

## **“Lesson Study” as Professional Culture in Japanese Schools: An Historical Perspective on Elementary Classroom Practices**

Mohammad Reza SARKAR ARANI

*Seijoh University, Aichi, Japan*

FUKAYA Keisuke

*Chūbu University, Aichi, Japan*

James P. LASSEGARD

*Hōsei University, Tokyo, Japan*

This research examines “lesson study” as a traditional model of creating professional knowledge in schools. “Lesson study,” typically defined as teachers’ classroom based collaborative research, has a long history in Japan as a shared professional culture with potential for enhancing learning, enriching classroom activities and transforming the school environment. A case study method based on historical data is the primary approach used in this research. Detailed description and analysis of lessons are provided, individual lesson plans are examined and exchanges of views between teachers are discussed. The findings are intended to help clarify the cultural and historical role of lesson based research in Japanese schools, and also the significant influence that lesson study has exerted on developing a culture of shared professionalism in Japan.

**Keywords:** LESSON STUDY, ELEMENTARY SCHOOL, TEACHING, PROFESSIONAL CULTURE, MEIJI ERA, TAISHŌ ERA, SHŌWA ERA, JAPAN

### **1. Introduction**

The purpose of this research is to examine the historical background to teachers’ collaborative research on classroom activities known as “lesson study” (*jugyō kenkyū* 授業研究), and the process by which it came to be established at the elementary school level in Japan. Emphasis is here placed on an analysis of the environment and culture of support which generated lesson study within Japan’s school culture. School culture is here defined straightforwardly as “the commonly held beliefs of teachers, pupils, and principals” (Stolp 1994, p. 2). Beliefs are of particular significance since they represent basic assumptions, modes of thinking, values, rituals, heroes, and symbols (Hofstede 2001, Senge 1990). A review of the research literature on school

culture reveals an understanding that parents, teachers, principals and pupils all work within a cultural context that influences every aspect of their educational activities (Prosser 1999; Hinde 2004; Takahata 2004). This paper thus refers to school culture, as defined above, especially in terms of organization (Hofstede 2001). Following Bruner (1996) who notes that “culture has always been in the process of change” (p. 97), the present authors regard school culture as malleable, forever accommodating possibilities for leadership inspired change. Our discussion of lesson study as professional culture within Japanese schools also draws on Schein’s dynamic view of organizational culture, with its theoretical perspective on how cultures begin and how they develop. Schein (1985) reveals the “underlying interpersonal and emotional processes that help to explain what we mean when we say a number of people *share* a common view of a problem and develop a *shared* solution.” For Schein, moreover, “all definitions of culture involve the concept of shared solutions, shared understanding, and consensus” (p. 149).

The phenomenon known as lesson study evolved through precisely such a sharing of responsibility, and a collaborative process of preparing lesson plans, conducting and observing lessons, checking and evaluating teaching, reflecting on practice, and replanning (Sarkar Arani, Shibata and Matoba 2007). Teachers first created lesson plans in response to learning requirements, and they established their classroom objectives in the actual process of classroom teaching. Subsequently, methods for evaluating lesson objectives were devised. All of this was managed entirely by the teachers themselves. School committees were established for collaborative lesson study, and they were typically divided into their various functions of lesson planning, lesson implementation and classroom observation, and sessions for evaluation and reflection. In preliminary research meetings, careful consideration was given to understanding the circumstances of pupils. There would also typically be an examination of the development of the lesson, based on whether or not the questions, printed documents distributed, and instructions given by teachers were appropriate, and whether pupils had developed motivation for study. Teachers observed actual classroom conditions, and they later conducted critique or “reflection sessions” (*hanseikai* 反省会).

Inherent to lesson study were the training sessions conducted for lesson plan review, for classroom observation documents, and for lesson reflection and evaluation. A unique environment developed in which fellow teachers visited and observed each other in the classroom, and pupils engaged in study in the uncommon atmosphere of being observed. Since classroom visits occurred on a regular basis from 1872 as part of teacher training for novice teachers, pupils quickly became accustomed to studying in this open setting. Visiting teachers examined the responses and behaviour of pupils to determine the degree of their interest in the class, and the suitability of the questions asked and of the texts used. The reflective nature of lesson study had as its premise collaboration between participants, and throughout the process emphasis was placed on how pupils viewed and comprehended the subject matter being taught. The methodology inherent in conducting lesson study further led to the need for effective documentation of classroom observations. Lesson study was thus inherently a collaborative undertaking which Senge has identified as “involving everyone in the system in expressing their aspirations, building their awareness, and developing their capabilities together” (Senge et al. 2000, p.5). It is, of course, of interest to consider how lesson study might be effectively transposed into other educational cultures, but of more immediate concern to the present paper is an exploration of how Japanese lesson study developed into an intrinsic part of Japanese educational culture in general, and of the culture of individual schools in particular. This paper’s

focus is on the operation of lesson study as it developed within Japanese public schools from Meiji through Taishō to Shōwa, and it deploys to this end historical evidence and documents created by school-based research groups.

## 2. Lesson Study in the Meiji Era

Modern Japan’s education system began with the promulgation of the Fundamental Code of Education (Gakusei 学制) of 1872, which laid the foundations for new schools, new perspectives on education, including teaching methods and the professional development and training of teachers. The Ministry of Education (Monbushō 文部省) sought to establish a unified system of school and teacher training throughout Japan (Tōkyō Bunrika Daigaku and Tōkyō Kōtō Shihan Gakkō 1932). According to Lincicome’s research on educational reform in Meiji Japan, “the government founded the first normal schools, recruited their first pupils, hired their first faculties, and translated the first teaching manuals to train them in the new “science” of education” (Lincicome 1995, p. 233). Certainly, prior to Meiji, there were numerous other “schools” in existence, such as the local schools or (*terakoya* 寺子屋) which Western scholars translate as “temple schools” (Marshall 1994; Lincicome 1995). Learning also took place within private schools, and in schools established by feudal domains, but these schools did not have an impact on education across Japan. As a result of education reforms implemented shortly after the Meiji restoration of 1868, Japanese elementary school education became oriented toward European and American models, with their spirit of improving education for the common people in an age of modernity. In the process of transferring Western technical “know-how,” the Meiji government deemed it necessary to encourage educational goals that were conducive to building a modern Japan.

Early Meiji educational methodology was concerned above all with the process of teaching lessons in the classroom. The teacher stands up straight in front of the wall map or blackboard, with pupils seated in an orderly fashion before him. Pupils respond to instructions and questions that are repeatedly posed by teachers. Western, particularly American, textbooks were translated for use in the classroom, and classes were conducted in a uniform manner regardless of the subjects being taught. Such a methodology was rooted in Western educational thought and practice, and while there were clearly insufficient numbers of teachers capable of teaching with modern educational methods, the ideal remained of implementation within all elementary schools in Japan. The afore mentioned Fundamental Code of Education set out to establish facilities for the cultivation of teachers. Accordingly, in January of 1873, the Japanese government founded an elementary school, the so-called Tōkyō Shihan Gakkō Fuzoku Shōgakkō (東京師範学校附属小学校 Elementary School attached to Tokyo Normal School), and in April of the same year, 78 pupils began classes there. The elementary school was founded for the purpose of providing a practical learning environment for teachers and pupils of Tokyo Normal School where they could observe classrooms, conduct experiments using new methods, and provide training for teachers in classroom management (Tōkyō Bunrika Daigaku and Tōkyō Kōtō Shihan Gakkō 1932).

The graduates of Tokyo Normal School during the first decade of Meiji era did not become elementary school teachers, but were invited by prefectural governments to accept positions as teacher trainers. Tokyo Normal School thus served as a training institution for elementary school teachers in rural areas, and its role later changed in 1902 when it became the Tokyo Secondary School Teachers College (*ibid*). In August of 1873, Normal Schools were

also established in Osaka and Sendai, and in 1874 government-operated normal schools were set up in Aichi, Hiroshima, Nagasaki, and Niigata prefectures. These institutions attempted to inform their teacher training with educational methods found in Western countries, and it was natural for teachers to engage in collaborative learning about curriculum and instruction. The graduates of these Normal Schools disseminated their newly acquired knowledge of Western teaching methods at their schools of employment, and were expanding further upon their experiences in the classroom.

Teachers set up regional learning groups (*chiiki no gakushū shūdan* 地域の学習集団) which were designed to facilitate the sharing of experiences about learning, teaching, designing effective lesson plans, and managing the classroom and school administration. These groups also concerned themselves with teachers' working rights (Inagaki 1966). Regional learning groups flourished, and had a significant impact on teachers' professional development in the first decades of the Meiji period, when most schools could employ only one or two teachers. In 1877, out of a total number of 19,345 schools, 8,332 (43 percent) employed one teacher, 4,766 schools (25 percent) had two teachers, and only 84 schools reportedly had ten teachers. Moreover, 6,170 schools were equipped with only a single classroom. By 1881, the total number of schools declined to 17,889, but over half of them employed at least two teachers (Inagaki 1966, p. 37).

