Estrera Lhannie Dagohov 氏名 (本籍) 博士( 行動科学) 学位の種類 学位記番号 9897 年 3 月 25 学位授与年月 H 学位規則第4条第1項該当 学位授与の要件 人間総合科学研究科 審査研究科 学位論文題目 Cognitive Abilities predicting Tagalog and English literacy of Filipino children: A cross-sectional study from grade 1 to grade 4 (タガログ語と英語の文字習得を予測する認知能力:小学1年生 から4年生までの横断的研究) 筑波大学教授 Ph.D. Pavlides, Constantine 主 杳 筑波大学准教授(連携大学院)博士(心理学)武田裕司 副 杳 筑波大学准教授 博士(理学)高橋阿貴 副 杳 北海道大学准教授 博士(医学) 関 杳 副

# 論文の内容の要旨

## Abstract of thesis

In this doctoral dissertation, Lhannie Estrera Dagohoy describes possible cognitive abilities that may predict Tagalog and English literacy of Filipino children in elementary grades 1-4. The summary is as follows:

## (目的 Purpose)

Firstly, the author described previous studies has been focused a number of cognitive factors play a role in children's ability to acquire reading skills. These include phonological awareness (speech sounds) and naming speed. Other studies, however, have stressed factors such as granularity size of a language, visual cognition, vocabulary, etc as being important predictors of reading development. None of these studies have been performed in Filipino children who are mainly bilingual and use Tagalog and English in school. The two languages differ in both orthography and grain size. Understanding the factors involved in reading skill development could aid in the early identification of children with reading difficulties.

## (対象と方法 Materials and Methods)

The purpose of the study was to identify cognitive factors underlying reading skills in Tagalog and English in school children in elementary grades 1-4, in Manila. The study was performed in children enrolled in public schools. The majority of these came from lower income families. Skills in phonological awareness, visual cognition, vocabulary and naming speed were tested as possible cognitive predictors. Nonword and word reading tasks were done for measuring reading in Tagalog while nonword, exception word, and regular word reading tasks were done for measuring reading in English. The second purpose was to determine developmental changes by examining the cognitive predictors across grade levels. The study also examined gender differences in learning skills.

#### (結果 Results)

According to author, a main finding of the study was that phonological awareness was the only consistent predictor for both Tagalog and English across all grade levels. This shows that phonological awareness is important in both transparent scripts like Tagalog and opaque scripts like English and further that it is equally important for both younger and older children. For Filipino children it was observed that they rely on phonological recoding (i.e., reading the words letter by letter) in both Tagalog and English. Further, children who were identified as poor readers, had lower scores in phonological awareness tasks. This measure could thus be used as an indicator for children who may have difficulty in reading later on. Then, the author also suggested that phonological awareness should be assessed in both Tagalog and English, since there were children who had difficulty in one language but not the other. A new finding in the study was that naming speed was a significant predictor for English but not Tagalog reading which points to differences between transparent vs opaque scripts. Naming speed was also shown to be a good predictor for reading in English but not Tagalog. It is suggested that the RAN task could be a useful assessment tool for identifying poor readers in English as well as younger children in Tagalog. A number of more specific findings were also observed which could identify possible indicators of reading abilities which should be considered in assessing children's overall reading development.

## (考察 Discussion)

A number of studies have previously been performed to identify indicators of reading abilities during early development. These were mainly done in Western countries but none exited for Filipino children. Various theories have been proposed to explain how children learn to read, based on language structure (e.g., granularity and transparency, orthographic depth and syllabic complexity), etc. The present study based its methodology and interpretations on these previous theories and findings. The author confirmed the study is of considerable significance not only because it the first of its kind in the Philippines but the fact that the children came from a lower socioeconomic class, they are bilingual and teaching in Filipino schools is done in both Tagalog and English. Thus, these children could be facing various difficulties which unless they are identified early could be hard to correct later on. The results of this study could thus be of considerable diagnostic value and it is very timely at a point when the Philippines is considering adapting a unified national language and may be modifying teaching methods.

## 審査の結果の要旨

## Abstract of assessment result

## (批評 General Comments)

In the present study, the author investigated possible cognitive factors which may underlie reading development in Filipino children in grades 1-4. Filipino children are bilingual in Tagalog and English and no such study had previously been done. A number of factors, as discussed above, were identified in children's reading abilities which could be used in assessing young children's reading abilities which could be of great significance in early intervention.

## (最終試験の結果 Assessment)

The review committee conducted a meeting as a final examination on January 26, 2021. The applicant provided an overview of dissertation, addressed questions and comments raised during Q&A session. A number of questions were raised which the applicant addressed in a revised thesis. All of the committee members reached a final decision that the applicant has passed the final examination.

#### (結論 Conclusion)

The final examination committee approved that the applicant is qualified to be awarded Doctor of Philosophy in Behavioral Science.