

Research Article

Symbolic Learning Strategy based on Symbol Literacy Improvement

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Abstract: The meaning of symbol is open, based on which the learner can gradually establish his or her own symbol library and develop the capability of meaning construction. Relying on "linguistic symbol" and "non-linguistic symbol" -based symbol literacy improvement, medium literacy and cultural literacy education and training, multiple intelligence education, course ontology research, etc., we can improve meaning construction, thus pushing forward symbolic learning.

Keywords: Cultural literacy, meaning construction, multiple intelligence, symbol, symbol literacy, symbolic learning

INTRODUCTION

Cassirer has creatively proposed that human is the animal symbolicum. Symbol becomes the medium between subject and target or object while human being perceives the objective world with symbols. As I have written article to discuss "symbolic learning" issues specially before (Yonghai *et al.*, 2010), this study will focus on discussing symbolic learning strategy.

The meaning of symbol is open, which leads to constant development of knowledge of human being from the perspective of object and which enables meaning construction, enhancement of cognition and formation of symbolic learning from the perspective of subject after subject masters the signification of symbol. Therefore, we can promote meaning construction and push forward symbolic learning through linguistic symbol and non-linguistic symbol-based symbol literacy enhancement, medium literacy and cultural literacy education and cultivation, multiple intelligence teaching and course ontology research.

SYMBOLIC LEARNING

Symbolic learning refers to people using symbolic tools to constantly extend and improve their symbol system (including symbol library and symbol tools) and capability of application based on symbol library, so as to acquire knowledge and improve cognition (Yonghai *et al.*, 2010). Blended with methodologies and research findings of linguistics, logic, philosophy, anthropology, communications and information science, the research of semiotics/semiology has made discourse of humanities and social science more accurate, known as "Math" tool for humanities and social science (Xiaozhong *et al.*, 2005). As the most essential nature

of symbol lies in its referential function, symbol can be defined as "something" representing other things. For instance: if we represent B with A, A is the symbol of B. Symbol is not only the medium for human being to understand things, but also the main technique for human being to express thoughts and feelings. Such various cultural forms as religion, art, myths, history and science are the symbolic embodiment and the presentation of symbolic functions.

Symbol has three functions in symbolic learning. Firstly, symbol is the tool to store knowledge. The storage and inheritance of experience, skills and knowledge of human being depend on symbolic tools created by human being in practice. People have to learn symbol and take symbol as the starting point for cognition or target of cognition to acquire social knowledge and experience. Secondly, symbol is the intuitive target of thought processing. Although people live in the objective world, the thought of people does not engage with objective world directly. In other words, symbol must be applied as the intuitive target of thought processing. Finally, symbol is the tool of cognition. It can be seen in the fact that symbol is the tool for thought processing and the tool to express and communicate thoughts (Deyun, 1996). Basically symbolic learning can be divided into two steps, symbol library establishment and meaning construction by symbol.

Symbol library establishment: Symbol representation of object needs to be formed and stored in the brain so as to develop symbolic expression for cognitive object and lay a foundation for further cognition and learning. All symbols include two aspects, i.e., signifier and signified. Essentially, symbol library establishment is to

build certain "referential" relation between signifier and signified and integrate the two, namely, it's the process of a symbol being understood. We can name it symbolic process or explanatory process. When understanding the meaning and content of signified with the representational form of signifier, people will analyze (decompose symbol), comprehend (combine symbol), abstract (get rid of solid impression of symbol) or summarize (form psychological image of meaning), which is undoubtedly the process of realizing the signification. The signification is the innate capability of human being to cognize the world. Therefore, it is scientific and profound (Zhihong, 2007).

