

# Review of research literature about the use of lesson study and lesson study-related practices relevant to the field of special needs and inclusive education

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## 1. Introduction

This paper reviews the contemporary research literature about the use of lesson study (LS) and related professional development practices that are relevant to teaching students with special educational needs (SEN). The aim of the paper is to illustrate the extent to which LS type professional development practices embody the values of inclusive education and reflective practice, broadly conceived. In so doing the paper will show how LS has been used and so can contribute practically to enhancing professional practices in this field. The paper introduces briefly the concepts of LS and those of inclusive teaching and collaborative reflective practice. It then shows how LS connects with other traditions of professional development as the basis for two connected reviews of the literature: i. LS research papers and ii. LS related practices, both related to special needs and inclusive education.

## 2. Lesson Study:

Lesson Study, which was originally developed in Japan over a century ago, is a collaborative form of professional development involving an elaborated version of a study-plan-do-review model of practice (Lewis, 1998; see Figure 1 below). It has come to prominence internationally over the last 20 years in different variations including in several European countries ( e.g., UK, the Netherlands, Switzerland, Sweden, Norway, Spain and others) and the USA, though its centre of activity is still in the Far East (Japan, Singapore, Hong Kong, China).

Despite some variations in LS practice, the 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.

In Lesson Study practice a small group of teachers collaborate to develop a series of *research lessons* in which different approaches to teaching are tried out to improve specific forms of pupil learning, with the aim of enhancing teaching knowledge (Takahashi and Yoshida, 2004). In the UK version of LS (Dudley, 2012), the LS cycle usually consists of three *research lessons* (RLs), each preceded and followed by *review and planning meetings* (RP). LS teams consist of teachers who focus on 1-2 *case students* in the planning, teaching and evaluation of the research lessons. These students are identified depending on the topic and aims of the LS (Dudley, 2012). The team is involved in jointly planning the research lessons and while one of the team teaches the lessons, the others observe the case students' learning. However, there are other versions of LS, in which the number of research lessons, the team membership and other factors might vary (Norwich, 2018). For example, the a Netherlands model of lesson study enables mainstream teachers to more adaptive in their teaching a diversity of needs (Goei et al., 2015). This approach adopts the Dudley model of lesson study where the focus is on case pupils (Dudley, 2015), These case pupils are identified using the three-tier preventive

logic, where one pupil represents pupils at each of the tier 1 (general provision) , 2 (targeted provision) and 3 (specialized provision) (Schipper et al., 2017).



**Figure 1: Lesson planning sequence in Lesson Study**

### 3. Professional development traditions that resemble LS

LS can be seen to be a version of a pedagogic collaborative reflective practice (Norwich and Jones, 2014) and as such resembles various allied professional development traditions found in education, such as, teacher practice enquiry, e.g. action research, professional learning models, e.g. peer instructional coaching and professional learning community.

Figure 2 below shows 4 other traditions that share some key features of reflection and collaboration with LS (Norwich, 2018):

1. Professional learning community: linked to the school improvement tradition. This involves collaborative staff development approaches and a strategies for school and system improvement. (Harris and Jones, 2010).
2. Practice-based enquiry: linked to the teacher as researcher tradition: this involves teacher research or enquiries to provide insight into a teacher's classroom practice to make changes. (Fichtman Dana and Yendol-Silva, 2003).
3. Group problem-solving tradition: linked to the outside support professional (psychological / therapeutic) tradition. It involves support for adults to find solutions to complex problems that arise within classrooms and the wider school community by outside support professionals. (Wilson and Newton, 2006; Kennedy, Landor & Todd. 2010).
4. Professional learning tradition – linked to cross professional growth tradition. This involves approaches that promote professional growth and development across different occupations, such as coaching. (Lord, Atkinson, and Mitchell, 2008).

