented in the level of understanding by (49%), and questions The application level is at (38%), and the lowest remembering questions are (1%). The higher cognitive levels were the analysis level (11%), the syntax level at (7%), and the lowest evaluation level at (1%).

Rihawi study [22], which aimed to evaluate the content of the seventh-grade mathematics book in light of the general objectives of the mathematics curriculum developed in Syria. Where the results of the quantitative analysis of the content showed that the content of the book achieved only two general objectives of the mathematics curriculum, namely: the use of mathematical conclusion in the fields of engineering with two dimensions and three dimensions by adopting Euclidean concepts, analytical and vector concepts and algorithms, and dealing with technology and informatics. As for the other eight goals, three were partially achieved and five did not.

The study Jitandra et al. [23] aimed at evaluating the operations carried out from the textbook with a focus on lessons that contain verbal issues, and showing the impact of educational practices for teachers according to the standards (NCTM) on academic achievement in mathematics, and the study sample consisted of (4) Classes in which (72) male and female students are in the third grade of primary school, and the study used the descriptive approach, while the tools are a note card for teachers’ commitment, and a test to measure students’ achievement in the standards of verbal issues, and the results showed that teachers’ practices in their application of standards for problem solving, communication, and representation are more One of the norms of thinking and mathematical links. This was demonstrated in students’ performance on the achievement test.

The Zuzovsky Study [24] aimed at analyzing the outputs and capabilities measured in the international study in mathematics and science as well as analyzing the outputs and capabilities that the curricula of mathematics and science in the state of the Zionist entity seek to achieve, then comparing them, and the study used the descriptive approach, and also used a tool To analyze the outputs and capabilities of the two sides, the study concluded that there is a clear difference in the outputs and capabilities of each of them, so students have not been able to achieve a high achievement in this study, and the study recommended the work of evaluative studies of their approaches to know the defect.

In view of these studies, we find all of them aim to analyze the content of mathematics books in general in light of the criteria of solicitation or standards (NCTM), or multiple intelligences such as the study of Tabaza (2017), the study of monthly (2015), and the study of Isaac (2016), while the rest of the previous studies Which dealt with the analysis of questions, activities and processes as the current study but in light of different variables from it such as the study of Abdul Qadir (2017) in the light of mental processes of the two sides of the brain, and the study of Shaddouh (2014), the study of Sharia (2013), and the study of Balou (2010) in the light of Plume levels For cognitive goals, the Rihawi study (2010) in light of the general goals of teaching mathematics, and the study Jitandra et al. (2010) concerned with analyzing the processes in teachers’ practices implemented on verbal issues and explaining their effect on achievement, and finally Zuzovsky study (2003) Which analyzed the outputs and capabilities of the solicitation tests and compared them to the outputs and capabilities in the mathematics and science curricula, and the current study benefited from previous studies from the theoretical framework and procedures, and the construction of a content analysis tool and the descriptive method used, and the study was distinguished Current from the rest of the studies in the variable goals and purposes of teaching mathematics, which, within the limits of the researcher's knowledge, was not discussed in a previous study.

Through the researcher's work in the field of mathematics curricula and its teaching, as well as his briefing on previous efforts on study variables, such as the Conference of the College of Education at Al-Aqsa University (2018) entitled "New Palestinian Curricula: Aspirations and Challenges", and the study day of the Ministry of Education and Higher Education (2017) Gaza Palestine entitled “The New Palestinian Curricula: Reality and Challenges,” such as the workshop at the Islamic University (2017) Gaza, Palestine, entitled New Curricula of Science and Mathematics in Al-Mizan, as well as the first scientific conference of the College of Education at Al-Aqsa University (2006) Gaza (the Palestinian Experience in Curriculum Preparation), and the Conference of the College of Education (2007) The Islamic University of Gaza (Quality of General Education Curricula), and the Thirteenth Scientific Conference of the Egyptian Association for Scientific Education (2009) Ismailia Egypt (Curriculum, Teacher and Book-Call for Review), which dealt with research on mathematics curricula and books, the researcher decided to study analyzing issues Verbal in the first secondary grade scientific book of the new Palestinian curriculum in the light of the goals and purposes of teaching mathematics as this book is the last book in the new Palestinian curriculum implemented this year 2017 18 A.D., which is in need of evaluation, hence the necessity of this study.