Meaning construction by symbol: The combination of signifier and signified may differ from person to person under specific circumstance, that is, "the signification" is infinite while meaning of symbol is open. The combination of signifier and signified of different symbols constitutes different meaning representations. Symbolic learning is how the learner utilizes open meaning of symbol to construct knowledge. The meaning construction of symbol also relies on the signification of symbol. In Barthes's opinion, there are three layers for meaning formation of symbol: denotative is the first layer, connotative the second layer and interaction among subjects the third layer (Yan, 2005). From the perspective of object of symbol, meaning construction of symbol refers to the fixed correlation formed gradually in long-term and large-quantity symbol practice of certain nation, which intuitively reflects in basic meaning (literal sense and extended meaning etc.) of words or phrases from dictionary or lexicon. From the perspective of learner being subject of the study, it is the process of the learner utilizing symbol to build meaning, namely, symbolic learning process. In other words, it is to promote learners to complete, strengthen and add value for their knowledge structure and thus enhance their meaning construction capability by utilizing the symbol as the cognitive tool, mastering the denotative meaning, connotative meaning and interaction with subject. The sequential meaning construction of symbol indicates that symbol meaning system is an open, expandable and extended system, which provides the basic condition necessary for people's knowledge and cognition development.

STRATEGY TO PROMOTE SYMBOLIC LEARNING

Symbol system is an extremely productive production process, during which mankind develops the capability of open, developing cognition. The learner explores and activates the valuable vital elements of symbol mainly relying on multiple significations (metaphor, metonymy and interaction among subjects

etc.), so as to accept and construct new meaning and develop knowledge of human being. The following aspects can be taken into consideration to promote symbolic learning.

Strengthen development on "symbol literacy": The language, body language and even time and space can be used as a symbol to convey message and exchange feelings when we communicate with the objective world with symbols. As artificial linguistic symbols keep emerging, the various digital symbols have been incorporated into meaning system of symbol rapidly by the mass media and network media, influencing the knowledge and meaning construction of learners. Under such circumstance, it has become a severe challenge for learners to identify all symbols, accurately understand and master historic and contemporary meaning of the symbols and correctly and logically use these symbols in different social and cultural environments. Furthermore, the fundamental role and function of language as cognitive tool shall be underlined. We can communicate with the external world via speaking and hearing, which is known as external language, or we can have thought processing internally with reading and memorizing, which is called internal language. There are linguistic symbols for internal language although pronunciation becomes a silent psychological impression. It has been scientifically proved that the throat and vocal cord are always in stress when one meditates or reads silently. The dependence of language on voice and the restriction of pronunciation to meaning are the matter-of-course facts. It is found in scanning the human brain with X-ray when one recalls one word that language memory takes place in three zones of human brain. Thus it can be seen that silent thinking cannot be achieved without language...although it seemingly does not involves linguistic symbol, it encodes and decodes with psychological impression of linguistic symbol (Zhihong, 2007).

- **Strengthen linguistic symbol development and training:** Many scholars claim that current society is in "Image Reading Era (2008)" and media are undergoing "visual transformation". There are so many experts and scholars devoted to the research of "visual culture and visual literacy", ignoring the development and training on characters and linguistic symbols. This is a one-sided point of view. Barthes has long pointed out that "the image civilization is not clear and accurate enough-our written language civilization is as prosperous as or even better than the past. Written language and spoken language will continue to be the complete information structure in full sense." Roland (1999) we have previously discussed how language serves as the base and main thinking tool of the entire symbol system. For instance, the encoding of visual

symbol is generally decoded and converted by internal language. Otherwise, people cannot master and understand it correctly. With no concept and thought formed, people will have feeling and impression at most. "Language is the most fundamental and important form of symbol among all forms of symbol and the master copy and prototype of other forms of symbol. Other forms of symbol are the copy and translation of linguistic system through which they gain meaning and right for their own existence." Deyun (1996) However, the biggest drawback of oral language is transient memory compared to written language. In order to eliminate the drawback and facilitate memorization, oral language is usually completed with gestures, rhythm, parallelism and rhyme to get better memory. "Repeat", the tool condensing images and the method dominating those presentations, is more effective than some conventional verbal exchanges such as "etc." and "so on". Hence, the method of repeat shall be applied effectively in teaching (Wei, 2004).

