

An Assessment of the Differential Calculus Textbook from the perspective of Faculty Members

Refat A. A. Kandeel

Associate Professor at King Saud University
Basic Science Department, (CFY),
King Saud University, Saudi Arabia

ABSTRACT

The purpose of this study was to assess the Differential Calculus Textbook for the Common First Year students at King Saud University from perspective of faculty members. The study sample consisted of 27 faculty members. The researcher prepared a questionnaire to assess the Differential Calculus Textbook. It consisted of four sections (introduction, method of presentation, content, and output). The study results indicated that the Differential Calculus textbook was medium level. The output textbook was the largest assessment, followed by the introduction, while the method of presentation was in the last ranking, preceded by the content. The method of presentation and content are very important when writing any textbook, so these two sections needed careful review, and continuous development and improvement based on the results of this study.

Keywords: An assessment, Calculus, and Textbook.

INTRODUCTION AND THEORETICAL FRAMEWORK

Introduce the Problem

The rapid development of different areas of life necessitates a continuous development of curricula so that they can cope with this development. In recent decades, curricula has received considerable attention from educators in most areas of the world in terms of development and assessment. Many countries around the world have established institutions to develop and evaluate curricula in order to keep up with time, ensure the validity of the curriculum, and detect weaknesses, modify and improve it (Alhumaid, 2011).

The university textbook is the formal document which all components of the curriculum and its components are established, and the main reference in the educational process. It is an important tool for teaching, transfer knowledge and scientific culture. The students learn from it, in addition, basic reference for the student or teacher (Chiappeta, Fillman, & Sethna, 1991). Cunningsworth (1995) Indicates that textbooks are an effective source for self-directed learning, an effective resource for presentation material, a source of ideas and activities, a reference source for students, a syllabus where they reflect pre-determined learning objectives, and support for less experienced teachers who have yet to gain confidence. Tomlinson (2003) confirms that the textbooks are often referred to as being a core source for teaching, learning and classroom interaction. In fact, almost all teachers use published textbooks in their teaching. Textbooks help to 're-skill', rather than 'de-skill' teachers. They also help teachers save time in lesson preparation and materials production (in Nguyen, 2015). Richards (2001) states that without textbooks, a program may have no impact, therefore, they provide structure and a syllabus. The use of a textbook in a program can guarantee that students in different classes will receive a similar content and therefore, can be evaluated in the same way. In other words, textbooks provide the standards in instruction.

Many scholars hold the view that textbooks are the heart of education with regard to the fact that both teachers and students are to a large extent dependent on the textbooks. Based on this view, textbooks control teachers and students as well as the dynamics of the classroom. Therefore, great care has to be taken in selecting the most appropriate textbooks capable of meeting such factors as teachers' interests and expectations, students' needs, and finally the course objective as well (Cunningsworth, 1995; Hycroft, 1998, in Tok, 2010; Awasthi, 2006; Tomlinson, 2003). Sarim, Hamidi, and Mahmoudie (2013) see that the textbooks play a very crucial role in the education process; both teachers and students rely heavily on them. In fact, textbooks occupy a mediating position between teachers and students, thus they have to characterize by certain qualities to make them an appropriate connector.

So the development of these subjects in general and the scientific material, in particular, is an urgent necessity to reach a modern scientific society that keeps up the scientific and technological development in all fields of life (Albalawi, 2013). Therefore, there is an urgent need to continually review and develop the curricula in general and in particular mathematics to be in line with this development.

Faraj-allah (2011) agrees with Albalawi in the necessity of the development. The development of curricula and textbooks is necessary for the educational system to face the heavy responsibilities lying on it, confronting societal changes, and building generations that can easily adapt to these changes. The progress of nations is measured by their ability to develop different branches of science and benefit from this development in all spheres of life. Therefore, it was imperative for the nations to examine their educational systems to achieve the desired quality and graduate individuals who are capable of keeping up with the present and looking forward to the future. This requires reconsideration of the textbooks and their quality through serious scientific studies.

