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Lesson Study in the Public Education System in Santarém-PA: Insights from Researchers and Pre- and in-Service EFL Teachers

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Abstract Research on Lesson Study emphasizes its positive impacts on teacher professional development globally. However, in Santarém-PA, limited exposure to this Japanese methodology persists despite a significant teacher and student population. This paper contributes to promoting Lesson Study by exploring perspectives from researchers, TEFL students, and mentor teachers in Northern Brazil. Data collection involved a literature review and semi-structured interviews, with applied thematic analysis used for data interpretation. The results reveal a complex view of Lesson Study in Santarém-PA with both challenges and benefits. While participants showed understanding of the methodology, considering the complexities of the Brazilian education system, its implementation in this municipality and elsewhere in the country requires careful consideration. The supportive researcher-participant relationship and improved teaching practices suggest potential for further exploring it. However, successful implementation depends on substantial investments in preparing teachers for Lesson Study cycles to maximize its formative potential in the Brazilian educational landscape.

Keywords Teacher professional development, new methodologies, Lesson Study, pre- and in-service teachers, Amazon region

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Introduction

The Lesson Study methodology, integral to the Japanese educational system since the 1870s (Sato, 2008), gained global recognition only in the last three decades (Lewis, 2021). Crafted to enhance professional development and the quality of teaching and learning processes, Lesson Study, typically conducted in cycles, centers on understanding how students respond to content and activities in the classroom (Silva & Hitotuzi, 2020; Oliveira, Hitotuzi & Schwade, 2021). Positive outcomes, including benefits linked to reflective practice, collaborative efforts, and communities of practice, have consistently been demonstrated by advocates of this methodology (Stepanek et al., 2007; Cerbin, 2011; Dudley, 2013; Dudley & Lang, 2021; Huang, 2024).

Despite its global success, however, Lesson Study remains relatively unknown in Santarém-PA, Northern Brazil, presenting a potential challenge for its introduction into local educational institutions. This challenge is compounded by the distinctive cultural nuances surrounding education in the region (Silva & Hitotuzi, 2020).

Teacher professional development, whether in the initial stages or as part of continuing education, has garnered significant support from research emphasizing the positive outcomes associated with the integration of new methodologies across various educational levels. This support extends from supervised practicums to the routine practices of everyday teaching (Silva, 2020).

However, the introduction of innovative approaches may evoke discomfort among those exposed to them, as the unfamiliar often triggers apprehension, even when proven beneficial. Moreover, the journey from the initial bewilderment arising from unfamiliar modes of operation to a conscious acknowledgment of change is frequently marked by a certain upheaval in the perceptions and attitudes of individuals encountering the new paradigm (Silva, 2020). This instability is frequently influenced by a sense of powerlessness for not having control over the novelty of the experience, or by “the dangers we ‘know’ to be present”, as alluded to by Kegan and Lahey (2009, p. 50).

Against this backdrop, our investigation builds on the question of how participants in Lesson Study cycles perceive their experiences, exploring the impact of implementing this novel methodology on three stakeholder groups: researchers, pre-service TEFL students, and in-service EFL teachers. The study utilizes two strands of data collection: one focusing on pre-service teachers within their initial teacher education program, and the other on in-service teachers engaged in professional development.

The hypothesis that these experiences may have exerted an influence on participants was formulated based on two primary considerations. Firstly, a preliminary interview with in-service teachers revealed a prevalent tendency among these professionals to engage in haphazard and isolated lesson planning. This practice tends to hinder the exchange of ideas over teaching strategies and other factors, such as frustrations, doubts, fears, and expectations among educators. Additionally, some of the interviewees expressed the belief that they do not need to plan lessons, asserting confidently that they “already know what they need to do” (H. N. Oliveira, 2018, p. 86).

