Book review: Lesson study in inclusive education settings

With well-known Lesson Study (LS) researchers Dr. Sui Lin Goei, Dr. Brahm Nowich and Dr. Peter Dudley as editors, it is no surprise that *Lesson Study in Inclusive Education Settings* is a collection of chapters that feature cutting-edge adaptations of the LS model across a wide range of contexts. More specifically, the chapters discuss the implementation of LS in different parts of the world including the Netherlands, United Kingdom, Singapore and Sweden. Originating from Japan, LS is a collaborative professional development model rooted in four phases: (a) studying of the curriculum and how students learn content, (b) planning of a lesson informed by anticipated student learning trajectories, (c) teaching and observing of the lesson and (d) reflection and revision of the lesson. The book begins with an introduction written by the editors where they define inclusive education as "the process of enhancing the capability of the education system for all students" (p. 1). Readers learn that chapters presented in this book approach inclusive education through the perspective and lens of teaching students with special educational needs (SEN). The editors recognize that inclusive education is a construct that is unanimously supported in theory, but difficult to enact because of the tensions teachers may experience when faced with a commitment to common curricula and the need for individualized, responsive teaching and learning. The contributors of the book offer LS as a model for teachers to facilitate and engage in conversations around inclusive teaching and learning.

Published by Routledge, the book contains ten chapters with 220 total pages. With Chapter 1 serving as the introduction, or prelude, to the book, the majority of the remaining chapters can be categorized by the geographical regions in which the work occurred. Many of the chapters preface their work by offering a detailed description and history of the educational structures and policies related to SEN for each region, which helps readers grasp important contextual factors that impact the ways researchers and practitioners engage in the LS model. Chapters 2–4 describe works from the Netherlands. Chapters 5 and 6 are written about the integration of LS in UK schools. Chapters 7 and 8 report on work conducted in Singapore. Chapter 9 is not situated within a geographic region; rather, it explores the process of leveraging the LS model to focus on implementing assistive technology. Chapter 10 concludes the book by introducing Learning Study (LeaS), a related but distinct model focused on the learning of specific content, and its potential to enhance teaching for SEN.

The Netherlands

In Chapter 2, Bosma and Goei offer readers a case study of a team of Dutch language teachers who engaged in LS with a focus on differentiated instruction. The teachers followed a three-tier prevention model (Kratochwill *et al.*, 2007), which asked them to categorize their students based on their learning needs; the primary tier represented students who could be universally supported, while the secondary and tertiary tiers represented students who needed increasingly more support from their teacher. The LS process was centered around the perspectives and educational needs of three case students, with one student each representing a tier. The authors argue that this LS approach provides an opportunity for

teachers to increase their awareness of the different educational needs of their students and intentionally plan activities and processes that integrate the necessary supports.

In Chapter 3, Kaskens and Goei identify the school culture and conditions that impact how LS is taken up and engaged in. The authors illustrate their findings using a case-study approach and report on the LS implementation process with teams of teachers at three different primary schools focused on supporting differentiated mathematics education. The study sheds light on the importance of (a) facilitating frequent and effective communication between stakeholders in the LS process, (b) demonstrating support from school leaders, (c) fostering of trust and sense of community among team members and (d) mediating the implementation of LS through a management team. The authors conclude with a list of recommendations to address these points.

In Chapter 4, Verhoef, Coenders and Tall describe the specific implementation of LS with secondary mathematics teachers who were focused on better understanding students' needs to make sense of derivatives and combinatorial reasoning problems. Over the multi-year process, the teachers ultimately recognized the differences in the ways students made sense of these concepts which narrowed down what processes and teaching approaches teachers thought were most effective for student learning.

The United Kingdom
In Chapter 5, Norwich, Dudley and Ylonen describe a large initiative engaging 28 teachers from 14 secondary schools in LS focused on developing and improving teaching approaches for students with moderate learning difficulties. Participation in LS resulted in the teachers recognizing and meeting the needs of their students, resulting in gains in student learning. This chapter also describes a novel use of LS as the teachers leveraged the LS model to explore assessment approaches.