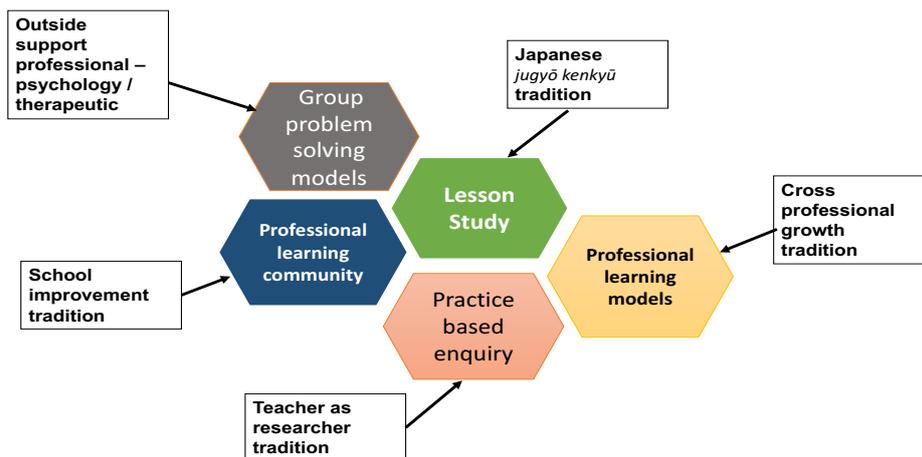


Figure 2: Family of professional models and their contexts

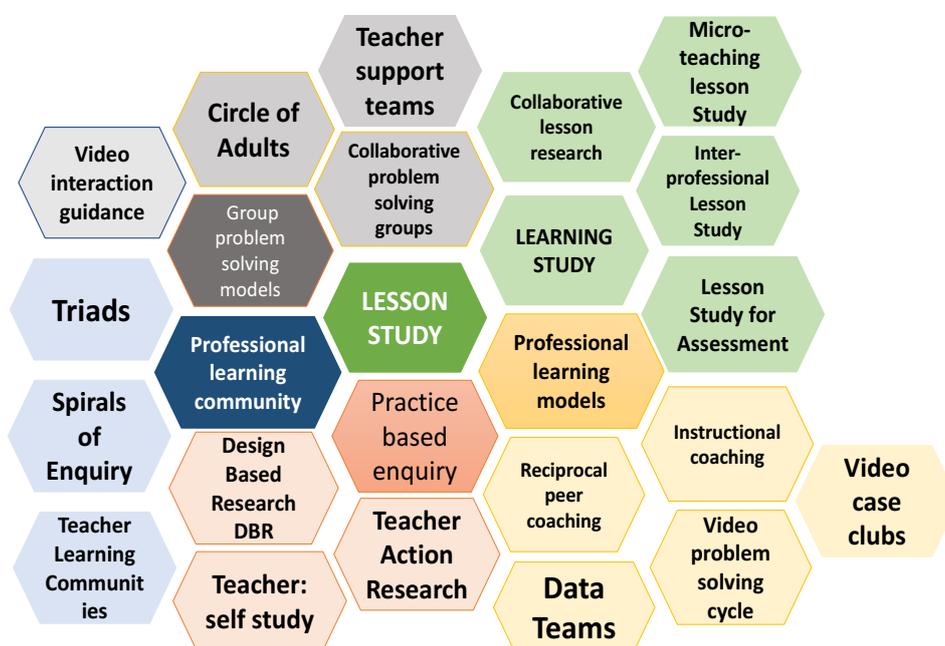


Figure 3: Family of professional models with examples in each tradition.

Figure 3 illustrates some specific versions of professional development practices in each of these traditions, using colour-coding. This is not an exhaustive set of examples, but the analysis does indicate that in reviewing the literature about LS it would also be useful to review literature in the other related traditions that are relevant to special needs and inclusive education. This is what is done in this paper by reviewing the literature about i. LS and then ii. LS-related professional development.

#### 4. Professional development of inclusive teaching

There are various interpretations of what is meant by ‘inclusive’ and what model of teaching is adopted when discussing inclusive teaching. This affects what is taken to count as inclusive teacher education and development. However, it is possible to formulate a general framework which can encompass these diverse interpretations. The European Agency for Special Needs and Inclusive Education’s (EASNIE) (2012) *Profile of Inclusive Teachers* is such a framework. It was the result of research, country information and discussions with project

experts and representatives of stakeholder groups for teacher education during 14 country study visits. The Profile has a framework of core values and areas of competence that support the 'development of teachers as lifelong learners and reflective practitioners through experiential learning and action-based research'.

