The Application of SOLO Taxonomy in Assessment of English Teaching Capability

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ABSTRACT—*Though the educational value of competence in culture understanding on the part of teachers of English has been increasingly recognized, it has not yet played its due role in English teaching. Because their competence is generally low, it is significant to place emphasis on both upgrade and study of their culture understanding. This paper is intended to divide competence into five levels which reveal the necessity of raising it higher levels. It also explores the horizontal division of levels, which provides a worthy guideline for assessment and promotion of English teaching.*

Keywords—SOLO Taxonomy, Culture knowledge approach, Competence in the approach of culture understanding, Horizontal division

1. INTRODUCTION

The 21st century is labeled as the era of quality. The criterions for quality of English courses, teaching and majors have been changing according to transformation of educational concepts and functions as well as the research and development of English teaching- related disciplines. For example, such philosophies and approaches as people-oriented, student-centered, approach-guided, communication-targeted, teacher-student interaction and multi-media have been adopted to judge teaching quality. Furthermore, with interpersonal and international communication in the "Global Village" on the increasing rise by virtue of advanced technologies of satellite, electronics and transportation, the same utterance often conveys opposite meanings when used by people of different cultures who use English as an international language. Visible and invisible verbal representations of customs and norms of different cultures constitute such conflicts as misunderstanding, alienation, offence and embarrassment. To avoid these conflicts, English learners, while learning the language, should build up their knowledge of cultures and science, enhance their cross-cultural awareness and grasp the skills for cross-cultural communication. This requires teachers of English to channel understanding of the culture in question into their teaching (See Figure1 for the relationship between culture understanding and culture knowledge). However, "high evaluation" and "narrow application" prevail in English teaching, which, according to researches, is mainly caused by the low level of culture understanding of English teachers in China. To raise their levels, we should theoretically divide them in the first place.

Based on J.Biggs' SOLO taxonomy, the paper explores the divisions of English teachers' competence in the approach of culture understanding, and by doing this it is expected to provide the theory behind which such competence can be advanced.

2. A SURVEY OF SOLO TAXONOMY

SOLO (short for Structure of the Observed Learning Outcome), initially proposed in Evaluating the Quality of Learning: The SOLO Taxonomy (1982) by John Biggs, and Kevin Gollis, delineates cognitive developments of individuals, and is the inheritance and development of Jean Piaget's proposition of children's cognitive development. Behind SOLO is a nature-evaluating methodology characterized by grade description. Biggs argues that the quantity and quality of any learning outcome range from concrete to abstract, from one-dimensional to multi-dimensional, from unordered to ordered, and he divides a specific learning outcome, from low to high, into five grades.

1). Prestructural Grade: Little understanding of an issue is formed; only some illogical and poorly supported answers are provided.

2). Unistructural Grade: An idea of solution is conjured up, but the thinking is far from clear and the answer is singly grounded.

3). Multistructural Grade: Many ideas of solution are obtained, but they are not related to each other.

4). Relational Grade: Many ideas of solution are obtained and the related ideas are integrated.

5). Extended Abstract Grade: Being able to abstract and analyze an issue according to theories, and to conceptualize a coherent whole up to a higher abstract level, thus extending the meaning of the issue.

SOLO taxonomy, though designed to categorize learning outcome, does not identify the outcome as either right or wrong. Instead, the learning outcome is regarded as strata ranging from known to unknown, from simple to complex; the relationships in the strata are those of element to system, part to whole. The first three grades indicate the accumulation of fundamental knowledge, and the last two stands for a leap in theorized thinking.

3. COMPARISON OF ENGLISH TEACHERS' CULTURE KNOWLEDGE AND CULTURE UNDERSTANDING APPROACHES

In the past, the narrow-minded perception of language led to a phenomenon where language was seen as an isolated semiotic system and word acquisition became the only objective of language learning. Advancements in science, technology, economy and society as well as the increase of international contact, practical use of English language has become more and more prominent; retaining and disseminating native culture, respecting and absorbing foreign cultures have been unavoidable. This requires language teaching to go beyond the aim of language competence of learners to helping them overcome cultural obstacles. Also, an open-minded attitude is expected of them to view their native and foreign cultures. However, language teachers vary in their competence in the approach of culture understanding; and language teaching can by no means be dispensed with knowledge of cultural backgrounds and science. In either teaching or reality, even some simple expressions or sentences, if without the help of the competence, would cause confusion. Take such a simple sentence as "Let the cat out of the bag." for example. If teacher had no idea of its origin, a non-native learner of English, only depending on words and grammar, would not perceive its connotation whatsoever. On the contrary, if teachers, equipped with the competence, incorporate the allusion into their teaching, they will help their students enhance learning, appreciate the glamour of a different culture and recognize the value of knowledge about culture in proper use of language. In English teaching, there are two approaches, i.e. culture knowledge and culture understanding, as well as culture awareness which links the two. English teaching must transcend culture knowledge approach to understanding approach. At present, however, the circle of language teaching has yet to differentiate the two. Tablet 1 lists their underlying characteristics summarized by Professor Cao Wen.

