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General Didactics meets Subject Didactics: Lesson Study at the Intersection of Two Academic Fields¹

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Abstract

General and subject didactics in Japan have played various important roles in policymaking, academic research, and teacher training. Nevertheless, opportunities for collaboration between them have been limited. Meanwhile, lesson study – a series of activities for lesson development and reflection including planning, observing, and evaluating lessons – opened an arena where these two fields meet and intersect to bring new insights into lesson development and reflection. This article aims to clarify how lesson study could bridge both fields. The historical development of Jugyou Kenkyuu in Japan is first reconstructed in order to extract theoretical frameworks valid in the lesson study discourse. We then present lesson study practice at School X where researchers from general and subject didactics collaboratively joined the lesson study, examined their own role arrangements, and found distinctive self-dispositioning. The case revealed several major modes of collaboration including complementary relationships, different communication styles, and integration. The article ends with a reflection on further perspectives for future work in lesson study.

Keywords

Lesson Study, school-based teacher education, general didactics, subject didactics, cognitive and collective process

¹ In Japan, there is no consistent use of terms “pedagogy” and “didactics” when one describes academic fields for systematic inquiry on goals, methods, contents, and evaluations of teaching and learning. While subject pedagogy researchers identify themselves as subject pedagogy, general didactics researchers do not name their field “general pedagogy”. General pedagogy can rather be understood as a broad academic field that also encompasses educational philosophy and sociology of education, and is not limited to the study of lesson practice. In more precise terms, an academic field known as *studies of educational methods*, to which the authors of this article belong, have accumulated lesson study practices and developed academic structure that derived much from Allgemeine Didaktik of East and West Germany. However, studies of educational methods do not make sense in international academic discourses. Thus, the contrast between *general pedagogy* and *subject pedagogy* does not make sense as well as that between *studies of educational methods* and *subject pedagogy*.

In our research, following the context of Allgemeine Fachdidaktik in German-speaking countries, we will refer to *studies of educational methods* as “general didactics” in the sense of *Allgemeine Didaktik* and to studies of content-based teaching and learning as “subject didactics” in the sense of *Fachdidaktik*. The terms “general didactics” and “subject didactics” are not commonly used in Japan. Nevertheless, we have decided to draw on these “European” terms for illustrative reasons so to highlight the closeness of the relationship between both concepts and to make it easier for readers outside of Japan to understand the fundamental structure of Lesson Study.

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1 Introduction: What is the Purpose of Lesson Study?

How can educators reflect on their own educational practice, make pedagogical sense of their activities, and improve their educational practice? *Jugyou Kenkyuu* – the Japanese term for lesson study – has been continuously and systematically addressing issues of how to improve the educational practice and the professional development of educators (Kim et al., 2021, Lewis & Hurd, 2011, Seleznyov, 2018, Stigler & Hiebert, 1999). It is now attracting global attention and introducing international audiences to the World Associations of Lesson Studies. It not only is deemed as an effective academic framework for inquiring about the improvement of teaching practice but is also gaining worldwide attention for the practical development of teaching and schools.

Lesson study is a composite field of general didactics and subject didactics in the sense that they target “teaching in a classroom”. While both didactic traditions have developed specific interests and theories respectively about teaching and learning in school, independently from one another, they often “meet” together at the intersection of lesson study to contribute to lesson. Lesson study has had a long-standing history since the post-war democratization process in Japan, where it was necessary to develop educational content under the banner of teacher autonomy versus the central government and to realize independent grassroots curriculum construction in schools. Throughout the post-war era until today, lesson study has always needed general didactics and subject didactics to work together for teachers to create their own practices by relativizing the national standard of educational content (Usui & Ueno, 2011). Three points can be articulated regarding the relationship between general and subject didactics.

First, lesson study has been conducted for all teaching and learning activities in school curricula. In Japan, the term for “lesson” includes both curricular (school subjects) and extra-curricular classes. Teachers and scholars implement lesson studies for all subjects and non-subject classes, where both subject and general didactics researchers are involved beyond the boundaries of individual school subjects.

Second, in many schools in Japan, lesson study is conducted as an in-school training program not only to improve single targeted lessons, but also to improve collaboration among teachers. Subject didacticians naturally play a key role in improving the teaching of subject-matter. However, lesson study does not limit itself to the realm of subject didactics, rather, lesson studies on one specific subject tend to elevate the view on much broader topics on education in general, involving general didactics. Subject didactics researchers frequently engage in discussions about other subjects and contribute to conversations on school development that extend beyond their specific areas of expertise. Likewise, general didactics researchers also get involved in the same manner. As such, lesson study as in-school teacher training offers an arena for integrating general and subject didactics.