The credibility of the hypothesis gained further support through the analysis of observation and teaching practicum reports from five teaching degree programs at a prominent university in Northern Brazil, hereafter referred to as the Amazonian University. The findings served to corroborate a hypothesis put forth by the author of a prior study on Lesson Study in initial teacher education, indicating a deficiency in the guidance provided by teacher education programs at that university. This shortfall pertained specifically to the failure to lead teacher candidates in prioritizing student learning as the primary objective in their teaching practice (K. L. S. J. Oliveira, 2018).

2. Methodology

2.1 Nature of the research and research question

The choice of design for our investigation was guided by our research question: How do researchers, pre- and in-service EFL teachers participating in Lesson Study cycles in Santarém-PA perceive their experiences with the methodology? We recognize that an interpretative analysis of researchers’ and participants’ perceptions aligns with the premise that research of this nature views reality as a social construct. This perspective suggests that some events can be comprehended only through a global lens, considering the interplay and influences among the components of a specific situation (Alves-Mazzoti, 1991).

In this study, which focuses on perceptions within pioneering research in the Amazon region, we adhere to the principles of a qualitative Case Study. This choice arises from the investigation of a contemporary phenomenon within its context, where the delineation between the phenomenon and the context lacks clarity (Yin, 2018). Thus, to

answer the research question, we draw upon the following sources of evidence that constituted the corpus of our investigation: two master's theses on Lesson Study in the Amazon, the transcripts of interviews with the participants of both studies, and the transcripts of an interview with the authors of the theses.

The alignment between our research question, the chosen qualitative Case Study design, and the selection of pertinent sources of evidence strengthens the overall coherence of our study. This approach allows us to explore the researchers' and teachers' perceptions of their experiences with Lesson Study in the unique context of Santarém-PA, contributing to the understanding of the implementation challenges and adaptations of the methodology within the Amazon region.

2.2 Participants

This study involves a diverse group comprising two researchers from the Graduate Program in Education at the Amazonian University (AU), four preservice teachers enrolled in the EFL Undergraduate Teacher Education Program at the AU, and two in-service EFL mentor teachers from schools in the public education system in Santarém-PA. For confidentiality, participants will be referred to by identifiers such as researchers (R1 and R2), preservice teachers (PST1, PST2, PST3, and PST4), and in-service teachers (IST1 and IST2).

The researcher who conducted the Lesson Study investigation involving the four preservice EFL teachers is a TEFL lecturer at the AU. She holds a degree in TEFL, a master's degree in education, and she is currently pursuing a PhD in education. Henceforth, she will be referred to as R1 in this paper.

Conversely, the other researcher (R2), responsible for the Lesson Study investigation with the collaboration of the two in-service EFL teachers¹ holds a tenured teaching position in both the Education Department of the State of Pará and the Municipal Education Department of Mojuí dos Campos, Pará, a municipality located just over 33 kilometers from Santarém. He also has a degree in TEFL and a master's degree in education.

The four pre-service EFL teachers, all in their early 20s, joined R1's study while participating in a TEFL-focused subproject supported by the Institutional Teacher Initiation Scholarship Program (PIBID). This program provided their only prior experience in a formal teaching setting. Regarding the two in-service teachers involved in R2's study, both teachers held an undergraduate degree in TEFL and had over fifteen years of experience exclusively teaching English. Additionally, they had previously served as supervisors in PIBID for at least two years.

2.3 Data Collection Instruments

The data collection process began with a literature review, along with detailed documentation of the researchers' statements during their thesis defenses. Additional data were gathered from lectures on Lesson Study within the Graduate Program in Education and transcriptions of discussions held at a research seminar hosted at the AU involving one researcher and participants in her study. A preliminary analysis of these data formed the basis for developing an interview guide tailored for face-to-face dialogues with the two researchers. The primary aim of these interviews was to confirm and validate emerging perceptions garnered from their respective studies. Furthermore, the interviews aimed to address any potential discrepancies or inconsistencies between the researchers' reported findings and factors such as contextual nuances, cultural influences, and social dynamics that may have impacted their research outcomes.

