

Content Analysis of “the History of Iran and the World” (1, 2) in Secondary School, based on Revised Classification of Bloom and colleagues from Behavioral Goals in Cognitive Domain

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ABSTRACT

The study aims to analyze content of secondary school books “the History of Iran and the World” (1, 2) based on revised classification of Bloom and colleagues from behavioral goals in cognitive domain. Main objective is to analyze contents and then provide guidelines and recommendations based on results to planners, designers and teachers to develop content and organize these books based on psychological and scientific principles. New classification is a two-dimensional cognitive domain; one dimension is knowledge including four levels of real affairs knowledge, conceptual knowledge, meta-cognitive knowledge and procedural knowledge and the other is cognitive process including remembering, understanding, applying, analyzing, evaluating and creating. In this study, three questions are examined: how is the frequency and percentage of educational goals in cognitive domains in “the History of Iran and the World” (1, 2) Are all levels of cognitive domain considered equally in developing these books? In formulating the content of these books which levels of cognitive domain are considered more and which less and which of them have been ignored? Since the methodology examines the real, objective current status of contents and behavioral goals in the content of these books are categorized in levels of cognitive domain, a descriptive – functional method was used. Studies indicate that lower levels of cognitive domain are considered highly in contents of both books; high levels are not considered as well. So in knowledge level, real affairs knowledge is allocated the most goals so as remembering and understanding in meta-cognitive level. High levels of this classification, including evaluation and creation received the lowest goals suggesting that high-level goals are considered poorly in developing the content of these books.

KEYWORDS: content analysis, educational goals, knowledge, meta-cognitive, behavioral goals

INTRODUCTION

Since human was able to write especially when printing was invented, books and other written sources have always been an important means of transmitting cultural heritage and scientific findings to the existing and future generations. Although in recent decades by the advent of audio-visual media and commercial satellites some believe that the importance of written sources has reduced but yet these sources are the most important tools to transfer knowledge, culture and technology especially in the field of education (Mir lohi, 1998).

Education has always been one of the most important issues. Its importance has dramatically increased in recent centuries. So, many of the world developed countries owe their prosperity and development to particular attention to education in economic, social and cultural fields. A significant number of less developed countries realized that they should seek solutions of many problems in education (Mashayekh, 2004).

One of the problems in the field of education is how to select and develop content of textbooks. Content is one of the most important elements of the curriculum. One of the key issues has always been to determine criteria for selecting content which proposed in curriculum and scientists and experts in curriculum planning have focused on (Miller, 2009).

That students what must learn in different books is a question which always has been introduced on issues related to education, particularly in the area of Curriculum. Today regarding the explosion of knowledge and increasing development of human knowledge in various fields of science, it is no longer possible to turn into a randomized content. Selecting content requires a scientific teamwork and extensive study in different disciplines. Since our country has a young population and the number of students increases in different grades, it is worthy that useful studies are taken about developing content of textbooks, because if the contents are not suitable achieving the noble goals of education is faced with problems as well as the loss of significant capital and human resources (shabani, 2007).

On the other hand history is a course which is not significantly considered in curriculum planning in Iran. Given the background of our glorious history and the necessity of knowledge and scientific vision of past issues and events require that lessons should be considered further and it is necessary to conduct scientific researches on the course of history.

According to above and considering the importance of textbook contents on Iranian concentrated educational system as well as the key role of goals in curriculum and the effect of goals on other factors, such as

content selection, teaching methods option, evaluation, and etc. in this study, researcher aims to analyze the content of high-school books “the History of Iran and the World” 1,2, particular for literature and humanities field and classify them according to the level of cognitive domain while identifying and explaining behavioral goals in these books found in this domain.

Study background

Designers who create new category of cognitive domains are a team of cognitive psychologists, curriculum theorists, educational researchers, and investigators. Revised classification of cognitive domain was published in 2001 by Anderson, Kratol, and six colleagues in a book as “a Classification for Learning, Teaching and Assessment”. Unlike Bloom’s one-dimensional classification previously introduced, revised classification of Anderson, Kratol, and et al. includes two dimensions, knowledge and cognitive process, which together form a two-dimensional table called classification table (Anderson, Krawthwohl, Airasian, Cruickshank, Mayer, pintrich, Raths& Wittrock, 2001) (Table 1).