1. **Valuing Learner Diversity** – learner difference is considered as a resource and an asset to education.
2. **Supporting All Learners** – teachers have high expectations for all learners' achievements.
3. **Working With Others** – collaboration and teamwork are essential approaches for all teachers.
4. **Personal Professional Development** – teaching is a learning activity and teachers take

Two of these core value areas (3 & 4) relate to competences that are relevant to the focus of this paper:

**Working With Others** is underpinned by areas of competence that include:

- inclusive education requires all teachers to work in teams;
- collaboration, partnerships and teamwork are essential approaches for all teachers and should be welcomed;
- collaborative teamwork supports professional learning with and from other professionals.

**Personal Professional Development** is underpinned by areas of competence that include:

- Teachers as reflective practitioners
- Initial teacher education as a foundation for ongoing professional learning and development.

The concept of reflective practice in this Profile represents the following characteristics:

- teaching as a problem solving activity that requires on-going and systematic planning, evaluation, reflection and then modified action;
- reflective practice facilitates teachers to work effectively with parents as well as in
- teams with other teachers and professionals working within and outside of the school;
- the importance of evidence-based practice to guide a teacher's work;
- valuing the importance of developing a personal pedagogy to guide a teacher's work.

It is clear from the above that all of the four core value areas are aligned with LS principles, but the last two have specific links with lesson study principles and practices.

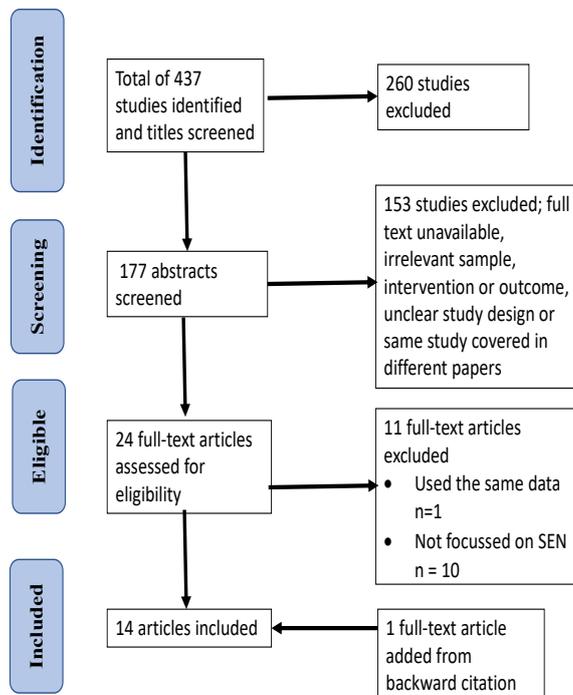
## 5. Review of LS research

*Methods:*

This review focuses on the academic research literature in peer-reviewed journals. It does not draw on professional practice papers and books about LS. Documented LS practices might be evaluated and find their way into the research literature, on one hand, while on the other hand, the research literature might also influence wider LS practices.

The following search terms were used: lesson study or learning study, together with each of these terms: special, special educational needs, teaching, inclusion, difficulty and difficulties. These databases were searched: ERIC, British Education Research Index, Australian Education Index and Educational Research Complete. The search was for all entries in these database with no specified time period.

**Figure 4: PRISMA diagram for LS practices**



The PRISMA diagram in figure 4 shows that though 437 studies were initially identified from their titles, 269 were excluded as not relevant. Of the 177 remaining abstracts which were screened, only 24 were retained for various reasons shown in the figure. Of the 24 eligible papers the full papers were analysed, resulting in 11 exclusions as some papers used the same data or were not about SEN. By this method 14 papers were included in the review, with one extra added from a backward citation.

These 14 papers were then analysed in terms of the following areas:

1. Professional development stage
2. Purposes of using LS
3. School setting of LS
4. School phase
5. LS team/group membership
6. Evaluation methodology and focus
7. Area of SEN involved
8. Curriculum area involved.

In addition, the summaries of the main results from each paper were compiled together and analysed thematically.

## Results

The following tables summarise the overall pattern of findings about these 14 papers in which a single paper might be scored under more than one heading in each area.

Table 1 shows with one exception that all the LS use was in post initial teacher education/training. In this one case it was in the pre-service training on special education teachers, not general or subject specific teachers.