In addition, lesson study is a *movement* where teachers and university researchers collaborate. Ohnishi, a Japanese language teacher pointed out as early as 1967 that “two things are the content of the teacher's instruction in the classroom: the teaching of the subject content and the teaching of the group of children” (1967, p. 165). Ohnishi argued for both aspects, namely subject matter and classroom development as a learning group, the latter being deeply influenced by theories of general didactics. Accordingly, Ohnishi and other scholars were heavily involved in discussions regarding the importance of mastering subject

content through a collective teaching/learning process within the classroom (Fukazawa, 2017). Such lesson study practice is currently highly appreciated and studied among international scholars in the context of teacher professional development, such as Shulman's Pedagogical Content Knowledge, both in Japan and worldwide (Sato, 2016; Mapulanga et al., 2023).

General and subject didactics share the common goal of improving lessons and advancing related research. Lesson study lies at the intersection of these efforts. However, there is no literature observing and describing precisely how these two didactic approaches interact in detail or how they are interconnected in Japanese lesson study. As long as this is the case, the basic assumption put forward in this article is only a hypothesis yet to be substantiated by empirical data. In addition, lesson study practitioners are observing widening gaps between the two fields. In Japan (e.g. Watanabe et al., 2024) as well as in Europe (e.g. Rothgangel & Vollmer, 2020), we can currently testify to a strengthening of all subject didactics, which are uniting in their attempt to gain a more general perspective on teaching and learning by themselves (named General Subject Didactics, cf. Vollmer & Rothgangel, 2024). Given these conditions and developments, it is hoped that the reconstruction of the history of Japanese lesson study as the intersection of both fields, with examining a current lesson study practice, will bring about a significant contribution to subject didactics, general didactics, and research of lesson studies.

For a fresh look at what scholars from both fields can contribute to professional development and academic advancement, this paper aims to illustrate lesson study as a point of contact between general and subject didactics. To achieve this goal, the study first reconstructs the historical development of lesson study in Japan in order to arrive at grounding theories and basic concepts relevant for the collaboration between both didactics. Among many conceptions in history, this study will focus on how didacticians discussed “unification” of *cognitive* and *collective* processes, as introduced as a concept by Ohnishi mentioned above. Lesson study tradition understands *cognitive* processes as the learning of the lesson content, which is supported by a teacher’s meticulous preparation and deep understanding of the content, the teaching materials and the subject disciplines. *Collective*² processes on the other hand stand for a pedagogical concept that each lesson must also encourage students to support each other in acquiring the content together. Lesson study tradition pays attention to the fact that students “live” in the classroom, with difficulties and conflicts including academic gaps, difficult human relationships, and social backgrounds. Thus, lesson study teachers are convinced that students need to learn how to live with others in the lessons themselves, which goes far beyond the mere acquisition of specific academic content and skills (cognitive process). This idea of a binary process of simultaneous cognitive *and* collective activities at may have something in common with the classical theory of Herbart’s *Erziehender Unterricht*, which emphasizes fostering morality through knowing something³. Hence, it is argued that

² Authors are aware of the unusual pairing of the term collective with cognitive, but this study adheres to the original meaning as developed within the lesson study tradition. Lesson study had been heavily influenced by East-German Didaktik and Vygotskian psychology from the USSR. In contemporary discussions, alternative terms such as communal or social are also utilized. With these words, lesson study tradition described interactive nature of teaching and learning in school lesson.

³ Herbart’s *Erziehender Unterricht* is a common ground for all the discussions regarding the unification of cognitive and collective processes. Nonetheless, morality, the target of *Erziehung* by Herbart has been differently interpreted in Japanese lesson study contexts. By moral development or *Erziehung*, traditional

the cognitive process must be connected to the collective process, the former of which can be learned or studied with the help of subject didactics, and the latter of which may be topicalized and cultivated (more) by general didactics. As such, an integrated view on cognitive and collective processes can be a good focus for looking at the history of lesson study and for finding connections between the work of general and subject didactics. This conception has been repeatedly and intensely discussed throughout the history of lesson study; the integrative, yet binary processes of knowledge acquisition and classroom socialization can illustrate the unique roles of the respective didactic traditions in analyzing and theorizing learning (cognitive for subject, collective for general didactics). This binary process is assumed to be unified or at least interconnected, so that on the research level the need to bring both traditions together is obvious and necessary. Accordingly, the different theories and concepts from the two fields will then be jointly applied to the case in question, to a specific lesson in a specific subject area. This study will clarify this point through a case retrieved from School X.

