# Semantic Network Analysis of Earth ScienceTextbooks Focus on Learning Objectives in Korea

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Abstract: The purpose of this study was to investigate how congruently the learning objectives of Earth Science textbooks match the 2009 revised Earth Science curriculum in Korea. For this purpose, we classified the learning objectives of curriculum and textbooks were into three factors including ability, cross-cutting concepts, and behavioral verbs. The text data were analyzed using the semantic network analysis method. The results are as follows. The learning objectives of textbooks with regard to ability factors mainly emphasized the cognitive and affective domain. In addition, the ability of inquiry performance was emphasized in the learning objective of the curriculum. The textbooks used various sub-frame of cross-cutting concepts in comparison with the curriculum. Both textbooks and curriculum used the term 'comprehension' the most as behavioral verbs. However, most behavioral verbs just remained at the level of cognitive system.

Keywords: curriculum, textbook, learning objectives, semantic network analysis