Teachers in early Meiji elementary schools revealed a deep interest in curriculum and instructional methods. There was notable participation in regional autonomous learning groups during the period of the popular rights movement (*jiyū minken undō* 自由民権運動) from 1878 to 1888. The activities of educational organizations at this time, which saw teachers form autonomous study groups, have been mentioned in previous literature on the subject (Katagiri 1990). In the 1880s, teachers' research on classroom instruction concentrated on the five steps of teaching structure based on the educational philosophy of Johann Friedrich Herbart: namely, preparation, presentation, comparison, integration, and application (Robinson 1977; Inagaki 1993). Miller (2003) explains the significance of the Herbartian approach as follows: "Using this structure a teacher prepared a topic of interest to the children, presented that topic, and questioned them inductively, so that they reached new knowledge based on what they had already known, looked back, and deductively summed up the lesson's achievements, then related these to moral precepts for daily living" (p. 114). Subsequently Japanese teachers published research that drew on Herbart's method, which proved to be the favoured method of teacher training in Meiji Japan. The work of Higuchi Kanjirō 樋口勘次郎, who led the movement toward more pupil-centered teaching practices, is representative (Higuchi 1905).

During Meiji, the frequent importation of Western educational thought and systems led to the establishment of a new educational discourse, in which "teachers, as professionals, were trained to assume the dual roles of both "scientist" (empirical, logical, critical, and analytical) and "artist" (creative, adaptive, and flexible)" (Lincicome 1995, p.234). New critical approaches to Herbart duly emerged among educators in the early 20<sup>th</sup> century (Hisaki, 1980). This critical discourse resulted in teachers shifting their focus from teaching to learners' needs, activities, individuality, and learning strategies (Lincicome 1995; Nakano 1968). In spite of these new developments, classroom circumstances, in which teachers directly advised and taught many levels of pupils, remained fraught with difficulty. There were insufficient numbers of qualified teachers, and it was often the case at schools with mixed levels that an individual teacher was required to accommodate pupils of multiple ages and abilities in the same classroom. However,

a breakthrough happened around the turn of the twentieth century that alleviated these difficult conditions. This was the popularization of teaching methods that catered to pupils of different levels within the same classroom.

Research by Katagiri (1990) has indicated that during the 1880s, the regional learning groups, which had been established throughout Japan, gave teachers the opportunity to begin “lesson study groups” (*jūgyō kenkyūkai* 授業研究会). The main purpose of these latter groups was to share the experiences of teachers who conducted lesson study in their classrooms. Elementary schools attached to teacher training colleges began to undertake empirical studies to overcome problems within the school classroom, and lesson study groups were formed at numerous elementary schools. These gatherings for the exchange of knowledge were enthusiastically hosted by the growing community of alumni at the teacher training colleges. Furthermore, the reports of alumni meetings, for example, contained detailed records of classroom teaching practices. The existence of lesson study groups at elementary schools attached to teacher training colleges had become common by the late Meiji era, while the numbers of participating elementary school teachers grew. This motivation to study new teaching methods encouraged teachers to accept more responsibility for teaching and learning. This kind of teacher learning community was supported and expanded by the Normal Schools Alumni Association (Shihan Gakkō Gakuyūkai 師範学校学友会). That lesson study groups now began to exert a substantial impact on the improvement of teaching practice, and subsequently helped to influence the expansion of lesson study in schools. The background for cooperative lesson plans at elementary schools had developed within three main social contexts of the Meiji era. First, in various regions of Japan there was a contextual basis for teachers to learn a new teaching method provided by the new Meiji educational discourse. Second, there already existed in Meiji Japan teacher training colleges intended to cultivate professional skills, while the affiliated elementary schools served as a laboratory for conducting practical research. Teachers were thus able to conduct research based on practical classroom issues and timely educational topics, and to convey these research perspectives to their counterparts in regional areas. Third, there existed “Alumni” Practical Research Reports (*jissen hōkoku* 実践報告) for college graduates.

In the late 1870s and early 1880s, the Ministry of Education challenged local school administrators to apply a more creative and flexible approach through effective teacher training. Lincicome states that “in practice, however, the Ministry’s tightly knit web of laws demanded just the opposite: strict allegiance to the center” (Lincicome 1995, p. 234). Indeed, the government relied on the Ministry to revise curriculum guidelines, and to inspect and authorize textbooks, activities which certainly exerted a profound influence on the content and transmission of school-based knowledge. In this context, local administrators and teachers were persuaded to accept the political and ideological values of the Meiji government as a framework for the modernization of Japan (*ibid.*). According to Horio, teachers were expected to function in their dealings with children and their parents as agents acting under “the emperor’s supervision” (*tennō no kanri* 天皇の管理) (Horio 1988, p. 254).

Nevertheless, the apparent contradictions between ideals held by teachers and the dictates of national government policy led educators in the 1880s to promote an educational discourse that emphasized pedagogical knowledge and teaching methods (Marshall 1994; Abosch 1964). Educational progress during the Meiji period thus came to support principals’ and teachers’ critical reflection on both theory and practice for the improvement of lessons and of the teaching training system. Individual educators, such as Marion McCarrell Scott (1843–1922),

introduced Western educational practice into Tokyo Normal School (Sato 1998), and then promoted a pedagogical discourse that focused on effective teaching methods during the Taishō era (1912–1926) (Collins 1975). Such developments “helped to fuel the so-called new education (*shinkyōiku* 新教育) or liberal education (*jiyū kyōiku* 自由教育) movement” based on the philosophies of Johann Heinrich Pestalozzi (1746–1827), Jean-Jacques Rousseau (1712–1778), Friedrich Wilhelm August Fröbel (1782–1852) and Herbert Spencer (1820–1903) (Lincicome 1995, p. 240). Teachers subsequently acquired the opportunity to do lesson study in small groups and to link educational concepts such as learning from practice (*jissen kara manabu* 実践から学ぶ) and reflection (*hansei* 反省) on teaching, with new Western ideas such as pupil centered education, flexible educational administration, individuality, citizenship, anti bureaucratic activity, and the application of practical teaching and training methods (Hisaki 1980; Ebihara 1975). The stage was thus set for teachers to expand their autonomy in terms of professional development which, although at times conflicting with state authority, allowed for the eventual sustainability of lesson study in schools across Japan from the Taishō era.

### 3. Lesson Study in the Taishō Era

Japanese scholars have noted that during the prewar period when school curricula had become increasingly rigid and nationalistic, teachers still created opportunities for research on teaching in practice, and engaged in collaborative inquiry on classroom activities in order to improve teaching. For example, Toyoda (2005) has detailed how during the Taishō era Japanese teachers created a child centered curriculum, and independent learning activities. He suggests, moreover, that teachers at Mikuni 三国 Elementary School in Taishō Japan, had the freedom to “choose subjects of study, devise learning methods, develop learning materials and collect pupil data” (Toyoda 2005, p. 86).

Iwasaki’s investigation of the lesson study process in elementary school science education in Taishō found that teachers’ discussion meetings were particularly effective in enhancing teaching by paying more attention to pupils, and by encouraging the search for better designed teaching and learning materials (Iwasaki 2001). Iwasaki has analyzed records of teachers’ meetings on science lesson plans held at Toyohira 豊平 Elementary School in Sapporo in 1920, and he reports how teachers discussed ways of emphasizing cooperation and mutual interaction between teachers and pupils. Fukaya’s (2007) research on an elementary school attached to the Kagoshima 鹿児島 Normal School demonstrates that teachers in early Taishō were collaborating to encourage discussion and reflection on teaching. According to Sugiyama (2004), “[Japanese] school curriculum had been nationally determined for a long period, during which time there had been instructor manuals for teaching the national curriculum. It was therefore required that teachers adhere to these manuals; lesson study in practice was only geared toward technical aspects of teaching” (p. 352). Toyoda (2009) also notes that while lesson study was strictly bound by nationally determined curricular content, teachers made innovations on an individual level. For instance, in the Taishō era, Miyoshi Tokue 三好得恵, a principal of Mikuni Elementary School, cultivated teachers’ capacity to exercise leadership by promoting collaborative activities. Moreover, Miyoshi founded an association to raise funds for holding open classes and for publishing books on teaching.

The origin of the Taishō model of lesson study, which emphasizes critical feedback on lessons, assessment of lesson plans, and reflective practice, can be found in the teaching methods of Ashida Enosuke 芦田恵之助 (1873–1951), a teacher at the elementary school

attached to the Tokyo Higher Normal School from 1899 to 1917. His area of expertise was teaching Japanese language (*kokugo* 国語) (Kobayashi 1989). The lesson records (*jugyō kiroku* 授業記録) of Ashida and other teachers who learned from him are contained in *Dōshi dōgyō* 同志同行, a monthly journal of research on teaching.<sup>1</sup> These lesson records of teachers were entitled *Kyōdan kiroku* 教壇記録, and consisted of the shorthand writings of Aoyama Hiroshi 青山廣志, a correspondent for the *Osaka Mainichi Shinbun* 大阪毎日新聞 (Osaka Mainichi Newspaper). These writings offer a description of the evolution of Ashida’s classroom practice.