2 History of Lesson Study: Intersection of Two Academic Fields

This section provides a historical perspective on lesson study in Japan to demonstrate the comprehensive picture of lesson study and also to identify basic concepts that lesson study participants have repeatedly confirmed. To reconstruct the history, the establishments of *academic associations* that many researchers and teachers joined (2.1) and the role of lesson study in pre-service and in-service *teacher education* (2.2) are relevant. The last section (2.3) summarizes basic concepts for integrating general and subject didactics that serve as a framework for inquiring the case in the next section (3).

2.1 *The Ambiguous Boundaries between General and Subject Didactics in the History of Lesson Study Movement*

From the 1960s onward, lesson study developed as a voluntary research movement among teachers and researchers who worked to organize subject based educational content and teaching materials. The Council for Mathematics Education was one of the first associations that organized subject matter and teaching materials from the perspective of “combining science and education” in response to the “modernization of education”.

This Council aimed to integrate the paths of development of children's cognition with cultivating their human development through integrating the achievements of modern mathematics. This happened in response to contemporaneous arithmetic education, which was characterized as rote arithmetic. It compiled its own textbook *Everybody's Arithmetic*, seeking to systematize calculation methods with the concept of quantity as the core concept for arithmetic understanding. Hiraku Toyama, an opinion leader of the Council, regarded arithmetic/mathematics not as the “study of numbers”, but as the “science of structure,” stating “structure, in other words, is the pattern or type of things. Human beings are capable of thinking in patterns. Mathematics tends to develop such abilities in *human beings* in particular” (Toyama, 1971, p. 87). Thereby he saw the role of mathematics education in

lesson study practitioners meant that children ought to help others. Autonomy has thus a different connotation from its original definition by Kant and Herbart, namely that autonomy shall be well grounded only by groups, but not individuals.

human development. As a mathematics educator, Toyama integrated general perspectives into mathematical content-oriented perspectives.

In this context, research in lesson study practice began to accumulate knowledge on general = subject didactics in an integrated manner. In 1962, researchers at five universities in Japan (Hokkaido University, University of Tokyo, Nagoya University, Kobe University, and Hiroshima University) formed the "Five-University Lesson Study Group." The joint research by the five universities was carried out by exchanging the specific subject matter content, teaching methods and materials for lesson study, aiming to "scientificate" lessons in school and to establish didactics which blurred the boundaries between general and subject. The main approaches for planning and teaching were divided into two categories, the *cognitive* and the *collective process*. Lesson was understood as the "unification" of both processes (Fujiwara, 2000, p. 70). In 1963, the National Council for Lesson Studies was established, consisting of *practitioners* exploring the process of children's cognitive and collective development as well as developing teaching materials and lesson plans. In August 1964, the founding of The National Association for the Study of Educational Methods emerged as an *academic* undertaking; and ever since discussions regarding these two major groups and approaches have been intensively worked out.

The strict separation between general and subject didactics did not occur to the researchers' and teachers' minds at the time. As Ohnishi stated, both subject specialists and general didacticians were accustomed to inquiring about the double process of cognitive and collective in one lesson. It was later pointed out that collaboration between them was necessary after subject didactics developed their own societies and academic structures specialized in cognitive approaches apart from its general perspective. It was nevertheless pointed out that collaboration might be possible when one began investigating the problem of teaching from the standpoint of each subject and progressed toward the common principles that can transcend the boundaries of each subject (Hisada, 1981). While subject didactics concentrate on specific discussions on the didacticians' area of expertise without necessarily including a higher viewpoint such as human development within their own field, they were aware that they had to keep up with those more *general* insights. General didactics researchers on the other hand, also followed the similar path: While they left general thoughts when they observed lessons, they also tried to leave comments on specific issues of individual school subjects. As such, both didactics researchers were accustomed to transfer specialized knowledge of one subject to others.