2.4 Data Analysis Method

The research data were organized and thematized using Applied Thematic Analysis, as proposed by Guest, MacQueen, and Namey (2012), who outline the following steps for this type of analysis: a) reading the raw data; b) identifying themes; c) transforming themes into codes; d) applying specific codes to specific text segments; e) determining code frequencies; and f) interpreting/analyzing themes. Thus, following the preliminary reading of data consisting of field notes taken during the defenses of both master's theses and other events, from reading the theses themselves, and from interview responses, we managed to identify units of meaning and create an explanatory narrative of the stakeholders' perceptions of their experience of cycles of Lesson Study.

3. Results and Discussion

3.1 Perceptions of participants in the investigations with Lesson Study in Santarém-PA

In this section, we discuss the themes that emerged from the data, revealing perceptions of the researchers and participants in their investigations involving Lesson Study in both initial and continuing EFL teacher education in Santarém-PA. As shown in Table 1, four subthemes and six high-level themes were identified.

Table 1. Subthemes and Themes from Stakeholders' Perceptions

Subtheme	High-level theme
Positive Contextual Factors	Descriptive knowledge of the methodology by participants
Negative Contextual Factors	Belief in the future of Lesson Study in Brazil
	Lack of an investigative posture
	Stagnation in teaching practices
Participants' Perceptions in Preparatory Workshops	Researchers' supportive relationship with participants
Participants' Perception during Research Execution	Evolution in teaching practice

Next, we will explore each of these high-level themes, substantiating their development with relevant excerpts extracted from statements made by the stakeholders involved: R1-R2, PST1-PST4, and IST1-IST2.

3.1.1 Descriptive knowledge of the methodology by participants

Initially, our analysis of interviews with researchers pointed to a perceived lack of investigative readiness among participants, suggesting a neglect in preparing to grasp the operational intricacies of Lesson Study. However, upon further examination of interviews with both pre- and in-service teachers, a contrasting narrative emerged. These teachers exhibited a clear understanding of each stage within the Lesson Study cycle and confidently articulated the objectives guiding their participation in Lesson Study investigations. Notably, this comprehension persisted even a year after the investigations had been concluded, as evidenced by their interview responses. To shed light on this perspective, we present excerpts from interviews with participants in R1's study in Table 2.

Table 2. Key elements of Lesson Study as identified by preservice EFL teachers

Preservice teacher	Interview excerpt
PST1	I don't remember completely what it means, but I remember the process (. ...) there were many observers in a classroom (. ...) They observed the teacher's posture in a classroom (. ...) Of course, not focusing on the teacher, but focusing on the class itself, on the structure of the class, on how the teacher interacted with the students. So, basically, Lesson Study is (...) it consists of this: raw lessons, case-students ² , research lessons, the review part (...) of the class, analyzing the given lesson, and then applying it again, always seeking to improve the previous lesson.
PST2	I remember (. ...) Lesson Study (...) its idea was that before conducting the actual research, we would gather (...) information about the class where we would apply Lesson Study, and from that (...) elaborate (...) the research itself, focusing on some aspect of the class, and of course, also based on the class's aspects.
PST3	I remember it was a cycle (...) we planned the lesson, (...) had our group discussions (...) planned the lessons (...) one teacher taught the lesson while the others observed (. ...) Then we had a meeting with all the participants, and then we discussed again (...) and went through this cycle in all the lessons that involved Lesson Study.

²Student(s) observed more closely during the research lesson, representing various learning levels (Dudley & Lang, 2021).

PST4	I remember more or less (. ...) I know that Lesson Study is cycles, and within that cycle, there's the moment when you prepare the lessons, go to the classroom, apply it, and your colleagues are there observing everything that's happening, and then after the lesson, you go back inside (...) like, it's a reinforcement for the next lesson, trying to cover that gap, so to speak, of what wasn't learned, or if it was, moving on to the new, the next topic, and, well, that's it.
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R2's study revealed that participants possessed some understanding of Lesson Study's core principles and procedures, as can be seen in Table 3.

