

# A Comparative Study between Computer Textbooks Content in the Secondary Stage and Computer Textbooks Content in the University Stage in Colleges of Education at Baghdad University

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**Abstract:** *The aim of the current research is to identify the relationship between the computer textbooks content in the secondary stage and the computer textbooks content in the university stage in Colleges of Education at Baghdad University: by answering the following questions: What is the percentage of the computer textbooks syllables that has been accomplished completely in the secondary stage comparing them with the computer textbooks syllables in colleges of Education at Baghdad University? What is the percentage of the computer textbooks syllables that has been accomplished partly in the secondary stage comparing them with the computer textbooks syllables in colleges of Education at Baghdad University? What is the percentage of the computer textbooks syllables that has not been accomplished in the secondary stage comparing them with the computer textbooks syllables in colleges of Education at Baghdad University? What are the computer textbooks syllables in colleges of Education, Baghdad University that has not been found in the computer textbooks at the secondary stage? The researchers used the descriptive approach (content analytic) in this research and depended on syllables as an analytical unit; their limitation of the research population was all the computer secondary stage textbooks and all the computer textbooks and lectures that determinate for teaching in the department of computer science in colleges of Education at Baghdad University in the academic year 2016- 2017. Results found out that there is a poor relationship between computer textbooks contents in the secondary stage and computer textbooks contents in colleges of education, and this was related to the uncovered syllables in the colleges textbooks. Results found out that there was twenty syllables out of ninety four has not been accomplished in the content of the computer science textbooks in the department of computer science in colleges of education. This means that the content of the textbooks are far away from its main aim in setting up a specialized teachers for the secondary stage.*

**Keywords:** Computer Textbooks Content, secondary school curriculum, Syllabus of the computer text book, secondary school education

## 1. Problem of the Research

According to the great development that our world is witnessing most educators around the world paid their attention in general to the secondary school curriculum, and specially to the computer science curriculum for its rapid ability of development. Where most professionals interested in the development of computer science syllabus and the content of such syllabus in line with the modern age, as well as their interest in teaching the computer curriculum that has been mentioned before, through the preparation of teachers who are able to do their job perfectly. This will not be done only if they have trained them scientifically according to the latest findings of science and knowledge in their field, as well as the interest in linking what they have accept during the period of preparation and what they will teach in the future during their working lives.

This is confirmed by many of the recommendations of conferences, notably the Conference of the Faculty of Education, University of Kufa held on 13.11.2012 under the slogan (computer curriculum at the secondary level between reality and aspirations to face the challenges of the future) (Ministry of Higher Education and Scientific Research, 2012), and the Conference of the information center for research and development held in 09.13.2014 under the

banner (of Education in Iraq, reality and proposals) in collaboration with the Friedrich Ebert Foundation of Germany, which called for a review of the curriculum in secondary grades syllables, including the university in line with the developments of science and linked to the labor market, as well as the attention to universities outputs to achieve Iraq's progress and constructive (information center for research and development, 2014).

Despite the importance of this trend towards the linkage between the curriculum content of the secondary and university stages, but the textbooks of computer science does not have any previous study reveals the relationship between the content of the above-mentioned phases according to the knowledge of the researchers. This prompted the researchers to do this search being working in the academic field and in direct contact with the staff members and students of the Department of Computer Science, as well as a field visit to a number of secondary schools and preparatory schools, and intermediate schools according to a letter to facilitate the task, appendix (1) and therefore the problem of the research is to answer the following question:

**What is the relationship between the content of computer textbooks at the secondary stage and the content of**

**computer textbooks in the colleges of education at the University of Baghdad?**

## 2. Importance of the Research

Are summarized the importance of this research at two levels, one theoretical, and the other applied, as follows:

### Theoretical Importance

- 1) This research highlights the importance of the absence of any previous study searching the relationship between the content of the computer textbooks at the secondary stage and the content of the computer textbooks in the Department of Computer Science faculties of education.
- 2) This research sheds light on the content of the computer textbooks at the secondary level, and the content of the specified books in the Department of Computer Science for the undergraduate level.
- 3) This research shed light on the style of the content analysis, and areas of its usages, and units of analysis in it.
- 4) This research may be a modest contribution assist the local library, and stimulates the researchers to conduct more researches.