Tablet 1: The two approaches of culture knowledge and culture understanding

Culture Knowledge Approach	Culture Understanding Approach
1. Instructing learners to grasp the knowledge of the target-language culture.	1. Developing language learners' cross-culture communicativeness
2. Knowledge-centered.	2. Skill-centered.
3. Content based on the target-language culture.	3. Content based on the target-language and native cultures as well as other cultures.
4. Focusing on imparting high culture such as history, literature, religion, politics and geography.	4. Focusing on, besides high culture, popular culture (customs, rituals and other lifestyles) and deep culture (values, time-space concepts and solutions to problems)
5. Input of cultural information dependent on extensive reading which mostly depicts target-language culture in a general way.	5. Obtaining cultural information from a variety of channels such as reading, communication, mass media, case analysis, surveys and experiences in the target-language country. Emphasis is laid on case-by-case analysis to avoid stereotyping.
6. Choosing teaching materials or the like on culture compiled by native speakers of, or people from, the target-language culture.	6. Choosing teaching materials or the like on culture compiled by native speakers or people of the target-language culture as well as people of other cultures.
7. Teaching the target-language culture as a whole.	7. Conducting culture teaching by studying individuals of the target-language culture.
8. Viewing target-language culture against native culture.	8. Viewing target-language culture against native culture and other cultures.
9. Teaching cultural phenomena in isolation.	9. Attaching importance to relationship between culture and communication and factual influences of cultural factors in communication.

| 10. Employing instillation as main teaching method. | 10. Employing heuristic approach, laying emphasis on practice and learners' involvement. |
| 11. Viewing the teacher as knowledge disseminator. | 11. Viewing the teachers as intermediaries between cultures. |

Competence in the approach of culture understanding is an important component of English teachers' professionalism and foundation for them to totally understand English, optimize its knowledge framework and improve their teaching. Rather than being merely concerned with culture understanding approach, this competence is for the sake of English teaching. It involves three elements: ①Acquaintance with the approach ②Knowledge of the approach ③Application of the approach in English teaching. Therefore, assessment of English teaching capability should take the elements into consideration, and should be horizontally divided into levels ranging from one-sided to comprehensive, from shallow to deep.
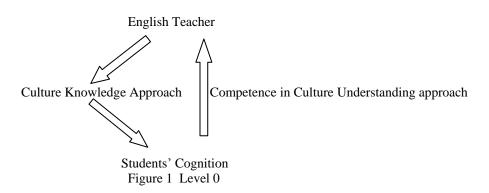
3.1 English Teaching by Culture Understanding Approach

The major task of English teaching is to foster students' cognition of English, and at the same time teachers are expected to extract culture knowledge from the textbook so that the cognition can be strengthened. Furthermore, when content related to culture understanding is introduced into classroom teaching, students will have more cognitive channels. At this point, teachers not only are required to instruct learners to observe, analyze and generalize the subject they are learning so that they are able to discover language rules, principles and uses on their own, but also should have a in-depth understanding of cultural backgrounds such as customs, rituals, other lifestyles, values, time-space concepts and solutions to problems, which will render the teaching more interesting and effective. This approach stresses the relationship between structure and forms, and language rules and use, and it also pays close attention to application of culture understanding approach in English teaching. So culture knowledge and culture understanding approaches can be regarded as another dimension to the horizontal division of competence in understanding English culture.

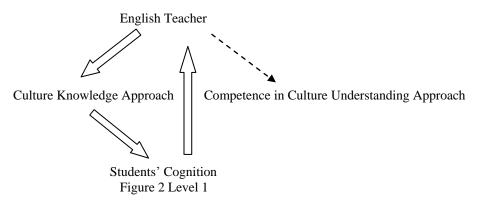### 3.2 The Five Levels of Competence in the Approach of Culture Understanding

Level 0 (Prestructural Grade, see Figure 1) Teachers lack awareness of culture understanding

Teachers on this level neither have any idea of the role that culture understanding approach can play in English teaching, nor do they make use of it. In other words, they have no such competence. They mainly rely on the logical relationship between language knowledge and forms or structure to help students to acquire knowledge. Their teaching capability can be defined as in Figure 1.
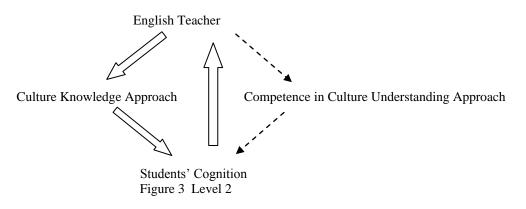