Ashida outlined his teaching methods for reading Japanese in the “Ashida Method of Seven Steps” (*Ashida shiki shichi henge* 芦田式七変化), and embarked on a mission to disseminate his philosophy of teaching throughout Japan.<sup>2</sup> The *Dōshi dōgyō* was read by teachers who wanted to learn Ashida’s methods, and had a large impact on Japanese elementary schools in the 1930s. Through their review of Ashida’s lesson records, teachers were able to learn from his reading methods, and integrate them into their own practices. Ashida emphasized the power of lesson records and lesson analysis (*jugyō bunseki* 授業分析). His methods represented a departure from the Herbartian and other teaching structures in their emphasis on more meticulous classroom interaction, and greater respect for children’s learning and communication needs (Ashida 1936a). The Herbartian teaching method was prone to formality, and had proved difficult to apply to teaching in an actual classroom. Moreover, its strict adherence to the completion of all five stages was not well suited to lessons which accommodated pupils of diverse abilities. These points of criticism, informed by an active approach to learning, were first made by Higuchi Kanjirō (Higuchi 1905). Ashida was well known as a fervent supporter of Higuchi, and he too cautioned against a teaching approach that was too regimented. As the lesson records published in *Dōshi dōgyō* make clear, Ashida maintained charts of pupil seating (*zaseki hyō* 座席表) and teachers’ blackboard writings, and he wrote down the exchange of questions and answers that transpired between teachers and pupils. Teachers’ reflection upon classroom activity based on question and answer sessions with pupils was accomplished by direct observation of the classroom, and group discussion. Furthermore, mimeograph machines, which by now had become widely used in educational settings, made the dissemination of ideas possible throughout Japan. These machines allowed the easy distribution of lesson plans, lesson records and reflective comments among teachers. As a result, active lesson study was able to develop and become more widespread at schools.

School principals were often active in supporting teachers’ autonomy in their practice of lesson study (Toyoda 2009). Nevertheless, principals and local education authorities did not readily welcome learning and teaching innovations that challenged traditional methods of school management as dictated by the Ministry of Education (Ebihara 1975). Hence, Taishō teachers in general did not have the individual authority to reform teaching content and school curriculum in order to render it more responsive to pupils’ needs (Lincome 1995; Inagaki 1993; Ebihara 1975).

#### 4. Kijō 亀城 Elementary School in Early Shōwa Japan

With the proliferation of mimeograph machines, preparing lesson plans based on curriculum guidelines, followed by critical review sessions, became the central work of lesson study committees. Teachers at elementary schools used the mimeograph to print out lesson plans that reflected their educational views, distributed them to fellow teachers, and attended open classes and critical review sessions for evaluation and reflection.<sup>3</sup>

Written records of teaching plans between the years 1932 to 1934 were maintained at Kijō Elementary School (KES) located in Kariya 刈谷 city, Aichi Prefecture.<sup>4</sup> A geography lesson study plan comprising seven lessons for 5<sup>th</sup> year pupils is analyzed here, and a description of the seven lessons may be viewed in Appendix A. This record of seven lessons is part of a unit lesson study plan created by Isomura Akira 磯村章, and it took place on September 20, 1930. Isomura describes here in detail the objectives of the lesson, and designs an outline of observations and professional dialogue on his teaching for the discussion session to be held afterwards. His lesson plan resembles a check list: it contains seven items for teaching, and eighteen items for teacher and pupil activities in the teaching and learning process. These were to be used for both self-evaluation and reflection on the lesson, as well as for colleagues' discussion of methods for geography teaching.

Isomura carried out two surveys of pupils, and made an analysis of his findings. The questionnaires inquired about children's motivation toward the learning of geography. A preliminary investigation was conducted in early May (Appendix B); it was followed by another in late September (Appendix C). Isomura's observations suggest his ability to reflect deeply on his practice: "I wondered what children, who are as pure as blank sheets of paper, thought about the learning of geography, and so I listened carefully to their honest opinions. There were twenty five comments from twenty two children about why they liked learning geography, while forty children gave fifty three reasons for their dislike of geography" (Appendix B).

The basic intention behind Isomura's lesson study was to "facilitate pupils' learning about mountains in central Japan, and to cultivate their interest in mountains," but he also emphasized raising their general interest in geography. To this end, his lesson plan also state what approach in geography was most appropriate for understanding the feelings and cultivating the interest of youngsters. For Isomura, lesson planning was the way to improve practice. He noted:

I must admit that I am to blame for many pupils' responses [about learning geography]. When learning geography for the first time, pupils are expected to memorize a large amount of information. I ignored the obvious fact that learning the geography of one's region requires an enormous amount of effort. In light of this, I thought I would like to start anew and try to teach geography that was interesting and fun (Appendix C).

The results of Isomura's research on classroom practice can be verified by means of the two afore mentioned questionnaires. The children's responses leave no doubt that the lesson plan attracted their attention, and encouraged them to focus and engage themselves in the classroom activity. Isomura's change of approach toward the teaching of geography resulted in verifiable differences in children's perception of the classroom atmosphere and the study of geography (Appendix B). His second survey saw the number of positive pupils' comments rise from twenty five to eighty, while reasons given for their dislike of learning geography declined from fifty three to thirty seven. It is also meaningful to examine how pupils wrote their comments (Appendix C). In the first survey, pupils only wrote very brief comments, but in the second most wrote full sentences to explain their enthusiasm for geography. For example, one pupil wrote, "I really like geography. It is because 1) I can find out many things by looking at a map; 2) I love learning about many towns and cities; 3) I can easily understand the teacher's questions, and have an interesting discussion for an hour; 4) It's interesting to learn how the topography of the land has developed" (Appendix C). It must be underscored that Isomura repeatedly reflected upon his own classroom practice, and was concerned that his teaching may not have been completely understood by his pupils (Appendix C). He noted:



...children thought it was interesting and fun to start the lesson by looking at the postcards and illustrations that they had brought to class. I was glad to observe that children were happy with the way I resolved the previous problems, and it became my usual teaching practice to conduct lessons while working in tandem with them. This was a warning for me to change my teaching style (Appendix D).

Isomura’s comments suggest the potential for Japanese teachers to collaborate regularly and learn from colleagues, and reflect individually on the realities of pupils’ learning. His records of lesson study process are, however, not the only ones in existence for KES. For 1930 to 1933, there exist mimeograph records of other lesson plans, participant observation notes and teachers’ notes of discussion and evaluation sessions. The appendices of this paper contain just a few of the many existing records relating to lesson study process at KES. Other evidence of the lesson study process in practice exists in the form of the discussion and evaluation sessions of 4<sup>th</sup> and 6<sup>th</sup> grade science education lessons in 1930 (Appendices E and F). In particular, we may observe from the teachers’ notes included in Appendix E, the specificity with which they recorded their reflections and observations on teaching science to pupils. Consider for example the following notes: “whether questions posed to pupils are refutable”, “the degree of pupil-centered teaching,” “how to respond to pupils’ questions.” Appendix F provides detail of teachers’ discussion and critique sessions, and includes these comments by a 6<sup>th</sup> grade class teacher (Sugiura Ito 杉浦いと): “The lesson should begin with a discussion of something made from vinegar that is related to life,” “the pupils’ experiments are mechanical” and “make sure that the results from the experiment are duly written down in the record book.”

There was also some debate in the review and evaluation sessions over whether the class was clearly focused on pupils’ learning activities, whether teaching was directed at pupils’ understanding, and whether the teacher adopted a sufficiently reflective attitude toward his lesson plan. From these excerpts, it would seem that many KES teachers emphasized pupil-centered teaching, and were striving to function as “managers of learning,” in addition to their roles as didactic instructors in the building of a learning community culture in schools of early Shōwa Japan.<sup>5</sup>

## 5. Discussion

KES records of geography and science classroom lesson study shed light on lesson study as it was implemented in one public school at the start of the 1930s. Lesson study, teachers’ professional development, and the use of new teaching methods were not only prevalent in the affiliated schools of teacher education colleges, but were also actively incorporated into regional public schools (Nakauchi 1970; Miyoshi 1972). This owes much to the fact that Japan had a very high rate of primary school enrollment, even compared with more developed nations. Indeed, as early as the year 1907, 98.5 percent of boys and 96 percent of girls went to school (Kaigo and Naka 1963, p. 90). Moreover, in the 1930s when lesson study became more prevalent, the rate of secondary enrollment was also relatively high, with 21 percent of boys and 15.5 percent of girls attending (Murata et al. 1996, p. 85).

During the early 20<sup>th</sup> century, many educational journals focused on teaching methods. *Kyōiku kenkyū* 教育研究 (Educational Research) was published in 1904 by the elementary school attached to the Tokyo Higher Normal School, and it became a prominent educational journal contributing to the practice of lesson study (Koizumi 1904). Additionally, numerous other journals on lesson study also contributed to its dissemination. These included *Kyōiku*



Figure 1: Students' studying at Honami Elementary School (1909)  
(Source: "Fukuoka ken Honami Shōgakkō jidō no jishū" 福岡県穂波小学校児童の自修, *Kyōiku jikkenkai* 教育実験界 23:4, 1909).



Figure 2: Moral Education Class at Kijō Elementary School (1910)  
(Source: Kijō Elementary School Archive, used with permission).

*jikkenkai* 教育実験界 (The Society for Experimental Education), and *Kyōiku gakujuitsukai* 教育学术界 (The Society for Science of Education) which were founded in 1898 and 1899, respectively (Ōmura 1898; Inoue 1899). It would appear, therefore, that lesson study came to constitute an essential aspect of school culture and teachers’ professional development by the late Taishō and early Shōwa eras, and the educational journals served to deepen mutual exchanges between schools throughout Japan. Certainly, the culture of lesson study was formed through classroom instruction of teachers at schools across Japan. School teachers taught lessons based on their individual views of education, and they openly shared their views on educational improvement both inside their schools and with society at large. At the start of the 20<sup>th</sup> century, teachers were also using photography to record classroom activities and learning environments, and were making these images and words public by means of educational journals (Kinkōdō Henshūbu 1910; Yoshida 1921; Ebihara 1975; Toyoda 2005; Fukaya 2007). Photography was used for more empirical evaluation of lessons and teaching. Figure 1 depicts pupils’ independent learning environment in a class at Honami Shōgakkō 穂波小学校 (Honami Elementary School). This photo was used as instructional material for pupils in the teacher training and education course at Fukuoka ken Fukuoka Shihan Gakkō 福岡県福岡師範学校 (Fukuoka Prefectural Normal School) in 1909. In the photo we can observe the quiet and attentive of pupils after the whistle has blown marking the start of study time.