### Applied Importance

- 1) This research reveals the extent of correlation between the content of textbooks phases above-mentioned.
- 2) This research is a guide and mentor to the work of other research on the content of other books.
- 3) Research results will stimulate curriculum planners in the Iraqi Ministry of Education in order to review the content of computer textbooks in secondary stage and developed in accordance with the developments of current time.
- 4) Provide search results enough motivation for curriculum planners in the Ministry of Education and members of the sectoral committee in Iraqi universities to discuss appropriate ways to link the content of the Computer textbooks in the secondary and university stage.

## 3. Research Aims

The research aims to identify the relationship between the computer textbooks content in the secondary stage and the computer textbooks content in the university stage in Colleges of Education at Baghdad University: by answering the following questions:

- 1) What is the percentage of the computer textbooks syllables that has been accomplished completely in the secondary stage comparing them with the computer textbooks syllables in colleges of Education at Baghdad University?
- 2) What is the percentage of the computer textbooks syllables that has been accomplished partly in the secondary stage comparing them with the computer textbooks syllables in colleges of Education at Baghdad University?
- 3) What is the percentage of the computer textbooks syllables that has not been accomplished in the secondary stage comparing them with the computer textbooks syllables in colleges of Education at Baghdad University?

- 4) What are the computer textbooks syllables in colleges of Education, Baghdad University that has not been found in the computer textbooks at the secondary stage?

## 4. Limitation of the Research

The current research was limited on the following:

- 1) Syllabus of the computer textbook of the first Secondary Stage, written by a committee of the Iraqi Ministry of Education [Dr. Ghassan Abdul Majid Hameed, Dr. Fadel Abbas Mehdi, Abdul Al-Mohammad Abdul-Hadi Bushra Karim Rashid, Taha Yassin Tawfiq, and Mercury Shihab Ahmed, and Haitham Latif Hassan, and Aqil Abdul-Aziz, and Harith al-Fakhri Tahir, and Sayf al-Din Abdul Amir, and Abu Talib Haitham Mahfouz] 5<sup>th</sup> edition for the year 2014, issued by the Ministry of Education / General Directorate for Curriculum, after the exceptions of the questions at the end of each chapter and interfaces of the chapters.
- 2) Syllabus of the computer text book of the second Secondary stage, written by a committee of the Iraqi Ministry of Education [Dr. Fadel Abbas Mehdi Alqurmla, and Abu Talib Sheikh Haitham Mahfouz and Tawfiq Taha Yassin Mohammed, and Akeel Abdul Aziz Mohammed al-Lami] 4<sup>th</sup> edition for the year 2014, issued by the Ministry of Education / General Directorate for Curriculum, after the exceptions of the questions at the end of each chapter and interfaces of the chapter.
- 3) Syllabus of the computer text book of the fourth preparatory grade, written by a committee of the Iraqi Ministry of Education [Dr. Ghassan Abdul Hamid al-Majid, and d. Ziad Mohammed Aboud, d. Abbas Fadhil Mahdi, d. Abdul Wahab Sami Ibrahim, Bushra Karim Rashid, Ibtissam Abbas Shaker, Abdul Al-Mohammad Abdul Hadi, a Latef Haitham Hassan, Hala Hassan Mahmoud, Haitham Mahfouz Abu Talib, Muhammad Aziz Abdul Hassan] 5<sup>th</sup> edition for the year 2014, issued by the Ministry of Education / General Directorate for Curriculum, after the exceptions of the questions at the end of each chapter and interfaces of the chapter.
- 4) Syllabus of the computer textbook for fifth grade preparatory class, written by a committee of the Iraqi Ministry of Education [Dr. Ghassan Abdul Hamid al-Majid, and Abdul Wahab Sami Ibrahim, and Bushra Karim Rashid, and Hala Hassan Mahmoud, and Haitham Latif Hassan] 4<sup>th</sup> edition for the year 2014, issued by the Ministry of Education / General Directorate for Curriculum, after the exceptions of the questions at the end of each chapter and the front page of the chapter and the images included in the chapter.
- 5) Syllabus of the books and the inherent jurisdiction assessed by members of the sectoral committee in the Department of Computer Science (Faculty of Education, for Pure Sciences Ibn al-Haytham, and College of Education for women) at the University of Baghdad and for all the four levels [The researchers assessed the vocabulary provided by members of the Sectoral Committee and included the book No. C / 6578 on 20/11/2012.]

