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Original Paper

A Study of the Instructional Objectives of Key Competencies in Secondary School History Curriculum—A Reflection Based on the Taxonomy of Educational Objectives

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Abstract

Instructional objectives indicate the outcomes teachers want students to achieve. Objectives Taxonomy can enhance the precision of educational objectives, thereby providing better guidance for teacher instruction and student learning. This study presents the development and evolution of educational objectives in China and analyzes the influential international frameworks for taxonomy one-dimensional and two-dimensional educational objectives. Through these analyses, the study reflects on the main problems of secondary school history instructional objectives statements and summarizes some insights of educational objectives taxonomy to guide history instructional objectives statements.

Keywords

Objectives of history instructional, Taxonomy of educational objectives, Key Competencies

1. Introduction

Instructional objectives indicate the outcomes teachers want students to achieve. Learning or instructional objectives expressed as desired learning outcomes can inform the teacher's choice of teaching methods and materials to maximize the desired behaviors of students (Gronlund & Brookhart, 2017). The impact of instructional objectives on students is reflected in the fact that when students understand the instructional objectives, they can learn independently, self-regulate the learning process according to the guidelines of the objectives, and constantly monitor their progress towards the objectives and check their own learning results, and the students thus enhance their learning efficiency. Overly subjective and arbitrary objectives are ineffective objectives. The more precise the statement of instructional objectives, the more precise the evaluation of instruction and the more effective the

instruction. The most common model for stating instructional goals is based on the work of Taylor, who proposed that the most useful form of stating goals is by stating them along the dimensions of behavioral categories and content, with behavioral categories referring to the types of behaviors of the students that are being developed through instruction, and content referring to the content of the material that is being operationalized by the students' behaviors (Tyler, 1949). Taylor's perspective is also used in the taxonomy of educational objectives by Bloom, Anderson, and others. Taxonomy of learning outcomes or instructional objectives increases teachers' understanding of the learning process, allows teachers to see and understand dynamic cognitive development and how lower levels of knowledge become higher levels of thinking, and allows teachers to rationally sequence the content of knowledge to optimize teacher instruction (Kanwal & Khan, 2020).

The researcher recently conducted a study on the status quo of history teaching in secondary schools, which found that history teaching in secondary schools suffers from the problem of "the design of the objectives is overly formalistic, and the implementation of the objectives is aimless and arbitrary". A well-known high school history teacher surveyed responded as follows: "To be honest, I don't write an instructional design for every class because many classes don't have an instructional design. Only when I want to do a relatively exemplary class, I will set instructional objectives for the history class." From this teacher's statement, there is a problem of formalization in the current teaching design of secondary school history. Many teachers do not have a teaching design for their daily classes, and they will only complete the teaching design when facing open classes or responding to inspections by higher education leaders, not to mention considering how to improve their teaching with the teaching design, and the same is true for the design of instructional objectives. When such instructional objectives are placed in classroom implementation, the implementation of instructional objectives is bound to be blind and arbitrary. The researcher found in the educational practicum that some teachers' instructional designs and teaching materials were reused every school year, a situation that suggests that the teachers' design of instructional objectives ignored the different needs of different students for learning, and that the effectiveness of the instructional objectives was highly problematic. In addition, many teachers had some problems with the accuracy of the goal elements, the appropriateness of matching the competencies objectives, the completeness of the internal structure of the goals, the consistency of the teaching goals with the instructional design and the standardization of the language of the goal design in stating the goals of history teaching. The above problems in the statement and implementation of instructional objectives show that the statement of scientific instructional objectives has become an important problem to be solved in the field of secondary school history teaching at present. The research related to the taxonomy of educational objectives may provide some ideas to solve the above problems. However, most of the domestic scholars' studies on the international taxonomy of educational objectives are either references to or criticisms of foreign taxonomies of educational objectives, or comparative studies of taxonomic frameworks proposed by different scholars in foreign countries. This study attempts to put forward some suggestions for the statement of history

instructional objectives by analyzing the research results of educational objectives taxonomy at home and abroad and combining them with the current progress of history instructional objectives research under the orientation of Key Competencies.

2. Studies on Educational Objectives at Home

Since the 1980s, Chinese education researchers have learnt and partially transformed the Bloom's taxonomy of educational objectives, and the reform practice of "teaching by objectives" has emerged. Our basic education curriculum reform has gone through a three-stage evolutionary process from "double bases" to three-dimensional goals to Key Competencies in terms of changes in the direction of goals and value orientation, and the teaching goals of basic education, following the footsteps of the curriculum reform, have also gone through the three stages mentioned above, and the following is a brief review of the process of the development of teaching goals.

