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Subject Pedagogy in Japan: The Reconstructive Process and the Competitive Relationship of Multiple Subject Pedagogies

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Abstract

The aim of this research is to describe the historical development of subject pedagogy in Japan by applying the theory of competing paradigms and dividing it into four periods. There are three meanings of subject pedagogy in the Japanese academic context: as a sub-discipline of the broader educational sciences, as a research activity of curriculum and instruction for specific school subjects, and as an essential field of teacher education for certifying professionals to teach specific subjects. This paper shows that these three meanings have been historically generated and transformed. They interact with one another and are reconstructed as they have been influenced by the political and academic factors of the time. The paper also shows that the established meanings have not faded away lightly over the three-quarter century history of Japanese subject pedagogy, but instead have persisted as a multi-faceted paradigm that continues to define it.

Keywords

subject pedagogy, educational sciences, curriculum and instruction, school subject, teacher education

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1 Introduction

1.1 *The Complexity and Historicity of the Language of Subject Pedagogy*

Translating the Japanese term *Kyouka-kyouiku-gaku* (subject pedagogy)¹ into other languages presents a significant challenge. The difficulty stems from the fact that its usage varies depending on the intended purpose and the context. In Japan, *Kyouka-kyouiku-gaku* encompasses three primary dimensions of meanings:

A: Academic System, a sub-discipline within the broader field of educational sciences.

B: Research Practice, research focused on curriculum and instructional methods of specific school subjects.

C: Teacher Education, a domain within educational programs that is dedicated to teacher education.

The following sections will provide a more detailed examination of these three dimensions.

In the most recent academic classification of academic disciplines as defined by the Japan Society for the Promotion of Science (JSPS), the largest organization which reviews and provides research funding in Japan, *Kyouka-kyouiku-gaku* is designated as a major category (i.e., category A), which is further subdivided into the following fields: 1) Philosophy and Art, 2) Literature and Linguistics, 3) History, Archaeology and Museology, 4) Geography, Cultural Anthropology and Folklore Studies, 5) Law, 6) Political Science, 7) Economics and Business administration, 8) Sociology, 9) Education, and 10) Psychology. The field of educational science is itself divided into the following ten sub-disciplines (Japan Society for the Promotion of Science, 2024; <https://nrid.nii.ac.jp/en/index/>):

Pedagogy

Educational Sociology

Children's Studies and Childcare

Subject Pedagogy and Elementary-Secondary Education

Higher Education

Special Education

Educational Technology

Science Education

Japanese Language Education

Foreign Language Education.

¹ There are slightly different varieties of spelling and pronunciation of this term in Japanese, which does not lead to misunderstandings, however.

While other active areas in pedagogy exist, the JSPS has selected and approved only these ten fields as the primary areas for the allocation of research funding. This classification has a large impact on higher education and reflects the institutional mapping of educational sciences in the context of higher education administration. In this framework, “subject pedagogy” (as listed above) corresponds to Meaning A (Academic System) of “subject pedagogy”, where subject pedagogy is recognized as a distinct branch within the educational sciences.

However, in academic discourse, “subject pedagogy” often refers to research related to individual school subjects. In government administrative systems, subject pedagogy is not typically divided into individual subjects. In practice, however, researchers tended to focus on specific areas such as Japanese language, mathematics, science, and social studies, which led to the development of Meaning B (Research Practice) of “subject pedagogy”. This interpretation defines subject pedagogy as the research activity focused on the “curriculum and instruction” of each subject (Moriwake, 1986, p. 177). This concept appears to have been influenced by academic traditions from the U.S. university system, where “Curriculum and Instruction” is an established field. This concept has effectively shaped one of the prevailing definitions of subject pedagogy in Japan.

From the perspective of teacher candidates, subject pedagogy is often associated with the teacher licensure process. To obtain a junior high school teaching license, candidates are required to complete courses in five key areas: (1) subject content and its teaching, (2) educational foundations, (3) methods of moral education, integrated learning, guidance, and educational counseling, (4) teaching practice, and (5) university-specific courses (Ministry of Education, Culture, Sports, Science and Technology, 2019). The first area is subdivided into “subject-specific content and skills” and “pedagogy in each subject,” with the latter representing the area to which the perspectives and research outcomes of subject pedagogy are applied. In this sense, Meaning C (Teacher Education) corresponds to a sub-domain within the first area and is widely understood as representing the educational programs designed to prepare teachers as professionals.

These three meanings also contribute to the respective understanding researchers who study subject pedagogy in Japan have of their role in a larger context. First, researchers who study subject pedagogy are members of the broader academic community within educational sciences. Second, researchers who study subject pedagogy focus on specific school subjects. Third, researchers who study subject pedagogy serve as teacher educators, responsible for training future teachers in subject-specific pedagogy. The relative emphasis placed on these roles may vary among individuals, influenced by the institutional missions and contexts of their affiliations, but these concerns are central to all scholars working within subject pedagogy.

Examining its historical evolution can explain why the term “subject pedagogy” encompasses these three distinct meanings. As a social construct, subject pedagogy has developed over time, gradually expanding and being redefined. This paper aims to elucidate the distinctive features of subject pedagogy in Japan by tracing its historical development and exploring the processes involved in its (re)construction.