Figure 1 Level 0

Level 1 (Unistructural Grade, see Figure 2)

Teachers on this level, though having some competence, believe that culture understanding (indicated by the dotted line) has nothing to do with teaching. They refuse to use the culture understanding approach and mainly rely on the logical relationship between language knowledge and forms or structure to help students to acquire knowledge.
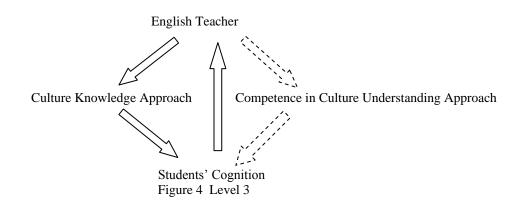
English Teacher

Culture Knowledge Approach   Competence in Culture Understanding Approach

Students' Cognition
Figure 2 Level 1

Level 2 (Multistructural Grade, see Figure 3)

Though fairly competent in the approach, teachers have only skin-deep idea of the role it can play in English teaching. Their focus is placed only on developing learners' interest (indicated by the dotted lines) though the application of culture understanding approach is occasionally performed in class. Teachers fail to integrate language, culture knowledge and the approach into an organic whole; teaching English language and imparting its culture are separated in a clear-cut fashion.
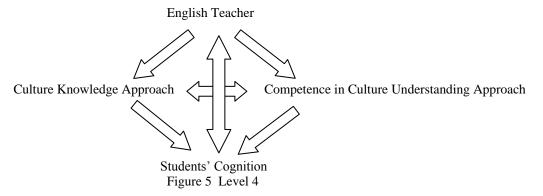
English Teacher

Culture Knowledge Approach   Competence in Culture Understanding Approach

Students' Cognition
Figure 3 Level 2

Level 3 (Relational Grade, see Figure 4)

Fairly competent in culture understanding and clearly aware of the role culture understanding approach can play in English teaching, teachers are convinced that the approach can facilitate learners' comprehension of English knowledge and help them develop favorable character (indicated by the double dotted lines). When explaining a specific sentence, teachers can readily incorporate the approach into their teaching and facilitate learners' cognition of English language if they have gained in-depth knowledge of relevant culture, customs, allusions, social contact and science, and if they can combine the logical relationship between language forms and structures with culture understanding approach when designing their lessons. Take "There is all this red tape involved in getting an import license" for example. If teachers acquaint themselves with the practice of bundling legal documents with red tape by British lawyers and bring the origin of the idiom into their lessons, their teaching will be highly effective.

English Teacher

Culture Knowledge Approach   Competence in Culture Understanding Approach

Students' Cognition
Figure 4 Level 3

Level 4 (Extended Abstract Grade, see Figure 5)

Teachers are highly competent in culture understanding approach, and their teaching is completely conducted in accordance with both English language and the approach, which can greatly boost learners' cognition. Moreover, they have overall knowledge of where the course content and the approach can be incorporated, and can take the full advantage of the competence in culture understanding approach in their teaching. To them, teaching combined with the approach has become a philosophy, a consciousness (See Figure 5). This is the ideal level for which all teachers of English should strive.

English Teacher

Culture Knowledge Approach   Competence in Culture Understanding Approach

Students' Cognition
Figure 5 Level 4

Tablet 2: The five grades of SOLO and the five Levels

SOLO Divisions		Horizontal Division of Competence in the Approach of Understanding English Culture	
Major Features	Five Grades	Five Levels	Major Features
Little understanding of a issue is formed.	Prestructural	Level 0	Having no idea of the role that competence in culture understanding approach can play in English teaching, not making use of the competence.
An idea of solution is conjured up.	Unistructural	Level 1	Having some competence in culture understanding approach, but refusing to use it and mainly relying on culture knowledge to help students to acquire knowledge.
Many ideas of solution are obtained, but they are not related to each other.	Multistructural	Level 2	The application of culture understanding approach is occasionally performed in class, but the approach is separated from knowledge.
Many ideas of solution are obtained and the related ideas are integrated.	Relational	Level 3	The approach can be introduced to teaching some particular chapters or units.
The issue can be generalized, analyzed, dug up and extended according to theories.	Extended Abstract	Level 4	The approach is efficiently performed in the entire process of teaching. Teaching combined with the approach has become a philosophy and a consciousness.