Table 1		Totals
Professional development stage	Pre-service	1
	Continuing professional development (CPD)	13

Table 2 shows that the primary purpose of using LS was teacher professional development of knowledge and skills. Reference to teacher motivation as a purpose for using LS was much less frequent as it was for curriculum development purposes. There was some use of LS for pupil learning purposes, but only in 4 studies.

Table 2			Totals
Purpose	Teacher Professional Development	Motivation	2
		Knowledge	13
		Skills	13
	Curriculum Development	1	
	Pupil Learning	4	

Table 3 shows the use of LS was across different settings, primary, secondary and special schools and units/classes. The use of LS was most frequent in secondary schools.

Table 3			Totals
School setting	Primary school		5
	Secondary school		11
	Special setting	School	5
		Unit/Class	2

Table 4 shows the LS was focussed on teaching and learning in the early years, primary and secondary phases. Comparing Tables 3 and 4 indicates that special setting use of LS was across the three school phases.

Table 4		Totals
School Phase	Early Years	2
	Primary	8
	Secondary	13

Table 5 shows that the LS teams involved ordinary and specialist teachers as well as other professionals, e.g. psychologists, advisers. Given the frequencies, some teams had mixed membership.

<b>Table 5</b>		<b>Totals</b>
Team/Group	Ordinary Teachers	12
	Specialist Teachers	8
	Other Professionals	6

Table 6 shows that the evaluation approach to the use of LS in these studies is mainly by case study and some form of survey method, only one used an experimental type of evaluation. These evaluation focussed on the contexts, processes and outcomes of LS, some focussing on just one aspects, e.g. outcomes, while others focussing on two or all three aspects. Two papers were overviews of LS rather than specific evaluations of them in practice.

<b>Table 6</b>			<b>Totals</b>
Evaluation	Methodology	Case studies	5
		Survey, interviews	8
		Experiment	1
	Focus	Context	9
		Processes	10
		Outcomes	10
Overview of LS practices			2

Table 7 shows that the use of LS involved students with a range of SEN, with cognitive and learning difficulties being the main area. Only one study involved student with language and communication difficulties, while none involved students with sensory or motor difficulties.

<b>Table 7</b>		<b>Totals</b>
SEN Area	Cognition and learning difficulties	9
	Social emotional and mental health difficulties	3
	Language and communication difficulties	1

Table 8 shows most LS use was in relation to maths and literacy teaching and learning, while some was in relation to other subjects, e.g. science or social-emotional behaviour. Several papers did not specify the subject area of the LS use.

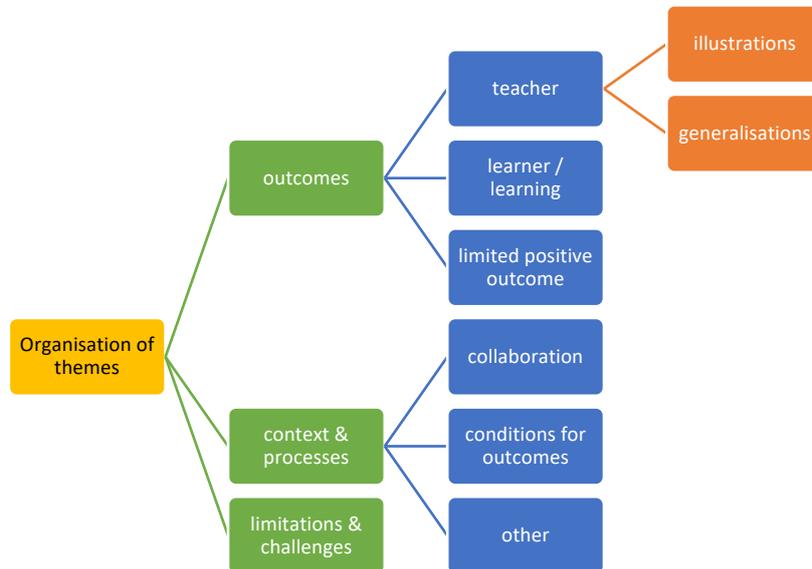
<b>Table 8</b>		<b>Totals</b>
Curriculum Area	Maths	5
	Literacy	2
	Other subjects	4
	Not specified	5

#### *Thematic analysis of main results from each paper*

Summaries of the main results from each paper were compared for similarities and differences and the emerging themes were reorganised to form a concept map of themes in shown in figure 5 below.