Table 1: Table of two-dimensional cognitive domain, Revised Bloom's cognitive classification (Anderson, Kratol et al 2001, p 92)

Knowledge	Cognitive process					
	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
Real affairs knowledge						
Conceptual knowledge						
Procedure knowledge						
Meta-cognitive knowledge						

As shown in Table 1, in the new classification knowledge includes four levels called real affairs knowledge, conceptual knowledge, procedural knowledge, and meta-cognitive knowledge. Also cognitive process includes six levels, called remembering, understanding, applying, analyzing, evaluating, and creating. Two-dimensional feature of this classification is that each goal is classified according to both knowledge and cognitive process. Then, goal is placed within the table where two vertical lines derived from two dimensions intersect (Seif, 2008).

In two-dimensional classification of Anderson, Kratol et al 2001, each level is formed of subsets in addition to four levels of knowledge and six levels of cognitive process. Levels of both dimensions in new classification, as initial Bloom’s classification, have been hierarchically set, that is, from objective to abstract and from simple to complex (Seif, 2006).

Content analysis is a research method that is used regularly and objectively to describe the value of communicating clear content. Formal definitions of content analysis emphasize on objective and systematic methods which distinguish it from other research methods (Naderi, Naraghi, 2004).

Content analysis refers to any analytical method which regularly and objectively is used to determine the characteristics of the message. In this method, messages or information are regularly encoded and classified so that researcher can analyze them quantitatively. This method is used for any form of human communication, from implications to textbooks, from call boards to TV Commercial Advertising. Content analysis is often used in observational studies (Delawar, 2009).

Some of the teachers attended a workshop in 1989, which was held in Tehran, Iran followed by a survey conducted by Research Office of Education Ministry to get the opinions of history geography and social sciences teachers on the books (books of history, geography and social education). 66% of teachers believed that materials of mentioned books do not meet educational needs of learners; unintelligible phrases are used in the book; materials are not scientific. 50% of teachers also commented that volume of content was not proportional to students’ mental ability (Maskoob, 1997).

A research was conducted by Adibi to analyze junior-high books of social teachings in the academic year 75-76 based on Bloom et al. classification of behavioral goals in the cognitive domain. Results are as follows:

51.56% is allocated to knowledge, 31.46% to understanding, 1.17% to applying, 2.34% to analysis, 3.91% to creation and 9.38% to evaluation (foradi, 2002).

Objectives

1- General Objectives

A. to analyze content of “the history of Iran and the world” (1) and (2) based on Bloom et al. revised classification of behavioral goals in the cognitive levels.

B. to provide recommendations based on findings to curriculum planners, authors and teachers of high school history books to improve the curriculum.

2- Particular objectives

A. to analyze content of educational goals in the history books and express them in the form of behavioral goals

B. to classify behavioral goals in cognitive domain

C. to determine the frequency and percentage of behavioral goals in each level of cognitive domain

Questions

1. How is the frequency and percentage of educational goals of cognitive domain in books on the history of Iran and the World 1 and 2?
2. Are all levels of cognitive domain considered equally in developing the content of these books?
3. In developing the contents of these books, which levels of cognitive domain are considered most and which less, which of these levels have been ignored?

METHODOLOGY

Considering that current study aims to analyze high-school books, the History of Iran and the World 1 and 2, which can be regarded as an example of educational documents. In this regard, we try to investigate the real, objective and current situation of these books content; to classify behavioral goals in the content, in the cognitive domain levels; On the other hand researcher aims to report "what it is" and finally conclude based solely on descriptive, real and objective data. Thus descriptive research method was used to achieve the research objectives (Naderi and Seif Naraghi 2004).

On the other hand, because results derived from investigating the History of Iran and the World 1 and 2, are used by planners and authors of textbooks a functional method was used to study.

Population

Statistical population of present study is the History of Iran and the World (1 and 2) which was authored and released by Planning and Compilation Office in the Ministry of Education.

Sample

Population and sample of this study are the same.

Researcher initially examined the following resources to provide prerequisite for data collecting.