The question that naturally arises is why teachers thought it necessary to photograph the classroom learning activities of pupils. Figure 2 is a photograph of the school principal, Kuroda Sadae 黒田定衛, teaching pupils a lesson in moral education using the story of Matsumoto Keidō 松本奎堂. Matsumoto was a *samurai* 侍, well-known in the city of Kariya for his driving ambition, and his philosophy of school discipline which included the principles of “improvement, perseverance, and cooperation”. In the photos, Principal Kuroda stands directly in front of the class; the backs of pupils are visible and convey the tense classroom atmosphere typical of the study of moral education. The atmosphere of the moral education class depicted in Figure 1 appears to be contemplative and collaborative, and is quite different from the rigid atmosphere depicted in Figure 2. The teacher in Figure 1 can be seen wandering among pupils, checking their work and giving individual assistance. However, in Figure 2, the teacher delivers a traditional didactic lesson from the front of the classroom with pupils sitting straight to attention. The contrasting pedagogical styles of the teachers can be clearly discerned in these two photographs. During the Meiji and Taishō eras, it was common for school principals to assume responsibility for teaching moral education (*shūshin* 修身). This explains much of the difference found between approaches to teaching morals and other subjects. Principals tended to give formal lectures in moral education, which covered such topics as school culture, goals, life skills and ethics in society. In the Shōwa era, however, the National School Law (Kokumin Gakkō Rei 国民学校令) of 1941 dictated that responsibility for moral education should be transferred from principals to home room teachers (Motokane 1996; Hayashi 1997; Monbushō 1981). It should be duly noted that both photographs were taken 1909–1910, and the suggestion is that by this time there already existed diverse views of teaching. It is commonly viewed that Meiji era education, particularly from 1890, was based on instilling the values of loyalty, patriotism, and respect for the emperor (Yoshida 1921). Nevertheless, the impression given by Figure 1 is that pupil-centered learning in classroom activities had already begun to develop at regional public elementary schools.

A school organization comprises teachers, administrators, and pupils themselves, and

the formation of school culture is a direct outcome of the actions taken by these different stakeholders. Teachers' lesson study served to create the educational culture in Japan over the course of one hundred years. Elementary school teachers' cooperative engagement in lesson study remains to this day a remarkable feature of elementary and junior high school teaching in Japan. It points to a school culture that encourages mutual observation and the exchange of pedagogical views; it is one in which teaching and learning take place through voluntary activity that enhances the professional competence of school teachers. What was the role, then, that lesson study played in the formation of professional development at schools? In elementary and junior high schools, this practice led to an increased motivation for learning. Indeed, lesson study committees were recognized by the teaching staff as vital spaces for the educational development of children, and played an important role in supporting the essential function of school education. As seen in the case of KES, a variety of lesson study activities had already taken root in regions of Japan by 1930. Furthermore, lesson study encouraged teachers, through their observations of pupils' learning activities, to reflect upon their own teaching practices, and so accumulate teaching experience. Lesson study continuously urged teachers to examine their own professionalism and create goals that help maintain positive motivation. This revitalization function generated new teaching practices.

Finally, lesson study emphasized collaborative research on classroom activities, and enhanced the possibilities for teachers to reflect upon their own practice from multiple perspectives. This yielded benefits for the entire school in terms of pupil comprehension and the sustainability of quality teaching. Yet, it must acknowledge that the uncritical adoption of lesson study did not necessarily result in more reflective teacher practice, or even teachers' collaborative learning. What seems absolutely necessary was for teachers to have a significant degree of common understanding of educational practice as a source of reflection on the teaching and learning process.

School based in-service training focusing on lesson study promoted professional competence and the enhancement of teaching skills. Lesson study enabled educators to observe the progress of pupils while improving their teaching skills. In other words, teachers became more aware of the diversity in their pupils, and more inclined to think in terms of lesson planning oriented to pupils' learning activities rather than teacher focused pedagogy. Improvements in teaching transpired naturally through regular lesson study. Such conditions allowed for the democratization of school management, as well as for the possibility of teachers making new discoveries in the classroom. One consequence of lesson study was to negate the notion that a uniform style of teaching was effective. Pupils' inability to understand a lesson did not mean that the fault was in the pupils' ability or motivation. Rather, it provided teachers with the opportunity to reflect upon their own teaching, and encouraged in the entire school teaching staff an attitude of contemplative effort in striving for successful learning by all pupils.

The careful collaborative examination by teachers of lessons helped generate an awareness of their need to assume more responsibility in terms of school level management. Furthermore, if lesson study enhanced teachers' perceptions of pupils' circumstances in the classroom, by the same token it improved their professional skills. Teachers who admitted to each other that their teaching was not effective, who empathized with fellow teachers, and who discovered that they had something in common, had the opportunity to set new goals for themselves and for their future lessons.

## 6. Conclusion and Lesson Study Prospects

Lesson study as a professional culture in Japanese education has a long history. During the Meiji era, it was necessary that Japan absorb and learn from the educational methods of the West in order to create a modern educational system better suited to the needs of the modern state. The seeds for the future development of lesson study were planted during this important period. In particular, Meiji lesson study was conducted collaboratively at schools affiliated to teacher education colleges, spaces for learning that supported the education of teachers. This teaching culture subsequently spread to public schools all over the country. In the early 20<sup>th</sup> century, a typical Meiji era school environment emerged which provided spaces for teachers to discuss the effectiveness of their teaching methods (Kinkōdō Henshūbu 1910). In addition, the proliferation of mimeographs facilitated collaborative lesson plans. Copying and sharing of lesson plans allowed their dissemination to other schools. The proliferation of this new technology helped contribute to open discussion about teaching. Lesson study also enabled Japanese teachers to realize, reflect upon, and sustain meaning in their classroom environment, and in pupil learning activities. This pedagogical awareness transpired as a result of the accumulation of formal lesson study, but it also arose out of the informal reflection of individual teachers. The way of viewing pupils as described in Isomura’s geography lesson plans, for example, was achieved through continuous reflection on teaching.

This study asserts that the Japanese model of lesson study supported schools in managing micro-level educational reform in practice, bringing teachers together to learn from each other and to develop the school’s capacity for promoting learning and fostering shared values. Of course, the school professional culture of lesson study in Japan was not achieved overnight. It constitutes one example of the Japanese practice of *kaizen* 改善 (continuous improvement) which is relatively easy to comprehend yet difficult to master in practice, and requires time and systematic support from inside and outside the school. A professional school culture was formed through cumulative lesson study activities of teachers, who reflected on the realities of their pupils for over a century. The culture of lesson study was cultivated within this learning community.

Arguably, the most remarkable impact of lesson study historically has been its contribution toward the creation of a shared professional culture dedicated to educational improvement, the enhancement of pupil learning, enrichment of classroom practices, and acquisition of pedagogical knowledge (Sarkar Arani, Shibata and Matoba 2007; Takahashi and Yoshida 2004). Looking to the future, lesson study may help to support school leadership by building a culture of collaboration, and instilling a shared commitment among teachers to focus more on learning than teaching, and also a shared sense of the meaning of effective teaching. This may be accomplished through the use of a common language for sharing ideas, in the search for a common mission, common values and a common vision (Peterson and Deal 1998; O’Neil 1995). Since Stigler and Hiebert published *The Teaching Gap* in 1999, describing the Japanese approach to lesson study, teachers and educational researchers worldwide have reacted positively to this practice, and this has resulted in an increase in research utilizing ethnography as a qualitative method to examine school culture and teacher culture (Fernandez, Cannon and Chokshi 2003; Lewis, Perry and Murata 2006; Lee 2008).

Recently, educators in many countries have begun to learn from their Japanese counterparts how to develop a new culture for promoting learning communities at their schools (Sarkar Arani and Fukaya 2009). Needless to say, countries such as the United States, China, Indonesia,

Singapore, Iran, and Germany in their attempt to transfer the Japanese model have developed their own perspectives on lesson study based on indigenous school cultures, educational context and needs. In the teaching cultures of many countries, opening up classrooms to the outside and soliciting criticism are often interpreted uniquely as a means of teacher evaluation, and there is a tendency for teachers to have conflicting feelings regarding engaging in lesson study (Matoba, Shibata and Sarkar Arani 2007). Moreover, since the practice of lesson study is typically done simultaneously with large numbers of pupils, it is often difficult to determine how effective it is for all pupils, or how pupils may perceive the instruction. Many strategies are necessary for transferring lesson study to other educational contexts. Collaborative lesson plans, participant observation, and reflective thinking on teaching are the three points that serve as the core of lesson study, and should be highlighted in its application to other educational contexts. It is essential that teachers work together to plan lessons and to give feedback with no one individual teacher functioning as the sole leader in lesson study. Educators, as equal participants, must clarify their own views toward education and pupil learning; they must present a collaborative lesson plan based on these aspects, and articulate their fundamental approaches to teaching.