The Arab Education Office for the Gulf States, (Kingdom of Bahrain - Kingdom of Saudi Arabia - State of Kuwait) whose programs aim to contribute to improving the teaching and learning environment in the institutions of the member states. Development of curricula, including science and mathematics was achieved. Distinguished international experiences in this field helped keep up with the developed countries in order to build a positive generation capable of solving their problems and problems of their society and homeland, and contribute effectively in building them (Hussein, 2014).

Educational institutions will not have access to this development without conducting the continuous assessment of current curricula and textbooks. The methodical assessment of textbooks by teachers is one of the most important tools of development to understand what students learn, especially in the field of mathematics such as using a calculator and various electronic programs (Asiri, 2015). Textbook assessment plays an important role in the process of teaching and learning as it can uncover the strengths and weaknesses of textbooks in general, and their relevance to a specific context in particular. It helps teachers understand the textbook so that they can amend their teaching to suit the course aims, and learners' needs (Weir & Roberts, 1994; Nguyen, 2015).

It is clear from the above, the importance of continuous development and assessment. While the development only comes after a process of assessment and the assessment only comes after the development process, each one is closely related. Therefore, many educators have conducted a lot of studies in the domain of development and assessment curricula and textbooks. Some of these studies were in the field of assessment mathematical textbooks, such as the study of Diab (2004) which concentrated on the textbook as one of the important

elements of the teaching/learning process. It's aimed to prepare and produce an assessment checklist to be used in measuring and assessing the quality of mathematics textbooks of the Palestinian curriculum in the Gaza Strip. This assessment process would be essential for curriculum study centers, mathematics teachers, supervisors, curricula planners, and designers. The descriptive and analytical approach was used. Sixty mathematics teachers (males & females) were involved as a sample for the study. The sample was randomly selected from UNRWA schools. The assessment tool covered four aspects: author's competencies, selection of the content, production of the textbook and particularities of mathematics. The finding of the study revealed that the assessment data was less than the acceptable educational level in several items and there was no significant difference in the assessment of the male and female teachers.

Kajander & Lovric (2009) case study shows that the concept of the line tangent to the graph of a function could contribute to the creation and strengthening of students' misconceptions. The findings, roughly classified into several categories, raise awareness of non-obvious problems that need to be addressed when teaching differential calculus. They were surprised that this preliminary analysis uncovered such a breadth of issues related to basically one topic. Situations leading to potential misconceptions occurred consistently in multiple sources. Acknowledging that textbooks remain a fundamental teaching resource, they suggested that more attention should be paid to the presentation of mathematics. Furthermore, analyses of textbooks should include the development and scrutiny of subjects. They believe that students move through the secondary curriculum and develop deeper and more accurate conceptual understandings of fundamental concepts when they enter university. More attention should be paid to textbooks to continue supporting rather than marginalizing such growth.

Alshara (2010) study aimed to evaluate the new mathematics textbook for the 8th grade, from the male and female teachers' perspective. The researcher developed a scale of (86) item, and selected (78) male and female teachers randomly. Results indicated that the total percentage of the teachers' assessment of the textbook and its domains: shape, learning outcomes, methods and activities & content was medium. However, the assessment was high for the domain of "assessment methods". The results revealed that there were statistically significant differences in the teachers' estimations due to the teachers' qualifications; for teachers with bachelor's and diplomas, and there were no differences due to the variety of teaching experience, and the type of education (Public or private).

Farag-allah's study, (2011) aimed to evaluate the mathematics textbook for the Human Science twelfth grade in Gaza governates from the teachers' perspective in light of quality standards. The study depends on using the descriptive analytical method. The researcher used a questionnaire made up of (48) items distributed on five levels: The out looking fine book, objectives, contents clarification, and assessment activities in the book. The questionnaire distributed to a society sample consisted of (80) teachers. The result of the study shows the evaluation of the mathematics textbook was big, with a percentage (70.89%). There are no statistical differences in students' answers due to gender. The study shows there are statistical differences in students' answers due to variable service years for those who have ten years of experience and more.

Altal & Al-mestarihi (2012) study sought to identify the degree of consideration of quality standard for selecting the university textbook at the faculty of education, King Abdul Aziz University: that's from the staff members' viewpoint. Also, it aimed to identify the effect of the variables of the study in the degree of their consideration for these standards. In order to achieve these objectives, a questionnaire was designed of (76) items, which were distributed to

six domains and applied to a sample of (96) individuals. The finding of the study reveals to the individual of the study sample considered greatly the quality standards in selecting the university textbook in all six fields and there are no statistical differences in their degree of considerations which are attributed to the academic rank or experience in university teaching.