Table 3. Lesson Study from the point of view of two in-service EFL teachers

In-service teacher	Interview excerpt
IST1	Lesson Study is an observed lesson (...) where the teacher teaches, and others observe that lesson and can evaluate it afterward and can give their opinion on how it can be improved, observing those flaws that we don't see while we're teaching. We think we're doing our best, and suddenly, someone else is looking from the outside (. ...) They will make observations that could contribute to your lesson. Things you don't observe, but someone else who is there, observing you, can notice and contribute to [your improvement] (. ...) So, that's a very positive aspect of Lesson Study.
IST2	Well, Lesson Study (...) its objective is to research, right (. ...) We (...) went through various stages with the students, on how the process of teaching and learning the foreign language would be for the students, and we improved at each stage of the process, evaluating (...) whether that specific subject was taught according to the concept of Lesson Study. Then we kept reassessing if it was okay, making constant evaluations of how that content was being conveyed and how we had feedback from that student.

While the excerpts showcased in Table 2 and Table 3 may at first suggest a productive and congruent implementation of the methodology in both studies, solely relying on this understanding to anticipate successful outcomes can lead to frustration for the team overseeing such initiatives. This argument aligns with Stigler and Hiebert's (2009) view on teacher learning. They maintain that it is a complex cultural process, influenced by factors beyond mere knowledge acquisition. They emphasize that perceiving professional development as intrinsically linked to studying teaching can be transformative for teacher education culture. Additionally, they propose that schools be environments where both teachers and students actively learn.

These entrenched forces may have hindered the meaningful engagement of participants in the Lesson Study cycles, a crucial element for them to fully leverage the professional development potential inherent in this methodology (Byrum, Jarrell & Munoz, 2002). It is essential for educators to recognize and address these cultural influences to maximize the benefits of Lesson Study and foster a more dynamic and effective approach to teacher development.

3.1.2 Belief in the future of Lesson Study in Brazil

The interviews with the two researchers revealed an optimistic outlook regarding the acceptance and applicability of Lesson Study in Brazil under specific conditions. (Table 4).

Table 4. Prospects of Lesson Study in Brazil from the standpoint of the researchers

Researcher	Interview excerpt
R1	Not only do I think so, but I believe it's the way (...) I'll give you the example of schools that manage to improve the IDEB ³ (...) Teachers work collaboratively (...) Essentially, they conduct Lesson Study. It's easier if you ask, "Do I see a future for Lesson Study in Brazil?" I do! Everything depends on the if

³The Basic Education Development Index (IDEB) gauges learning quality across Brazil, informing national goals for educational improvement.

	(...) Conditions (...) That's all.
R2	<p>I do think that it has a great chance of being discovered by more people (...) I believe that, today, we can start working on spreading it, regardless of whether there is a change or not. Perhaps Lesson Study, by showing what it can contribute, might even strengthen, or create evidence that helps facilitate a change in aspects of the structure, understand?</p> <p>Knowing that Lesson Study promotes this and that, helps to develop this and that, but for it to occur more effectively, it needs a slightly more structured educational environment, allowing it to be just itself in its fullest form, you know (...) it's indispensable for it to happen, for it to occur with all its elements at their maximum, understand?</p> <p>Because we realize that Lesson Study needs that; it needs a space to happen, a space where teachers, you know, a timeframe, more meetings, more physical contact, you know. So, what I did in our research is a scratch, understand? Because it was just one cycle (. ...) So, obviously, many results are somewhat distant, perhaps far from satisfactory, considering what we see in the literature, but as I tell you, it needs a space.</p>

However, contrasting viewpoints emerged from participants in their studies. For example, IST1, in R2's study, expressed skepticism concerning the feasibility of implementing Lesson Study in the Brazilian public education system:

Implementing this in the classroom, within public education, is very complicated (...) because (...) there is already a significant shortage of English teachers (. ...) It is practically impossible, in the current system we have today, it is practically impossible to implement [this methodology]. We could take advantage of certain aspects (...) such as teachers (...) stepping out of the classroom, (...) teachers collaborating to plan (...) to address concerns, to discuss any issues that occurred in their classes. We need time for that, don't we? To implement [such a methodology], we need time, we need available personnel (. ...) And we don't have that in our current education system.