Even in current discussions, the pursuit of integrating general and subject didactics in lesson study is considered unavoidable. The book *Subjects and Their Essence* by the Japan Curriculum Research and Development Association [JCRDA] (2020) contains a record of a conversation between Sato, a scholar of general didactics, and Ikeno, a scholar of subject didactics. In the conversation, opinions were exchanged about what subjects are and should be. According to Sato, subject didactics is not only about curriculum development, but also needs interdisciplinary collaborative research to enrich the experienced curriculum of children's learning. In other words, Sato suggests that deepening insights into one particular subject matter will ensure a higher viewpoint on the general thoughts on subjects and education. In response to Sato's proposal, Ikeno suggest commonalities between general and subject didactics, arguing that lesson study is at the core of educational practice in schools.

When examining the history of lesson study, it could be concluded that general and subject didactics share very much of the arena in lesson study practice in terms of inquiry on cognitive and collective processes in school lessons. It can be said that the boundaries between these two traditions and academic viewpoints *were* ambiguous. We do not claim that these two fields have been dependent or failing to design academic disciplinary structures each of their own. Nevertheless, the history of lesson study in Japan shows that both fields are sharing much common purpose in developing meaningful lessons.

2.2 The Distinctive Roles of General and Subject Didactics in Lesson Study by Pre-service and In-service Teacher Education

Teacher education in Japan has a close connection to lesson study. Following the post-war democratization of education, teacher education underwent drastic changes. Pre-service teacher education was conducted exclusively by universities regardless of national and private schooling, where academic independence was most emphasized. Faced with the issue of who would take over responsibility in teaching subject didactics for each subject, the Japan Association of Colleges of Education claimed that teaching methods courses should be situated at the intersection of general didactics and subject-related studies. This reform led to the establishment of an independent academic discipline dealing with teaching methods in specific subjects, known as subject didactics (Tanahashi, 2017, cf. also the first contribution in this volume by Kusahara & Kawaguchi).

In university teacher training programs, general and subject didactics are usually handled by different courses and different persons. Basic theories of education are primarily provided by general didactics, whereas lectures on teaching methods for each subject are offered by subject didactics, where students mainly learn practical theories such as lesson planning and case analysis in actual educational situations. Pre-service teacher education is assumed to have assigned very different roles and positions to these two fields. While students need to go through both general and subject didactic courses, professors have less opportunity to collaborate, which consequently leads to the separation of these two fields. Meanwhile, lesson study-based practicum is the only exception that played a bridging role in mitigating this separation (cf. Kawaguchi & Watanabe, 2021). Practicum candidates are required to plan the lesson, conduct it, and reflect on the practice based on self-made frameworks and research questions. Professors from general and subject didactics (accompanied by school-based teacher educators) need to join this lesson study and contribute to the practicants' effective growth, enrich the experience and attain effective research approaches.

Conversely, lesson study emphasizes the professional development of in-service teachers as well. As expected in pre-service training, researchers from general and subject didactics must contribute to teachers' professional development. While they could compete against each other in research production or in administrative issues at universities, they must cooperate in the case of lesson study and concentrate on providing effective knowledge. Kim et al. (2021) summarize the role of researchers in in-service teacher education, namely (i) elaborating the skills and perspectives for future in-service professional development with lesson study, (ii) cultivating critical reflection on teaching models, subject didactics, and curriculum making both from top-down and bottom-up, (iii) constructing a personalized understanding of subject teaching, and (iv) creating communities that support lesson improvement and personal as well as professional growth. The lesson study-based teacher training is a package that encompasses all of these aspects but emphasizes the diversity of participants from different

research backgrounds to provide a variety of pedagogical perspectives so that lesson study participants may expectably integrate them by their own interests: one teacher may resonate with subject content inquiry, while another could be inspired by comments of understanding on children by of general didacticians. Lesson study is, therefore, a platform where general and subject didactics (and even more perspectives) intersect; they submit unique interpretations on teaching in general, based on respective research accumulations, they interact, compete, and relate to one another up to the point of “uniting” their views and evaluations (Kim & Kusahara, 2021), Lesson study, therefore, bridges the gap between subject pedagogical knowledge and general pedagogical knowledge.

Such multiperspectivity in lesson study in the historical context of teacher education can be understood in the way of allowing general and subject didactics to submit their unique perspectives, which might be very distinct, but sometimes also similar.