As figure 5 shows, the higher level themes were about teacher outcomes, the LS context and processes and the limitations and challenges of LS use. The first two general themes were the main ones in terms of the frequency of references.

**Figure 5: Relationship between themes in main results of LS use**



*Outcomes:*

The teacher outcomes from LS use could be sorted into *generalisations* and *illustrations* of these outcomes. Typical generalisations were either in a general form, such as:

‘teachers adapted the LS strategy to their particular subject as a way to improve teaching practice’ or

‘the lesson study process assisted them in devising pedagogical approaches to meeting student needs’

or in a more specific form: such as LS resulted in greater:

‘efficacy in pupil engagement as well as classroom management and instructional behaviour’ or

‘increased their ability to adapt an instructional plan to meet science learning goals for all students in an inclusive classroom’.

Typical illustrations were about teachers in interaction with others; such as:

‘the process enabled teaching assistants to have a fully participatory role’ or

‘illustrates the potential of an inter-professional lesson study’.

Other illustrations were about:

‘the potential of the planning process to help student voices to be heard’ or

‘successful bridging between theory and practice, with evidence of translation of theoretical knowledge into relevant teaching practice’.

There were fewer references to learner or learning outcomes, such as:

‘children receive psychological support they are likely to psychologically support others’ or

‘the Lesson Study process assisted them in developing insight into their students’.

There was only one study in which there was a reference to *limited positive outcomes*. This was a study that noted that though there was a positive teaching gain, it did not involve any:

‘significant increases in their knowledge of science content or learning disabilities’.

#### *Context and processes:*

The second main higher level theme was about *processes and contexts* of LS use. It involved two specific sub-themes which were about i. collaboration and team interaction and ii. the conditions for positive outcomes. The third sub-theme involved a set of individual references to specific processes and contexts.

Under the *Collaboration and team interaction* sub-theme there were references to the role of teacher collaboration in using LS, on one hand, while on the other, there were more specific references to LS enabling collaboration with other professionals, such as psychologists, and between special education and general teachers. There were also references to how collaboration supported:

‘professional experimentation’

and how:

‘Lesson Study provided a format for collaboration and mutual support’.

Under the second specific *Conditions for learner positive outcomes* sub-theme, there were two references. One was about how:

‘positive teacher attitudes are important factors encouraging children to support others’

and that the:

‘critical edge to the process that has the potential to challenge teachers to go beyond the sharing of existing practices’

was using:

‘lesson study with an emphasis on listening to the views of students’.

The third sub-theme – other - involved 7 references to different processes, as follows:

Focus on learner: ‘intensive focus on student learning’,

Facilitator role: ‘the facilitators’ role may contribute to this’

Enables LS reflective practice: ‘how working memory knowledge is used in reviewing and planning research lessons’ and ‘through the development of reflective practice’

Whole school approach: 'it is critical to engage the entire school in appropriate changes'

Student participation: 'and through student active participation''.

Focus of teaching: 'teachers scaffold interpersonal capabilities among children across the elementary years'

Features of LS practice explained: 'authors identify and explain the traditional features of the LS cycle'.

#### *Limitations & challenges*

The third higher level theme, which was about limitations and challenges in LS use, only had 3 references. Two of these were about the barriers and difficulties of the LS process; 'the challenges'. The third referred to LS contexts that:

'could be related to student learning gains and teacher outcomes',

which implied their absence could be related to barriers to LS use.