The final consideration is that lesson study should be understood as both regular practice and as process, and that problems will not be resolved after a single session. Effective lesson study follows the teaching of pupils and their progress over a long period of time. This kind of long term and continuous research orientation situates lesson study at the heart of school culture.

#### **Acknowledgement**

This research was supported in part by the Japan Society for the Promotion of Science (JSPS) under the Grant-in-Aid for Scientific Research C (Reference number: 21530811). The authors would like to express their gratitude to the JSPS for the assistance and encouragement that made this research possible.

APPENDICES

Appendix A: Unit Lesson Plan of 5<sup>th</sup> Grade Geography Classroom Lessons for Lesson Study at Kijō Elementary School (September 1930)

地理科はついで私のノート(録)

1 地図とはなれ地理科は、いかにとも地図を中心として、土壌、位置に注意して、肉傳的位置の重視

2 地理的用語、附号、氣をつけ

3 各山脈及び山はついで

太平洋方面 中央高地 日本海方面の三面による地勢

その影響

4 山と人との關係

5 石山、火山、風景の上、山脈中の主要な名称、起るの

6 地帯の説明

7 教科書の読解による整理、地理的用語の説明

(筆記は後日まとめて記入)

尋常科第五學年地理科學習指導書

指導者 磯村 幸

日時 昭和五年九月二十日(星期一) 第五時(時間完了第三時)

教材 尋常小學地理書卷一中部地方其三地勢氣候

目的 中部地方の山の概要を知らしめ山の對しての趣味を養ふ

準備 中部地方の日本總圖 標本 繪畫書 登山地圖

配當 第一時 區域 地勢 第二時 山脈 (一本時)

第三時 川、海、海岸氣候 第四時 産業 第二部

第五時 産業交通 第六時 都邑 第七時 整理

指導順序

1 第九回(中部地方)による讀圖の練習

2 既習事項の復習……比較による

3 郷土との關係

批評

4 さし、説明は面口(取扱ひた)

5 小塗板を利用し、略圖の練習をさせる

6 比較研究をすすむ

7 氣候上、氣温、雨量分布圖の利用

8 兒童的の問題をつくらせ、研究一を多く兒童の

9 方が出る様に仕向かよう

4 参考資料をあげることを利用

5 成べく郷土と關係を付けて考へさせる

6 日本全國を始めて考へさせる

7 多く研究して、その料をたんに誦すやに質問をせしは

8 考へさせる態度です、みない

9 ノートに研究した点をかせる

10 緯度、経度及び暖流、寒流の關係を重視する

11 基礎的の教授に注意した、一読圖、内地氣候其他

12 教材の研究選抜に注意して行かう

13 他教科との連絡をとつて、む

14 讀圖、國文の方面とは特に關係をせたい

15 自然と人との關係には注意して行かう

産業氣候の關係 軍事上交通上の位置

**Instructor:** Isomura Akira 磯村章

**Date:** September 20, 1930 (Sat.) 5th Period (the 2nd of 7 lessons)

**Document:** Regular elementary school textbook Unit 1 central Japan, Page 2 topography and climate

**Purpose:** Give an overview of the mountains in central Japan, and cultivate interest in mountains

**Preparation:** Maps of Japan and central Japan, examples, picture postcards, mountain climbing maps

**Distribution** (lessons overview)

1st period	District Features and Topography 1
2nd period	Mountain information
3rd period	Rivers, land, seashore, climate
4th period	Industry 1
5th period	Industrial transportation
6th period	Cities and towns
7th period	Summary

### Teaching and Learning Process

1. Practice map reading using maps of central Japan
2. Comparative review of already covered document
3. The relationship with local regions
4. Mountains and mountain ranges; how the shapes of the mountains were formed in the Pacific coastal areas, central Alps, and the Japan Sea area.
5. Relationship between mountains and life
6. Explanation of pictures
7. Explanation of geographical terms for comprehension of text (How to take organized notes)

### My Plan for the Learning of Geography

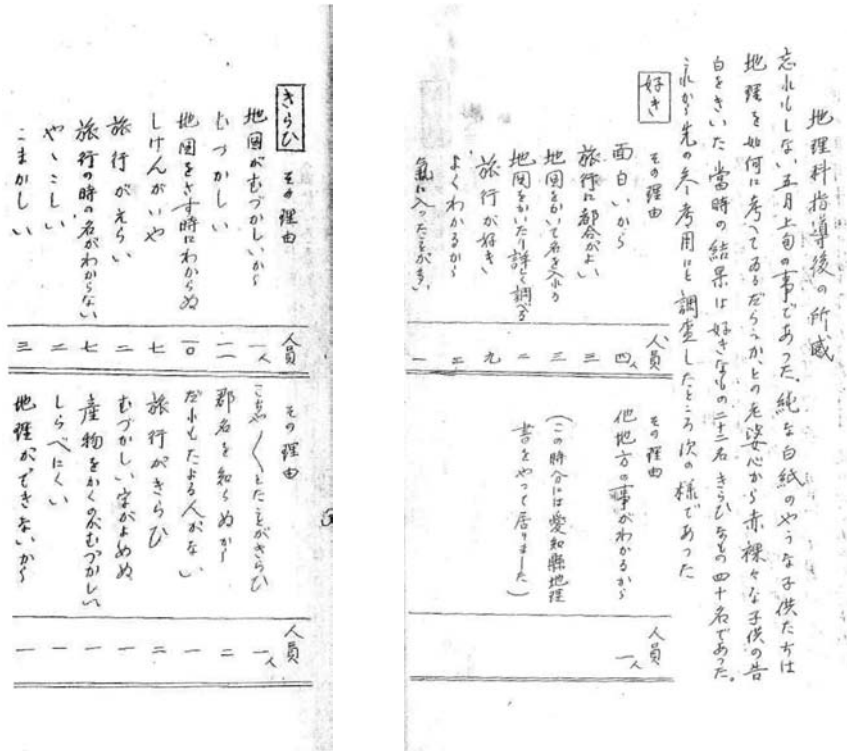
1. Teaching Geography using maps
2. Be aware of the location of land—place emphasis on the relationship of location
3. Be cognizant of geographical terms and symbols
4. The rationale behind collecting reference documents
5. Encourage thinking about the relationship between regional localities
6. The first time to explore various regions in Japan
7. Would like to encourage an attitude of allowing pupils to do research and ask questions so that they are able to discuss the subject simply.
8. Have pupils write about their research in notebooks
9. Emphasize the relationship between lines of latitude and ocean currents
10. Pay attention to the fundamentals—map reading, inland, climate
11. Pay close attention to selection of research document
12. Emphasize the connections between ways of reading other texts
13. I would like to become more aware of the relationship between nature and humanity
14. I would like to be able to offer interesting explanations of pictures
15. Let pupils practice sketching while using a small black board
16. Do comparative research
17. Use a map showing climatic trends, including temperature and precipitation
18. Encourage research by posing a simple question and have pupils come up with answers



themselves.

(Kijō Elementary School Archive, used with permission)

**Appendix B: Teacher’s Evaluation of the Geography Lessons in Practice before the Lesson Study**



**Impressions of the geography lessons**

I could not forget the events of early May, 1930. I wondered what pupils, who are as pure as blank sheets of paper, thought about learning geography, and I listened carefully to their honest opinions. As a result, there were twenty five comments from twenty two students, about why they liked learning geography, while forty students gave fifty three reasons for their dislike of geography.

Favorable Comments	Number of Responses
Interesting	4
Advantageous for travel	3
Can draw maps with names	3
Can draw maps and look for details	2
I like travel	9
Easy to understand	2
Many things I liked	1
Could learn about other regions	1
Unfavorable Comments	Number of Responses
Maps are difficult	1
Difficult	11
Don't understand when map is pointed to	10

Hate examinations	7
Travel is tiring	2
Don't know the names of travel destinations	7
Too complicated	2
Too many details	3
Dislike confusion	1
Don't know regional names	2
There's no one to help me	1
I hate travel	2
I can't read the difficult characters	1
Difficult to draw pictures of local products	1
Difficult to research	1
I can't do geography	1

(Kijō Elementary School Archive, used with permission)

**Appendix C: Teacher's Evaluation of the Geography Lessons in Practice after the Lesson Study**



I must admit that I am to blame for many of these responses. When learning geography for the first time, pupils are expected to remember a large amount of information. I ignored the obvious fact that learning geography of one's region requires an enormous amount of effort. In light of this, I thought I would like to start anew and try to teach geography that is interesting and fun. The following is a report of these changes (late September, 1930).

Favorable Comments	Number of Responses
It's interesting	3
Studying is interesting and fun	2
I like to travel	13
I like using maps for travel	7
I learned a lot about the locations of prefectures and capitals	6
I enjoy looking at sketches and maps	5

The color is yellow	1
I enjoy sketching outlines	2
I know what comes from which prefectures	2
I learned about my own home and heritage	2
I learned about prefectures and mountains	1
I learned the names of places for when I travel	1
I used a map to find things	7
I won't be embarrassed to go places	1
I can guess at what the teacher is saying	6
I can find where products come from	11
I like talking about geography	2
I understand geography	4
I can use a map to find places	2
I like to think	2

### Examples of Satisfied Pupils

#### ● Ishihara Setsurō 石原節郎

I really like geography. 1) I can find out many things by looking at map; 2) I love learning about many towns and cities; 3) Because I can easily understand the teacher's questions, and have interesting discussion for an hour; 4) Because it's interesting to study how topography of land has developed.