2.3 Theoretical Reflections on the Reciprocity, Integration or Synthesis between General and Subject Didactics

The former two sections argued two sides of relationship between general and subject didactics: unseparated side in lesson study movement and separated role in teacher education. In any case, the relationship between general and subject didactics in Japan has developed through lesson study. The fact that these two fields inquire the same object, namely the lesson, may be the reason why they have cooperated, concurred, disputed, criticized each other but always remained in dialogue. If one wants to expand the scope, it is however revealed that they share very same objects including curriculum, goal-content-method-evaluation, competency, history of school education, teacher attitudes and behavior, mental processes of learning, board writing, classroom management, spatial arrangement within classroom, qualitative data in classroom, quantitative data in schools, teacher judgements, textbooks, group dynamics, comparing national curricula in other countries, etc.

This section will now examine a theoretical reflection on the relationship between general and subject didactics. Fukazawa, a general didactics researcher, once published a contribution in the handbook of research on subject didactics, in which he maintained the reciprocal relationship between them as the nature of disciplinary structure. “Just as it is impossible to describe the generality and universality of lessons in general didactics without considering the individuality and uniqueness of subjects, it is impossible to consider the individuality and uniqueness of a lesson in respective subject didactics without considering the generality and universality of theories of lessons. They both are said to be in a reciprocal and complementary relationship.” (Fukazawa, 2017, pp. 24–25).

Fukazawa suggests the possibility of a “higher synthesis” between general and subject didactics into a common didactic foundation as well the scientific evolution of each subject didactics. He focuses on three points for its realization. First, both fields can find common ground in textbook research by examining outcomes of subject pedagogical research from the perspective of general didactics and vice versa (e.g., Yoshida, 2015). Second, Fukazawa suggests the relationship between subjects and human development, quoting classical studies in subject didactics that identified themselves as “the study of the dynamic transformation of human development” beyond respective subject didactics (Ebiya, 1976, p. 5). The primary issue is how to envision the relationship between subject and morality, that is, the relationship between individual subject matter content knowledge and human development. Finally,

Fukazawa emphasizes the importance of a collaborative examination of the “essence of the subject,” which can also be found in the dialogue between Sato and Ikeno.

In spite of variations, the historical reconstruction reveals that teachers and researchers involved in Japanese lesson study have sought *reciprocal* communication, *integration*, *unification*, or even *synthesis* towards a higher standpoint between general and subject didactics. Not only did it offer them several arenas including school-based lesson study, organized associations, and teaching practicum in pre-service teacher education that allowed tense communication, but lesson study also developed theoretical reflections for integrating these two fields. As indicated before, Japanese lesson study throughout history has understood the lesson as an integration of two processes: the *cognitive* process in which children acquire the subject content of lessons and the *collective* process in which they enrich their relationships with others in the classroom for participating in learning about the content. It proposes a view of the lesson in which the collective process must contribute to deepening content knowledge or content understanding (cognitive process); accordingly, one must see support from others in group dynamics behind one’s cognitive attainment. “Learning in a lesson is not just the mastery of knowledge and skills, but is a subjective and scientific thinking process and recognition that is connected to one’s personality. It is then a collective thinking process because one develops his own thoughts through integrating others’ thoughts” (Yoshimoto, 1975, p. 88). This statement exemplifies the need for both scientific approaches from subject and general didactics.

These remarks provide a theoretical perspective to examine the current situation. How do and could these two fields collaborate, complement, and integrate more concretely in lesson study? The next section will examine how general and subject didactics collaborate with regard to lesson study practice through case studies.

3 Collaborative Lesson Study by General and Subject Didactics

3.1 Data collection and analysis process

The case was retrieved from a fifth-grade social studies lesson at Elementary School X in Hiroshima. This lesson was held on May 29, 2024. The lesson was conducted by Teacher N with 32 students. Z and J as researchers, another general didactics researcher, two researchers from Switzerland, and eight graduate and undergraduate students participated.

This case was implemented within the framework of a project to create an international and multi-disciplinary platform for educational research through lesson study. Under this research project, a general didactics researcher Z and a subject didactics researcher J invited lesson study researchers from Switzerland to Japan and sought the chance to join the lesson study, which Teacher N at School X voluntarily accepted. Teacher N had already undergone a lesson study with Z and N.