The study of Alghamdi (2014) provided total quality standards for textbooks, and judged on the availability of these standards in the developer first secondary grade math textbook in Kingdom Of Saudi Arabia. The study tool consisted of a list of total quality standards that should be met in the textbook had been prepared by the researcher, and this study used a descriptive analytical design. The study found total quality standards of the textbook which should be available in the developer first secondary grade math textbook in Saudi Arabia. The results indicated that (55%) of the book design criteria (16 standards) have been achieved at a high level, three percent of the standards (one standard) achieved at a medium level, seven percent of the standards (two standards) achieved at a low level, and (34%) of standards (ten standards) have never been achieved. In the field of the content lessons, fifty-one standards were obtained the greatest degree of responses (3), sixty-eight standards obtained a high level of evaluation, eight standards obtained a medium level, four standards obtained a low level, and (25) standards were never achieved.

The study of (Aineamani & Naicker, 2014) analyzed mathematics textbook, investigated the effectiveness of the Pearson mathematics textbooks for developing student comprehension and motivation. In order to analyze the textbooks, they have used two theoretical frameworks to analyze Pearson mathematics textbooks. The theoretical frameworks used are Kilpatrick, Swafford, & Findell (2001) Five Strands of Mathematics Proficiency and Marton et al (2004) Variation Theory. From the two frameworks, they developed an analytical framework, which they used to analyze the textbooks. Conclusions from the textbook analysis are that the textbook used in the classroom is very important in determining how learners view mathematics. The textbook helps in enabling or restricting learners to communicate their mathematical ideas and also the textbook should probe learners for higher mathematical reasoning by asking questions that require them to give more explanation and good justifications for their responses.

Hussien's (2014) study aimed to assess the mathematics textbook for the first grade of secondary school in the Kingdom of Saudi Arabia from the teachers' perspective. The researcher tried to find out the influence of some variables, such as gender, academic qualification and teachers' experience from the perspectives of teachers. For the purpose of this study, a sample of (51) teachers were requested to respond to a questionnaire containing the following aspects: design of the book, the book's introduction, the content, educational aids and activities, the development of students attitudes towards science and scientists, tools of evaluation included in the book, fit the number of classes to the contents of the book, availability of materials necessary for the implementation of activities, and language of the book. Finding indicated to the total percentage of teachers' evaluation of the book was positive (72.8%). Teachers' evaluation of the aspects of the book were as the following: the design of the book (75.15%), the book's introduction (70.19%), the content of the book (74%), aids and activities in the book (68.24%), the development of students attitudes towards science and scientists (72.25%), evaluation included in the book (72.85%), fit the number of classes to the contents of the book (64.61%), availability of materials necessary for the implementation of activities (60%), appropriate language of the book (73.5%) , and there were no statistically significant differences between the variables studied due to gender, educational qualification, and years of experience.

Sunday's study (2014) has provided empirical evidence on the relevance, suitability, and adequacy of some recommended mathematics textbooks in Southwestern Nigeria. Eleven features in the textbooks were analyzed directly by the users (teachers). Mathematics teachers were selected from two randomly selected public secondary schools in each of the senatorial districts of all the six states in the Southwestern geopolitical zone. The study comprised 117 mathematics teachers as the total respondents from the 36 public secondary schools that were selected for the study. The comparison of the features was in line with the expectations of the Senior Secondary School National Mathematics Curriculum. The features were well provided for in the textbooks. The textbooks were relevant, suitable and adequate in their provisions and capable of bringing forth desirable learning outcomes. However, the textbooks need the further provision of the student workbook, teachers' guide, the progressive hierarchy of tasks, multiple and attractive colors. The establishment of Textbook Standard Content Review Panel (TSCRIP) was recommended to approve textbooks for school use after proper screening by this body. Years for reprint, re-editing were to be recommended by the committee or panel.