4. PSYCHOLOGICAL INTERPRETATION OF UPGRADING COMPETENCE IN THE APPROACH OF UNDERSTANDING ENGLISH CULTURE

Viewed from a dynamic perspective, the five levels can be regarded as five stages of English teachers' development where English teaching is conducted by exerting competence in the approach of culture understanding. Similar to SOLO, the process is the one where quantitative changes are making qualitative differences. The development in this process can be explained by Concept Development Theory by Vygotsky who believes that in socializational situations, learning abstract concept bridges spontaneous concept and scientific concept. Spontaneous concept, derived from personal experience, takes shape naturally instead of being given. It is the basis for scientific concept to be formed. The relationship between the two is that of starting point and destination, and of a low level and a high one.
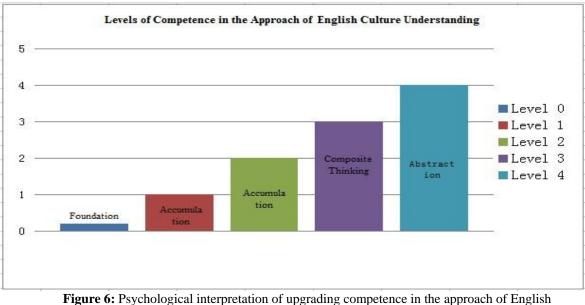
When English teachers raise their competence in the approach of understanding of English culture to Level 4,

teaching combined with it is conceptualized. Their original competence is of spontaneous concept while the combination is of scientific concept. Vygotsky maintains that heap plays an important role in the initial stage where formation of concept starts. When the approach advances from Level 0 towards Level 2, the corresponding knowledge is continuously increased and the awareness is gradually consolidated. This is when teachers start to try to apply the approach to their teaching. The secondary reason for conceptualization lies in the changes in thinking. Vygotsky proposes that thinking include associative type, collections, chain, diffusion and proposed concept which he collectively names composite thinking. Composite thinking displays the process where the competence moves from Level 2 towards Level 3.

Associative type of thinking, by way of similarity and sentient connections between things, associates them together. When teachers are building up their knowledge about the approach, they will have an increasingly clear idea what the approach really is. At such points, biographies of scientists, allusions behind words, procedures of scientific creations or thinking modes of other nations will be brought into the category of culture understanding approach. Basing on relationship between two objects observed in practice, collections aims for locating their correlations. With increase in their competence, teachers will gradually perceive the logical relationship between knowledge of both language and culture and forms or structure as well as the preferable role that the two aspects of culture understanding approach can play in facilitation of learners' cognition. Chain thinking connects individual parts to become a coherent chain. After being acquainted with the two aspects, teachers will self-examine and judge the integration in the entire teaching which includes design, in-class performance and after-class introspection. Diffusion thinking refers to the reflection after the practice of combining culture understanding approach with teaching is conducted. With the knowledge about culture understanding increased, teachers will gradually perceive how a specific unit or chapter can be taught by the approach of culture understanding.

According to his experiment, Vygotsky maintains that composition of the four types of thinking constitutes a phased development before a "proposed concept" phase is formed. To form scientific concept, Vygotsky believes that it has to go through abstraction (also "internalization", called by Vygotsky) during which conceptual attributes are extracted from concrete thinking. In between Level 3 and Level 4 where teachers employ in other units what they have experienced and attempted in previous ones, they will perceive the essence of combining the approach and teaching, and that the combination can be extended. Hence, both teachers and students can benefit. Eventually, they tend to be willing to extend the practice of using their competence to all units of a specific textbook. With their competence strengthened and experience accumulated, they will have a better idea of culture understanding approach, the degree to which it can be adopted and the acceptance on the part of their learners. At this point, the concept of teaching with culture understanding approach has been formed.

To sum up, the elevation from Level 0 to Level 4 is achieved as language knowledge and forms or structure is integrated with culture understanding approach. The process consists of accumulation, composition and thinking (associative type, collections, chain, diffusion and proposed concept) abstraction, which is similar to the universal development from spontaneous concept to scientific one. See Figure 6:

Figure 6: Psychological interpretation of upgrading competence in the approach of English culture understanding

5. CONCLUSION

By virtue of SOLO Taxonomy and with consideration of the three elements, the logical relationship between language knowledge and forms or structure and two aspects of integrating culture understanding approach with teaching, the competence is divided into five levels, which is a further application of the taxonomy to the study of English teaching capability. The five levels can be regarded as five stages when the competence is being upgraded. In this sense, this study can provide a direction for teachers' endeavor and development plan to improve their competence. In particular, psychological interpretation of upgrading competence in the approach of understanding English culture offers a psychological foundation for their improvement in teaching capability.

6. ACKNOWLEDGEMENT

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