Similarly, a participant (PST1) in R1's study also conveyed less optimistic perceptions regarding the future of Lesson Study in the country:

It is necessary for these new methodologies to be encouraged not only by the teacher within their specific context, but the broader environment must also facilitate teachers seeking out new methodologies. Teachers must strive to step out of their comfort zones, but the educational environment in which teachers operate must also enable access to these new methodologies. It is futile for the teacher to seek it out; they will not find this support, they will not find this (...) support from the system, so to speak.

IST1 highlighted the challenges posed by a shortage of teachers and insufficient time, deeming the implementation of Lesson Study impractical. PST1 attributed this impossibility to the educational system's inadequacy in supporting teachers, necessitating educators to explore new methodologies without anticipating any backing from the system. In a similar vein, Lewis (2016) laments the ongoing difficulties of conducting Lesson Study experiments outside Japan. She argues that despite the increasing global interest in the methodology and its recognized potential to enhance continuing teacher education, no country, except Japan, has embraced the culture of activities involving this methodology.

During preparatory workshops, participants familiarized themselves with the functioning and reasons for the reputation and success of Lesson Study through video presentations. They had the opportunity, as reported by Lewis (2016), to witness the synergy with which different forms of the methodology function concurrently in its country of origin. In Japan, it is considered a widely known and anticipated routine, receiving substantial support for curriculum study during the planning phase.

Faced with this positive context, participants expressing disbelief in the success of implementations of Lesson Study in Brazil did so in comparison to the Brazilian educational landscape. Teachers, grappling with low pay and heavy workloads, carry out their teaching practices, compounded by the impact of societal disapproval on their self-esteem. These educators seem ensnared in the roots of the "unwanted-millennial tree," a metaphor used by Hitotuzi (2020, p. 56) to highlight the serious issues permeating the education system in Western Pará, without dismissing the possibility of their recurrence in other regions of Brazil.

Describing Lesson Study as a tool for teacher improvement, Mynott (2017) argues that this methodology should not be simplified. He contends that successful execution of Lesson Study requires skill from participants, coupled with the need for training and increased confidence developed through professional conflict.

The excerpts gleaned from the participants' statements indicate a comprehensive awareness of the intricacies, responsibilities, and commitment required for active involvement in the implementation of novel methodologies like Lesson Study. A closer analysis of these data also suggests that such an endeavor appears unfeasible within the demanding educational context they navigate. Looking ahead optimistically, however, there is potential for Lesson Study to gain traction in locations like Santarém-PA as stakeholders progressively acquaint themselves with it through persistent efforts to integrate it into their local educational landscape (Silva & Hitotuzi, 2020).

3.1.3 Stagnation in teaching practices

The theme of stagnation in teaching practices emerged consistently in both studies. For instance, IST2, a participant in R2's study, expressed, "Some points today, in my professional life, particularly in the classroom, I think I have around 60%, I would say, which are still very traditional, still have a lot of [outdated] stuff." IST1, from the same investigation, shared:

For [the students], on a day-to-day basis, they had a teacher in the classroom, typically just delivering content, and the students recording and trying to assimilate. This teaching system we have (...) doesn't offer many possibilities for us to work, you know (. ...) The limitations are significant, both in terms of teaching materials and physical structure (...) personnel itself, very high workload (...) So, we feel quite suffocated, and the demands are many, time is short.

Comments from TEFL undergraduates who participated in R1's study also hinted at negativity in their teaching practices. For example, PST1, while acknowledging some positive effects on case-students, commented, "the students who were not part of the case-students' group often demonstrated behaviors that we couldn't, didn't have the opportunity to deal with." PST2 deemed their classroom activities as "monotonous," and PST3 noted that, due to having "many classes" to teach, "it became unfeasible to go through the whole cycle [of Lesson Study]"; there was not enough time to "plan all the classes."