This social studies lesson dealt with the theme “We Live in an Information Society” as part of a fifth-grade elementary school unit, “Relationship between Industry and Information.” In the “Course of Study for Social Studies,” the objectives of this unit are “to understand that industries such as broadcasting and newspapers have a great impact on people’s lives” (Ministry of Education, Culture, Sport, Science and Technology [MEXT], 2018, p. 87) and “to realize the importance of making a correct decision as a receiver and having responsibility as

a sender" (ibid., p. 174). Teacher N attempts to achieve the abovementioned goals from the perspective of "realizing an inclusive society." He was originally interested in the theme of inclusion and inclusive society and had developed lessons regarding this theme in social studies. He states a goal for this lesson: "to think about the roles and issues of media in our lives from the viewpoint of inclusion and exclusion." To achieve this goal, he picked up a radio broadcast dealing with multilingual and multicultural content about minorities and asked a *main question*, "Why does this radio broadcast focus its content on foreigners, minorities, and people with disabilities?". Right after the lesson, a post-lesson conference was held, with comments and advice from Z and J.

The collected data are the following: Transcripts of the recorded post-lesson conference, small survey distributed to Z (general didactics) and J (subject didactics for social studies). Survey asked following questions: 1: their opinion on N's lesson plan, 2-1: cognitive processes, 2-2: collective processes, 2-3: supplementary question about teacher questioning, 2-4: general remarks on lesson, and 3: role distinction/self-dispositioning in this lesson study.

Questions were settled as follows. [] are added here to explain why we asked.

1 How did you see the lesson plan, and what did you think about the lesson plan after seeing the actual lesson? [comments on teacher N's perspective]

2-1 Do you have any comments regarding the teaching of the subject content and the actual children's learning? [cognitive process, mainly subject didactics aspect]

2-2 Do you have any comments regarding the instruction on classroom building and the actual children's learning? [collective process, mainly general didactics aspect]

2-3 Do you have any opinions or comments on the teacher's questioning in this practice? [supplementary questions for general didactics aspect. *not the focus for this study]

2-4 Do you have any other opinions or comments regarding this lesson study?

3 Through the post-lesson discussion, what do you think are the differences in perspectives and roles (differences, commonalities, etc.) between subject didactics and general didactics (studies of educational methods) for lesson study? [role distinction and self-dispositioning in lesson study]

To analyze the transcript data of the post-lesson reflection meeting, we first extracted the comments by Z and J and categorized them according to cognitive and collective processes. By highlighting the distinctive quality in each comment, we attributed those comments to the two fields of general and subject didactics. Regarding the survey, it was investigated how these two researchers, specializing in general and subject didactics respectively, collaboratively participated in lesson study. From these responses, we analyzed the similarities and differences between general and subject didactic views and how they contribute to lesson study. Quotes from the post-lesson conference are shown as J## and Z##, and the ones from the survey are shown as QJ## and QZ##.

Based on these responses, we analyzed the similarities and differences in contribution to lesson study between general and subject didactic approaches.

3.2 Findings

As discussed in the historical reconstruction and theoretically anticipated, cognitive and collective processes form the basis of a lesson. They function well to distinguish between the respective research interests and their focal points in subject and general didactics. J (subject didactics) largely committed to the comments and reflections regarding the cognitive processes on subject content in the lesson, including categories such as “safety and secureness in society” (QJ1, J145), “effective utilization of tools” (QJ1, J73), and “theoretical interpretation on subject didactics” mentioning dichotomy between justice-oriented and tolerance-oriented learning activities, feminism, inclusiveness in subject didactics (J61, J93, J58). Although Z (general didactics) also mentioned some observations regarding the cognitive processes in the lesson, he rather focused on “the function of the main question for activating all students in the classroom” (Z132), and “self-organization of learning activities by children” apart from the teacher’s guidance (Z128, Z142), which are categorized under the label of collective processes.

Based on the general remarks, we found out that both researchers were aware of each other’s disposition regarding their own roles.

3.2.1 Complementary Relationship between General and Subject Didactics

While the difference in the academic standpoint of general didactics or subject didactics (here: social studies) is reflected in their comments and the survey, they do not stand on antagonistic grounds, but rather see each other as complementary.

Researcher J made his comments from the perspective of the “citizenship education theory” on which his social studies didactics was based (J145, J157). The concrete image of an “inclusive society” may vary depending on whether it is oriented toward “tolerance” based on liberalism or “social justice” based on republicanism. Therefore, in his mentioning of these two concepts, we can see that J places importance on the “cognitive process” of “how to make children understand an ‘inclusive society’” and the teaching materials to guide this understanding.