- Resources on how to identify and classify behavioral goals in cognitive domain levels.
- Resources that considered strategies for achieving specific goals from general goals (Analysis of general goals to behavioral goals).
- Resources that help researcher find educational goals of "the History of Iran and the World" 1 and 2.
- Researches topic of which was related to present study.

DATA ANALYSIS

Descriptive statistics is used in order to analyze data, describe and combine them (including frequency, percentage, and charts).

Data collecting tools

Table 2 is used to classify identified behavioral goals in high-school books the History of Iran and the World 1 and 2.

Table 2: Content analysis of books the History of Iran and the World 1 and 2

Content analysis of books the History of Iran and the World 1 and 2											
Content		Goals			Knowledge		Cognitive process				
Topic	Page	Educational goals	No.	Behavioral goals	A- real affairs B- conceptual C- procedural D- meta-cognitive	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
total											

FINDINGS

Results of content analysis of the History of Iran and the World 1

Results of classifying behavioral goals derived from the History of Iran and the World (1) on knowledge are shown by Table 3 and Figure 1.

Table 3: Frequency and percentage of behavioral goals in the History of Iran and the World (1) on knowledge

Knowledge	Frequency	Percentage
Real affairs	226	91.49
Conceptual	17	6.90
Procedural	4	1.61
Meta-cognitive		
total	247	100

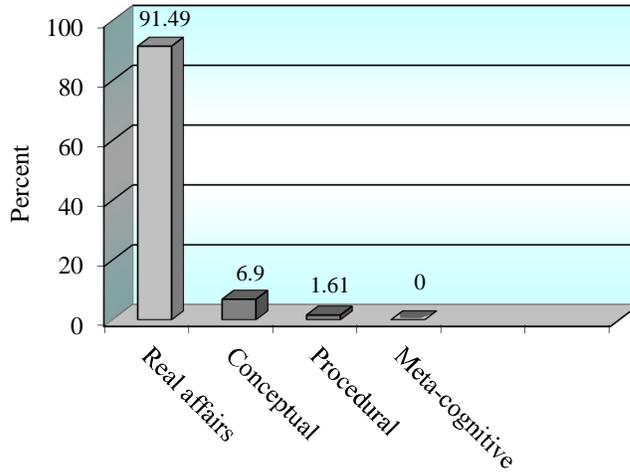


Figure 1: percentage of behavioral goals in the History of Iran and the World (1) on knowledge

Results of classifying behavioral goals derived from the History of Iran and the World (1) on knowledge show that among 247 identified behavioral goals 226 goals are at the level of real affairs knowledge, 17 goals at the level of conceptual knowledge, 4 goals at the level of procedural knowledge and at the level of meta-cognitive knowledge no goals were found.

Results of classifying behavioral goals derived from the History of Iran and the World (1) on cognitive process are shown by Table 4 and figure 2.

Table 4: Frequency and percentage of behavioral goals in the History of Iran and the World (1) on cognitive process

Cognitive process	Frequency	Percentage
Remembering	116	46.98
Understanding	125	50.60
Applying	6	2.42
Analyzing		
Evaluating		
Creating		
total	247	100

