

# ARTICULATING THE CCM APPROACH AND LESSON STUDY:

a promising teacher professional development towards inclusive education

## ARTICULAÇÃO ENTRE A ABORDAGEM CCM E O LESSON STUDY:

desenvolvimento profissional docente promissor para uma educação inclusiva

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### CITATION

Fluminhan, C. S. L., Castro, P. T. de, Schlünzen, E. T. M., & Schlünzen, K, Jr. (2022). Articulating the CCM approach and lesson study: a promising teacher professional development towards inclusive education. *Video Journal of Social and Human Research*, 1(1). 84-96. http://doi.org/10.18817/vjshr. v1i1.17.

### SUBMITTED

29/01/2022

### ACCEPTED

13/04/2022

### PUBLISHED

20/07/2022

#### DOI

http//doi.org/10.18817/vjshr.v1i1.17

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### ABSTRACT

Quality provision of inclusion is directly impacted by the extent to which inclusive teaching practices are provided in inclusive educational settings. Besides exploring the contemporary concept of inclusion, this paper addresses the international research literature on Lesson Study (LS) for inclusive settings and investigates the Constructionist, Contextualized and Meaningful (CCM) approach by Schlünzen et al. (2020) as a possible fit to create enhanced conditions for inclusive education in tandem with LS. Findings showed that international experiential studies using LS for improving inclusion shared similar nature with the CCM approach regarding the collaboration amongst teachers for effective professional learning and the centrality of the students' voices to improve and transform teaching practices towards inclusion. Finally, the study suggests that the articulated use of LS and the CCM approach might ignite more effective inclusive teaching practices whilst providing an education that promotes all learning, and meets the needs of all students in inclusive educational settings. This study also indicates further avenues for empirical research to deepen the understanding of how the LS movement and the CCM approach integrated to teaching and learning can impact education in different cultures.

**Keywords**: Constructionist. Contextualized and Meaningful Approach. Professional Learning. Inclusion. Literature Review.

## RESUMO

O oferecimento de inclusão de qualidade está diretamente relacionado à extensão em que as práticas de ensino inclusivas são fornecidas em ambientes educacionais inclusivos. Além de explorar o conceito contemporâneo de inclusão, este artigo aborda a literatura internacional sobre Lesson Study (LS) para ambientes inclusivos e investiga a abordagem Construcionista, Contextualizada e Significativa (CCS), de acordo com Schlünzen et al. (2020), como uma possível perspectiva para criar condições adequadas para a educação inclusiva articulada ao LS. Os achados demonstraram que estudos empíricos internacionais, que utilizaram o LS para promover a inclusão, compartilhavam de uma natureza semelhante à abordagem CCS no que diz respeito à colaboração entre professores para uma aprendizagem profissional efetiva, assim como compreendem a importância a centralidade das vozes dos estudantes para desenvolver e transformar as práticas de ensino com vistas à inclusão. Por fim, o estudo sugere que o uso articulado do LS e da abordagem CCS pode desencadear práticas de ensino inclusivas mais eficazes, proporcionando uma educação que promova as aprendizagens que atendam às necessidades de todos os estudantes em ambientes educacionais inclusivos. Este estudo também indica futuros caminhos para pesquisas empíricas a fim de aprofundar a compreensão de como o movimento LS e a abordagem CCS integradas ao ensino e à aprendizagem podem impactar a educação em diferentes culturas.

Palavras-chave:AbordagemConstrucionista.ContextualizadaeSignificativa.AprendizagemProfissional. Inclusão. Revisão de Literatura.

## INTRODUCTION

According to Biesta (2006):

The role of the educator in all this is not that of a technician or a midwife, but has to be understood in terms of a responsibility for the 'coming into the world' of unique, singular beings, and a responsibility for the world as a world of plurality and difference. (pp. 9-10).

Ongoing professional teacher learning and development is one of the major current challenges towards providing quality inclusive education faced by researchers, stakeholders and public policies (Watkins, 2012; Simón *et al.*,

2018). Even considering the intense complex relations and structures inherent to teaching and learning through inclusive lenses, and the innumerable elements that can influence its practice, there is a substantial consensus in the literature that points to the practice of the teacher as the factor of greatest impact upon student learning outcomes (Leithwood et al., 2008; Kirkpatrick & Johnson, 2014; Antoniou & Griaznova, 2018). Finding professional development initiatives to ignite more effective inclusive teaching practices becomes key when pursuing an education that promotes learning for all, and meets the needs of all children, whilst providing a framework that equally values them.