#### ● Ōta Hitoshi 太田等

I just really like geography. 1) Because I can understand what is being taught and how to use the information that I learn in the classroom; 2) I can learn about the names of prefectures and my own family history; 3) Because my father teaches me with such single-minded determination.

### Unfavorable Comments

### Number of Responses

The teacher asks unexpected questions	6
Too many details	3
Too much to think about	1
Difficult to remember	6
I don't know the names of places	6
Difficult	6
I don't like looking at maps	3
We have to read books on geography	1
I dislike research	1
Because we have to do research	1
I hate having to look stuff up	1
I don't like travel	1
Travel is bothersome	1

Considering these responses I must concur that poor pupils should not be required to do the same quality of research as their adolescent peers. However, I felt that this was unavoidable since present day youth (pupils in my class) are finally starting to take interest in their studies, and seem glad to spend more class time learning about something interesting.

(Kijō Elementary School Archives, used with permission)

Appendix D: Teachers' Reflective Thinking on the Geography Lessons

地理の 縦断的研究 (経験から)

吾地方の縣と敵へるの蝶の形、象の形、牛の形、大黒様とそれく、  
 生物よかたどつてやるのは子供は喜んでやつてくれぬ様だ。

二 産物を覚えるのは歌や俳句、川柳、これのみこませる。

三 交通を思ふのは汽車や電車に或は艇行機や自動車。

其の他の交通機関を利用した事にして「さあ今から汽車で旅行  
 に出かけます」地圖をもつて……とやりますと子供は面白がるが電氣  
 のある授業……成功しと喜んでおもしろい。

四 子供は持ってきた繪葉書や本をさしゑかき教科書にするとし  
 一冊あつて面白く思ひました……

かゝりて失敗としては返云をふりかへり喜んで子供を見せたい  
 色を毎日共に手をとるが、すんば行の私の常で、  
 います、どうぞ御鞭撻あらんとぞ。

思索の徒然 (教養上の参考)

- 一 ほんたうに人間を生かすものは情しみにあらずして愛である。
- 一 蔑みはあらずして尊敬である。鞭にちかすして涙である。
- 一 鞭をもつ前に先づ愛を持つ。一愛するもののみが鞭をもつ資格を持つ。とが出来るのである。
- 一 剣によつてまづもりは又剣によつて滅ぶべし……天才ナサレの言葉
- 一 記憶分量を重視する教育は子供をこらす
- 一 地歴は暗記物と思ふなよー 経済的知識あれ
- 一 (はつちりと覚えず所と覚えぬでもよ、所を教へたい)
- 一 カント又汝等は吾を哲学者と學ぶべからず、吾を哲学者するに學べ
- 一 子供は學を覚えずせらるには多く思ふその中かと思ふよー 低学年
- 一 子供はもつて…… 大人はひやかしは大禁物

- 一 教育者とは顔の創製造者なり。
- 一 廣くならぬ人は深くない
- 一 子供を敵ふ一法として偉人の前に行かせろのよよ
- 一 先生は先生らしく子供は子供らしくあせ
- 一 子供には授けるよりも指導しつゝ見出させたい
- 一 常に清明心により教育の歩みをいつけたい

指箱や米一つぶは

たみのあせ

### **Longitudinal Study in the Geography Lesson**

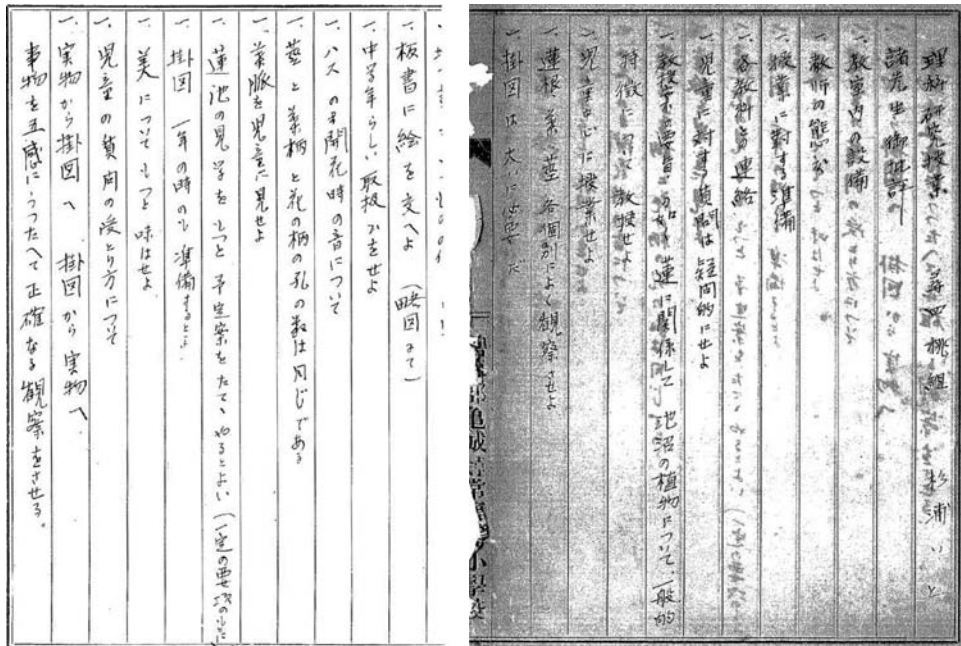
1. When teaching about the various prefectures, the children seemed to enjoy putting them into the shapes of living creatures, such as a butterfly, elephant, cow, etc.
2. Have flexibility to allow pupils to learn about local products by using songs and haiku 俳句.
3. When teaching about modes of transportation, such as trains or airplanes, start with “Well, now we’re going to take a little trip by train. Take out your maps...”. If you follow this procedure, pupils are happy to participate actively in class.
4. I noticed that pupils thought it was interesting and fun to start the lesson by looking at the postcards and illustrations that they had brought to class. I was glad to observe that pupils were happy with the way that I had changed the previous mistakes of the past, and it became my usual teaching practice to conduct lessons in tandem with them. This was a warning for me to change my teaching style.

### **Teachers’ Comments and Evaluation of the Lesson**

- It is not bitterness but an act of love to make people do something they dislike if it contributes toward their growth. It is not resentment but being respectful. It carries the notion of “I’m counting on you to do the right thing”.
- Before using a whip, you must have love; you are only qualified to hold a whip if you have love.
- A sword can be used for both creation and destruction; the wise words of a holy man.
- Education that emphasizes large amounts of memorization kills pupils.
- Don’t think of geography as things to memorize; provide knowledge sparingly. (Alternate between teaching content that needs to be memorized and that which doesn’t require memorization).
- Your teaching practice is more important than merely learning about theory. “Actions speak louder than words”.
- For teaching characters to pupils in the lower grades, choose from a large selection to teach them.
- Adult’s ridicule is a dangerous thing for pupils.
- An educator is a creator of facial expressions.
- Someone who cannot think broadly cannot think deeply.
- One method of saving children is to put them in front of a person of greatness.
- Teachers must behave like teachers, and pupils as pupils.
- Encourage pupils to lead rather than to follow.
- Continue making progress as an educator who constantly follows a clear heart.

(Kijō Elementary School Archive, used with permission)

**Appendix E: Outline of Teachers' Discussion and Evaluation of a Science Education Lesson Study at Kijō Elementary School in 1930 (Instructor: Sugiura Ito, 4th Grade)**



- The classroom facilities
- Instructor's attitude
- Preparation for class
- Relevance to various other parts of the curriculum
- Whether or not questions posed to pupils are refutable
- In keeping with the outline of lesson plans, teach about the general characteristics of swamp plant life related to the lotus plant
- Do pupil-centered teaching
- Let pupils closely observe lotus root, leaves, and stems by themselves
- The necessity of making large diagrams
- Use the blackboard for drawings and diagrams
- Treat them like middle school pupils
- The sound of the lotus flower when it blooms
- The number of stems, leaf pattern, petals, and are the same as the number of perforations in the flower pattern
- Show the vein patterns of a leaf to the pupils
- It's a good idea to plan a field trip to view lotus plants (and include specific points)
- Wall charts: Also prepare for the first year
- Let them experience beauty
- Methods for answering pupils' questions
- From wall charts to actual objects, from object to those depicted in wall charts; let pupils observe objects with five senses for best accuracy

**Appendix F: Teachers’ Discussion, Evaluation and Critical Comments on a 6th Grade Science Education Lesson Study at Kijō Elementary School in 1930**



A mimeograph Teaching Plan, KES (1930)

- Sugiura 杉浦, A 4th grade teacher (Based on his participant observation notes)
    1. Course procedure should start with something from vinegar that is related to life
    2. Feelings toward class and school rules
    3. Appropriate standards for studying methods
    4. Talk about lunch boxes: As one example, “Will acid penetrate an aluminum lunch box?”
    5. Write on the blackboard about the transformation of alcohol to vinegar
    6. Discuss the experiment in more detail
    7. After the experiment, wash the tools and aluminum case and store them
  - Egawa 江川, A 5th grade teacher (Based on his participant observation notes)
    1. Check the class preparation
    2. Check the shift training
    3. Check the teacher’s attitude
    4. Take care when you put something heavy made from metal into a test tube
    5. Pupils’ experiments are mechanical
    6. Check how pupils work together in clean up
  - Isomura 磯村, An advanced course teacher (Based on his participant observation notes)
    1. Attitude, methods, and preparation should be clear and organized
    2. The process of making vinegar; the possibility of making vinegar from only alcohol
    3. Talk about Handa 半田 Vinegar Company
    4. Make sure that the results from the experiment are duly written down in the record book
    5. Help the teacher to conduct the experiment
    6. Conduct the class more as an advisor than as a teacher
- (Kijō Elementary School Archive, used with permission)