The scenario depicted, characterized by the mere dumping of content onto students who are reduced to mere recorders, engenders monotony. Traditional classes, typically overcrowded with many students, exacerbate the situation. This environment, compounded by a dearth of materials and recognition, both from students and the educational institution itself, paints a disheartening picture, as echoed in excerpts from most participants in both studies. This perception resonates with Bueno's (2007) findings regarding teachers in her research. The author notes that these professionals often find themselves relegated to menial tasks such as selling snacks or clothing at bazaars, a circumstance exacerbated by some teachers' poor mood and lack of engagement. Xavier (2014) similarly highlights the plight of Brazilian public school teachers, who frequently grapple with a dual burden: an escalating workload coupled with inadequate support infrastructure.

The array of shortcomings identified in the interview excerpts may prompt questions about the need for preparation that extends beyond the immediate context of implementing new methodologies for teacher professional development. Preparation solely aimed at acquiring competencies and skills, enabling the members of a Lesson Study team, for instance, to execute all relevant steps in a cycle of such a methodology, will face challenges in a context weakened by fruitless practices maintained by forces beyond control through mere goodwill.

Reflecting on the implementation of this Japanese methodology in realities as discouraging as those described in the interview excerpts, Chenault (2017) notes that Lesson Study does not have the power to bring about instant changes in teaching. Instead, it can be a means through which educators, over time, can have the opportunity to learn and work together to achieve common goals for improving student learning.

3.1.4 Researchers' supportive relationship with participants

The participants' statements in both studies clearly reflect a supportive relationship with the researchers. For instance, IST1, acknowledging R2's theoretical preparation, emphasized the dialogical exchange and mutual learning: "We engaged in a knowledge exchange because, having extensive classroom experience, we could share valuable insights with him (...) He possesses a strong grasp of the theoretical aspect, and reciprocally, we significantly contribute to the practical dimension." IST2's remarks further validate R2's openness to dialogue based on past

collaborations: “We had previously collaborated in PIBID, you know. Consequently, he was approachable and very amiable.”

R1’s supportive approach is also prominently featured in the statements of the TEFL undergraduates who participated in her study, as outlined in Table 5.

Table 5. Preservice teachers’ perspective on researcher support during Lesson Study implementation

Preservice teacher	Interview excerpt
PST1	During the project execution, we experienced a change of pace, you know. There are parts of the project that are easier to execute, more challenging parts, and she was very understanding (...) about making us understand. Certain aspects of the project were somewhat alien to our perception (...) that went unnoticed (...) sometimes, some observations she made went unnoticed; she would go back, redo these observations so that we could perform at our best (...) she was well-articulated (...) There was no major friction (...) So, let’s say the relationship was friendly.
PST2	A very (...) good relationship, I think also friendly because (...) from the beginning, P1 helped us understand what Lesson Study was, because we didn’t know. And from that moment, she took various moments to teach us, to create material that we could understand [the methodology]. We could even go to meetings and say that (...) it didn’t work because we could have done it this way, you know (...) I think we had that communication bridge.
PST3	We could use the material, you know (...) possible student responses (...) She assisted us in every step, you know (...) In the meetings, she was present, although in some, she (...) didn’t intervene because (...) that’s how it was, you know (...) But she was there as an observer, you know (...) In every step, she was present, always there, assisting us.
PST4	There were times she would give us a question, and if we couldn’t think, if we couldn’t develop that question, she would throw other questions at us to try to find the way. I found that very cool (...) she was always very present.