This article includes a discussion of reported studies on the implementation of Lesson Study (LS) as a potential professional development methodology to promote inclusive education. The first objective is to explore the literature to understand the contemporary concept of inclusion in educational environments, and also investigate the Constructionist, Contextualized and Meaningful (CCM) approach by Schlünzen et al. (2020), as a possible approach to create enhanced conditions for an inclusive education. Secondly, it examines international educational literature on the implementation of LS as a means to facilitate teacher learning towards more inclusive teaching practices. Thirdly, an analysis of LS literature is carried out aiming to clarify whether this methodology consists of an appropriate approach to professional development that supports educators to be more inclusive professionals and how the CCM approach could be incorporated into instructional practices to produce learning opportunities that are diverse, equitable, and inclusive

## THEORETICAL FRAMEWORK

In order to articulate and draw relevant connections between the CCM and LS approaches to enhance the provision of inclusive education, it is central to understand the shift in the concept of inclusion from a deficit model to an educational model, which focuses on the learning environment, curriculum and school climate more generally, but does not disregard students' individual needs.

## Inclusive education and the CCM approach

The right to education and the forms of access and permanence of all in school have been addressed by national and international public policies for centuries. However, it has been since the 1990's (Unesco, 1994), that inclusive education has witnessed considerable growth of global interest. Although special education characterizes a teaching modality centered on students with disabilities (hearing, physical, intellectual and visual), autistic spectrum disorders and high abilities or giftedness, a broad definition of inclusive education views that it is not just about addressing the rights of these students, but considering that, historically, the so-called minorities were on the sidelines of education (Florian, 2019).

It is not possible to find one universal definition for inclusive education due to its highly politicised nature. To the contrary, inclusion theorists have offered different reflections on the interpretation of the concept of inclusion, which has "affected the practising of the concept and, in turn, how inclusive education meets and treats different groups of students" (Haug, 2017, p. 207). As noted by Norwich (2014), there is a predominance of association of inclusive education with special

educational needs and this might derive from the descriptive definition of inclusive education adopted by international guidelines, such as Unesco (2009).

Even acknowledging the tension that permeates the meaning of inclusion/inclusive, this article understands that inclusive education is that which revolves "around fellowship, participation, democratisation, benefit. equal access, quality, equity and justice" (Haug, 2017, p. 206). This is in line with the Salamanca Statement (Unesco, 1994), which covers all students in danger of segregation and their right to participate in common learning activities within the common school system, regardless of special needs, gender, ethnicity, culture, social backgrounds, among others. Inclusion, therefore, involves the right to education for all students. This notion is supported by the European Agency for Special Needs and Inclusive Education (2014), when they explicitly formulate:

Talking about inclusive education implies talking about differences: how to deal with differences in schools, in classrooms and in the curriculum in general. The current debate is no longer about what inclusion is and why it is needed; the key question is how it is to be achieved. How to make progress at national level, how to implement the right policy measures at regional and local levels, how teachers can best cope with differences in the classroom; these were the key issues during the conference. (p. 5).

Empirical evidence has shown that the main difficulties concerning the operationalisation of an inclusive school culture have referred, in recent years, to the adequate training and preparation of the teacher and preservice teachers, both for the common class and for specialists (Watkins, 2012; European Agency for Special Needs and Inclusive Education, 2014; Ibe-Unesco, 2016; Simón et al., 2018; Botes et al., 2020), the need for changes in pedagogical practices (Aas, 2020; Holmqvist, 2020; Norwich et al., 2021), and, consequently, the educational process, which generally has sought to focus on students with different disabilities and special needs, rather than explore their full potential (Florian, 2019; Aas, 2020; Schlünzen et al., 2020). In addition, there is a body of research demonstrating that barriers to inclusion also include the lack of adaptation in the physical and architectural structure of the environment and accessibility in different aspects, especially the technological one (Almaiah et al., 2020; Beaunoyer et al., 2020; Dhawan, 2020; Leifler, 2020; Kim et al., 2021), and school leaders' lack of knowledge about how to implement the aspects included in public policies (Schlünzen et al., 2020).

Driven by the belief that there was a need to transform pedagogical practices in such a way that teaching allowed the construction of knowledge, and at the same time stimulated autonomy and the inclusion of all those involved - students and stakeholders, Schlünzen (2000) proposed the Constructionist, Contextualized and Meaningful (CCM from the acronym in Portuguese) approach in her doctoral thesis. Schlünzen (2000) argues that, according to the CCM approach, the environment is constructionist because students are given the opportunity to use the object of learning to produce an artefact and to build knowledge based on their interest. It is contextualized because the choice of the theme to be studied emerges, again, from the interest of the students. The data, therefore, are constructed from their contexts and the starting point

of the learning process emerges from their experience and reality, through a central theme. It is meaningful, first, because during the development of learning, students are faced with new concepts and the teacher or the specialist, in this opportunity, performs the pedagogical mediation to formalize and systematize such concepts, giving meaning to the learning. Second, each participant can act according to their own skills and interests.