6) Time limits: the academic year (2016-2017).

## 5. Definition of Terms

### Computer Textbooks

Yassin and Hatem (2010) defined them as: "material given to the learners in order to enable them to deal with the computer by giving them the skills and knowledge they need to live in the world of advanced technology, and they can through this science process the information and solve problems and deal with the computer requirements and its different programs" (Yassin and Hatem 2010: 51).

### Secondary Stage

Mazal (1990) defined it as: The stage that follow the primary stage in the educational system in Iraq, where the education at the intermediate and preparatory stage fall in two phases and the duration in it six-years (Mazal, 1990: 145).

## 6. Theoretical Background and Previous Studies

### 6.1 Theoretical Background

The theoretical background for the current research includes three axes (textbook, computer and its usage in education, content analysis).

#### 6.1.1 The Textbook

Textbook is a key element of the school curriculum, as well as being an important tool in its implementation, which represents the container that contains educational material give to the learners what they really need from knowledge and information, as well as being an essential reference basis for both the teacher and the learner more than others references (Issawi and others, 2012: 124).

In addition to that, the textbook plays two important role in the educational process, one particular regard the material that has to cover, the other is a general role of the textbook in the educational life of the individual, the textbook is often the first book which falls in the hands of the learner, and depend on this we can observe his attitude toward the textbook, if the textbook repulsive form and content reflected the negative impact on the relationship of the learner's textbook and reading in general (al-Moussawi, 2011: 176).

### Importance of the textbook

There is an extreme importance of school textbook cannot be denied, and are summarized in the following points:

- 1) Provides knowledge, information and ideas in a logical way and enrich learning and promote learner.
- 2) Reassure the teacher to information, knowledge and ideas contained because they are prepared by specialized professors who have their scientific and educational status. (Furman and flowers, 2012: 295).
- 3) Addresses the fundamental ideas and information on topics of lessons with some brevity and focus.

- 4) The textbook has its own role if authored by a best method to contribute and take him out in the development of deductive reasoning and thinking skills of learners, as well as the development of values and social skills and attributes desired (Saada and Abdullah, 2011: 276).

### 6.1.2 Computer Employed in Education

Computers regarded as one of the necessities of the current time, it is very difficult to be without it; and the reason for this is due to the significant role it plays in people's lives, many entrusted to it and errands, and the many benefits learned from it, and important areas in which income, Saraireh (2010) described as an electronic device consists of a set of components and separated units which make the computer Hardware units each lead to a particular job and work with each other consistently and in an orderly fashion through the software, and pose for hardware and software so-called (computer system) (Saraireh and others, 2010: 81).

As does this device processes the data, archiving, and retrieval when you need them, as well as its use in communication space by linking several computers at once, and make the connection between them.

With regard to the employment of computers in education, there are three divisions they are as follows:

#### 1) Computer as a Subject Matter:

It is the study of the computer science concepts as a studying courses in various stages of education (schools and universities (as dependent design of the curriculum and determine courses content heavily on the goals of the curriculum and the level of students studying, the content of computer science curricula to be taught as an independent subject in school, or as a specialty stand-alone taught in universities (Saraireh and others, 2010: 103).

That's what was adopted by the researchers in this study, where the bulk of which focused their attention on the computer as teaching material scheduled to secondary school students and the students of the Computer Science Department at the colleges of education, for the purpose of comparison and analysis between the syllabus contained in the textbooks and fascicle t in the above-mentioned stages.