## **6. LS-related professional development**

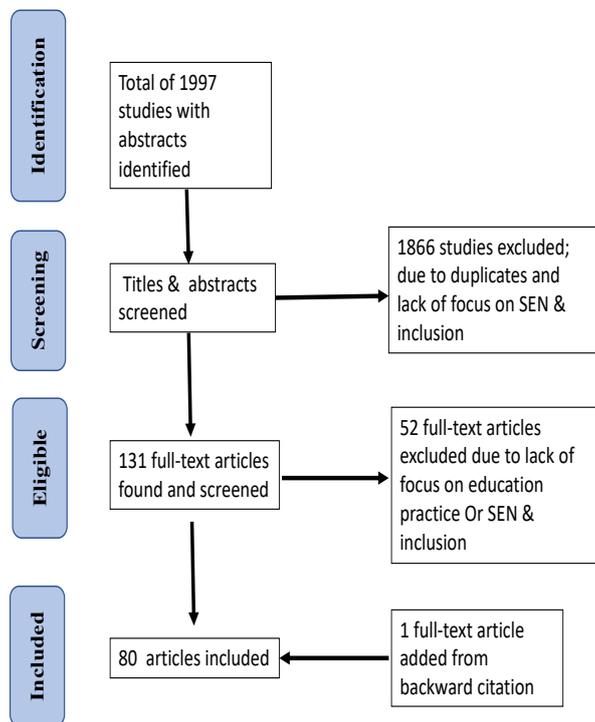
### *Methods:*

In this part of the review the term 'LS-related professional development' will be taken to include practices that are referred to in terms of : Problem solving groups, Professional learning communities, Action Research, Professional Collaboration, Teacher coaching, Co-teaching of special education and general education teachers.

To search for these 'LS-related professional development' practices the following databases were searched: ERIC, British Education Research Index, Australian Education Index and Educational Research Complete. The search terms were: action research OR professional learning community OR teacher coaching OR problem solving group OR collaborative (in all text) AND SEN OR Disability or inclusion AND Teaching OR lesson (in abstracts).

From this search 1997 papers with abstracts were identified for title and abstract screening, as shown in figure 6 below. From this set, 1866 were excluded for a variety of reasons: not focussed on education practice, or specifically on SEN and inclusion or about a practice that did not involve professional peers or teams. It was decided to also exclude peer coaching that involved an expert-novice relation in which the expert directed the novice, as not being enough like lesson study. The 131 remaining papers were then screened using the full text, leading to another 52 being excluded, for similar reasons as in the previous step. This left 80 papers including 1 study added from backward citation.

**Figure 6: PRISMA diagram for LS-related practices**



These 80 papers were then analysed in terms of the following areas:

1. Type of LS relate practice
2. Phase of professional development
3. Focus of practice
4. School setting of practice
5. School phase
6. Team/group membership
7. Evaluation methodology and focus
8. Area of SEN involved
9. Curriculum area involved.

### Results

The following tables summarise the overall pattern of findings about these 80 papers in which a single paper might be scored under more than one heading; so totals in the tables might not add up to 80.

<b>Table 9</b>		<b>Totals</b>
LS related practice approach	Co-teaching	42
	Professional / teacher collaboration	42
	Action Research	11
	Problem solving group	6
	Professional learning community	5
	Teacher coaching	3

Table 9 shows that co-teaching and professional / teacher collaboration were the most commonly found LS related practices. Action research as a research approach was often used with some other professional development practice. The last three practices – problem-solving groups, professional learning community and teacher coaching – were found much less often. In the case of teacher coaching this was because many papers about teacher coaching were considered to not to be enough like lesson study's focus on peer reciprocal and team characteristics.

Table 10 shows that only 2 of the 80 papers involved the use of a LS related professional development practices at pre- service teacher training level.

<b>Table 10</b>		<b>Totals</b>
Professional development stage	Pre-service	2
	Continuing professional development (CPD)	78

The focus of the LS related professional development practice was distinguished into 3 areas, i. whether the focus was mainly on specific teacher actions, ii. broad classroom inclusive practices or iii. about the adapting of a subject programme to the needs of students with SEN / disabilities. Table 11 shows that the focus on inclusive practice was clearly the main focus of practices in these papers, with the focus on specific teacher action the least frequent.

<b>Table 11</b>		<b>Totals</b>
Focus	Inclusive practice	60
	Subject Programme	16
	Teacher Action	6

The distinction between setting and school phase in tables 12 and 13 is the difference between where the practice takes place (setting) and the students' stage of learning (school phase). Table 13 below shows that these practices are roughly equally applied to primary and secondary schools. Some are also applied in specialist settings, in special schools and classes. Table 13 shows that though most are applied to primary and secondary aged students, some are applied outside these age ranges.

<b>Table 12:</b>			<b>Totals</b>
Setting	Primary		40
	Secondary		41
	Specialist setting	School	4
		Unit/ class	8

<b>Table 13</b>		<b>Totals</b>
School Phase	Early Years	6
	Primary	49
	Secondary	52
	Tertiary	2

Table 14 below shows that teachers and specialist teachers are those most involved in these LS related professional development practices. Other professional, e.g. advisors are also involved but to a lesser extent.