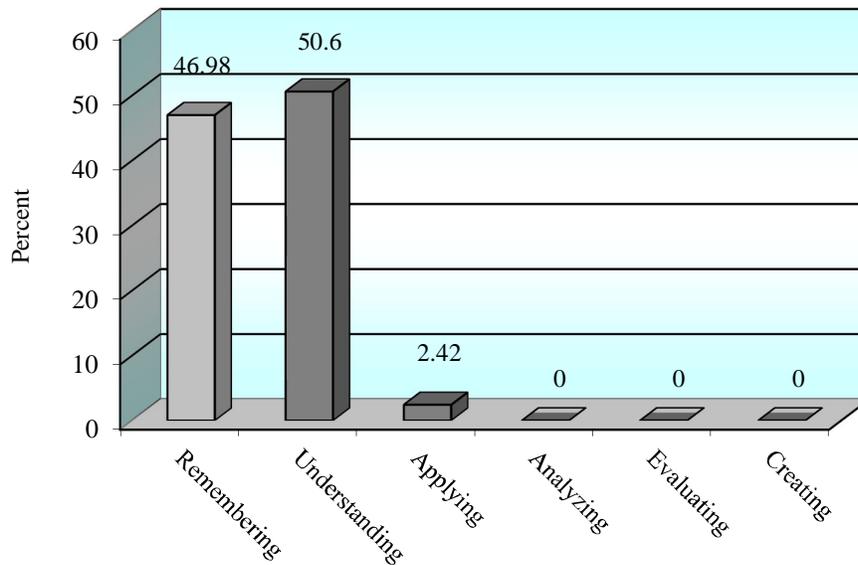


Figure 2: percentage of behavioral goals in the History of Iran and the World (1) on cognitive process

Results of classifying behavioral goals derived from the History of Iran and the World (1) on cognitive process show that among 247 identified behavioral goals 116 goals are at the level of remembering, 125 goals at the level of understanding, 6 goals at the level of applying and at the level of analyzing, evaluating and creating no goals were found.

Results of content analysis of the History of Iran and the World 2

Results of classifying behavioral goals derived from the History of Iran and the World (2) are shown by Table 5 and figure 3.

Table 5: Frequency and percentage of behavioral goals in the History of Iran and the World (2) on knowledge

Knowledge	Frequency	Percentage
Real affairs	288	96
Conceptual	9	3
Procedural	2	0.67
Meta-cognitive	1	0.33
total	300	100

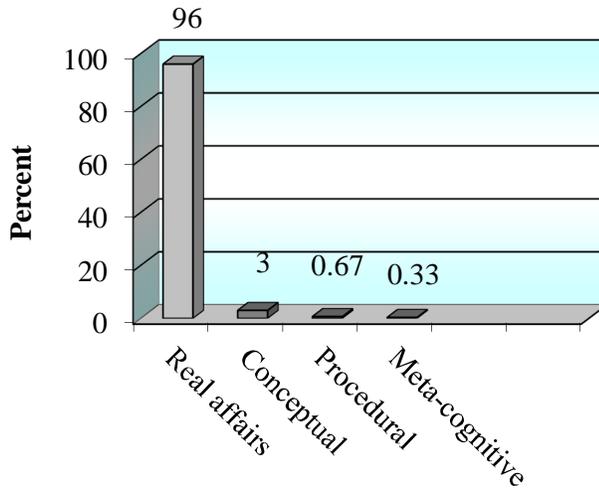


Figure 3: percentage of behavioral goals in the History of Iran and the World (2) on knowledge

Results of classifying behavioral goals derived from the History of Iran and the World (2) on knowledge show that among 300 identified behavioral goals 288 goals are at the level of real affairs knowledge, 9 goals at the level of conceptual knowledge, 2 goals at the level of procedural knowledge and 1 goal at the level of meta-cognitive knowledge.

Results of classifying behavioral goals derived from the History of Iran and the World (2) on cognitive process show that among 300 identified behavioral goals 87 goals are at the level of remembering, 205 goals at the level of understanding, 1 goal at the level of applying, 3 goals at the level of analyzing, 4 goals at the level of evaluating and at the level of creating no goals were found (table 6 and figure 4).

Table 6: Frequency and percentage of behavioral goals in the History of Iran and the World (2) on cognitive process

Cognitive process	Frequency	Percentage
Remembering	87	29
Understanding	205	68.33
Applying	1	0.33
Analyzing	3	1
Evaluating	4	1.34
Creating	-	-
total	300	100

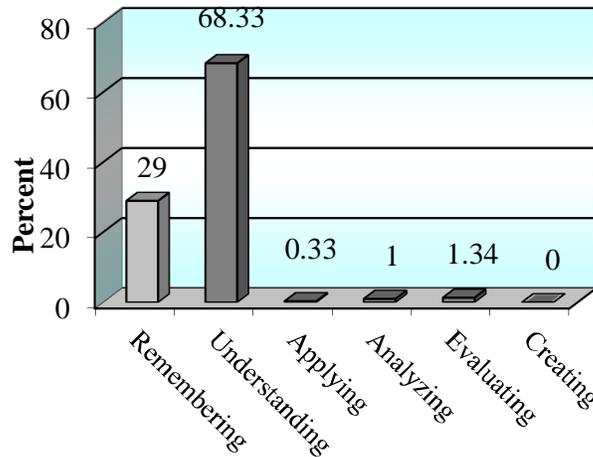


Figure 4: percentage of behavioral goals in the History of Iran and the World (2) on cognitive process

DISCUSSION

1. How is the frequency and percentage of educational goals of cognitive domain in the history of Iran and the World 1 and 2?