In the nascent stages of implementing teacher professional development methodologies, a collaborative practice aspiring for success necessitates ongoing support from team leaders. This support becomes especially crucial when considering Fernandez, Cannon, and Chokshi’s (2003) argument that Lesson Study harbors the potential to steer teachers toward novel practices and attitudes. It provides a comfortable milieu for educators to discuss challenging ideas concerning their pedagogy and the subject matter they teach, as evidenced by the excerpts in Table 5. Participants noted and valued the collaborative environment fostered by this methodology, a quality categorized by Perry and Lewis (2003) as integral for Lesson Study to contribute meaningfully to teaching improvement. The support detailed in the excerpts offers insight into the researchers’ dedication to achieving success in their experiments, resonating with the collaborative ethos emphasized by Hargreaves and Fullan (2012) in their discussion on professional capital. This alignment underscores the significance of ongoing support structures in facilitating meaningful transformations within teaching practices.

3.1.5 Evolution in teaching practice

The implementation of Lesson Study in Santarém-PA has evoked a sense of development in the teaching approaches of the participants under study. The excerpts presented in Table 6 provide a glimpse into various dimensions that both pre- and in-service teachers identify as enhancements in their practice, emerging from their direct experiences with the methodology.

Table 6. Impact of Lesson Study cycles on teaching practice

Teacher	Interview excerpt
IST1	After I started to get acquainted, it opened up a range (...) of ways, how we could work, how to give a lesson (...) and this made it more productive for the student. So, it was a different class altogether, you know, with dynamics, and they felt very motivated, and they liked it.
IST2	What has changed now is that I can always reassess (...) The same content that I present in one class, I can observe if they accept it well or not, and in the second class, I always change. I have learned to reassess constantly how I deliver content to students. Today, I try, I try to innovate.
PST1	[The experiences with Lesson Study] were positive in the sense that (...) students departed from the standard classroom structure they had in school and showed great interest in different methodologies we used (...) visual methodologies (...). We started using [projectors] in the classroom, and they liked it. We began to use (...) excerpts from movies (...) from TV series, and this brought about a change, you know, in the everyday classroom. They became more interested in the class, in this audiovisual aspect.
PST2	Throughout the research application, they had the opportunity to come into contact with different methodologies, different classroom structures, and we always (...) didn't cover the same content, so the Lesson Study cycle provided them with the opportunity to come into contact with [new teaching methodologies]. I think [working with Lesson Study] was well-received because there was no resistance, I believe, in that sense, because, whether we liked it or not, they had this need for a more dynamic class, a class that went beyond the norm, so I think that fit well at that moment. I think we managed in that short time [to interact] more with them, at least to seek more about the subject or understand that it is also important.
PST3	Right after we finished with Lesson Study, (...) the cycle became very ingrained, I think not only in me but also in the other colleagues (...) because we used to discuss, you know, what we would take to the classroom before and, after applying, we would discuss again (...) This cycle of Lesson Study, discussion, (...) preparation, application, and then that discussion again became very strong. We felt a very positive change because all our classes were very playful, (...) it wasn't just the board, notebook, board, and notebook, book (...) they were very playful, we brought videos, music, (...) games.
PST4	When we made lesson plans for college, when there was a class we needed to teach during the practicum, I also used the Lesson Study lesson plan. Today, I live a lot by Lesson Study because I don't work inside the classroom, together with PST3, but we work a lot in partnership, so we do a lot of what we did in Lesson Study (...) No, PST3, if we do it this way, it looks nice [...] No, PST4, this way is good and all, we're always there, helping each other (...) So I think the professional has to adapt to the environment they are living in, you know, because otherwise, they fall behind.

The excerpts presented in Table 6 provide valuable insights into participants' perspectives on the evolution of their teaching practices, both during and after their involvement in Lesson Study cycles. They attribute this progression to enhanced planning, resulting in more thoughtful, elaborate, and engaging lessons. The importance of thorough and high-quality planning, as advocated by Widjaja et al. (2007), emerges as a critical factor contributing to teachers' professional growth.