<b>Table 14</b>		<b>Totals</b>
Team/ group	Teachers	74
	Special Teachers	61
	Other professionals	25

Table 15 shows the extent to which these papers involve some evaluation of these practices and what the evaluation focus involves. This table shows that about a third of the papers did not involve an evaluation of the practice concerned, but an overview account of the practice; how it is conducted, what can be expected, the conditions for using it and sometimes a general overview of its outcomes. Of the other papers where the practice is evaluated in some way, the design is mostly in the form of a survey of some aspects of the practice and its outcomes. There were some case studies and only a couple of experimental designs. This table also shows that though the evaluations focussed on the context, process and outcomes of the practice, the main focus was on process, then outcomes and least on contexts.

<b>Table 15</b>			<b>Totals</b>
Evaluation	Methodology	Case study(s)	11
		Survey interview	40
		Experiment	2
	Focus	Context	13
		Processes	64
		Outcomes	43
Overview of practice			27

Table 16 shows that for many of the papers, the students' type of SEN / disability was not specified. This may be because the practice related to students with varied areas of SEN. Where SEN area was specified, cognitive and learning difficulties was by far the most common area.

<b>Table 16</b>		<b>Totals</b>
SEN Area	Cognitive & learning difficulties	35
	Social emotional and mental health difficulties	4
	Language & communication difficulties	9
	Sensory difficulties	2
	Not specified or assumed cross SEN	30

Table 17 shows that even more of the papers did not refer to the curriculum area in which the professional practice was used. For paper that did referenced the curriculum area, this showed it spread between maths, literacy and science areas of learning.

<b>Table 17</b>		<b>Totals</b>
Curriculum Area	Maths	9
	Literacy	12
	Science	4
	Not specified	55

## **7. Discussion and conclusions**

This section will compare the features of the LS and LS related professional development practices in the identified set of papers. It will discuss the main aims for using LS in the studies reported in the identified 14 papers and connect the types of LS related practices to ideas about LS and its variations. The aims of using LS in these 14 papers will also be discussed in terms of the evaluation results in these papers. The section will finally discuss the implications of this review for the future use of LS practices for enhancing special needs and inclusive teaching, on one hand, and for future research and development work informed by the principles and practice associated with LS.

### *Comparing LS and LS related practices*

One feature of the use of LS and LS related practices from this review is their predominant use in continuing professional development and not in initial or pre-service teacher training and education. The review also showed that both LS and LS related practices were used for students across the age range, from early years through to secondary age. However, the main use of LS related practices was with primary and secondary aged students. LS and LS related practices were also used in primary, secondary and specialist settings (schools and classes), though less so for LS related practices in specialist settings.

The participants in both LS and LS related practices were teachers, special education/ specialist teachers and other professionals. This cross professional participation is distinctive of the special needs and inclusive education use of LS and related practices, reflecting a particular feature of the collaborative principle underlying LS. This cross professional participation also relates to another feature of LS, the involvement of a 'knowledgeable other' in the team or group (Takahashi and McDougal, 2016).

The reviews also showed that for both LS and LS related practices the most common area of pupil/student's SEN or disability was cognitive and learning difficulties. Though there was some use for students / learners with other SENs, this was much less as shown in both reviews. As for the area of teaching and learning in which professional development was taking place, many reports did not specify a curriculum area, especially for LS related practices. In this case this could be related to the finding that well over half of the LS related papers were overviews.

The reviews showed that for the evaluations of both LS and LS related practices the evaluations were mainly surveys, e.g. interviews, and case studies, rather than experimental designs using a control group. These evaluations focussed on the contexts, processes and outcomes of the practices for both LS and LS related reviews. However, there was relatively less focus on contextual factors in LS related practices.

### *Aims in LS practices and links to the types of LS related practices*

It was clear from the review of the 14 LS papers that the primary aims of using LS was for teachers to develop their knowledge and skills, e.g. adapt teaching for students with SEN in an inclusive setting. But, some LS practice was in specialist settings, which some may not consider to be an inclusive setting. Reference to aims about teacher motivation e.g. inclusive teaching efficacy, or curriculum development, e.g. align tasks in a tiered programme, were much less frequent. The aims of LS use were sometimes framed in terms of teacher professional development and pupil learning outcome terms, but this was done less frequently.

