The way to overcome problems associated with technical terms in textbooks within the Earth Science

*Hiroo Nemoto¹, Yasushi Fujiwara², Norihiko Kobayashi³, Yasuhiro Taguchi⁴, Shinichi Kawate⁵, Satoshi Miyajima⁶, Masatsune Hatakeyama⁷, Sho Sasaki⁸


There are several problems associated with technical terms in textbooks of "RIKA" (similar to natural science) within the Earth Science which are used at primary and secondary schools in Japan. The several problems are as below;

(1) Use of "misused words (tentative)"
ex.: noble gas in Japanese (noble: rare or precious in Chinese characters)

(2) Use of "several words (tentative)"
Several words are used for one meaning.
ex.: S-P time, S-P lag time, S-minus-P time, P-S time, lag time, P-S lag time

(3) Use of "two or more meanings words (tentative)"
There is a case in which a technical term has two or more meanings. However, only one meaning is used by the word in the textbook.
ex.: asperity

(4) Use of "extinct words (tentative)"
Some extinct technical terms are written in extinct figure in some textbooks.
ex.: Figure of classic classification of igneous rocks

(5) Use of "mispronounce words (tentative)"
ex.: lithosphere (The word is written in textbook not "***fI(upside down e)(r)" but "***fe" in Japanese Characters, Katakana, which are used for writing foreign words in Japanese.)

We, for instance, need to write several words for such as university entrance examination papers like S-P time (= S-P lag time, S-minus-P time, P-S time, lag time, P-S lag time), if we would like to use "several words (tentative)". The Subcommittee of Nurturing of Human Resources (tentative name), the Committee of Earth and Planetary Sciences at the Science Council of Japan (SCJ) and the Committee of School Education at the Japan Geoscience Union (JpGU) start a working group in order to solve these problems.

In this presentation, we would like to discuss how to solve the problem through we will show our road until completion which is to make recommendation by this study.

Keywords: Earth Science, textbook, technical term