Within the CCM approach, it is argued the environment, rhythm, time, skills, and the potential of each student are valued and the difficulties are respected, which allows them to find their suitable paths (Santos *et al.*, 2016). Therefore, the CCM approach considers the students as central actors in the learning process, with an authorised voice for proposing improvements in teaching based on their experience. The CCM approach provides the development of reflection and critical elaboration on actions, within real and motivating learning processes, based on individual and collective interests (Schlünzen *et al.*, 2020).

## Lesson Study for inclusive education

It has been acknowledged that teachers cannot rely on their initial education and knowledge of learning to provide sufficient instruction and support to all students, especially in terms of promoting inclusion for students with special educational needs (Björn *et al.*, 2018; Leifler, 2020). This argument is highlighted to underpin the importance of teachers receiving professional development support during and after finishing their education (Nilvius, 2020). In a recent literature review about the implementation of LS relevant to the field of special needs and inclusive education (Norwich *et al.*, 2021), emphasise that one feature of the application of LS is its predominant use in continuing professional development focusing on promoting inclusive teaching. Such conclusion is indicative of the functionality and potential of LS for achieving a major inclusion purpose of improving the provision of inclusive and meaningful teaching.

LS, in turn, is a highly-specified form of collaborative classroom research, holding the potential to bring about real instructional change in the classroom (Dudley, 2019). LS consists of a bottom-up approach to educational innovation, originated in Japan over a hundred years ago, and since then it has been their central method for teacher development and systematic curriculum reform. Asian countries, like China and Singapore, have created variations of LS from the 1940s on (Chen, 2017) and the approach reached the West in the 1990s with the seminal work of Stiegler and Hiebert (1999) in the US. This research had a unique impact on the world's educational context, rapidly reaching other countries. In the early 2000s, LS models were developed in Sweden and in the UK, and by 2020 it had spread to over 80 countries, being adapted to local needs and different cultural settings (Dudley, 2019).

In LS practices, a small group of teachers jointly plan, teach, observe, reflect, revise and share the results of a single or a sequence of research lessons (Cerbin & Hutchings, 2011; Dudley, 2013). It is a design of close-to-practice research that allows for building *Pedagogical Content Knowledge* (PCK) and improving teaching practices as teachers are challenged to (un)learn more about their own pedagogical practices, to better understand how pupils think, and to recognise how instruction impacts the process of student learning (Cerbin & Kopp, 2006).

Whilst currently there are several variations of LS, some of their elements are structural and should be present even in adapted and different educational cultural settings to be consistent with the main effective and successful professional development characteristics, as indicated by the literature: long-term, embedded in school routines and culture, involving teachers' systematic collaboration to improve students' learning (Cordingley *et al.*, 2004; Desimone, 2009; Hargreaves & College, 2012; Takahashi & McDougal, 2016; Norwich *et al.*, 2021).

Thus, as pointed out by Norwich *et al.* (2014), "LS basic principles involve (1) collaborative design of lessons or units of study, (2) execution of the design with observation, (3) reflection on the product with a view to its improvement" (p. 314).

Distinguished researchers conducted experiential studies using LS for improving the provision of inclusive education, like Peter Dudley, Brahm Norwich, and Annamari Ylonen in the UK, and Sui Lin Goei and colleagues in the Netherlands, amongst other few research initiatives in other countries (Goi et al., 2021). In their studies, the authors competently connected the nature of LS to the need for teacher development approaches that would bring about the much-needed change in the teaching practices for enhancing the learning outcomes in inclusion settings. Note that, in these experimental studies results showed that LS structural components were key to transforming teaching for inclusion and overcoming challenges concerning teachers' long-held educational beliefs and attitudes.

The collaborative nature of LS supports teachers learning from each other, whilst observing learning taking place in real students, in real classrooms, and also how other teachers deliver instruction. Also, when teachers are encouraged to share their teaching experience and expertise, they ultimately unearth their tacit pedagogical knowledge, facilitating processes of knowledge share amongst the teachers in LS groups, challenging deep-rooted educational beliefs and fixed pedagogical practices (Dudley, 2013). Finally, given that the main focus of LS is the quality of students' learning and their interest to learn, implementing this approach to improve inclusive teaching, will effectively bring to the fore the teachers' responsibility of providing for the diverse educational needs of all students (Goi et al., 2021).