On knowledge among 247 identified behavioral goals derived from the History of Iran and the World (1) 91.49% was allocated to real affairs knowledge, 6.90% to conceptual knowledge, 1.61% to procedural knowledge and no goals to meta-cognitive knowledge.

on cognitive process among 247 identified behavioral goals derived from the History of Iran and the World (1) 46.98% is allocated to remembering, 50.60% to understanding, 2.42% to applying and at the level of analyzing, evaluating and creating no goals were found.

On knowledge among 300 identified behavioral goals derived from the History of Iran and the World (2) 96% was allocated to real affairs knowledge, 3% to conceptual knowledge, 0.67% to procedural knowledge and 0.33% to meta-cognitive knowledge. on cognitive process among 300 behavioral goals derived from the History of Iran and the World (2) 29% is allocated to remembering, 68.33% to understanding, 0.33% to applying, 1% to analyzing, 1.34% to evaluating and at the level of creating no goals were found.

2. Are all levels of cognitive domain considered equally in developing the content of these books?

As tables show, all levels are not considered equally; some levels are extremely considered while higher levels are largely neglected. For example, creating was not assigned any goal in either book while understanding has highest number of goals in both books.

3. In developing the contents of these books, which levels of cognitive domain are considered most and which less, which of these levels have been ignored?

According to data, lower level goals of cognitive domain are extremely emphasized; higher level goals are neglected so that on education, real affairs knowledge is assigned the most number of goals followed by conceptual knowledge, procedural knowledge and finally meta-cognitive knowledge, respectively.

On cognitive process, understanding is assigned the most number of goals followed by remembering, applying, evaluating and analyzing, respectively.

General results

Results of general classifying behavioral goals derived from the History of Iran and the World (1) and (2) are shown by Tables 7, 8 and Figures 5, 6.

Table 7: Frequency and percentage of behavioral goals in the History of Iran and the World (1) and (2) on knowledge

Knowledge	Frequency	Percentage
Real affairs	514	93.96
Conceptual	26	4.75
Procedural	6	1.09
Meta-cognitive	1	0.20
total	547	100

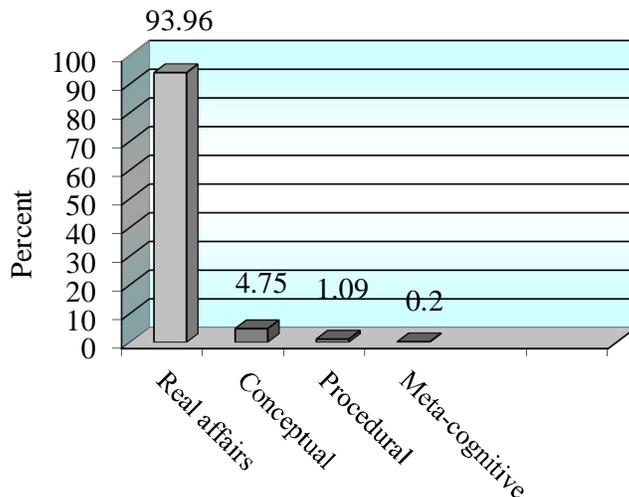


Figure 5: percentage of behavioral goals in the History of Iran and the World (1) and (2) on knowledge

Table 8: Frequency and percentage of cognitive process in the History of Iran and the World (1) and (2)

Cognitive process	Frequency	Percentage
Remembering	203	37.11
Understanding	330	60.32
Applying	7	1.30
Analyzing	3	0.54
Evaluating	4	0.73
Creating	-	-
total	547	100