#### 2) Computer Assisted Instruction (CAI):

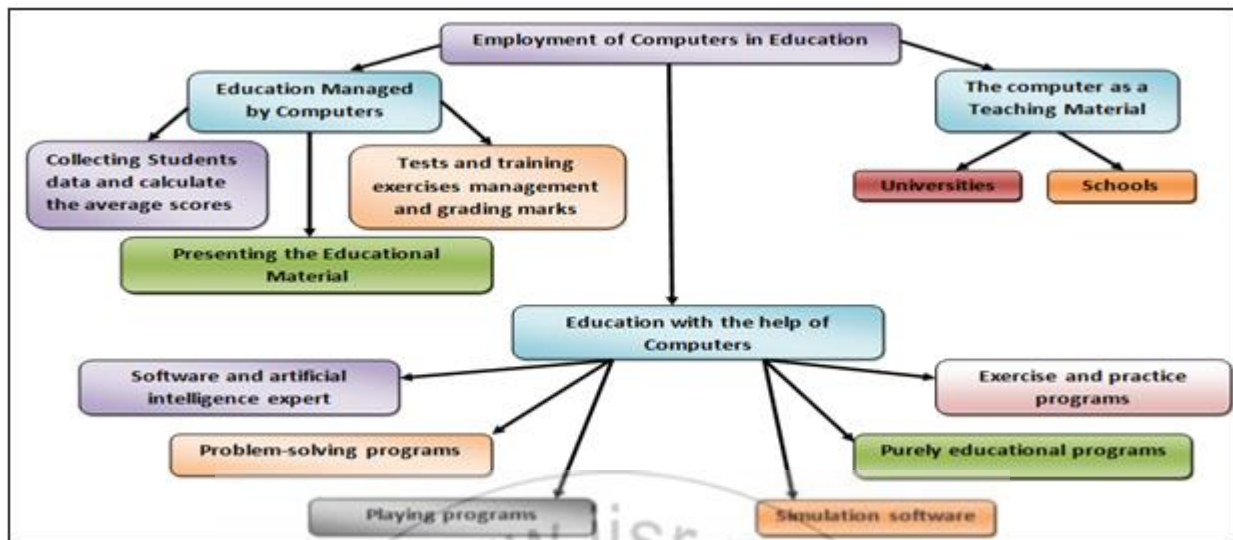
This employment to educational programs that enhance the learning process and make it effective notes, and raises the level of student achievement and develop their skills, as embodied its role clearly with students slow learners or who have difficulties in learning the subjects often occupies the designers of these programs how to be adopted by about integrated together to approach various activities, and also adopted in small or large groups, or IEP, and these programs can be classified for several varieties including: exercise and practice, and pure educational programs, and simulation programs, and play programs, and programs to solve problems and software and artificial intelligence expert (Alnaouachi, 2010: 42).

#### 3) Computer Managed Instruction (CMI):

The types of these computers usually do many tasks that will help in the educational management, including: providing

educational material, and manage tests and exercise training, estimate degrees answers testing and assembly of students data, calculate the average grades (Saraya 2007: 133).

The following is a simplified outline illustrates the divisions employ computers in education:



(Prepared by researchers)

### 6.2 Content Analysis

Due to the adoption of the researchers for the content style analysis they decided to provide a brief overview about it to help them in achieving the goal of this research. It is a style to make conclusions by means of objective diagnosis of systematic specific to the characteristics of content, featuring several units, including the idea, keyword, subject, space, phrase, personal, time, used every one of them as seen by researchers requirements to be completed on (Tamimi 2011: 275).

Using this technique in several areas, including the analysis of textbooks and this is what has been viewed in this research, as well as newspapers, magazines, and stories, films, and radio and television programs, lectures and seminars.

### 6.3 The Theoretical Principles of the Research

After the researchers have ended the theoretical background, they were able to benefit from it a number of starting points

for appointees to the objective of the present research, as follows:

- 1) To know what the importance of the school textbook for each of the teacher and the learner.
- 2) To realize what it is computer science and how to employ this science and physical inventions and software in education.
- 3) To gain more scientific knowledge about the content and uses of the analysis, and the units of analysis, to choose what suits them to achieve the goal of the current research and questions listed within it.