Most of what is here called LS related practices involved co-teaching and professional / teacher collaboration in the 80 reviewed papers. These represent fairly distinct practices though they embody key LS type principles. In co-teaching, collaboration is between two teachers in teaching a class that includes a pupil /student with a SEN. However, there are versions of co-teaching which do not involve collaborative and joint review practices (Friend et al., 2010). BY contrast, in professional / teacher collaboration there may be many more participants who are often taking part in some development involving action research principles and practices. The other LS related practices, such as, problem-solving groups, professional learning community or teacher coaching were much less frequently found, perhaps because they are used less often for special needs and inclusive teaching purposes. However, as pointed out above, with teacher coaching there were many papers identified initially, but which were excluded from the review. This was because the type of coaching was considered to be overly directive, based on an expert-novice type of relationship and not involving reciprocal peer interaction and team work.

#### *Main results from evaluations of LS practices*

The analysis of the findings from the LS use in the 14 papers showed an alignment between the aims in using LS and the findings of the evaluations. Teacher outcomes were reported in line with the aims that focussed on teacher knowledge and skills. Learner and learning outcomes were also reported in line with the lesser emphasis on this as a LS aim. The other main findings were about the contexts and processes in using LS. Here the importance of collaborative practices was evident and other processes, such as reflective practices, the intensive focus on learning and the facilitators' role (the 'knowledgeable other'). These align with other ideas about what underlies LS practice more generally (Lewis, Perry and Hurd, 2004).

However, there was much less reference to limited positive outcomes. This is important as there could be a strong interest of those who do these LS evaluations to show that LS is effective in some ways, with risk of a confirmation bias. This also relates to the third and least prominent of the higher level finding themes, which was about limitations and challenges in LS use.

#### *Implications for future use of LS for special needs and inclusive teaching and future research and development*

These parallel reviews of LS and LS related practices to enhance special needs and inclusive teaching developments show the extent of their evaluated use in contemporary international research published in the English language. The reviews show that these professional development practices have been evaluated across school settings and phases of schooling for students with varied kinds of SEN or disabilities and in pre-service and continuing professional development phases.

However, there is scope for more use and evaluation of these practices in pre-service teacher training and education with a specific focus on special needs and inclusive teaching. There is also much potential for extending these practices to other areas of SEN and disabilities beyond cognitive and learning difficulties and to curriculum areas beyond maths, literacy and science teaching programmes. Teaching students with SEN in mainstream inclusive settings is challenging and lesson study and related practices could also be designed to enable teachers to develop their affective responses and motivation for teaching in these settings.

But these implications depend on institutional conditions being supportive of LS and related practices, senior leadership support at school and nationally, funding to release teachers for

this intensive practice and adequate preparation in the relevant theory and practice to undertake this kind of professional development activity. Sustaining LS and related practices is challenging (Dudley et al. 2019). The funding and organisation of demonstration projects that underpin so much of the research evaluations reviewed in this paper are hard to sustain beyond the project. How to establish systems that can support and sustain LS is a contemporary concern.

Making the case for adopting such collaborative reflective practices also depends on further high quality research and development work. These reviews show the low frequency in using experimental evaluation designs that compare LS with other kinds of practices. What is needed are combined methodological approaches, that cover both fixed generalising designs, involving control or comparison conditions (such as quasi experimental designs and carefully designed controlled trials), as well as in-depth case studies and flexible intervention designs (such as action research and design-based research).

The contemporary interest and uptake of LS shows the continuing commitment in education and teacher professional development for approaches which recognise that teaching involves collaborative pedagogic reflective practice. LS is a modern reflection of these historic ideas that act as a counter to the overly technical views about teaching and learning. But, LS as an enterprise with its flexible procedures and collaborative reflective practices also has the potential to provide a basis for a professional accountability (Corcoran, 2009), which has particular relevance to the teaching of students with SEN and disabilities.

**The list of LS and LS related titles and abstracts are available at**  
<http://www.lessonstudysend.co.uk/resources/>

## 8. References

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