- **Attach importance to research of non-linguistic symbol and its dissemination:** Non-linguistic symbol also contains signifier and signified, most of which are usually blurred and unconscious communication. With numerous subtle differences in conveyance, it will derive infinite complicated meaning when combined with linguistic symbols. Meanwhile, it is not only linked with culture and context, but also the personal information of everyone such as occupation, region, political affiliation, educational background and other connections. Some scholars estimate that 65% social meaning in conversation between two persons is conveyed and disseminated by non-linguistic symbols. Therefore, learners shall utilize repeat, supplement, emphasis and replacement of linguistic symbols properly in their learning. However, there is "floating meaning" hidden in non-linguistic symbols, some of which might be ignored by learners. With the help of linguistic symbols, some valueless "floating meaning" can be deleted accurately and valuable "floating meaning" revealed (Zhihong, 2007). Nevertheless, the "floating meaning" can be sufficiently utilized in certain circumstances to provide rich imaginary space and creative space for learners, so as to give full play to the annotations to non-linguistic symbols, achieve what teaching is originally intended to and symbol recreation eventually. In addition, in an era with network and visual learning, we shall utilize non-linguistic multi-media symbols to express knowledge in a more vivid, intuitive and efficient way on one hand and prevent impetuous learning and superficial thinking process on the other hand.

Therefore, the key to symbol literacy lies in enabling learners to master a complete symbol structural system-symbol system-for the appropriate use of linguistic symbols, non-linguistic symbols and symbol tools. The questions of how to form such a system, how these symbols and structure affect the cognition construction of learners and how symbol brings change to research methodology and viewpoint will certainly become hot issues in pedagogy and psychology. Constructing a huge "semiology empire" and forming a complete symbol analysis system by integrating philosophy, anthropology, psychology, sociology, communications and information science will be the trend in future research.

Strengthen medium literacy education and cultural literacy development:

Why do we need visual literacy? It is because visual literacy is a capability to "see the implication", which is the accomplishment reflecting conscientious "visual admiration and meaning interpretation" of the subject. The creation of outstanding visual culture depends on the capability of the creator, as well as the capability of the receiver, both of which are equally essential. If there is no capable creator, there will be no source for interpreting the meaning; if there is no capable receiver, the meaning will be screened due to failed interpretation. The great works will be faded out in history. The formation of meaning is in fact the self formation of the subject. The height of the works is actually the realization of the height of how readers think.

Symbolic learning is the learning mainly relying on symbols. As symbol is created by people based on what culture is created, symbol turns nature into a cultural world and a natural person into a cultured person. In Cassirer's opinion, human, symbol and culture are three integrated factors. Different nation and society created people with different thoughts through symbols. In the "civilized" progress dominated by modern western world various symbols and criteria have been spread worldwide, which actually is to reject other knowledge and symbol criteria with western knowledge and symbol criteria and to overthrow other knowledge and symbol system with one knowledge and symbol system. Meanwhile, it replaces other symbol construction model with one model and develops symbol "Chauvinism". In a modern society with accelerated global integration, the culture, region and value of knowledge learning of learners has been seriously affected by prevalence of network and TV news media, discourse hegemony of network, invasion of film culture and symbol violence, which further influences the inheritance of thinking, culture and tradition of different nations. In addition, as science and knowledge is no longer "objective", people realize that general knowledge is the awareness with various cognitive targets, cognitive ways, expression ways, living and

social values. "The focus of general knowledge is not the control and conquest of external world, but the understanding and creation of internal world." Zhongying (2004) Lack of capability for internal understanding and creation, people will control and conquer the external world in the wrong way.