2. The Problem of Study

Palestinian curricula are by their nature in a state of continuous development, and because development requires accompanying analysis in order to evaluate and make judgments and identify strengths and weaknesses, especially with the implementation of the new curricula, an analysis of verbal issues in the mathematics curriculum was chosen without the other because of the importance of verbal issues in teaching mathematics and its full link with goals in All its levels, including the goals and purposes of teaching, and the verbal question is related to the integrative approach in teaching with other subjects such as the Arabic language and others, which contributes to achieving the major teaching goals.

Also, through the analysis of verbal issues, some of the outputs of teaching these curricula and its role in building the Palestinian student can be understood in accordance with the
nations, Arab and regional identity, which is consistent with the goals of teaching in general. 2018 AD is in the first year of secondary school, and it will conclude its application in the coming year for my high school book, as well as the purposes of the curriculum are clearer than they are in the last classes of general pre-university education, and the goals can be achieved on all tracks and stages, as well as the purposes that are derived for the mathematics course and for other Goals that can also be achieved and verified at any school stage.

Hence the idea of the research came to shed light on the extent to which verbal issues are included in the new Palestinian secondary science curriculum for the purposes of teaching mathematics.

The problem of study is determined in the following main question:

What is the extent of inclusion of verbal issues in the first secondary grade scientific book from the new Palestinian curriculum for the purposes and purposes of teaching mathematics?

The following questions emerge from the main question:

What is the level of including the goals and purposes of teaching mathematics in the verbal issues of the first-grade secondary scientific book (book one and two) of the new Palestinian curriculum?

Are there statistically significant differences at the level (α ≤ 0.05) in the level of including the goals and purposes of teaching mathematics in the verbal issues of the first-year secondary scientific book from the new Palestinian curriculum between the first and second books?

3. Objectives of the Study

The study aimed to determine the levels of inclusion of the goals and purposes of teaching mathematics in the verbal issues of a first-grade secondary scientific book from the new Palestinian curriculum, as well as identifying the differences in levels of this inclusion between the first and second books.

4. Significance of Study

The importance of this study lies in the fact that it is in line with the international trends in the evaluation and analysis of books and curricula in light of various criteria with a view to developing them, and also:

1) The study is original, as its variables were not discussed within the limits of the researcher’s knowledge, any previous study.

2) The study may be useful to the authors of the curricula in correcting the relationship between mathematics curricula and the goals and purposes of their teaching.

3) Authors of the book may benefit from the results of the study in making a second and revised edition of the book.

4) Students, teachers, and educational supervisors may benefit from the enhancement of the outputs of teaching mathematics curricula and their relevance to goals and objectives.

5) Curricula may benefit by enriching verbal mathematical problems in them with others that are more closely related to the goals and purposes of teaching mathematics.

5. The Delimitations of the Study

The study was limited to verbal issues in my mathematics textbook for the first year of secondary science in Palestine and applied for the first time in the academic year 2017/2018, as it is the last book of the new Palestinian curriculum that has been applied and next year will be the first year for the application of the book of high school.

6. Definition of Study Terms

6.1. Content Analysis

It is the process of describing, classifying, or repeating the number of goals and purposes of teaching mathematics and stomach by specialists in teaching mathematics and included in the verbal questions from my mathematics textbooks for the first year of secondary scientific.

6.2. Verbal Questions

Represents all the questions, exercises, examples, and activities of my math writers for the first year of secondary science, which are formulated in the form of words, vocabulary, and sentences from the Arabic language.