In Chapter 6, Edwards, who is one of the four inner-city teachers in the UK who engaged in LS, describes the ways they used the LS model to center and improve on teaching approaches that supported the spiritual, moral, social and cultural development of students with moderate learning difficulties. Guided by Hart's (1992) Ladder of Participation, the teachers were challenged to develop and incorporate learning conditions and activities that meaningfully engaged students and encouraged their agency as learners.

Singapore
In Chapter 7, Michael and Lee describe the adoption of LS with teachers in special education schools in Singapore that serve students with moderate to severe disabilities. Funded by the Ministry of Education, the authors detail the steps taken at the systematic level to support LS as a sustainable professional development model: (a) raising awareness of the nature and purpose of LS, (b) understanding the expectations of LS teams, (c) prototyping the LS process and (d) implementing LS at the school level.

In Chapter 8, Kee Kiak Nam acknowledges the many different challenges that special education schools in Singapore may face when implementing LS. Such challenges include a school culture of competition, reluctance to change practices and limited resources available for the school. The author draws on Kotter's (2011) eight steps on leading change as a framework to pose potential solutions to the challenges mentioned.

Assistive technology
In Chapter 9, Wong reasons that LS can be an effective model to not only assist teachers in identifying their students' needs but to also assess and decide on which assistive technology

can be integrated into the classroom to meet these needs. The author describes the steps in the LS process and provides specific examples for the ways the LS steps can be modified for the focus on assistive technology.

Learning study

In Chapter 10, the final chapter, Holmqvist introduces LeaS, which is a form of LS that prompts teachers to use variation theory to analyze student learning and design lessons that are responsive to their needs. In addition to detailing the theoretical and practical components of LeaS, the author also presents a study from a secondary school in Sweden which teaches students with high functioning autism spectrum disorder. The findings report on both the trajectory of the teachers' professional development and their students' learning outcomes. These results serve as evidence for the effectiveness of LeaS as a professional development approach for teaching students with SEN.

While the book offers evidence-supported ideas and guidance on how to establish and implement LS with a focus on SEN, the organization and structure suggests that researchers are the intended audience of the text. Several chapters provide lists of practical recommendations, but the inclusion of theory, methods, and study results may convolute the reading for practitioners who are new to the terminology and research culture.

Though not explicitly stated in the title, the book's theme on inclusive educational settings is specific to teaching and learning for students with SEN. In recent years, the discourse surrounding diversity, equity, and inclusion in North American contexts has mainly centered around race; thus, it is important to mention that this book offers minimal guidance on using LS for inclusive education in that regard.

Overall, this book serves a significant purpose in multiple different areas of educational research. First, it presents an invaluable and comprehensive survey of approaches and policies surrounding teaching and learning for students with SEN. The book contributors represent a number of different regions and countries around the world. The authors of every chapter report a detailed description of the educational landscape for their specific context, giving readers a breadth of knowledge and perspectives to consider and integrate into their own contexts. Second, it contributes greatly to the research on supporting teacher professional development, special education and students with learning disabilities. The book can be viewed as a collection of replication studies from different regions around the world, all of which provide evidence that LS is a robust professional development model that effectively strengthens teachers' abilities to identify and respond to their students' learning needs. Third, this book pushes the boundaries of the existing LS and LeaS community of researchers and practitioners by introducing an innovative way to use such models. LS and LeaS are professional development approaches often used by practitioners to take a deep dive into a content area, but the chapters in this book highlight how these models can also be used to deepen teachers' understanding of inclusive teaching, whether this be the primary goal or in concert with content goals. For many of the countries mentioned in the book, these chapters are the first reports of using LS or LeaS in SEN in their context. *Lesson Study in Inclusive Education Settings* does an excellent job compiling transcultural uses of and perspectives on leveraging the LS model to work towards building equitable and inclusive classrooms.

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Further reading

Goei, S.L., Norwich, B. and Dudley, P. (Eds) (2021), *Lesson Study in Inclusive Educational Settings*, Routledge, London.