During the period 1978-2001, China's educational training objectives were mainly focused on cultivating students' basic knowledge and basic skills, or the "double bases" for short. The "double bases" goals were created at a particular time and have their own rationale. However, the "double bases" teaching has seriously narrowed the connotation of education, forming a typical "narrow teaching" mode and narrowing the teaching (Yu, 2016). In order to address the negative consequences of the "double bases" objectives, which "see things but not people", it have proposed three-dimensional objectives. The Outline of Basic Education Curriculum Reform (for Trial Implementation) puts forward a three-dimensional system of curriculum objectives aimed at correcting the past drawbacks of China's traditional view of the curriculum, which focused purely on the transmission of knowledge to the detriment of students' minds. The goal of "knowledge and ability" corresponds to the "double bases goal" in the past, which is the system of basic knowledge and basic concepts that constitute a certain discipline; the goal of "process and method" points to the way of thinking and behavior behind the system of basic knowledge and basic concepts of the discipline. The goal of "affective attitudes and values" points to the values behind the subject. The three-dimensional goals are the result of the integrated application of the value orientation of the goals, which correspond to the "behavioral goals" "process goals" and "experiential goals" respectively. The three-dimensional objectives portray a picture of education that "cultivates people" but fail to provide a clear description of "what kind of people to cultivate". Unlike the "double bases" goals and the three-dimensional goals, the Key Competencies goals portray a concrete image of the students to be developed through education. The Key Competencies Research Group defines Key Competencies as "the Key Competencies for students' development, which mainly refers to the necessary character and key abilities that students should possess and can adapt to the needs of lifelong development and social development". Some scholars interpret Key Competencies at three levels, namely, the disciplinary thinking level, the problem-solving level and the "double bases" level and believe that the goal of Key Competencies is to cultivate people who can form a relatively stable method of thinking and values for thinking about and solving

problems, and who initially acquire a world view and a methodology for understanding the world and transforming it. Each basic education curriculum formulates the key literacy skills that students acquire through the study of the subject in accordance with the Key Competencies Skills for Student Development in China and in the light of the knowledge content and characteristics of the subject. The History Key Competencies enables students to develop five competencies based on the content of the discipline of history: historical materialism, the concept of time-space, historical evidence, historical explanation, and home country feelings. The Key Competencies of history is the unique contribution and role of the discipline of history to the development of human Key Competencies, and the embodiment and implementation of the discipline's unique educational value in students.

In terms of Key Competencies goal statements, some scholars have categorized, stratified, and assigned treatment to the five aspects of secondary school history competencies objectives and provided referential perspectives in conjunction with specific cases, and it is recommended that lesson teaching goals be expressed using a unified approach. Some scholars believe that history instructional objectives should be constructed by refining the knowledge points that match the Key Competencies, stratifying the objectives with reference to the descriptions of academic quality standards, stating the objectives in an integrated manner to avoid the fragmented correspondence of the five aspects of the Key Competencies, and reflecting the changes in students' behaviors by solving the problems of different learning situations.

At present, the way of stating the objectives of secondary school history teaching has not yet formed a unified standard. How to state the objectives of history Key Competencies is a key issue that needs to be solved by current history education researchers and practitioners after the objectives of history Key Competencies are put forward. How to categorize the five aspects of history Key Competencies? What kind of value orientation should be adopted in the presentation of the goals? Can the expression of three-dimensional goals match the Key Competencies goals? All of these are problems that need to be solved urgently.

3. Studies on Educational Objectives Abroad

The idea that knowledge can be categorized comes from Herbartian, he argued that concepts and ideas can be grouped into classes containing similar concepts through the process of apperception. (Travers, 1980) The first to construct a framework for categorizing educational goals was Bloom et al. In the 1950s, they made a division of educational goals into three domains: cognitive, affective, and psychomotor. Bloom's taxonomy is a multilevel model that categorizes thinking according to six levels of cognitive complexity, which are, in descending order: knowledge, comprehension, application, analysis, synthesis, evaluation. Bloom advocates the use of the term "taxonomy" to summarize his work. His research has become the foundation of goal categorization research, and subsequent scholars' studies on the taxonomy of educational goals have been influenced by Bloom's taxonomy. (Forehand, 2005) Bloom et al., adopt Taylor's view of designing educational goals in such a way that the