Moreover, within the excerpts where this theme surfaces, there are noticeable perceptions of improvement in teaching practices, exemplified by one participant's acknowledgment of the need for reflective teaching practice and innovation. Additionally, the positive impact of new teaching methodologies on students is evident, accompanied by an increased diversity of content and dynamism in lesson preparation. This recognition aligns with the analogy presented by Weeks and Stepanek (2001), likening the teaching profession to a polar exploration that demands rigorous training.

These observations vividly illustrate the outcomes derived from the Lesson Study approach. As pointed out by Cerbin and Kopp (2006), this methodology involves the meticulous development of a comprehensive and pragmatic plan, complemented by a thorough exploration of lessons that critically examines interactions in teaching and learning. The significance of this approach lies in its efficacy in elucidating students' responses to instruction, facilitating the

identification of areas for improvement, and enabling the modification of instructional strategies based on evidence collected throughout the process.

4. Conclusion

We undertook this investigation with the aim of exploring the perceptions of researchers, pre- and in-service EFL teachers who engaged in Lesson Study cycles in Santarém-PA. The findings provide valuable insights into the perceptions of researchers and participants. The identified themes contribute to a modest but essential understanding of the impact and challenges associated with the implementation of Lesson Study in both initial and continuous EFL teacher education in Northern Brazil.

Contrary to initial concerns about a lack of investigative posture among participants, the interviews with preservice and in-service teachers revealed some understanding of Lesson Study's operational intricacies. Participants demonstrated descriptive knowledge of the methodology's stages, objectives, and operational aspects, even a year after the investigations had been concluded. While this does not imply adequate preparation, it underscores the participants' capacity to internalize Lesson Study concepts.

The researchers expressed optimism about the acceptance and applicability of Lesson Study in Brazil, emphasizing its potential for collaborative teacher work and improvement in the education system. However, contrasting views emerged from participants who pointed out challenges, such as teacher shortages and time constraints, casting doubt on the feasibility of widespread implementation. These conflicting perspectives underscore the need for a comprehensive understanding of the Brazilian educational landscape and the potential hurdles faced in introducing innovative methodologies.

Both studies consistently revealed a theme of stagnation in teaching practices among participants. Participants, particularly in-service teachers, expressed frustration with traditional teaching methods, high workloads, and inadequate infrastructure. The challenges identified in the teaching environment, including monotonous lessons and insufficient recognition, resonate with broader issues in the Brazilian education system. This underscores the need for a more comprehensive approach to teacher professional development that addresses systemic challenges beyond methodological innovations.

The participants acknowledged a supportive relationship with the researchers, emphasizing mutual learning and a collaborative environment. The researchers, on their turn, played a crucial role in facilitating dialogues and providing theoretical and practical support. The positive collaboration observed in both studies aligns with the collaborative nature of Lesson Study and foregrounds the importance of ongoing support in the early stages of implementing teacher professional development methodologies.

A notable positive outcome of Lesson Study in Santarém-PA was the perceived evolution in teaching practices among participants. Both preservice and in-service teachers reported improvements in lesson planning, increased engagement, and a diversified approach to teaching. The impact on teaching practices aligns with the goals of Lesson Study, emphasizing the significance of thorough planning and the exploration of innovative teaching methodologies. This positive transformation indicates the potential for Lesson Study to contribute meaningfully to professional development in the local context.

Lesson Study in Santarém-PA presents a complex picture with both challenges and positive outcomes. While participants demonstrated a reasonable understanding of the methodology, challenges related to the Brazilian educational landscape, teaching practices, and systemic issues require careful consideration. The supportive relationship between researchers and participants and the observed evolution in teaching practices offer promising avenues for further exploration and refinement of Lesson Study as a valuable tool in the Brazilian educational context.

Further research

As this study focused on perceptions within a specific context and brief timeframe, therefore limiting generalizations, longitudinal studies could track changes in participants' perceptions and practices over an extended period. Research could explore the effectiveness of specific strategies for addressing systemic challenges and fostering supportive environments. Comparative studies with different contexts could provide further insights into factors influencing Lesson Study's implementation in Northern Brazil.

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