However, Z rather referred to the question of the actual lesson, especially the “self-organization of learning activities” by children (Z128). Z described one scene in which the teacher wrote the main question on the board, and children suddenly shouted, “This sentence is too long!” (lesson protocol 128). Z suggested his interpretation that this should be understood as students’ call to form their own community beyond being driven by the teacher’s direction (Z132). In other words, Z’s comment illustrates an emphasis on the “collective process” through building better relationships by exploring a better question.

Furthermore, the survey reveals that Z and J themselves are aware of the abovementioned differences. Z commented, “I was clearly aware of the differences in expertise and assumptions on which to view a single class. [...] Although mutually intervenable, there is no meaning in interfering. As long as both academic positions do not close their areas to avoid interference, I felt that a greater emphasis on one’s own research stance and expertise would be beneficial because we could present multiple perspectives on a single lesson.” (QZ6). J also stated, “What objective is prioritized in the analysis and interpretation of a lesson depends on how the lesson is viewed. That means the difference between subject didactics that sees a ‘goal-content-method’ relationship and focuses on coaching the teacher, and general

didactics that emphasizes a ‘teacher-material-child’ relationship which focuses on understanding the lesson” (QJ6).

We note that the differences in comments do not represent an adversarial relationship, but a complementary one made with an understanding of their respective theoretical frameworks. “Present[ing] multiple perspectives” is possible when general and subject didactics bring their own specialized insights, which expectably enable beneficial discussion in lesson study for the sake of the teacher in front of them.

3.2.2 Different styles in communication with Teacher N

The survey also revealed a difference in the way they communicate with teachers. To state the conclusion first, on the one hand, the characteristics of general didactician Z can be described as *demand, as the expectation* of the teacher’s growth, while J took the consistent role of *advising* the better lesson.

Z described the lesson plan stressing N’s longstanding effort, stating “I read the lesson plan as a synthesis of N’s longstanding research on social studies focusing on inclusive society, namely his inquiry examines how social studies lesson can approach to the inclusiveness” (QZ1). The reference to “N’s longstanding research on social studies focusing on inclusive society” indicates Z’s viewpoint that he attempts to connect with what the teacher wants to be engaged in through lesson study. His stance becomes more evident in his statement at the post-lesson conference: “What do you [Teacher N] think of self-organization of lesson? I cannot figure it out from your lesson plan. I want to respectfully and sternly comment that this is a very important point for N, for social studies, for the collective process in the lesson, for the regular lesson, and for that fifth-grade class” (Z127). More statements can be traced in his response to the survey, including that a few issues are “left up to the N’s stance open to future” (QZ4). As such, he was always concerned about N’s interest and inquiry and tried to incorporate didactical theories (collective process, question theory, self-organization, and so on) into N’s scope. His strong and strict demands can be understood as a sign of Z’s understanding of N’s inquiry and Z’s expectation of his growth.

On the other hand, J commented on the lesson plan largely spending the notions of the structure of subject matters and ended up with the statement “In the actual lesson, due to lack of time, they could not accomplish the targeted objective that children become aware of the “majority-ness” in themselves, but I believe that they achieved to come to the preliminary stage” (QJ1). J is interested in the degree of accomplishment and the way of arranging the teaching process in a limited time. We may notice the scarcity of notions on N’s individual growth in his assessment-like comments.

Referring to the organization of Kim et al. (2021) mentioned in section 2.2, the differences in the quality of comments to Teacher N can be characterized as follows. The relationship between Z and N is “(1) developing the skills and perspectives of future and current teachers” and “(4) creating a community that supports classroom improvement and personal growth,” while the relationship between J and N can be characterized as “(2) cultivating critical reflection on existing teaching models, subject images, and the curriculum from top to bottom” and “(3) developing a community that supports personal growth.” They have their own way to build relationships in line with teachers’ professional development.

The differences in the role of subject and general didactics in lesson study do not only imply differences in disciplinary backgrounds, but also in role understanding relating to lessons and communication styles with teachers in lesson study.

3.3 *The Two Perspectives merge: The Potential Integration*

In contrast to finding the differences in comments and communication style, a commonality could also be found at a certain point, when the distinction between cognitive and collective processes did not work well. The potential *integration* of the two fields is implied: two researchers made remarks on inclusiveness. J perceived inclusive education as part of learning objectives in social studies and assessed the degree of achievement by students (J22-41). However, his tone slightly changed when he stated, “Students need to foster an attitude of envisioning a just society.” J connected learning objectives and contents to students’ classroom life (J39, J56, QJ5). the categorizations did not work as these comments cover both cognitive and collective processes. J overlaps cognitive process to attain awareness of the *majorityness* of students with the comments on developing solidarity to make the classroom safe and secure for all classmates.