formulation of educational goals should contain explicit references to specific types of knowledge as well as behaviors that indicate mastery or understanding of skills related to that knowledge. (Marzano &John,2008) Bloom's taxonomy of educational objectives has played an important role in the areas of curriculum development, instructional design, and educational evaluation in a number of countries, but it has also attracted some criticism. Criticisms of Bloom's taxonomy of educational objectives are broadly as follows: (1) The philosophical aspect of education is mainly the questioning of the value-neutrality of the taxonomy and the methodology on which it is based (Furst, 1981). (2) The hierarchical structure is not rigorous. Bloom's Taxonomy of Educational objectives uses a Cumulative Hierarchical Structure (CHS) from simple to complex, which is not consistent with the real situation. (3) Failure to distinguish knowledge independently, confusing the object of the action with the action itself. Bloom's study stimulated scholars' interest in the study of educational objectives, and after him, many scholars proposed one-dimensional or multidimensional categorization frameworks. In a one-dimensional framework, Gagne's research has generated much attention. Gagne identified five categories of learning outcomes based on prior research by learning psychologists: Verbal Information, Intellectual Skills, Cognitive Strategies, Attitudes, and Motor Skills (Gagne, 1984). Instructional design sometimes requires the integration of multiple objectives that occur in a course, and Gagne's strategies and methods for achieving integrated instructional objectives based on the five categories of learning outcome taxonomys provide ideas for stating instructional objectives using learning outcome taxonomys (Gagne, 1990). Both Gagne's and Bloom's taxonomies of educational objectives are one-dimensional frameworks, with the former focusing on types of outcomes and the latter on levels of hierarchy.

At the end of the 20th century, there were three typical results of taxonomy of educational objectives in the international educational community, namely, the revision of Bloom's educational objectives by Anderson and others, Hauenstei theory of taxonomy of educational objectives, and Marzano's (Marzano's) taxonomy based on human behavioral patterns.

Anderson et al. completed their revision of Bloom's taxonomy framework in 2001 with the publication of the book *A Taxonomy of Learning, Teaching, and Assessment*. The following adjustments have been made to the revised taxonomic framework compared to the original version: (1) Changes in the terminology used to describe cognitive processes. The six categories were changed from nouns to verbs; what was the lowest level of knowledge was renamed memorization; and comprehension and synthesis was renamed understanding and creativity. (Forehand, 2005) (2) Changes in categorization dimensions. Unlike Bloom's one-dimensional categorization, Anderson's revised new taxonomy employs a two-dimensional framework of "knowledge" and "cognitive dimensions". The two-dimensional framework emphasizes what learners "know" (knowledge) and how they "think about what they know" (cognitive processes) in meaningful learning, respectively. The two-dimensional framework aims to create a "student-centered, learning-based, clear and purposeful assessable goal of cognitive outcomes" in terms of the statement of instructional goals. In order to present such an educational objective, the

revision team gave a standardized format for the objective statement: “Students will be able to or learn + verb noun.”

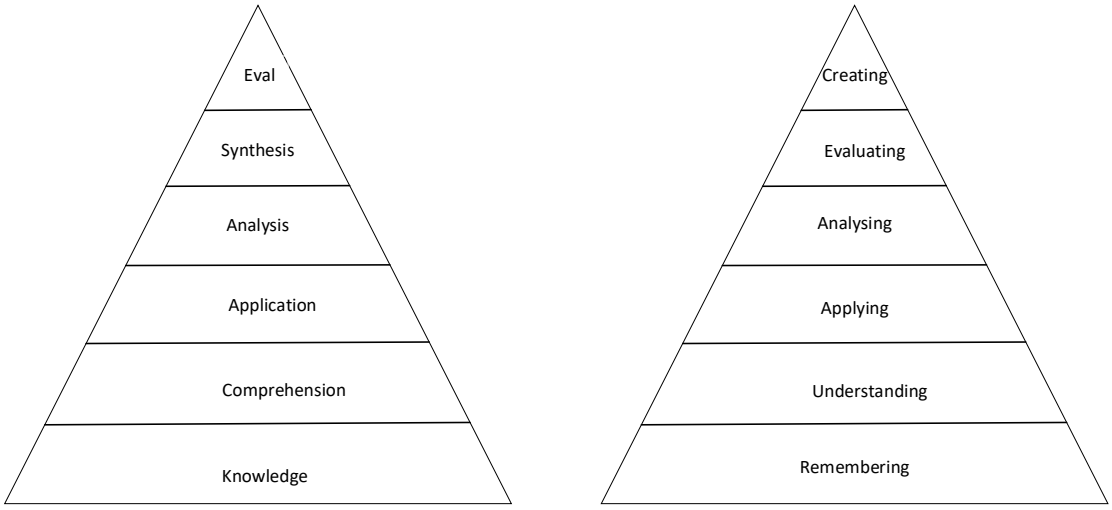

Figure 1-1 Describing Changes in Cognitive Process Terminology

Table 1-1 Taxonomy Table

The Knowledge Dimension	The Cognitive Process Dimension					
	Remember	Understand	Apply	Analyze	Evaluate	Create
Factual Knowledge						
Conceptual Knowledge						
Procedural Knowledge						
Mete-Cognitive Knowledge						