6.3. Teaching Goals and Objectives

They are the general goals of teaching mathematics, which combine goals and they are very general goals related to the teaching of all subjects, including mathematics, and also the goals are general goals related to teaching a particular subject as mathematics. University curricula on a list of ten of them:

i. Use math to serve society.

ii. Developing religious, patriotic, sentimental and human values.

iii. Understanding mathematics and familiarity with it as a continuous, human, human mind.

iv. Development of thinking and development of different mental skills.

v. Unlocking the potential of students and developing their preparations and inclinations.

vi. Knowledge integration with other fields of study.

vii. Understanding the link between mathematics and modern technological means of communication.

viii. Acquire basic math skills related to language, symbols and thinking styles.

ix. Acquire math skills that are consistent with the goals of education and stages of development.

x. Acquire some practical skills such as the use of tools, drawing, measurement and construction.

7. Study Procedures

7.1. Methodology of Study

This study blended between the qualitative approach and
the quantitative analytical method, where the qualitative approach appeared in defining expressions of goals and intentions specifically to be used as an existing or non-existent standard in verbal issues, as it appeared in the judgment on all activities, issues, exercises, training and examples of the book as one of the issues Verbal or not in the analysis based on the opinion of the specialists, while the quantitative analytical method has appeared in the number of iterations and ratios to include these goals and purposes in the verbal questions from my mathematics textbooks for the first year of secondary scientific.

7.2. Sample of Study

A complete sample that represents all elements of the study community agreed upon by the specialists as representing verbal issues in the two books of mathematics for the first year of secondary science, which are included in the analysis process and represented by the following table (1):

<table>
<thead>
<tr>
<th>Book</th>
<th>Unit</th>
<th>Unit title</th>
<th>Number of verbal issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first</td>
<td>The first</td>
<td>Vector and space geometry</td>
<td>11</td>
</tr>
<tr>
<td>The second</td>
<td>The second</td>
<td>Mathematical logic</td>
<td>17</td>
</tr>
<tr>
<td>The third</td>
<td>The third</td>
<td>Equations and inequalities</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>---</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>The fourth</td>
<td>The fourth</td>
<td>Probability and statistics</td>
<td>34</td>
</tr>
<tr>
<td>The fifth</td>
<td>The fifth</td>
<td>Sequences and series</td>
<td>15</td>
</tr>
<tr>
<td>The second</td>
<td>The sixth</td>
<td>The conical cuts</td>
<td>5</td>
</tr>
<tr>
<td>The seventh</td>
<td>The seventh</td>
<td>Endings and connectivity</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>---</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>All total</td>
<td>---</td>
<td>110</td>
<td></td>
</tr>
</tbody>
</table>

7.3. Tools of Study

The content analysis tool has been prepared according to the following steps:

i. Specifying the analysis sample in the two books, which are all verbal issues in the two books of mathematics for the first secondary scientific level, and after surveying the opinions of specialists in teaching mathematics from teachers, educational supervisors and university professors, all issues that we might call verbal issues were identified and after discussing the specialists familiar with the books, the issues were taken Verbal agreed upon was (50) verbal issue in the first book, (60) verbal question in the second book.

ii. Determining the unit of analysis, which is a list of goals and purposes for teaching mathematics, which were formulated in lists by specialists in teaching mathematics from teachers, supervisors, educators, and university professors. After compiling, refining, revising, and amending them, the researcher made from these lists a list of (15) general goals, which were presented The specialists themselves must once again produce the final list, which includes (10) general objectives, so that each objective is a unit of analysis.

iii. The coding process was by giving each verbal issue a number from (1-50) in the first book, and from (51-110) in the second book, after which the analyst must give the coding for each verbal issue according to their inclusion in it or the destination in the list of ten goals, for example the issue No. (1) in the first book takes coding from (1.1 to 1.10) and so on for all verbal issues in the two books.

iv. The process of actual analysis and coding, then the number of iterations of the goals and intents included in each verbal matter separately, and for each book, then work out the percentages to include the goals and intents in the verbal issues of the mathematics textbooks for the first year of secondary scientific.

v. The validity of the analysis tool (analysis sample-analysis unit-coding) was verified by presenting it to specialists and experts who prepared it and others.

vi. An exploratory sample was taken to control the stability of the analysis tool and it was a random sample by lottery method on the verbal issues found in the two units of the two books.