Aseeri (2015) study sought to evaluate the developed mathematics textbook for the 3rd secondary grade from the teachers' perspectives in 2013, in Najran city, Saudi Arabia. To achieve the purpose of this study, the researcher developed a scale of (47) items which covered five domains: Arabic language of the textbook, methods of the lessons presented, content matching for students, activities that should be applied, and proper questions assessment. After assuring the validity of the methodology, it was applied to a selected sample of (99) teachers who teach developed textbook for the 3rd secondary grade. The results indicated there were statistically significant differences between male and female teachers due to gender at the level ($\alpha = 0.01$) in the content domain; in favor of the female. In addition, there were statistically significant differences between male and female at the level ($\alpha = 0.05$) in the three domains: methods of lessons presentation, activities, and assessment questions, in favor of the female. There were no significant differences between male and female at the level ($\alpha = 0.05$) due to the teaching experience.

The problem of this Study

Based on the importance of textbooks as shown during the previous introduction, and the importance of continuous development and assessment textbooks which achieve the quality of those textbooks. The problem of this study appeared from the researcher's sense with the importance of development and assessment of textbook "Differential Calculus" which is taught in the department of basic science at the Common First Year in King Saud University. The researcher in this study sought to assess the differential calculus textbook after the developing and teaching it for a full year, from the perspective of faculty members who taught this textbook.

The questions of this Study

The questions of this study were:

- What is the level of assessment of the Differential Calculus Textbook from the perspective of faculty members in the following sections: Introduction, content, method of presentation of scientific material, output, and a whole textbook?
- Are there statistically significant differences between the Averages of assessments of the differential calculus textbook due to gender (male, female) or experience (less than five years and more than five years)?

Importance of this Study

The present study reflects the view of the faculty members who have actually taught the differential calculus textbook, especially since this textbook is a new composition and has been

taught for only one year. Therefore, this kind of assessment is needed to identify the weaknesses in order to improve them and the strengths to enrich them. To develop and improve the differential calculus textbook to make it ideal when taught in the future. The study may be useful to assess the remaining courses or other courses in the Common First Year and University.

Limitations of this Study

The study was limited by the faculty members and differential calculus textbook in Basic Science Department at the Common First Year (CFY) in King Saud University 1437-1438 h / 2016-2017.

Study Approach

The study sought to collect data with the level of assessment for the differential calculus textbook that was taught to the students in Basic Sciences Department at the Common First Year in King Saud University. Analysis and results of these data lead to conclusions and interpretation; therefore, the study used descriptive analytical approach.

Study Terms

The differential calculus textbook is the textbook which is taught to the students of Basic Sciences Department at the Common First Year in King Saud University.

An assessment of differential calculus textbook is to determine the availability of good textbook's standards in the differential calculus textbook, edition (2016/2017).

METHOD AND PROCEDURES

Population and Study Sample

The community pool of this study represented in Basic Sciences department's members at the Common First Year (CFY) in King Saud University, the sample was stratified in a random manner, and has reached 27 male and female members. The following table shows this sample:

Table (1): The study sample

	Experience Less than 5 years	Experience Less than 5 years	Sum
Male	5	10	15
Female	6	6	12
Sum	11	16	27

The Study Tools

An assessment Questionnaire

After tracing the literature on assessment of textbook and looking at the previous relevant studies, the scale had been prepared. It included 48 items to assess the differential calculus textbook from the perspective of faculty members in the following sections: Introduction, content, method of presentation of scientific material, output, and a whole book. The researcher allocated five responses for each item: Very agree, agree, quite, disagree, never agree, and was given the following degrees: 5, 4, 3, 2, 1. The researcher confirmed the validity of scale through a group of arbitrators with experience and competence. The researcher conducted the proposed amendments. The researcher verified that the scale was stable by calculating the reliability coefficients for the scale and each dimension using the Cronbach Alpha equation. The reliability values ranged between (0.75, 0.86), and (0.801) for a whole scale. The levels of assessment of all sections and a whole textbook were determined according to the following table:

Table (2): The levels of assessment

<i>Average</i>	<i>Level</i>
1.25 – 2.50	Low
2.50 – 3.75	Medium
3.75 – 5.00	High

RESULTS AND ITS INTERPRETATION

The first question:

What is the level of assessment of the differential calculus textbook from the perspective of faculty members in the following sections: Introduction, content, method of presentation of scientific material, output, and a whole textbook?