Hauenstein’s categorization of goals is structured in the context of a complete pedagogical system and focuses on the implementation of educational goals in the pedagogical process, starting from the construction of a complete closed loop of “input-process-output” (Figure 1-2). (Hauenstein, 1998) In his view of knowledge taxonomy, he distinguishes the difference between information and knowledge before he argues that: information is knowledge internalized by others and knowledge is information internalized by oneself. Based on the whole person perspective, Hauenstein used the behavioral domain to integrate the cognitive, affective, and psychomotor domains, forming a unique behaviorally

integrated taxonomy of educational objectives. Each of these four domains is subdivided into five levels of educational objectives (Table 1-2), and this categorization provides guidance for teachers in writing educational objectives.

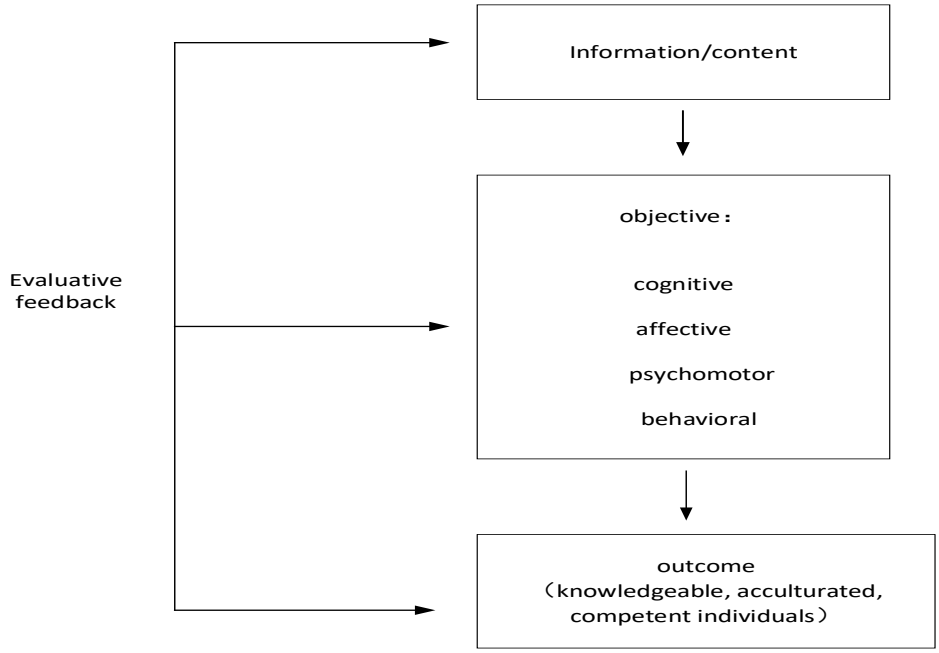

Figure 1-2 Hauenstein's Systematic View of Categorizing Educational Objectives

Table 1-2 Hauenstein Framework for Categorizing Educational Goals

The Cognitive Domain	The Affective Domain	The Psychomotor Domain	The Behavioral Domain
conceptualization	receiving	perception	acquisition
comprehension	responding	simulation	assimilation
application	valuing	conformation	adaptation
evaluation	believing	production	performance
synthesis	behaving	mastery	aspriation

The new taxonomy of educational objectives proposed by Marzano is a two-dimensional framework, with one dimension dealing with the three domains of knowledge and the other proposing four major systems of human behavioral patterns for the levels of mental processing (Figure 1-3). Marzano's taxonomy of educational objectives separates knowledge from the process of mental functioning by assuming that the three types of knowledge (information, mental programs, and mental action programs) are operated by three systems of thought (cognitive, metacognitive, and ego systems), as well as by constituent elements. In addition, the self-system is placed at the top of the processing level, where it

controls the other processing levels. The new taxonomy also uses Taylor's statement of educational goals, and Marzano gives the syntax that describes the goal: The student will be able to ------ (the student will be able to...). To enhance the practicality of the taxonomy, he gives specific application processes and relevant examples of the three systems of thought in *Designing and assessing educational objectives: Applying the new taxonomy* (Marzano, 2008).