To achieve the stability of the analysis instrument using the Holste equation to calculate stability:

\[
\text{Ratio of agreement (P*)} = \frac{\text{number of agreed units of analysis}}{\text{number of units of total analysis}} \times 100\%
\]

From this, the internal stability was verified by the researcher analyzing the exploratory sample, then reanalyzing it after two weeks, and the external stability by four analysts of the exploratory sample. The researcher found that:

**Internal Stability Ratio of Exploratory Sample**

Analysis=203/220 x 100%=92.3%

Table No. (2) shows the percentages of external stability of the reconnaissance sample:

<table>
<thead>
<tr>
<th>The analysts</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>%89</td>
<td>%61</td>
<td>%79.40</td>
<td>%91.80</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>%67.30</td>
<td>%69</td>
<td>%92</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>%58.20</td>
<td>%54.60</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>%81</td>
</tr>
</tbody>
</table>

The average stability ratio among analysts=74.3%, which is appropriate and acceptable as the average stability is acceptable.

From the Holste equation, it is greater than 70%, as expressed by Stemler [11], Neuendorf [25], Odeh [26].

8. The Findings

8.1. The Answer of the First Question

To answer the first question and its text, "What is the level of including the goals and purposes of teaching mathematics in verbal issues for a first-grade secondary science book (first and second book) from the new Palestinian curriculum? The
content of all verbal issues in the two books was analyzed after coding them in light of the goals and purposes Teaching the ten mathematics and the results were as in the following table (3):

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employing mathematics to serve society</td>
<td>32</td>
<td>64%</td>
<td>5</td>
<td>43</td>
<td>72%</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Developing religious, patriotic, emotional and human values</td>
<td>33</td>
<td>66%</td>
<td>4</td>
<td>38</td>
<td>63%</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Understand mathematics and familiarity with it as a continuous human mind</td>
<td>38</td>
<td>76%</td>
<td>3</td>
<td>44</td>
<td>73%</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The development of thinking and various mental skills</td>
<td>40</td>
<td>80%</td>
<td>2</td>
<td>58</td>
<td>97%</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Unlocking the potential of students and dev. their preparations and inclinations</td>
<td>44</td>
<td>88%</td>
<td>1</td>
<td>57</td>
<td>95%</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>187</td>
<td>75%</td>
<td>2</td>
<td>240</td>
<td>80%</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowledge integration with other fields of study</td>
<td>31</td>
<td>62%</td>
<td>3</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>2</td>
<td>Understanding the link between math. and modern technological communication</td>
<td>6</td>
<td>12%</td>
<td>5</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>Gain basic language skills, symbols, and thinking styles</td>
<td>42</td>
<td>84%</td>
<td>1</td>
<td>59</td>
<td>98%</td>
</tr>
<tr>
<td>4</td>
<td>Acquire math skills that are consistent with education goals and growth stages</td>
<td>41</td>
<td>82%</td>
<td>2</td>
<td>56</td>
<td>93%</td>
</tr>
<tr>
<td>5</td>
<td>Gain some practical skills such as using tools, drawing, measuring and construction</td>
<td>29</td>
<td>58%</td>
<td>4</td>
<td>49</td>
<td>82%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>149</td>
<td>60%</td>
<td>1</td>
<td>172</td>
<td>57%</td>
</tr>
</tbody>
</table>