In LS contexts, research highlights that changes in teachers' knowledge and beliefs are to be expected (Lewis, 2009). Again, the essential features of LS should comprise its adapted forms, in order to provide the context for improving or innovating for inclusive teaching practices. Therefore, considering that the structural elements of LS are present in its implementation, it seems that such an approach presents the necessary elements to enhance teaching, opening opportunities for teachers to collaboratively study, plan and implement distinctive pedagogies, gaining a more accurate perception of the learning processes of all students, including those with additional support or special educational needs.

# **3 RESULT AND DISCUSSION**

Multiple studies stressed the importance of research evidence being contextually relevant

to demonstrate the benefits of implementing the LS approach to promote inclusion. For example, using LS as an approach for professional development for inclusive and adaptive education in Norway, Aas (2020) employed a qualitative research method to explore changing beliefs about student needs and adaptations teachers made to meet these needs. One of the findings revealed LS teams changed their view concerning the role of the students from "passive recipients towards active participants" (Aas, 2020, p. 12) as teachers' attention and interest in the learning environment increased. Although teachers considered students lacked the necessary skills to actively engage in their learning experience, teachers became committed to developing the student aptitude skills necessary to support them in this process. This result obtained through the development of LS aligns with the core features of the CCM approach, which advocates those students should be central participants and that the learning objectives should be of interest to the students. This could be done by involving the students to work on a project that emerges from their context, interest, and experience and could be related to their reality. Learning, according to the CCM approach, is meaningful when students are capable of regarding the meaning and usefulness of what is being learned (Schlünzen et al., 2020).

Our review found that LS can be implemented to engender strategies to develop teachers' knowledge of their capabilities to adjust the learning environment for increased inclusivity for students with disabilities. For example, Leifler (2020) conducted a mixed-method study for in-service teachers' learning aiming to explore the effects of an intervention designed and adapted from LS to strengthen teachers' awareness of and readiness to teach towards diversity with a focus on neurodevelopmental conditions (NDC). The study consisted of three cycles of LS at three different schools during four months. Leifler (2020) used a design in which the teachers had opportunities to reflect on changes in their teaching practice. The changes were examined in three areas: pedagogical, psychosocial, and physical. The results showed an improved ability to understand the students' needs within the three areas with an emphasis on the psychosocial area, including practices such as enhanced "additional confirmation, diversions for managing difficult behaviour, and involving the interests of students for strengthening desirable behaviour like on-task focus and motivation" (Leifler, 2020, p. 233).

Previous large-scale projects on LS (Dudley et al., 2019) have pointed out that teachers' understanding of diverse students' learning and beliefs in students' capacity reflect on the positive differences in learning levels and inclusive schooling environments, which, in turn, make teachers more prepared for teaching diversity (Wong et al., 2015). In the light of these assumptions, the CCM approach considers that, during reflection and systematization of learning, teachers have the opportunity to collaboratively analyse what can be explored in order to outline and plan new activities through a reflective process. In addition, when the teaching practice involves the interests of students, teachers can observe the social, emotional, affective and cognitive manifestations of students in a learning situation and, therefore, perceive the facilities or constraints of elaboration, reasoning, proportion, articulation and sociability towards inclusion (Schlünzen, 2000).

Our findings also highlight studies that addressed the use of LS in specific fields that are under-researched (Klefbeck, 2021) conducted a research to explore LS as a means to enhance the quality of teaching for students with learning disabilities and autism spectrum disorder by observing changes in one student's active participation and whether this professional development approach impacted practice. Through the use of pre- and post-tests, the

study revealed, among other findings, that a teacher who had rather low expectations of one of the students' learning abilities, along the implementation of LS practices, showed changes in her beliefs related to this student's capabilities, which evidently led the student to achieve improved progress. This can be clearly understood through the lens of the CCM approach, as it enables the inherent differences of each one to be valued. At the same time, it creates an environment to potentialise inclusion that favours the awareness of the students' growth and abilities, allowing them to notice and identify their abilities and their self-image (Schlünzen et al., 2020). Therefore, there seems to exist a connection between applying the CCM approach through LS and the teachers' gaining progressive and shared understanding that everyone has the potential to develop learning in an environment that values students' possibilities and respects difficulties.

addition In to researching teachers' professional development and expectations of the students' learning process, two studies were found to propose students' engagement and place their voice as central to LS. Simón et al. (2018), integrated two strategies (the LS approach and the student participation) to improve teaching practices from an inclusive perspective with the view of ensuring the learning and participation of a wider range of students. This study reported the four phases of LS taken in the last cycle of research developed through collaborative action research in a secondary school in which student participation was incorporated. The authors notably included a distinguished element for a group discussion with teachers and students: a debate on inclusion to assure all participants shared the same idea on the theme. Topics included "age, gender, religion, native language, etc., as well as their attitudes, preferences, interests, paces, learning strategies, prior knowledge, socioeconomic status, aptitudes, etc". (Simón et al. 2018, p.