## REFERENCES

- Abosch 1964  
David Abosch. "Katō Hiroyuki and the Introduction of German Political Thought in Modern Japan, 1868–1883." Ph.D. Dissertation, University of California, 1964.
- Ashida 1936a  
Ashida Enosuke 芦田恵之助. "Henshū no ji" 編輯の辞. *Dōshi dōgyō* 同志同行 5 (1936).
- Ashida 1936b  
Ashida Enosuke. "Wazakurabe" わざくらべ. *Dōshi dōgyō* 5 (1936).
- Ashida 1936c  
Ashida Enosuke. "Kōichi ni fukushiki kyōdan" 高一二複式教壇. *Dōshi dōgyō* 5 (1936).
- Ashida 1936d  
Ashida Enosuke. "Nagai michi" 長い道. *Dōshi dōgyō* 5 (1936).
- Ashida 1938  
Ashida Enosuke. *Kyōshiki to kyōdan* 教式と教壇. Dōshi dōgyōsha, 1938.
- Ashida 1973  
Ashida Enosuke. *Kyōshiki to kyōdan: tsuzurikata kyōju* 教式と教壇一綴り方教授. Meijitoshō Shuppan, 1973.
- Bruner 1996  
Jerome Bruner. *The Culture of Education*. Harvard University Press, 1996.
- Cave 2007  
Peter Cave. *Primary School in Japan: Self, Individuality and Learning in Elementary Education*. Routledge, 2007.
- Collins 1975  
Kevin A. Collins. "Trends in Japanese Teacher Education." *Asia-Pacific Journal of Teacher Education* 3:1 (1975).
- Deal and Peterson 1999  
Terrence E. Deal and Kent D. Peterson. *Shaping School Culture: The Heart of Leadership*. Jossey-Bass Publisher, 1999.
- Ebihara 1975  
Ebihara Haruyoshi 海老原治善. *Gendai Nihon kyōiku jissenshi* 現代日本教育実践史. Meiji Toshō Shuppan, 1975.
- Fernandez et al. 2003  
Clea Fernandez, Joanna Cannon and Sonal Chokshi. "A US–Japan Lesson Study Collaboration Reveals Critical Lenses for Examining Practice." *Journal of Teaching and Teacher Education* 19:2 (2003).
- Fukaya 2005  
Fukaya Keisuke 深谷圭助. "Meiji makki ni okeru Kagoshima ken Shihan gakkō Fuzoku Shōgakkō no jishūhō kenkyū" 明治末期における鹿児島県師範学校附属小学校の自習法研究. *Kyōiku hōhō kenkyū* 教育方法研究 31 (2005).
- Fukaya 2007  
Fukaya Keisuke. "Kindai nihon ni okeru jigakushugi kyōiku no kenkyū" 近代日本における自学主義教育の研究. Ph.D. Dissertation, Nagoya University, 2007.
- Hayashi 1997  
Hayashi Masami 林尚示. "Shōwa 10 nendai no gakkō karikyuramu ni okeru tōgō no



mondai ni kansuru kenkyū” 昭和10年代の学校カリキュラムにおける統合の問題に関する研究. *Kyōiku hōhō kenkyū* 23 (1997).

Higuchi 1905

Higuchi Kanjiro 樋口勘次郎. *Kokkashakaishugi kyōikugaku honron* 國家社會主義教育學本論. Dōbunkan, 1905.

Hinde 2004

Elizabeth R. Hinde. “School Culture and Change: An Examination of the Effects of School Culture on the Process of Change.” *Essay in Education* 12 (2004), Posted on Online Journal of University of South Carolina, <http://www.usca.edu/essays/vol12winter2004.htm>

Hisaki 1980

Hisaki Yukio 久木幸男. “Katsudōshugi” 活動主義. In Hisaki Yukio, Suzuki Eiichi and Konno Yoshikiyo 久木幸男・鈴木英一・今野喜清, eds. *Nihon kyōiku ronsō shiroku dainikan: kindaihen (ge)* 日本教育論争史録・第2巻：近代編（下）. Daiichi Hōki Shuppan, 1980.

Hofstede 2001

Geert Hofstede. *Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations Across Nations*. 2nd ed., Sage Publications, 2001.

Honami Shōgakkō 1909

Honami Shōgakkō 穂波小学校. “Fukuoka ken Honami Shōgakkō jidō no jishū” 福岡県穂波小学校児童の自修. *Kyōiku jikkenkai* 教育実験界 23: 4 (1909).

Horio 1988

Teruhisa Horio. *Educational Thought and Ideology in Modern Japan: State Authority and Intellectual Freedom*. Edited and translated by Steven Platzer. University of Tokyo Press, 1988.

Inagaki 1966

Inagaki Tadahiko 稲垣忠彦. *Meiji kyōju riron shi kenkyū: kōkyōiku kyōju teikei no keisei* 明治教授理論史研究：公教育教授定型の形成. Hyōronsha, 1966.

Inagaki 1993

Tadahiko Inagaki. “The Contemporary Status of the Teaching Profession in Japan: Its Roles, Responsibilities, and Autonomy.” *Peabody Journal of Education* 68:4 (1993).

Inoue 1899

Inoue Tetsujirō 井上哲次郎. “Kyōiku gakujutsukai no hakkō o shukusu” 教育学術界の発行を祝す. *Kyōiku gakujutsukai* 教育学術界 1:1(1899).

Iwasaki 2001

Iwasaki Noriko 岩崎紀子. “Taishō no rikakyōiku kenkyū ni okeru jitchi hihyōkai: jissen shutai toshite no kyōshi ni yoru jugyō kōsei no shiten” 大正期の理科教育研究における実地授業批評会：「実践主体」としての教師による授業構成の視点. *Kyōto Daigaku daigakuin kyōikugaku kenkyūka kiyō* 京都大学大学院教育学研究科紀要. 47 (2001).

Kaigo and Naka 1963

Kaigo Tokiomi and Naka Arata 海後宗臣・仲新. *Kyōkasho de miru Nihon no kyōiku hyakunen* 教科書でみる日本の教育100年. Tōkyō Shoseki, 1963.

Kamo 1936

Kamo Gakuji 加茂学而. “Ameagari” アメアガリ. *Dōshi dōgyō* 5 (1936).

Katagiri 1990

Katagiri Yoshio 片桐芳雄. *Jiyūminken ki kyōikushi kenkyū: Kindai kōkyōiku to minshū* 自由民権期教育史研究：近代公教育と民衆. Tōkyō Daigaku Shuppankai, 1990.

Kinkōdō Henshūbu 1910

Kinkōdō Henshūbu 金港堂編集部編, ed. *Zenkoku fuzoku shōgakkō no shinkenkyū* 全国附属小学校の新研究. Kinkōdō Shoseki, 1910.

Kobayashi 1989

Kobayashi Kazuhiko 小林和彦. "Ashida Enosuke no kyōdan angya: jugyō kenkyū no hōhōron o toinaosu" 芦田恵之助の教壇行脚：授業研究の方法論を問い直す. *Gendai kyōiku kagaku* 現代教育科学 32:3 (1989).

Koizumi 1904

Koizumi Mataichi 小泉又一. "Hakkan no ji" 発刊の辞. *Kyōiku kenkyū* 教育研究 1:1 (1904).

Lee 2008

Jackie F. K. Lee. "A Hong Kong Case of Lesson Study: Benefits and Concerns." *Teaching and Teacher Education* 24:5 (2008).

Lewis et al. 2006

Catherine Lewis, Rebecca Perry and Aki Murata. "How Should Research Contribute to Instructional Improvement?" *Educational Researcher* 35:3 (2006).

Lincicome 1995

Mark E. Lincicome. *Principle, Praxis, and the Politics of Educational Reform in Meiji Japan*. Honolulu: University of Hawaii Press, 1995.

Marshall 1994

Byron K. Marshall. *Learning to be Modern: Japanese Political Discourse on Education*. Westview Press, 1994.

Matoba et al. 2007

Masami Matoba, Yoshiaki Shibata and Mohammad Reza Sarkar Arani. "School-University Partnerships: A New Recipe for Creating Professional Knowledge in School." *International Journal of Educational Research for Policy and Practice* 6 (2007).

Matsuo 1936

Matsuo Sadakichi 松尾禎吉. "Hotaru" ホタル. *Dōshi dōgyō* 5 (1936).

Monbushō 1981

Monbushō 文部省編. *Gakusei hyakunen shi* 学制百年史. Teikoku Chihō Gyōsei Gakkai, 1981.

Murata et al. 1996

Murata Yokuo, Saito Taro and Ohto Yasuhiro. *Education in Japan: A Bilingual Text: Historical Development*, University of Tsukuba Press, 1996.

Miller 2003

Miller, E Joan (Wilson). "Teaching Methods, the Herbartian Revolution and Douglas Clay Ridgley at Illinois State Normal University." *The Journal of Geography* 102:3 (2003).

Miyoshi 1972

Miyoshi Nobuhiro 三好信浩. *Kyōshi kyōiku no seiritsu to hatten: America kyōshi kyōiku seidoshi ron* 教師教育の成立と発展：アメリカ教師教育制度史論. Tōyōkan Shuppansha, 1972.

