Exploring Factors Contributing to Science Learning via Chinese Language

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Abstract. Numerous psychological and socio-cultural learning theories have been used to explain the factors affecting a person’s mastery of language and the learning of a particular subject such as science. Nevertheless, not much research had been done to illuminate the findings related to factors contributing to science learning using native language of an ethnic group. One of the arguments about possible inhibiting factor for science learning using foreign language is Language-Culture Incommensurability (LCI). LCI in science is a direct consequence of the adoption of Western-ethno science in teaching regardless of the socio-cultural background of the students. Western worldview differs significantly from the traditional Chinese philosophical thinking on the origin of life and the relationship between man and his environment; it is an issue of objectivity versus subjectivity. In learning science, the Chinese origin students would bring together with them their cultural understanding of this relationship to the classroom, thus causing possible LCI. This paper aims at analyzing science learning via Chinese language with suggestions also for future research to reduce possible LCI among people who learn science via Chinese language. Literature research and interview findings from case study will be reported to explore the various enabling and inhibiting factors affecting students’ science learning, thus identifying possible causes for LCI arising from the direct translations of scientific terms in the English language into equivalent terms in indigenous language. Culture and language are closely related, the former is the consequence of the latter and vice-versa. Each Chinese word carries meaning by itself which poses as strength and weakness in the learning of science. If cultural difference is the inhibiting factor in learning science, to the Malaysian Chinese as discussed predominantly in this paper, the enabling factor is the ability to master English, the language of Western science, and their mother tongue, the Chinese.