- We need to strengthen cultural literacy development, boost meaning construction and expansion of national cultural symbol system, develop national form and way of thinking characteristic of our nation and reinforce Chinese symbol system based cognition model and knowledge construction; understanding culture of other nations based on critical assimilation is conducive for learners to interpret the in-depth unique meaning of symbol under wider social background and thus promote meaning construction with "interactions among subjects". Only fulfilling the above two points can comprehensive and in-depth "symbolic learning" of learners be guaranteed and meaningful.
- We need to strengthen medium literacy education, enhance learners' capability of utilizing medium correctly and shield off adverse information and symbol of medium, give them a complete knowledge structure and provide them the correct perspective to interpret information; we also need to develop the learners' capability free from restriction of medium information and symbol and the capability of controlling self belief and behavior and make them the active information users. Only in this way can learners analyze symbols correctly and effectively, utilize medium symbol and information reasonably, judge the value system and ideology hidden in symbol independently and renovate, enrich and complete their knowledge structure, construct cognition structure with "immunity".

Strengthen symbol ontology research and practice:

"To symbol school, information means the construction of symbol, which generates meaning via interaction with learners". Learners analyze symbol and culture via text (including visual and vocal symbols, known as "knowledge symbol" in general), aiming to "share meaning" in subject. However, since "the natural feature of intelligence of human being tends to conceal in one symbol system" Priscilla *et al.* (2002), different intelligences have different sensibilities towards different symbol systems. For instance, linguistic intelligence is sensitive to written language while music intelligence is sensitive to pitch and rhythm. The difference of "interpretation" to and usage of the same symbol system between the teacher and student, student and student shall be taken into full account in teaching. Therefore, we need multiple intelligence teaching and learning (Xiaojie, 2003). Multiple intelligence

emphasizes on the diversity of intelligence, which is oriented to all students rather than linguistically, logically or mathematically outstanding students. "We can transfer one intelligence of the teaching materials to another. In other words, we can think of how to transfer linguistic symbol, such as English, into other intelligent language such as drawing, body language, music, logic symbol or concept, social interaction and self connection, rather than other languages such as Spanish or French." Thomas and Ping (1997) the translation and conversion of "intelligence symbol" is the "point of entry" for the teachers and students to use multiple intelligence theory as the tool to guide their teaching and learning successfully. In this regard, the traditional role of teacher as information transmitter in teaching has been weakened gradually. However, they should be the creator of "intelligence symbol" situation to provide proper intelligence symbol environment for learners, including digital multi-media "knowledge symbol" environment, so as to shift the focus of teaching and learning to "intelligence symbol". It is not contradictory to transferring the "text-centered meaning at initial stage" to "interactive generation of subject" that we previously discussed.

However, another question has been raised accordingly: the relation between symbol practice ontology and research ontology in education, which are the two basic course ontologies. Sile (2003) believed that "symbol practice" refers to the symbolic activity, i.e., construction practice and application practice of symbol system, while "symbol research" is secondary investigation, description and review of symbol and symbol practice, which has deviated from the symbol practice but formed independent research findings-based subject. In elementary education, we mainly focus on diversified "intelligence symbol" practice to harmoniously blend symbol knowledge with the lives of students, build a connection between symbol and personal experience of students and construct stable individual "symbol library". For example, symbol practice of English in elementary education includes hearing, speaking and reading and writing practices, while "description of grammar system", involving symbol research ontology, can be the focus of higher education or professional education. The acquisition of symbol and library construction for learning is one of our objectives. The main objective lies in carrying out symbol research ontology for meta-physical description (including symbol and symbolic activity) based on symbol, thus mastering law of symbol system and strengthening and extending the role symbol plays in cognition of human being through research.

CONCLUSION

The meaning of symbol is open, which leads to constant development of knowledge of human being from the perspective of object and which enables

meaning construction, enhancement of cognition and formation of symbolic learning from the perspective of subject after subject masters the signification of symbol. Therefore, we can promote meaning construction and push forward symbolic learning through linguistic symbol and non-linguistic symbol-based symbol literacy enhancement, medium literacy and cultural literacy education and cultivation, multiple intelligence teaching and course ontology research.

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