5). Results indicated that improvements had a positive impact on student learning and engagement, and made room for i) the creation of spaces for reflecting and rethinking teaching practices, ii) recognizing students' voices and perspectives as a crucial contribution to teaching and learning, iii) acknowledging, valuing and sharing previous achievements in order to progress development.

Similar stance was taken by Messiou and Ainscow (2020), who demonstrated the development of Inclusive Inquiry, an innovative approach to promotion the of inclusion in schools, which facilitates dialogues between students and teachers and can lead to transformations of practices and thinking. In sum, the authors merged LS and a framework focusing on students' voices to foster the development of inclusive school practices. The Inclusive Inquiry approach is conducted in three phases (planning, teaching and analysing), in which trios of teachers collaboratively investigate forms of including all children in their lessons, particularly the ones considered hard to teach. These include, for example, "migrants, refugees or students with disabilities, as well as others that do not belong in a particular group that is receiving special attention" (Messiou & Ainscow, 2020, p. 6), such as the ones that are very quiet or who present challenging behaviour. Whilst LS is rooted in the teachers' perspective (Lewis et al., 2006; Fluminhan et al., 2021), the Inclusion Inquiry brings students' engagements, views and contribution as central features to facilitate teachers' development and improve their capacity to respond to diversity.

By the same token, Schlünzen *et al.* (2020) argue that, according to the CCM approach, school's principles focused on quality processes always occur when educational actions are no longer centered on the results of an excluding and classified process and become centered on relationships, on the construction of knowledge and on the learning processes, which must be considered as individual and regulated by each student, therefore, inseparable from human characteristics, particularities and singularities. In other words, the CCM approach and the Inclusion Inquiry share a broad understanding of inclusion and advocate that learning from difference and with difference must be seen as a positive stimulus that enriches education (Messiou & Ainscow, 2020; Schlünzen *et al.*, 2020).

Although there is significant literature documenting the necessity of applying a broad view of inclusion, some of the studies identified in the literature focused on inclusion of students with special educational needs. This might be because research has demonstrated that some students need more attention than others, for instance, the students having special educational needs, the ones who present linguistic challenges, those from ethnic minorities, etc. (Messiou, 2017). Meanwhile, Florian (2019) argues that such a traditional stance is not compatible with the conception of inclusion as the promotion of education for all.

## FINAL CONSIDERATIONS

The aim of this study was to investigate teacher professional development using LS with a focus on inclusive education. Firstly, we sought to understand the contemporary concept of inclusion in the educational context and the use of the CCM approach to enhance inclusion. In the following, we explored what evidence the international literature provides concerning the implementation of LS towards the strengthening of inclusive schools. Finally, we related to previous studies to discuss and analyse whether LS could encompass the integration of the CCM approach in order to better respond to inclusion promoting diverse, equitable, and inclusive practice to enhance learning of all students.

Our findings demonstrate that LS has itself an inclusive nature, as it offers teachers a training program which is open to invite students to function as a collaborative team to study, plan, reflect and voice their needs and interests. When students are members of the LS team, surprising and unexpected discoveries are made and teachers are given the opportunity to change their beliefs to embrace other points of views and understandings beyond their own. This is in line with what is advocated by the CCM approach, as it understands that quality education is only possible if it emerges from the students' context to produce meaningful knowledge and concrete systematized learning. In other words, the LS procedure could benefit from the assumptions of the CCM approach to build more inclusive societies.

We argue that this interconnectedness is not only suitable, but serves as a driver to overcome the challenge of promoting a school for all and equip teachers with a sustainable professional development to support them in diverse teaching contexts. These findings warrant further empirical investigative studies to implement LS through the CCM approach lens and examine its long-term impact on school culture and student achievement towards the construction of inclusion.

Notwithstanding the promising perspectives to enhance inclusive teaching practices revealed in our study, some limitations must be acknowledged. One restriction is that the current study was conducted on a small number of articles, which means that the results may not be generalised to contexts other than the ones aforementioned. Another limitation refers to the broad concept of inclusion used differently in the distinct studies included in this paper, which directly influenced the researchers to a certain way of conducting LS, and the results may have provided benefits in different directions. Finally, since the studies were deployed cross-sectionally, it was not possible to verify whether the impact of LS from an inclusive perspective brought about significant long-term changes in their educational settings.

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