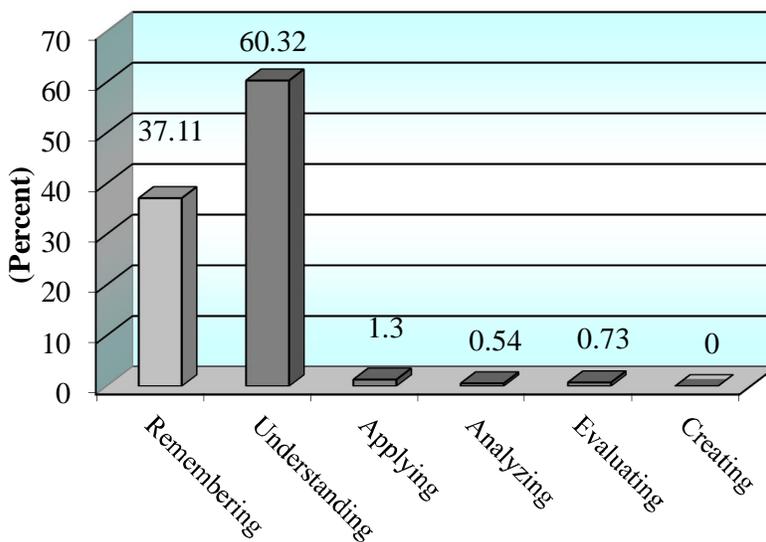


Figure 6: percentage of behavioral goals in the History of Iran and the World (1) and (2) on cognitive process

Results of general classifying behavioral goals derived from cognitive process of the History of Iran and the World (1) and (2) show that:

1- Content of books on the History of Iran and the World 1 and 2 are designed in such a way that real affairs knowledge in the history book (1) is considered as 91.49% and in the history books (2) as 96%. Totally, 93.96% of total content is allocated to real affairs knowledge.

2- Conceptual knowledge in the history book (1) is considered as 6.90% and in the history book (2) as 3%. Totally, 4.75% of total content is allocated to conceptual knowledge.

3- Procedural knowledge in the history book (1) is considered as 3.61% and in the history books (2) as 0.67%. Totally, 1.09% of total content is allocated to procedural knowledge.

4- Meta-cognitive knowledge in the history book (1) is not considered at all and in the history books (2) is considered as 0.33%. Totally, 0.33% of total content is allocated to meta-cognitive knowledge.

Results of general classifying behavioral goals derived from cognitive process of the History of Iran and the World (1) and (2) show that:

1- Remembering level in the history book (1) is considered as 46.98% and in the history books (2) as 29%. Totally, 37.11% of total content is allocated to remembering.

2- Understanding level in the history book (1) is considered as 50.60% and in the history book (2) as 68.33%. Totally, 60.32% of total content is allocated to understanding.

3- Applying level in the history book (1) is considered as 2.42% and in the history books (2) as 0.33%. Totally, 1.30% of total content is allocated to applying.

4- Analyzing level in the history book (1) is not considered at all and in the history books (2) is considered as 1%. Totally, 0.54% of total content is allocated to analyzing.

5- Evaluating level in the history book (1) is not considered at all and in the history books (2) is considered as 1.64%. Totally, 0.73% of total content is allocated to evaluating.

6- Creating level in both history books (1) and (2) is not assigned any goal.

Conclusion

As it is clear, the content of books, the History of Iran and the World (1) and (2) is not balanced in terms of cover on cognitive domain. It is due to extreme emphasize on lower levels of cognitive domain and poor emphasize on other levels; even ignorance of creating level.

Results show that emphasize on a special levels of cognitive domain and ignorance or neglecting others face learning hierarchy with problems; because considering lower levels and ignoring higher levels causes in decreased success in learning complicated skills; failure to comply with sequence of learning activities prevents correct stable learning. In this case, learner learns a material that can not apply them in dealing with new problems and situations analyze or judge them.

Also emphasis on lower levels reduces directing power of content toward next understandings (which are referred to dynamic content) (Taghipoor Poor Zahir, 2005). On the other hand hierarchical relationship between goals of different levels in cognitive domain can be eliminated and a series of learning opportunities cannot be provided for learner because learning opportunities are provided in a designed hierarchy (safavi, 2000). Considering lower levels of cognitive domain causes in instable superficial transfer and learning and it does not provide important educational goals; thus it is concluded that planning principles are not met thoroughly in developing content of courses.

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