

Yuh Huann Tan
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Conceptions of Knowledge Creation, Knowledge and Knowing

A Phenomenography of Singapore
Chinese Language Teachers

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ISBN 978-981-15-3563-5 ISBN 978-981-15-3564-2 (eBook)
<https://doi.org/10.1007/978-981-15-3564-2>

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Dedicated To

*The most beloved members of the YH family
Yonghui, Yehan & Yeheng*

and

*The dearest wife and daughter of the second
author*

Aik Ling Tan & Grace Tan

Preface

Our attempt in trying to examine in-depth the phenomena described in this book began back in 2012–2013 as promising, yet fragmented ideas. These ideas were later crystallised, and became the topic of the first author’s doctoral thesis research, under the advice and guidance of the second author. Five years later, the study was completed, passed the several layers of examinations, and the hard-bound thesis now sat on a library shelf. As we looked back at the findings of the research, we thought the voices of our teacher participants could contribute to the knowledge already existing in the field of the conception of knowledge and personal epistemology. Unique to this study is that our teacher participants belonged, lived and taught in a context where the Eastern and Western cultures meet. This thought motivated us to put together this book in hope to share the key findings to fellow researchers and perhaps inspire further studies in the process.

This project gives us a chance to revisit the entire manuscript to make it more concise and readable. The invaluable comments from the reviewers also prompted us to include some new ideas, such as the Collaborative Innovation Networks (CoINs) as a model of knowledge creation, an elaboration on the differences between phenomenology and phenomenography, and the use of social theory of knowledge proposed by Berger and Luckmann (1966) to discuss the possible cultural influence of the findings.

Set against the backdrop of education in the Knowledge Age, the empirical study in this book aims to answer the calls in the literature to further advance knowledge creation in K-12 schools. Various research scholars have lamented that education in schools is not changing fast enough to prepare our young to meet the demands of the changing landscape brought about by the advent of the knowledge economy, Industry 4.0, and rapid advancement in technologies. Teachers are the key people educating students in schools, and scholars have highlighted a need to investigate their understanding of what education means in this new era. Sixteen Chinese Language teachers from Singapore participated in this research as language teachers are primarily responsible for the basic literacies that form students’ foundation for lifelong learning. Positing that people’s cultural beliefs and the language(s) used are inseparable, Chinese Language teachers may possess an understanding of the

different phenomena that reflect the influence of the Chinese culture by virtue of the language they speak and teach. Yet, these teachers work in Singapore, a metropolitan society that is subjected to Western influences. To carry out the investigation, the study reported in this monograph adopted phenomenography—a methodology aims at finding and systematising how people interpret the world around them—to learn about and to describe Chinese Language teachers' conceptions of the phenomena.

Through the phenomenographic processes, four separate outcome spaces representing what the Chinese Language teachers understand of knowledge, knowing, knowledge creation in general and knowledge creation in education, emerged. Each outcome space, which represents the outcome of phenomenography, reveals the qualitatively different, albeit limited, understanding of teachers on a phenomenon. The critical variations in teachers' understanding were presented in the different categories of an outcome space hierarchically. Critical variations aside, non-critical variations that have emerged from teachers' conception were also captured.

The findings show that the Chinese Language teachers' understanding of various phenomena shows some differences from the current conceptions reported in the literature. For example, the understanding of a shared outcome in knowledge creation had not emerged although theories of knowledge creation commonly described some form of shared outcomes as a key component of knowledge creation. Other aspects included community-related and process-related differences. In the understanding of knowledge and knowing, the emergence of direct definitions and types of knowledge during interviews and the non-emergence of descriptions on the structural simplicity of knowledge were examples of the differences between theoretical and people's conception. Some of these Chinese Language teachers' conception may be attributed to the influence of cultural beliefs. For instance, some of the Chinese Language teachers highlighted the non-receptive attitudes to changes as possibly an inhibitor to knowledge creation; their understanding of knowledge creation implied impending changes. However, change, when seen as a disruption to an existing harmonious state of things, is deemed culturally undesirable to many Chinese. Similarly, the omnipresence of authorities of knowledge and the different ways of interpreting these authorities by different teachers reflected, on the one hand, the influence of hierarchy-conscious Confucian-heritage culture and on the other hand, the possible moderating effect of English language and Western culture on the Singaporean Chinese Language teachers' personal epistemology.

This book consists of nine chapters. Chapter 1 introduces the background of the study, leading to the relationship between teachers and knowledge creation, and the significance of conducting the research. Chapter 2 presents a literature review on the concepts of knowledge creation, including the theoretical models related to the field of education and these theories' connection to K-12 school education. Chapter 3 presents a literature review on the theoretical models of personal epistemology and the concept of cultural specificity. Chapter 4 provides an in-depth description of phenomenography—the methodology of the study, followed by how the 5-stage phenomenographic study was carried out, including the design of the phenomenographic interview. with an in-depth discussion of the rationale and the

use of phenomenography. Chapters 5–7 present the findings from the analysis. Chapter 5 focuses on describing the Chinese Language teachers' conceptions of knowledge and knowing. Chapter 6 leads on to describe the Chinese Language teachers' conceptions of knowledge creation as a phenomenon in general before Chapter 7 turns to describe these teachers' conceptions of knowledge creation in the education context. Chapter 8 puts together the conceptions described in the previous three chapters to first compare the findings with the existing theories of knowledge creation, followed by comparisons of the categories of conceptions across the phenomena; the implications of the study are presented towards the end of the chapter. Finally, the book is concluded with a review of the study's significance, concerns, limitations and strength in Chap. 9.

Ironically, as we are finalising the manuscript for this monograph, the US–China trade tension seems to be escalating. Living in a metropolitan city, we value the integration of various cultures and perspectives, which have enriched our understanding of this world, and provided a fertile context for advancing knowledge. We hope the readers will benefit from our findings and join us in the endeavour to explore the kaleidoscopic multi-coloured landscape brought about by the co-presence of multiple cultures and viewpoints.

Singapore

Yuh Huann Tan
Seng Chee Tan

Acknowledgements

We would like to take this space and opportunity to thank Prof. Marlene Scardamalia of the University of Toronto, Prof. Kai Hakkarainen of the University of Helsinki, and Prof. Chris Cope of the La Trobe University for granting permission to use their published figures in our book.

We would also like to thank Mr. Lawrence Liu, Ms. Grace Ma Liyan, Ms. Ang Lay Peng, Ms. Ritu Chandwani, Mr. Subodh Kumar and their colleagues at Springer for facilitating the entire editorial and publishing process. Without their support, it would not have been possible to publish this book.

Lastly, we would like to thank the anonymous reviewers for giving their precious time to provide comments and suggestions to our drafts. We are very encouraged by their kind words.

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