### 6.4 Previous Studies

- 1) Ramler study ((Ramler (1976)
- 2) Mashhadani Study (1988).
- 3) Anbaki study (1990).
- 4) Sheikh Study (1993).
- 5) Asalama study (1994).

Table No. 1 Illustrates these Studies According to the Sequence of Time.

**Table 1: Arabic and Foreign Studies Arranged in Chronological Order**

No	Researcher name and date of the study - University- College- country	Aim of the Study	Sample of the Study	Methodology of the Research	Statistical Means	Results of the research
1	(Ramler) 1976 Minnesota University/ U.S.A	Find out the educational and environmental content in the text books of science and social studies in accordance with the quantitative and qualitative content	A number of books for the subjects of science and social studies for elementary and, secondary stages their total was (137) book	Research Methodology descriptive / content analysis	percentage	1) The percentage of pages and its contents are different in terms of quantitative and secured content for each of the primary and secondary levels and in varying proportions. 2) A lack of educational content for social studies and science books in primary and secondary phases.

2	Mashhadani 1988 Baghdad University / College of Education / Iraq	Find out the relationship between the scientific preparation of students of the Department of Chemistry in the College of Education and chemistry curricula in secondary education	Books and booklets of chemistry theoretical and practical in the Department of Chemistry in the College of Education at Baghdad University to study chemistry textbooks prescribed in the secondary stage and the decisions of chemistry in the book Science average for the first-grade book, as well as teacher's guide	Research Methodology descriptive / content analysis	percentage	1) (92) Single key vocabulary got the percentage (89.28%) of the textbooks of chemistry at the secondary level are met a fully estimated. 2) (5) vocabularies got the percentage (5.8%) met partial fully estimate. 3) The vocabularies that not fully estimated is only one. 4) With regard to the practical side analysis shows that the number of experiments in secondary education for the rule of Chemists fully completed by about (36) experience out of (45) experience and with a rate (66.7%).
3	Anbaki 1990 Baghdad University / College of Education / Iraq.	Find the out relationship between the history curriculum in the Department of History at the College of Education for the first IbnRushd, Baghdad University and vocabulary between the history curriculums in secondary education, so as to determine the adequacy of the scientific preparation for teachers of history.	.Books and lieutenant be taught the history requirements for the academic year (1990-1989) for each of the secondary and university stage	Research Methodology descriptive / quantitative content analysis	percentage	1) Number of completed vocabulary of about (68) Single of the vocabulary of history in secondary education. 2) The number of vocabulary completed about a partial (18) single. 3) The number of non-completed vocabulary (2).
4	Sheikh (1993) Baghdad University / College of Education / Iraq.	Finding out the relationship between philology textbooks in the secondary stage and philology books in the colleges of Education in the Republic of Yemen.	Philology Sciences Textbooks and lieutenant in the Secondary and University stages for the academic year 1992-1993	Research Methodology descriptive / quantitative content analysis	percentage	1) Fulfilled (44) Single at the secondary level are fully met, and accounted for (70.96%). 2) Fulfilled (10) vocabulary at the secondary level are met partly accounted for (16.12). 3) The number of vocabulary that did not meet (8) vocabulary and accounted for approximately (12.9%). 4) Fulfilled (31) experience from the experiences of high school and formed the proportion (73.5%). 5) Biology experiments in high school that did not meet the established ratio were (26.5%).
5	Asalama (1994). Baghdad University / College of Education / Iraq.	Finding out the relationship between History textbooks content in the secondary stage and History books in the colleges of Education in Sana'a University.	History Textbooks which is required for the secondary stage and History books in the department colleges of Education in Sana'a University for the academic year 1993-1994	Research Methodology descriptive / quantitative content analysis	percentage	1) (58) vocabulary at the secondary level are fully recovered and formed the proportion of (55%). 2) (14) vocabulary at the secondary school level partly recovered and formed the proportion (13.35%). 3) There are (32) vocabulary with a rate (30.76%) in Secondary school did not recover the vocabulary of the history text books in the College of Education. 4) (104) vocabulary with the rate (52%) of the vocabulary of the history books in the College of Education did not address the content of history textbooks for secondary school.