To answer this question, the averages, percentages and levels were calculated as in the following tables:

Table (3): Average, percentage and level of section 1 (Introduction).

<i>Section1</i>	<i>Item</i>	<i>Aver.</i>	<i>SD</i>	<i>%</i>	<i>Level</i>
<i>Introduction</i>	1. The introduction describes the objectives of teaching the book	3.93	0.73	79%	High
	2. It describes the organization of the book and the presentation of its content	4.07	0.55	81%	High
	3. It provides guidance on appropriate methods of handling the material	3.52	0.70	70%	Medium
	4. It gives a brief idea of the content	4.19	0.56	84%	High
<i>Whole introduction</i>		3.93	0.50	79%	High

It is clear from the previous table that the level of the faculty's assessment for the introduction of the differential calculus textbook was high, where it's average 3.93 out of 5, with a percentage 79%. There was a high assessment level of each item of the introduction, while the lowest item evaluated is item 3 which states that " The introduction provides guidance on appropriate methods of handling the material of textbook", which average 3.52 out of 5 with a percentage 70%. This indicates that a great effort is being made in preparing the introduction of this textbook, and it conforms to the criteria for writing it.

Table (4): Average, percentage and level of section 2 (Content).

<i>Section2</i>	<i>Item</i>	<i>Aver.</i>	<i>SD</i>	<i>%</i>	<i>Level</i>
<i>Content</i>	1. The content of this book is scientifically accurate	3.52	0.98	70%	Medium
	2. It considers the sequence and coherence of information	3.33	0.96	67%	Medium
	3. It corresponds to students' levels and their mental abilities	3.78	0.80	76%	High
	4. It links theoretical and applied information	3.44	0.85	69%	Medium
	5. It commensurate with the number of hours	2.78	1.25	56%	Medium
	6. It includes a variety of activities that help student to think and solve problems	3.44	0.80	69%	Medium
	7. It concerns with clarifying scientific concepts and terms	3.44	0.89	69%	Medium
	8. It interested in individual differences among students	3.00	0.88	60%	Medium
	9. It includes a list of references and books that enable the student to enrich knowledge	3.33	0.96	67%	Medium
	10. Shapes and graphics are proportionate to the lessons	4.11	0.75	82%	High
	11. The objectives of each chapter are precisely defined at the beginning of the chapter	3.52	0.85	70%	Medium
	12. It includes a list of terms in English and Arabic	2.93	1.62	59%	Medium
	13. It interested in of assessment methods	3.74	0.81	75%	Medium
	14. It takes into account previous experiences of students	3.78	0.64	76%	Medium
	15. It combines both originality and modernity	3.00	1.11	60%	Medium
<i>Whole content</i>		3.40	0.59	68%	Medium

Table 4 indicates that the level of faculty's assessment of the content of the differential calculus textbook was medium, where its average 3.40 out of 5, with a percentage 68%, where most of the items were at the medium level of assessment, and the average assessment rates of these items ranged between 2.78, 3.78 out of 5, with a percentages 56%, 76%. While only two items of assessment (3 and 10) were high, which states that "The content corresponds to students' levels and their mental abilities", and "Shapes and graphics are proportionate to the lessons". These are related to the general judgment on the content and mathematical shapes drawn on it. These results confirm that we need to review the content, and develop it to achieve the criteria of assessment.

Table (5): Average, percentage and level of section 3 (Method of presentation).

<i>Section3</i>	<i>Item</i>	<i>Aver.</i>	<i>SD</i>	<i>%</i>	<i>Level</i>
<i>Method of presentation</i>	1. Examples and exercises match with the specific objectives of each lesson	3.63	0.74	73%	Medium
	2. There is a connection between lesson titles and academic content	3.89	0.70	78%	High
	3. There is a sequence in the presentation of the scientific material (from easy to hard, known to unknown, simple to complex)	3.67	0.78	73%	Medium
	4. The elements of suspense and encouragement are available in the presentation of the scientific material	2.93	0.96	59%	Medium
	5. There is a diversity of examples, exercises and applications	3.30	0.87	66%	Medium
	6. There is a link between the scientific material and the student environment whenever possible	2.85	1.06	57%	Medium
	7. The book is free of spelling and typographical errors	3.04	1.19	61%	Medium
	8. It's free of padding and repetition	3.30	0.78	66%	Medium
	9. The strategies used in presenting the scientific material are appropriate to the developmental stage of the students	3.41	0.64	68%	Medium
	10. The language of this book is easy and clear and fits with the students' levels	3.48	0.64	70%	Medium
<i>Whole method of presentation</i>		3.35	0.60	67%	Medium