Such comments could also be found in Z’s comments and survey, which repeatedly emphasized participation of all children (collective process) in lessons stating, “I would emphatically say in terms of collective process that we have to think about how you and we understand self-organization of learning in lesson” (Z127). Interestingly, he also changed its nuance and connected such a participatory attitude to the learning objective of this lesson as follows: “Suppose children feel comfortable to live with others though they could not understand what others say. Isn’t it an inclusive society? Now your lesson was premised on the idea that people cannot feel safe and secure until they all could understand. Though you do not understand, you keep in contact with others. I think you need to develop such a classroom in your lesson” (Z132). He criticized the lesson plan and proposed an alternative learning objective (cognitive process) deeply connected to the students’ classroom (collective process).

4 Summary and Perspectives: Renewal of Pedagogical Research and Creation of Educational Practice through Lesson Study

Lesson study in Japan invites *teachers* and *researchers* to collaboratively accumulate “new professional knowledge relating to teaching and learning” through pre- and post-lesson conferences (Wake & Seleznyov, 2020). Under this conceptualization, lesson study has stood for the idea that the teacher crosses boundaries by integrating learning content (the cognitive process) and students’ social needs (the collective process): lesson study practitioners are confronted with a crucial problem to overcome the stagnated social relationship among diverse students in terms of academic achievement, their personal character, and even their socio-economic status. The goal is nothing less than establishing social justice within the learning group and in the classroom, in close connection with/ or embedded into the perspectives of good academic achievements for all. Social justice, therefore, as much as knowledge-building are the focal points for lesson study (ibid.).

Lesson study has also maintained another principle of collaboration between *general* and *subject* didactics. This study particularly examined this type of collaboration and constructed

two aspects of the cognitive and the collective processes that many scholars in the history of lesson study repeatedly proposed, while there were variations suggested, e. g. calling for a *synthesis* on a higher level, for *complementary reciprocity*, or for *integration* of the two.

This study examined such integrational/reciprocal collaboration between general and subject didactics through the case of a social studies class in School X. Although a more meticulous examination on the quality of participation by subject and general didacticians must be implemented, this study tried to reveal that both types of researchers provided their own expertise, respectively. The viewpoint of subject didactics critically examined students' degrees of accomplishment as they envision the next steps, becoming more aware of their own "*majorityness*" (cognitive aspect). On the other hand, general didacticians focused on the children's responses to the main question on the board to promote students to self-organize the lesson, closely connected to students' participation in the classroom (collective aspect). Respective comments by two fields on cognitive and collective processes reflected role exchanges to keep multiple perspectives in lesson study. Differences in communication style with Teacher N were also identified, from which we could extend implications on the role of academic researchers for the professional development of teachers. While these findings lead to the notion of a complementary relationship between two fields in lesson study, ambiguous overlapping parts were also found that might indicate the potential toward finding the common integral where general and subject didactics can be bridged into shared goals.

The case examination has also brought about the common ground for further collaborative lesson study between general and subject didactics. Lesson study comprises the perspectives of (1) content selection that fosters thoughtful students who contribute to social justice in the classroom, (2) lesson development for the deliberate discussion about developing lessons toward the acquisition of such content, and (3) social justice for creating a classroom where all children could equally participate (Ueda, 2021).

General didactics meets subject didactics: This encounter is an almost forgotten history that both traditions had shared much things in the history of lesson study in Japan. Autonomous academic development in each discipline is definitely indispensable and must be respected. However, this orientation currently functions a strong separation between these traditions, as both traditions observe themselves (Terhart 2019, Rothgangel 2017, 151f). The history of lesson study reminds us of Fukazawa's notion that general didactics has no other means of inquiring lessons and teacher actions if it does not take subject didactics into account, while subject didactics does not stand for reproducing students to be mini-specialists in respective academic fields, but making students capable for living in the society and for pursuing their lives and dreams under the name of public education, according to which general capabilities must be fostered through (subject- or content-)specific learning. Beyond staying within the narrowed pursuit of interests and academic territories, it is hoped that all disciplines will work (together) on developing good/inspiring lessons for all learners in the future.

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