**6.5 Aspects of Benefit from Previous Studies:**

- 1) Previous studies helped the researchers to crystallize the problem of this research and showed them how to highlight its important.
- 2) According to the researchers from the procedures followed by other researchers in their studies to achieve the goals of their present research.
- 3) Previous studies, the researchers directed towards more sources related to curriculum and textbook and scientific research methodology, as well as direct them for further studies on the current research.

- 4) According to the researchers the statistical methods used by other researchers helped them in their study.
- 5) Balancing the results of previous studies, the results of current research to identify the aspects of the agreement and disagreement between the current research and the previous studies, and the results of previous studies indicate the importance of the current research and build it to a broad base of research in the field of education.

## 7. Research Methodology and Procedures

### 7.1 Research Methodology

The researchers followed the descriptive analytical method (content analysis) to achieve the goals of the current research, as a regard, the content analysis method is one of the survey that steps according to the descriptive research methodology. (Slaves and others, 2009: 195). As well as

being a scientific approach can be used in the analysis of the book in order to convert the material written communication to the numerical statistical data that can be measured (Mohammed and Reem, 2011: 21).

### 7.2 Research Procedures

#### Research Population

The population consists of the computer textbooks of the secondary stage [The lack of the Computer textbook for the third intermediate grade, and sixth preparatory grade prepared by the Iraqi Ministry of Education / General Directorate of curriculum], computer textbooks and computer fascicle assessed on students Department of Computer Science, Faculties of Education at Baghdad University and for all the four grades, tables (2), (3) show that in a row.

**Table 2:** Textbooks for Computer Science Material Which Has Been Analyzed

No.	Name of the Textbook	Class	Year of Publishing	Addition	Number of Chapters in the Textbook	Total number of pages
1	Principles of Computer	First Intermediate	2014	Fifth	5	143
2	Computer	Second Intermediate	2014	Fourth	4	160
3	Computer	Fourth Secondary	2014	Fifth	5	149
4	Computer	Fifth Secondary	2014	Fourth	4	166

**Table 3:** Courses for the Department of Computer Science for the Four Years of Study, Which Has Been Analyzed

Stage	Courses	Number of credit hours
First	Structured Programming	4
	Logic Designs	4
	Techniques	4
Second	Cantoning	3
	Alkinia Programming	4
	Analysis of databases	4
	processors	4
Third	data structures	4
	Artificial intelligence	4
	Visual Basic	4
	Interpreters	4
	Schemes	4
	Architecture	3
Fourth	Software Engineering	3
	Computer security	4
	Web Design	4
	Networks	4
	Data compression	4
	operating system	4

### 7.3 Research Sample

The research sample in the current research represents the population itself, the researchers omitted pictures and questions at the end of each chapter, as well as their exclusion introduction to books and the index of analysis, because these aspects do not represent a scientific content is directly related to the aim of the research, in addition that hold common in content analysis studies.

**The Analysis of the Syllabus of Computer Textbooks at the Secondary Stage, and Syllabus of Textbooks and Fascicle of the Department of Computer Science Faculties of Education.**

#### a) Aim of the Analysis

The aim of the analysis is to figure out the relationship between the content of computer textbooks at the secondary stage and the content of textbooks and fascicle of computer science department at Faculties of Education at Baghdad University.

#### b) Unit Analysis

The researchers relied on a single unit of analysis to confirm the presence or lack of textbooks, based on previous studies on similar goals to the goal of the current research. Thorndike defined the term as a single fraction of the information part (Thorndike, 1984: 446), and clearest Abrash (2008) as the natural unit used by product contact material, and this term may be a book or an article, or a story, and use of the term if many articles issue the differences are slight and non significant (Abrash 2008: 201).