The results in the previous table (Table 5) show that the presentation's method of this textbook needs more review and scrutiny, where the average of assessment of this section was 3.35 out of 5, with percentage of 67%. This assessment is at the medium level, as the results of this section show that there is only one item (no. 2) that reached the highest level in assessment, which states "There is a connection between lesson titles and academic content", while the rest of the items of this section were at the medium level, so the presentation's method of the content needs to be modified and more developed.

Table (6): Average, percentage and level of section 4 (Output).

<i>Section4</i>	<i>Item</i>	<i>Aver.</i>	<i>SD</i>	<i>%</i>	<i>Level</i>
<i>Output</i>	1. Texts, graphics and shapes are clear	4.11	0.58	82%	High
	2. The spaces between lines and words are appropriate	4.30	0.67	86%	High
	3. The paper quality is high	4.44	0.85	89%	High
	4. The textbook contains an index and page numbers	4.48	0.80	90%	High
	5. The cover of this book is appropriate to its content	3.96	0.90	79%	High
	6. There are elements of attraction and suspense on the external textbook's cover	3.89	0.80	78%	High
	7. All data (names of authors, the university year, edition number and the academic year) were written on the cover	4.33	0.55	87%	High
	8. The headlines and sub-headlines are prominent and clear	4.44	0.51	89%	High
	9. The textbook size is suitable for students	4.30	0.61	86%	High
<i>Whole output</i>		4.25	0.41	85%	High

The output section, whose results are shown in Table 6, show that the overall average of this section was 4.25 out of 5 with a percentage of 85%. The average of the items ranged between 3.89 and 4.48, and the percentages ranged between 78% and 90%. These are high and excellent ratios, and emphasize the great effort made in design and output of details of this textbook. As items 6 and 5 were the lowest, which states: "There are elements of attraction and suspense on the external textbook's cover" and "The cover of this book is appropriate to its content". It is clear from the results of this section that the appearance of the textbook and its cover need some modifications and improvement.

Table (7): Average, percentage and level of all sections and textbook.

<i>Section</i>	<i>Aver.</i>	<i>SD</i>	<i>%</i>	<i>Level</i>
<i>Introduction</i>	3.93	0.50	79%	High
<i>Content</i>	3.40	0.59	68%	Medium
<i>Method of presentation</i>	3.35	0.60	67%	Medium
<i>Output</i>	4.25	0.41	85%	High
<i>Whole textbook</i>	3.65	0.5	73%	Medium

Overall, it is clear from the results in Table 7 that the assessment of the differential calculus textbook was medium with an average 3.65 out of 5 with a percentage 73%, as evidenced by the results of all sections that the output was the highest assessment with average 4.25 out of 5 and a percentage 85%, followed by the introduction which a percentage 79%, while there were two medium sections: (The method of presentation with a percentage 67%, and the content section with a percentage 68%). Therefore, the textbook's presentation and content need to be more reviewed, modified and improved for two sections according to the assessment levels for each item. The medium level of assessment may be due to the speed of completion of the content, the time available to write the content, the lack of familiarity with the presentation of textbooks, and the best way to display the content. The medium content rating may be due to the low level of students in mathematics, which has led faculty members to see that there is a difficult in the content of this textbook, and leading them to lower their assessment of the content. These results are in general consistent with the results of some studies (Diab, 2004;

Kajander & Lovric, 2009 & Alshara, 2010), where the results of these studies showed that the evaluation/assessment of the mathematics textbooks were medium level, and these results differ with some other studies (Farag-allah, 2011; Altal & Al-mestarihi, 2012; Aineamani & Naicker, 2014; Hussien, 2014; Sunday, 2014) that reached high evaluation of mathematics textbooks. Despite, all studies confirmed the need for review and careful examination and continuous development of mathematics textbooks.

