The purpose of this paper is to explore the effective use of the core schema-based instruction (SBI) in a classroom setting. The core schema is a schematic representation of the common underlying meaning of a given lexical item, and was first proposed on the basis of the cognitive linguistic perspectives by the Japanese applied linguists Tanaka, Sato and Abe (2006) as a new teaching approach. The SBI has been expected to contribute to English teaching in a new way that is different from the translation-based instruction (TBI) because the core schemas can lead learners to a more essential and profound understanding. However, the previous empirical research on the SBI has not always shown its effectiveness over the TBI. This paper firstly analyzed its causes with reference to the theoretical features of the core schemas and pointed out two kinds of difficulty for the effective use of the SBI. Then in order to get over the difficulties, it was argued that the SBI should involve a bottom-up language learning process, as insisted in cognitive linguistics as the usage-based model. As the bottom-up process, group work discussion was employed in this study, where learners discuss the core schematic image in a group with its sample sentences which were provided beforehand. This learning style is different from the top-down SBI, where the core schemas are provided prior to sample sentences as almost all the previous empirical studies did. The present study examined the difference in the effects between the bottom-up SBI and the top-down SBI through an experiment conducted to technical college students with the six English prepositions (at, in, on, to, for, with) as material. Based on the results of the former study by the researcher, the present study was designed to add some exercises to the bottom-up SBI group. The results obtained from t-tests and ANOVAs suggested several findings. The findings were that the bottom-up SBI is more effective than the top-down SBI in meaning comprehension and that the effect continues for two months.

Keywords: schema-based instruction, cognitive linguistics, core schema, bottom-up, group work

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1 Introduction

A lot of teaching methods for foreign language education have been proposed based on the research outcome from linguistics, psychology or pedagogy (Lightbown & Spada, 1999). Now that cognitive linguistics (CL) has become one of the most influential pillars in the linguistic research field, it is natural that a new teaching approach adopting the CL perspectives (i.e., CL approach) has been attracting a lot of attention recently. The CL approach basically argues that the cognitive process governing language use and linguistic knowledge is not essentially different from the other knowledge in mind (Langacker, 2008). Thus the CL approach provides us with new viewpoints that are different from those of the traditional translation-based instruction (TBI), and is expected to contribute to English teaching in a new way.

The present study focuses on how we can effectively apply the core schema to English teaching involving a bottom-up learning process in a classroom setting. The concept of core schema is based on the CL perspectives and was proposed for a teaching purpose by the Japanese applied linguists Tanaka, Sato and Abe (2006) to get over a situation where a lot of Japanese learners of English study its vocabulary through the rote memorization equating with a list of Japanese translations. In contrast to such traditional learning strategy, the core theory, which is a theoretical foundation of the core schema, takes a different viewpoint. It argues that several senses in a given lexical item are more or less semantically related with one another. To put in another way, there are several senses in one word because they were extended from a single core meaning, and did not arise randomly. That is to say, one form has one core meaning. The core schema is a schematized picture which represents the core meaning visually. Assuming each lexical item has a single core meaning, Tanaka et al. (2006) claim that introducing the core schema helps learners build their vocabulary and lead them to a better understanding and a longer period of retention because it provides the linguistic motivation between the core meaning and its multiple senses.

Their theory has become influential, and a lot of attention has been turned to its methodology, or how we can apply the core schema to English teaching. The empirical research, on the other hand, seems not sufficient enough to reveal whether the core schema really works effectively in a second language learning classroom, and more research is needed to assess it. Moreover, among the limited number of the empirical studies, most of them took a procedure of presenting the core schema to learners prior to providing concrete example sentences. In those cases, however, it is expected that learners accept the core schema as something inflexible that serves as a norm. However, as one of the most influential CL figures Tomasello (2003) argues, language is thought to be learned through a usage-based process and schemas are built with a lot of interactions with concrete examples. Thus, from a