#### c) Steps Analysis

For the purpose of achieving the goal of the research and answering its four questions the researchers, included the following: -

- 1) Collection of Computer textbooks assessed on secondary stage students, as well as textbooks and the fascicle of assessments for students in the Department of Computer Science Faculties of Education at Baghdad University and for the four years.
- 2) Review of the textbooks contents mentioned before the syllabus for the purpose of conducting the analysis, it was determined the main syllabus and branch and put it in their own schedules appendix (2) appendix (3).
- 3) Taking each major term with branches in the textbooks of secondary stage and find whether they are satisfy the syllabus of the undergraduate, the comparison was made on the following:

- a) A detection of the Secondary stage textbooks syllabus, which have been fulfilled in the textbooks and fascicle of the Department of Computer Science, university level.
- b) A detection of the syllabus textbooks at the secondary stage which has been fulfilled partially in the books and fascicle of the Department of Computer Science, university level.
- c) A detection of the syllabus textbooks at the secondary stage which has not been fulfilled in the books and lieutenant of the Department of Computer Science, university level.
- d) A detection of the syllabus textbooks and fascicle of the Department of Computer Science with the syllabus that has not been found in the secondary stage textbooks.

**d) Validity of the Analysis**

The researchers presented a model of the analyses on a group of experts in the field of Computer Science, curriculum and teaching methods, methods of teaching science, and some teachers of computer material at the Secondary school and Preparatory School and Intermediate of the Directorate of Education first Rusafa, to check the validity of the analysis model, the researchers got on the approval of more than (95%) of the experts which counted valid to be used.

**e) Reliability of the Analysis**

It is intended to get the results of the analysis itself, although there will be differences depending on the analyst and time (slaves and others, 2009: 148), and to reduce the resume researcher's access to firming acceptable, they used two types of stability they are:

**1) Reliability over Time:**

The researchers analyzed syllabus of the Secondary stage Computer textbooks and university stage books twice between them was an interval of (14) days, and got results analysis in the first and second time each separately, and then, they compared the results by the adoption of Holsta equation depending on the agreement between the two analyzes.

**2) Reliability through External Analysts:**

The researchers depended on an external analyst [Analyst Assistant teacher Zainab Fattah Yousef, a teacher at Al-Mutamaizat secondary school in third Karkh, holds a bachelor's degree in Computer Science, and master's degree in curriculum and teaching methods] to analyze the syllabus mentioned before and then calculate the percentage of agreement and disagreement between the analyst and between the researchers and that by the adoption of Holsta equation table (4) shows that.

**Table 4: The Reliability Analysis Transactions**

Analyst	Transaction Reliability
The researchers Over Time	0,96
The researchers and the Analyst	0,93
Reliability Average	0,94

This is a high reliability and it is statistically acceptable based on what (Stmbly & Kenneth) referred to that the

reliability coefficient is a good if it was of (0.70) or over that. (Stmbly & Kenneth, 1972: 10).

**8. Statistical Methods**

Since the textbooks that have been extracted its syllabus included all the textbooks of the computer at the secondary stage, as well as all the textbooks and the fascicle specialized required imposed on students in the Department of Computer Science at the Colleges of Education - University of Baghdad, so it is statistically a complete population and therefore the specific results of this research is a real results and do not need to be subjected to tests of Statistical significance as stated in (Ie, 1972: 14) therefore the current research is limited on percentage only for the treatment of the results, and Holsta equation for calculating reliability coefficients:

Percentage = (part) / All X 100 (Adas, 2013: 16).

Holsta equation to calculate the content analysis reliability

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

Where R reliability coefficient and M number of answers agreed upon between analyzes, and N1 number of answers of the first analysis, and N2 number of answers of the second analysis (To'eima 2004: 226).

**9. Results and Discussion**

This chapter includes a presentation of the results of analysis carried out by researchers according to the aim of the research and the questions listed below, and then discussed in the light of the results of previous studies and come up with recommendations and proposals in the light of those results.