The second question:

Are there statistically significant differences between the Averages of assessments of the differential calculus textbook due to gender (male, female) or experience (less than five years and more than five years)?

To answer this question, the value of a "T-test" was calculated to indicate the differences between the averages of two independent groups, as shown in the following tables:

Table (8). T test for the two independent groups (male, female).

Section	Gender	N	Aver.	S.D	"T" Value	Sig.
<i>Introduction</i>	Male	15	3.9	.53	.084	.934
	Female	12	3.9	.49		
<i>Content</i>	Male	15	3.4	.65	.549	.588
	Female	12	3.3	.52		
<i>Method of presentation</i>	Male	15	3.4	.69	.685	.500
	Female	12	3.2	.47		
<i>Output</i>	Male	15	4.2	.51	.092	.928
	Female	12	4.2	.24		
<i>Whole textbook</i>	Male	15	3.6	.57	.462	.648
	Female	12	3.5	.40		

It is clear from the previous table that "T-test" value and "significance" show no statistically significant differences between the average assessment of male and female faculty members for the differential calculus textbook, in each section of the textbook and as a whole. As the averages' males and females assessment were much close, and the overall average of males assessment was 3.6 and for females 3.5 out of 5. The males and females assessment were equal in the introduction and output sections, with an average 3.9 and 4.2 respectively. There is agreement of views between males and females in the assessment of the differential calculus textbook, and this gives a very high confidence in this assessment that we can build upon in the processes of improvement and development for this textbook. This result is consistent with some studies (Farag-allah, 2011; Hussien, 2014) that confirm that there are no statistical significant differences between the evaluation averages of male and female teachers, and it's differ with the study of (Asiri, 2015) which found that there were significant differences between the evaluation averages of male and female teachers for mathematics textbooks for females.

Table (9). T test for the two independent groups (less than five years and more than five).

Section	Gender	N	Aver.	S.D	"T" Value	Sig.
Introduction	Less than 5	11	3.7	.45	1.766	.090
	More than 5	16	4.1	.50		
Content	Less than 5	11	3.2	.42	1.388	.177
	More than 5	16	3.5	.67		
Method of presentation	Less than 5	11	3.1	.27	2.050	.053
	More than 5	16	3.5	.71		
Output	Less than 5	11	4.1	.46	1.750	.092
	More than 5	16	4.3	.34		
Whole textbook	Less than 5	11	3.4	.33	1.853	.076
	More than 5	16	3.7	.56		

Table 9 shows that there are no statistical significant differences between the averages of assessment for the differential calculus textbook in all sections and a whole textbook due to the years of experience. The average assessment of faculty members who have more than five years experience of a whole textbook was 3.7 out of 5 and the average assessment of faculty members who have less than five years experience for a whole textbook was 3.4. These results indicate that the differential calculus textbook being evaluated gives the same impression to the majority of the old or new faculty members, and gives greater credibility in the assessment of the differential calculus textbook, which we can be built upon for all development and improvement processes. This result is consistent with some studies (Alshara, 2010; Altal & Al-mestarihi, 2012; Hussien, 2014) that confirm that there are no statistical significant differences between teacher evaluation averages (less than five years & more than five), and it's differ with some other studies (Frag-allah, 2011; Asiri, 2015) which found that there were significant differences between teacher evaluation averages (less than five years & more than five) for mathematics textbooks for teachers with more years of experience.

CONCLUSION AND RECOMMENDATIONS

It is clear from the previous results that the assessment of the differential calculus textbook was medium level. The output of the textbook was the largest assessment, followed by the introduction, while the method of presentation was the last ranking, preceded by the content. The method of presentation and content are very important in any textbook, so these two sections need to be reviewed carefully, and continuous development and improvement based on these results. Therefore the researcher recommends the following:

- Review the differential calculus textbook accurately, in the light of the results of this study to develop and improve this textbook, especially the method of presentation of this textbook and its content.
- Conducting another assessment study for this textbook after the development process according to the results of this study.
- Conducting other similar assessments to other textbooks of the Basic Science Department at the Common First Year.

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