Chapter 6
Communicative Functions of Translanguaging in an English–Medium Science High School

John Daryl B. Wyson
https://orcid.org/0009-0000-5528-1186
Philippine Science High School - Main Campus, Philippines

Cecilia F. Genuino
http://orcid.org/0009-0007-1695-6815
Philippine Normal University, Philippines

ABSTRACT

The present study argues that though translanguaging is used as a scaffolding tool, an English-medium science high school whose students are potentially gifted employs the said phenomenon to perform communicative functions. Hence, the study observed senior high school science classes to describe the communicative functions where the translanguaging goals and strategies are used by the teachers and students. Results reveal that the teachers predominantly performed two communicative functions, namely managing the classroom and delivering instruction. In turn, the students performed three communicative functions, namely discussing the laboratory procedure, troubleshooting perceived errors, and expressing delight in learning. Both teachers and students performed similar translanguaging strategies, namely translanguaging in speaking and project learning, to fulfill the goals of identity positionality and building background knowledge. Findings suggest that translanguaging in advanced secondary science classes may indicate a high level of engagement in scientific inquiry.

DOI: 10.4018/979-8-3373-0107-5.ch006

INTRODUCTION

Over the years, English has become the *lingua franca* of science as it is used as the primary language for communicating scientific findings in the global stage (Drubin & Kellogg, 2012; Kaplan, 2001). For this reason, it is not surprising to see that premiere science high schools in Asia use English as its medium of instruction (Racca & Lasaten, 2016; 2024; Korea Science Academy, 2015) or offer advanced courses in English (Mahidol Wittayanusorn School, 2021) in view of helping their students become globally competitive scientists. These institutions are established and funded by their respective governments, considered as the top schools in their respective countries, and aim to become leading high schools the world. After graduating from these institutions, students would usually enroll in science and technology courses in the top universities both in the home country and abroad, including the ivy leagues.

The importance these schools attribute to English language learning and the implementation of an English as a medium of instruction policy then begs the question of whether or not there is room for translanguaging in such institutions. Through one of the authors' personal experience and correspondence with an alumna of Korea Science Academy of the Korea Advanced Institute of Science and Technology, it can be argued that translanguaging does transpire in science high schools. To date, however, there is a dearth of studies investigating their translingual practices.

In research literature, most of the studies on translanguaging were conducted in contexts where it was used as a bridging or a scaffolding tool to help learners understand content either in English (as a subject) or science (e.g., Delos Reyes, 2018; Espino, Gonzales, & Martin, 2021; Paez, 2018; Perfecto, 2022; Pierson, et al., 2020; Poza, 2018). In the few studies that included either potentially gifted learners or learners who are proficient in English (e.g., Darvin, 2019; Delos Reyes & Bagona, 2022), none was conducted in government-established science high schools, which offer an advanced Science, Technology, Engineering, and Mathematics (STEM) driven curriculum. Thus, this paper aims to provide preliminary insights in the translingual practices of science high schools by investigating the communicative functions fulfilled by translingual practices in the senior high school science subjects of a top-tier science high school in Asia.

Human vs. AI: An Assessment of the Translation Quality Between Translators and Machine Translation

Hanji Liand Haiqing Chen (2019). *International Journal of Translation, Interpretation, and Applied Linguistics (pp. 1-12).*

www.irma-international.org/article/human-vs-ai/222826