After comparing the syllabus of computer textbooks in the secondary stage of (94) single main syllabus textbooks specialists of the Computer Science Department at the university level and the (300) single main syllabus, the researchers concluded the following results:

**1) Computer Syllabus Textbooks in the Secondary Stage that Fulfilled Fully (total) in the Syllabus of Computer Textbooks in the Department of Computer Science at Colleges of Education at Baghdad University.**

Show that (68) main Syllabus of the total (94) have been fulfilled fully, by percentage of (72.34%) for the total Syllabus of the Computer textbooks for secondary school, appendix (4), and this percentage came close to the findings of the Sheikh study (1993) textbooks of Biology with a personage of (70.96%), while it was far away from the findings of the Mashhadani study (1988) of the chemistry textbooks with a personage of (89.28%).

**2) Computer Syllabus textbooks at the secondary stage that have been fulfilled partially in the Syllabus of computer textbooks in the Department of Computer Science at colleges of education at Baghdad University.**

It showed that (6) of the main from the Syllabus total of (94) Syllabus has been partially fulfilled, with percentage of

(6.38%) of the total Syllabus of computer text books for secondary stage, appendix (5).

This percentage is weak compared to the percentage of Al-Sheikh study (1993) for text books of Biology with percentage of (16.12%).

### 3) Computer Syllabus Textbooks in Secondary Stage that did not Fulfilled in the of Syllabus Computer Textbooks in the Department of Computer Science at the Colleges of Education at Baghdad University

Results showing that (20) main Syllabus from the total of (94) not covered in the textbooks of undergraduate computer, with percentage of (21.27%) from the total of computer textbooks Syllabus for the secondary stage, appendix (6).

This percentage is big if we compare it with the results of the previous studies, such as the study of Sheikh (1993) of the Biology text books, with percentage of (12.90%), and al-Mashhadani (1988) study for chemistry textbooks, only one single Syllabus has not been covered.

And this indicates the high percentage to the weakness in the relationship between the content of the computer textbooks at the secondary stage and the content of the computer textbooks in colleges of education, from the researchers' viewpoint.

### 4) Syllabus that has been found in the specialized textbooks of the Department of Computer Science in Faculties of Education at the University of Baghdad and did not found in the computer textbooks at the secondary stage.

It showed that (226) main Syllabus in from the total of (300) Syllabus did not found in the computer textbooks at the secondary stage, with a percentage of (75.33%) from the total Syllabus of the specialized textbooks in the Department of Computer Science, appendix (7).

This percentage shows clearly computer textbooks content in the Department of Computer Science Faculties of Education from the primary objective in the preparation of a qualified school teachers from the viewpoint of the researchers, especially after comparing the previous mentioned percentages with the percentages of previous studies, such as the study of Sheikh (1993) for Biology textbooks which got the total of (30.43%).

## 10. Conclusions

According to the research procedures and results the researchers concluded to the following:

- 1) There is a relatively weak relationship between the content of computer textbooks in the Secondary stage and the computer content textbooks in colleges of education because of the presence of only (20) syllabus out of (94) vocabulary, the other syllabus not mentioned in the textbooks and the specialized fascicle of the Department of Computer Science.
- 2) Away specialized content textbooks in the Department of Computer Science from its main goal of preparing

qualified professionals to teachers to teach computer material at the secondary stage.

## 11. Recommendations

- 1) Researchers recommend members of the Sectoral Committee and the staff members in the Department of Computer Science faculties of education the importunes of reviewing the content of Computer textbooks at the secondary stage and pay real attention to strengthening the vocabulary in the specialized textbooks of the Department of Computer Science for the purpose of preparing school teachers who are able to carry out their duties on the best way.
- 2) Researchers recommend curriculum planners in the Iraqi Ministry of Education the importance of developing content Computer textbooks at the secondary stage to keep pace with developments in this science all over the world.
- 3) Benefit from the results of the present research to discuss ways of cooperation between the concerned authorities in the Ministry of Higher Education and Scientific Research and the Division of Curriculum in the Iraqi Ministry of Education, by subscribing to write Computer textbooks, as well as holding training courses for school teachers to follow the latest developments in this specialty.

## 12. Proposals

- 1) Conducting a similar study of the content of other books in the secondary stage in Iraq.
- 2) Conducting a comparative study between the textbooks of computer preparatory stage in Iraq and other countries content.

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