It is clear from the previous table that the percentage of inclusion of goals in general was in the first book (75%) and in the second book a little higher and reached (80%) which are good ratios, and the percentage of inclusion of goals in general was in the first book (60%) and was In the second book, it is a little less and reached (57%), which are medium and few in general, as well as in comparison with the ratios of goals, and perhaps this is due to the fact that very general goals we find and their indicators abound in verbal issues, but the purposes are less general than the goals and purposes are related to a specific course which is Mathematics, which led to the weakness of its indicators in the analysis, and then the ratios of including goals were graded until they reached at the end of them to medium and largely acceptable levels, the least of which (63%). As for the approximate proportions of the two books in the goals and purposes separately, perhaps it is due to the fact that the party that set the contents of the two books are one side that used the same philosophy, the same sources, and the same goals to be achieved. As for each goal separately, in the first book, the goal "to unleash the potentialities of students and develop their preparations and inclinations" took the first rank with an inclusion rate (88%), which was taken in the second book. The rank A second with an inclusion rate (95%), and this may be due to the correlation of the energies, inclinations and preparations of the students originally with verbal issues related to the environment and language and that are multipurpose., Which took in the second book also the first rank, which is the highest ever with an inclusion rate (98%). Perhaps this is due to the fact that verbal issues abound with real stories, puzzles, and patterns that are expressed in language and symbols, in which the learner always uses all methods of thinking to solve them, and after that they graduated. The proportions of including the intents until we reached the lower ranks, in both books, he obtained the intention of "absorbing the link between mathematics and modern technological communication" on the fifth and last rank with a very weak inclusion rate (12%) in the first book, and the inclusion rate (0%) in the second book and this It demonstrates that the correlation of the content of verbal issues with modern technologies and technology is almost non-existent, and it is necessary to pay attention to it. Perhaps the lack of technological material capabilities in the educational environment is a reason for this, and it also came in The latter repeated, especially in the second book, with a weak percentage, which is (13%). The intention is "cognitive integration with other fields of study." This integration exists in verbal issues with the Arabic language. As for its shortage with other fields of study, it may be due to the first scientific secondary class, as it is an advanced class. In terms of cognitive content about the lower grades that need more in their content for cognitive integration, as the idea of a lower stage was based on integrative education, and because previous studies did not address the goals and intentions, we may find that this result has generally approached with the results of studies that have talked about including goals Bloom cognitive in books and curricula such as the study of Shadouh [15], the study of Al-Shari3 [20], the study of Al-Balawi [21], and the study of Al-Rihawi [22].

8.2. The Answer of the Second Question

To answer the second question and its text, "Are there statistically significant differences at the level of (α ≤ 0.05) in the level of including the goals and purposes of teaching mathematics in the verbal issues of the first secondary grade scientific book from the new Palestinian curriculum between the first and second books?"

We are testing the null hypothesis that states that "there are no statistically significant differences at the level of (α ≤ 0.05) in the level of inclusion of the goals and purposes of teaching mathematics in verbal issues for the first scientific secondary grade book from the new Palestinian curriculum between the first and second books", using a test Kay Square (Kā²), which expresses the differences in terms of frequencies, and this is
shown in Table (4):

Table 4. Kay Square (Ka2) test in the level of including the goals and purposes of teaching mathematics in the verbal issues of the first secondary grade scientific book from the new Palestinian curriculum between the first and second book.

<table>
<thead>
<tr>
<th>No.</th>
<th>The first secondary grade scientific book</th>
<th>1 book</th>
<th>2 book</th>
<th>Ka2 Val.</th>
<th>Significance level</th>
<th>The differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employing mathematics to serve society</td>
<td>32</td>
<td>43</td>
<td>46.5</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>2</td>
<td>Developing religious, patriotic, emotional and human values</td>
<td>33</td>
<td>38</td>
<td>33.8</td>
<td>A significant at 0.05 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>3</td>
<td>Understand mathematics and familiarity with it as a continuous human mind</td>
<td>38</td>
<td>44</td>
<td>20.1</td>
<td>Not statistically significant</td>
<td>//</td>
</tr>
<tr>
<td>4</td>
<td>The development of thinking and various mental skills</td>
<td>40</td>
<td>58</td>
<td>36.8</td>
<td>A significant at 0.05 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>5</td>
<td>Unlocking the potential of students and dev. their preparations and inclinations</td>
<td>44</td>
<td>57</td>
<td>39.8</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>6</td>
<td>Knowledge integration with other fields of study</td>
<td>31</td>
<td>8</td>
<td>45.6</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book1</td>
</tr>
<tr>
<td>7</td>
<td>Understanding the link between math. and modern technological communication</td>
<td>6</td>
<td>-</td>
<td>52.6</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book1</td>
</tr>
<tr>
<td>8</td>
<td>Gain basic language skills, symbols, and thinking styles</td>
<td>42</td>
<td>59</td>
<td>40.9</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>9</td>
<td>Acquire math skills that are consistent with education goals and growth stages</td>
<td>41</td>
<td>56</td>
<td>39.2</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>10</td>
<td>Gain some practical skills such as using tools, drawing, measuring and construction</td>
<td>29</td>
<td>49</td>
<td>44.9</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>336</td>
<td>412</td>
<td>66.9</td>
<td>A significant at 0.01 level</td>
<td>For the benefit of book2</td>
</tr>
</tbody>
</table>