Motokane 1996

Motokane Masahiro 元兼正浩. “Waga kuni ni okeru kōchō no bunkateki ridāshipu no hōga: Nakazawa Tadarō cho ‘Kōfuron’ (Meiji 44 nen) no shōkai” わが国における校長の文化的リーダーシップの萌芽：中澤忠太郎著「校風論」(明治44年)の紹介. *Kyūshū daigaku kyōikugakubu kyōiku keiei kyōiku gyōseigaku kenkyū kiyō* 九州大学教育学部教育経営教育行政学研究紀要 3 (1996).

Nakano 1968

Nakano Akira 中野光. *Taishō jiyū kyōiku no kenkyū* 大正自由教育の研究. Reimei Shobō, 1968.

Nakauchi 1970

Nakauchi Toshio 中内敏夫. *Seikatsu tsuzurikata seiritsushi kenkyū* 生活綴方成立史研究. Meiji Tosho Shuppan, 1970.

Ōmi 1936

Ōmi Nobuichi 大見延一. “Yama no Aki” 山の秋. *Dōshi dōgyō* 5 (1936).

Ōmura 1898

Ōmura Jintarō 大村仁太郎. “*Kyōiku jikkenkai hakkō ni tsukite*” 教育実験界発行につきて. *Kyōiku jikkenkai* 教育実験界 1:1(1898).

O’Neil 1995

John O’Neil. “On Schools as Learning Organizations: A Conversation with Peter Senge”. *Educational Leadership* 52:7 (1995).

Peterson and Deal 1998

Kent D. Peterson and Terrence E. Deal. “How Leaders Influence the Culture of Schools”. *Educational Leadership* 56:1 (1998).

Prosser 1999

Jon Prosser, ed. *School Culture*. Paul Chapman Publishing Ltd, 1999.

Robinson 1977

Daniel N. Robinson, ed. *Significant Contributions to the History of Psychology 1750–1920*, In Series B of Psychometrics and Educational Psychology, vol.1 of J. F. Herbart and F. Froebel. University Publications of America,

Sarkar Arani et al. 2007

Mohammad Reza Sarkar Arani, Yoshiaki Shibata and Masami Matoba. “Delivering *Jugyō Kenkyū* for Reframing Schools as Learning Organizations: An Examination of the Process of Japanese School Change.” *Nagoya University English Journal* 3 (2007).

Sarkar Arani and Fukaya 2009

Mohammad Reza Sarkar Arani and Takenobu Fukaya. “Learning beyond Boundaries: Japanese Teachers Learning to Reflect and Reflecting to Learn.” (2009), Posted on Child Research Net website, <http://www.childresearch.net/RESOURCE/RESEARCH/2009/ARANI.HTM>

Sato 1998

Manabu Sato. “Classroom Management in Japan: A Social History of Teaching and Learning.” In Nobuo K. Shimahara, ed. *Politics of Classroom Life: Classroom Management in International Perspective*. Garland, 1998.

Schein 1985

Edgar H. Schein. *Organizational Culture and leadership: A Dynamic View*. Jossey-Bass Publishers, 1985.

Senge 1990

Peter M. Senge. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Currency/Doubleday, 1990.

Senge et al. 2000

Peter Senge, Nelda Cambron-McCabe, Timothy Lucas, Bryan Smith, Janis Dutton and Art Kleiner. *Schools That Learn: A Fifth Discipline Fieldbook for Educators, Parents, and Everyone Who Cares About Education*. Currency/Doubleday, 2000.

Stigler and Hiebert 1999

James W. Stigler and James Hiebert. *The Teaching Gap: Best Ideas from the World's Teachers for Improving Education in the Classroom*. Free Press, 1999.

Stolp 1994

Stephen Stolp. *Leadership for School Culture*. ERIC Digest 91, June 1994.

Sugiyama 2004

Sugiyama Akio 杉山明男. "Jugyō kenkyū" 授業研究. In Nihon Kyōiku Hōhō Gakkai hen 日本教育方法学会編, ed. *Gendai kyōiku hōhō jiten* 現代教育方法事典. Tosho Bunkasha, 2004.

Takahashi and Yoshida 2004

Akihiko Takahashi and Makoto Yoshida. "Ideas for Establishing Lesson-Study Communities." *Teaching Children Mathematics* 10:9 (2004).

Takahata 2004

Takahata Masato 高旗正人. "Gakkō bunka. Gakkyū bunka" 学校文化・学級文化, In Nihon Kyōiku Hōhō Gakkai hen 日本教育方法学会編. *Gendai kyōiku hōhō jiten*. Tosho Bunkasha, 2004.

Tōkyō Bunrika Daigaku and Tōkyō Kōtō Shihan Gakkō 1932

Tokyo Bunrika Daigaku and Tokyo Kōtō Shihan Gakkō 東京文理科大学・東京高等師範学校. *Sōritsu 60 nen* 創立六十年. Tōkyō Bunrika Daigaku, 1932.

Toyoda 2005

Toyoda, Hisaki 豊田ひさき. "Kodomo kara' no kariyuramu hensei ni kansuru rekishiteki kōsatsu" 「子どもから」のカリキュラム編成に関する歴史的考察. *Kyōikugaku kenkyū* 教育學研究 72:4 (2005).

Toyoda 2009

Toyoda, Hisaki. *Kōchō no hinkaku* 校長の品格. Reimei Shobō, 2009.

Yoshida 1921

Yoshida Kumaji 吉田熊次. *Honpō kyōikushi gaisetu* 本邦教育史概説. Meguro Shoten, 1921.

## NOTES

1 The title of the monthly journal "Dōshi dōgyō" means "colleagues collaborative," and refers to people who have similar aims and practices who come together to write, publish and share experiences from their classroom activities and so learn from each other. The journal provided space for teachers to publish their best practices, lesson plans, and reports of how they revised their teaching based on group discussion in school. Ashida was the journal's editor. (Ashida, 1936a).

2 Ashida divided reading lessons into seven parts. He first asked children to read the text, and then to decipher the content. He read the teaching material again, then asked children to write about the content in their notebook. He then asked them to return to the teaching material once more and read it, and write the main learning points on blackboard. Once again he asked children to discuss the main

content on the blackboard, and finally he got them to read the content and points of learning which he compiled on the blackboard, (Ashida 1938; 1973).

3 *Dōshi dōgyō* reported many cases of lesson study in different subjects taking place at elementary schools throughout Japan in the 1930s. Authors of lesson study included: Kamo Gakuji 加茂学而, 1936 (Yokouchi Shōgakkō 横内小学校); Matsuo Sadakichi 松尾禎吉, 1936 (Tago Shōgakkō 田子小学校); Ōmi Nobuichi 大見延一, 1936 (Futagawa Seibu Shōgakkō 二川西部小学校); Ashida Enosuke 芦田恵之助, 1936b (Ōgaki Shōgakkō 大垣小学校); Ashida Enosuke, 1936c (Hekikai gun Shinkawa Shōgakkō 碧海郡新川小学校); Ashida Enosuke, 1936d (Tokyo shi Aoyagi Shōgakkō 東京市青柳小学校); Iwasaki Noriko 岩崎紀子, 2001 (Toyama ken Shihan Gakkō Fuzoku Shōgakkō 富山県師範学校附属小学校).

4 Kijō elementary school has a long history. It was founded as a samurai school, and was restructured based on educational law in the early Meiji era as *bankō* 藩校 Bunreikan 文礼館 in 1873. It was the first modern public elementary school in the Kariya area.

5 The concept of “managers of learning” is discussed at length in Cave 2007.

## 要旨

### 日本の学校文化としての「授業研究」に関する歴史研究

モハメッド レザ・サルカールアラニ、深谷圭助、ジェームス・ラセガード

日本の多くの教師たちは、授業づくりは共同作業であり、優れた現職教育は、集団の中でアイデアや経験を共有し、それらについて議論しあうことによって成し遂げられると考えている。彼らの教育理論は、教員同士の緊密なコミュニケーションを通して作り上げられたものである。校内研修としての「授業研究」に関して、形式的な理論や抽象的な原理を学ぶことよりも、むしろ彼らは実践に基づく共同研究、すなわち授業研究を通して技能を修得している。こうした「授業研究」は、子どもの事実から学ぼうとする姿勢に支えられながらこれまで日本の学校文化として醸成されてきたものである。本研究では、日本における「授業研究」が、どのような枠組みで実施されているのかを整理し、近代日本において、校内研修としての授業研究が盛んに行われていた昭和初期（1930年代）の公立小学校の授業研究会で作成された学習指導案や批評会記録を中心史料としながら、授業研究がどのような背景のもとで学校文化・教師文化を構築してきたかを明らかにするものである。まず、日本の場合、明治維新以来、欧米の技術を摂取するために近代的学校制度を設立する際、教師は欧米型の教育方法を摂取し学び合う必要があったという点である。そのためには、強い授業研究への動機を持つことが必要であったと思う。また、協同的に授業研究をする際に重要であった指導案を共有化するために、授業記録の作成や検討が普及し、授業研究が学校文化となって成立する大きな契機となったのである。そして、子どもの学習状況、活動状況によって教育の意義が位置づけられることを、日本の多くの教員たちが認識し、省察し続けていたという点である。教員の仕事の成果は、常に子どもの姿にあらわれるものである。今後の研究課題として、日本で培われた授業研究

を他の国に導入する場合に、どのような点に留意しなければならないのかを考える重要な示唆が得られるのではないかと思う。