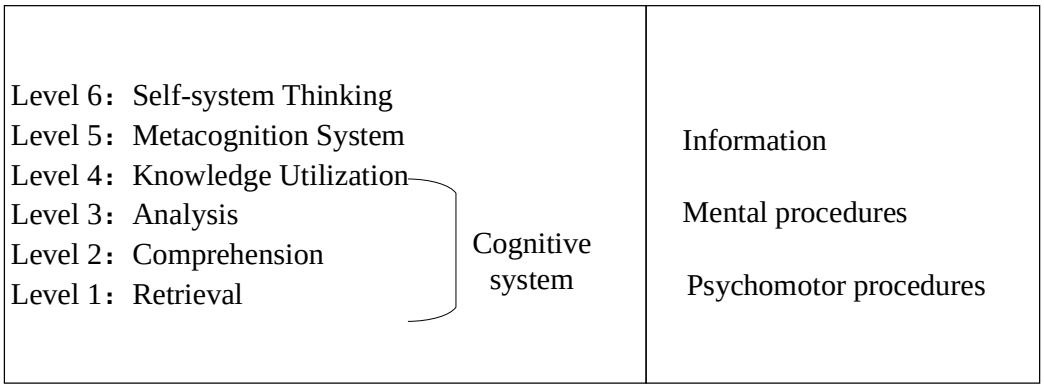

Figure 1-3 Two Dimensions of the New Taxonomy

4. Discussion

The paper summarizes the three-stage evolution of domestic basic education instructional objectives from "double bases" objectives to three-dimensional objectives and then to Key Competencies objectives. It introduces the influential taxonomy frameworks of one-dimensional and two-dimensional education objectives in foreign countries.

(1) Teachers should selectively absorb the results of foreign research and adopt a hierarchical approach to establish a clear and operational index system to guide the statement of history instructional objectives. (2) Although different scholars abroad have put forward many different frameworks for categorizing educational objectives, the users of instructional objectives are mainly front-line teachers, so simplicity and comprehensibility are the most important indicators of the statement of instructional objectives. The way of stating goals proposed by Taylor was applied by Bloom, Anderson and others in the study of taxonomy of educational goals, and the way of stating teaching goals with verb (cognitive process) + noun (teaching content) is also in line with the habit of first-line teachers in stating teaching goals. However, the way of stating behavioral objectives has its limitations. In the past, teachers tried to break through this limitation by proposing the objectives of "process and method" and "affective attitudes and values" in the three-dimensional objectives, but the results were not good. Choosing the value orientation of reasonable goal statements is an important issue in the study of teaching goal taxonomy. (3) From the viewpoint of our education reform process, no matter what kind of education concepts and education goals are put forward by the curriculum and teaching reform, they should be based on the mastery of knowledge, and the Key Competencies goals must not be separated from the learning of knowledge while fostering the all-round development of human beings. Subject knowledge

should be the primary focus of the taxonomy of educational objectives.

(4) Taxonomy seeks to achieve a scientific description of instructional objectives in order to maximize the function of the objectives. But not all learning outcomes can be transformed into actionable and testable educational objectives, which is determined by the limited nature of the objectives themselves.

In the study of educational objectives taxonomy, it is necessary to recognize that, within a limited scope, the pursuit of theoretical research should aim to achieve the maximum possible outcomes.

References

Forehand, M. (2005). Bloom's taxonomy: Original and revised. *Emerging perspectives on learning, teaching, and technology*, *8*, 41-44.

Furst, E. J. (1981). Bloom's taxonomy of educational objectives for the cognitive domain: Philosophical and educational issues. *Review of educational research*, *51*(4), 441-453.

Gagne, R. M. (1984). Learning outcomes and their effects: Useful categories of human performance. *American psychologist*, *39*(4), 377.

Gagne, R. M., & Merrill, M. D. (1990). Integrative goals for instructional design. *Educational Technology Research and Development*, *38*(1), 23-30.

Gronlund, N. E., & Brookhart, S. M. (2008). *Gronlund's writing instructional objectives*. Pearson.

Gul, R., Kanwal, S., & Khan, S. S. (2020). Preferences of the teachers in employing revised blooms taxonomy in their instructions. *Sjesr*, *3*(2), 258-266.

Hauenstein, A. D. (1998). *A Conceptual Framework for Educational Objectives: A Holistic Approach to Traditional Taxonomies*. University Press of America.

Marzano, R. J., & Kendall, J. S. (2008). *Designing and Assessing Educational Objectives: Applying the New Taxonomy*. Corwin Press.

Travers, R. M. (1980). Taxonomies of educational objectives and theories of Taxonomy. *Educational Evaluation and policy analysis*, *2*(2), 5-23.

Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. University of Chicago press.

Vincent Yu. (2016). From three-dimensional goals to Key Competencies. *Journal of East China Normal University (Education Science Edition)*, (01), 11-13.