The value of $\text{Ka}^2$ at $n=(10)$ at level 0.05=31.4 The value of $\text{Ka}^2$ at $n=(10)$ at level 0.01=37.5.

It is clear from the previous table that, in general, there are statistically significant differences at the level of ($\alpha \leq 0.05$) in the level of including the goals and purposes of teaching mathematics in verbal issues for the first secondary grade book from the new Palestinian curriculum between the first and second books in favor of the second book, and these differences are very few. This is confirmed by what has been concluded and justified by the iterations and proportions in Table No. (3). As for the differences in the goals and intentions are separate, the differences were in the level of including seven general goals in favor of the second book, but with relatively few differences, and perhaps these few differences in favor of the second book are due to the retreat of some The matters in the second book, which were absent from the preparation of the first book, as for the level of including the goal of "cognitive integration with other fields of study" and the goal of "absorbing the link between mathematics and modern technological means of communication", the differences in them were inverse in favor of the first book, perhaps due to the fact that These two goals have few percentages of late rankings in the two books, which determines that they came randomly and unplanned in the first book without the second book, while no differences appeared between the two books in the goal of "understanding the irrigation". Dyat and familiarity with it as a continuous human human thought is always growing ", because this goal is expressed in the content of verbal issues in general, whether in the first book or the second book or even any other mathematics book, and this result generally coincided to a large extent with previous studies that analyzed more than one book such is the study of Tabaza [16], the Shari3 [20], and the Rihawi study [22].

9. Conclusions

The results showed that:

10. Recommendations and Suggestions

In light of the study results, the following recommendations and suggestions can be taken:

i. Preparation of a second edition of the first-year high school mathematics book, which includes the goals and purposes of teaching mathematics further.

ii. Increasing the link between new mathematics curricula and modern technological means when preparing books and curricula.
iii. Diversifying the topics in the plot of verbal issues to include modern topics pertaining to the current century and technology, as well as other fields of study to achieve the goal of knowledge integration.

iv. Before preparing the book with verbal issues, it is necessary to develop a list of goals and purposes in the eyes of the curriculum developers because the original principle is to put the curricula and issues in light of them, so that any evaluator can find their high proportions when analyzing and evaluating books or their issues.

v. Displaying math books in any new curriculum before its implementation to experts, specialists and university professors to express an opinion on the extent of its compatibility with the aims of its teaching.

vi. Applying the same criteria for preparing books on two math books for the same grade class, in order to reduce the differences between them.

vii. Graduation in terms of ease in displaying verbal issues in mathematics books to unleash the potentialities of students and develop their abilities in solving problems and their attitudes and tendencies towards mathematics.

viii. See the content analysis tool in this study and benefit from it in similar studies.

ix. Carrying out complementary studies to analyze and evaluate mathematics books for the different academic levels in light of other variables such as the criteria for book attractiveness or the criteria for selecting and organizing content.

x. Conducting comparative studies between Palestinian mathematics curricula and mathematics curricula in scientifically advanced countries such as Singapore and others.

References