Concerning the perspective of institutionalization, Ecker (2018, pp.2-3) lists three different components which play a role in this context. In particular, he points out that the synergy of each component of organizational development, of personal development, and of knowledge

management is an essential condition for the institutionalization of subject pedagogy. The cited author agrees with this perspective. Our own paper will focus on knowledge management in the three meanings of subject pedagogy as the most influential component, while indirectly also referring to its relationship with the other two components so as to depict the history of subject pedagogy in Japan.

2 Historical Development of Subject Pedagogy in Japan and the Coexistence of Competing Paradigms

Drawing on previous studies (Sato, 2016; Kobara, 2017; Kusahara, 2022; Kawaguchi, 2021), this paper divides the historical development of subject pedagogy in Japan into four distinct periods:

Period 1: The Period of Establishment of Subject Pedagogy (1950s–);

Period 2: The Independence of Subject Pedagogy (1970s–);

Period 3: The Period of Instability of Subject Pedagogy (2000s–);

Period 4: The Restructuring of Subject Pedagogy (2020s–).

Each period represents a critical juncture at which one or more of the three meanings of “subject pedagogy” were either socially reinforced or challenged, leading to a transformation in its status. Notably, once a particular meaning was established, it was not easily displaced; rather, it continued to exert influence, allowing multiple meanings to coexist. This phenomenon can be understood through the concept of “competing paradigms” (Matsushima, 1996; Eguchi, 2017), which is an application of Kuhn’s (1962) theory of the structure of scientific revolutions.

In the historical analysis of “subject pedagogy” presented below, the discussion focuses on the dominant currents in each period—referred to as the “central paradigm”—and the alternative streams that remained less prominent. Multiple paradigms coexisted within each period, and even as the field transitioned to a subsequent period, the prevailing paradigm of the earlier period continued to exert some influence. Therefore, this article adopts a theoretical framework based on the transition and coexistence of competing paradigms to trace the change and continuity in the meaning of “subject pedagogy.”

2.1 *Period 1: The Period of Establishment of Subject Pedagogy (1950s–)*

Japan’s defeat in World War II brought about the democratization of education in Japan. Under the prewar system, government control over education was considerable, but educational freedom was expanded under the new postwar constitutional system. Under the new School Education Law, the Ministry of Education at that time established the general guidelines of the school curriculum. School principals were given the authority to implement the curriculum in alignment with these guidelines. As a result, the responsibility of teachers in the practical implementation of education increased, and teachers were expected to have the professionalism not only to improve their teaching techniques, but to design curricula autonomously.

Teachers' professionalization and improved status were ensured by the transfer of teacher education from vocational schools to universities. In principle, in order to obtain a teaching license either for the primary or the secondary level, teachers were required to take courses and earn credits at universities and colleges and were barred from teaching without a teaching license issued by the prefectural educational board. As a result of these institutional reforms, the interest in teacher education shifted from university teaching to academic research, and teacher education was also required to be based on academic research. The same was true for those in charge of courses on subject pedagogy. There was a growing movement among university faculty members concerned to form academic associations for research and scholarly exchange (Kobara, 2017, pp.8-9). For example, the following academic societies were established in the disciplinary realm:

- Japan Society of Physical Education, Health and Sport Science (established in 1950)
- Japanese Teaching Society of Japan (1950)
- Art Education Society of Japan (1951)
- Japanese Educational Research Association for the Social Studies (JERASS) (1951)
- Japan Society of Mathematics Education (1952)
- Society of Japan Science Teaching (1952)
- The Japan Association of Home Economics Education (1958)

In order to democratize education, special training opportunities were provided to those responsible for the pedagogy of the subject. For example, in social studies education, which was charged with the mission of educating students to become democratic citizens, a conference called the Institute for Educational Leadership (IFEL) was planned by a delegation led by the United States. It was a seminar specifically designed to enable professors of history, political science, geography, philosophy, etc., who had never studied progressivism or the experiential philosophy and citizenship education, to become acquainted with these new ideas from abroad and be able to teach a course in this specific subject-pedagogical area. Similar seminars were held on other subjects, and the personal networks formed through these seminars led to the establishment of academic societies.

Thus, the first period of “subject pedagogy” began with retraining teacher educators at the university level, leading to research on subject pedagogy. To recapitulate the trends of the first period using the three meanings of “subject pedagogy” as a theoretical framework, Meaning C (Teacher Education) of “subject pedagogy” emerged from educating teacher educators who were specialized in teaching particular subjects. This movement led to the emergence of Meaning B (Research Practice) of “subject pedagogy”, a research initiative led by teacher educators.

During the first period, the positioning of subject pedagogy in Meaning A (Academic System) was ambiguous. For example, the academic society mentioned above, the Japanese Educational Research Association for Social Studies (JERASS), stated in Article 3 of its constitution, “The purpose of this association is to conduct scientific research on social studies education and to contribute to the development of social studies research and social studies practice.” (JERASS, n.d.) The Japan Geographical Education Society (n.d.) stated in Article 2 of its constitution, “The purpose of the Society is to promote the development and dissemination of geography and its applications, especially geographical education.” The former association sought to base its association on pedagogy and educational practice, while the latter association sought to base it on geography as a branch of the humanities and social sciences.

Similar phenomena also occurred in other subjects, such as the formation of the following associations:

- The Society for Biological Science Education of Japan (founded in 1947)
- The Earth Science Education Society of Japan (1948)
- The Physics Education Society of Japan (1952)
- The Society for Science Education of Japan (1952)

The first three societies sought their foundation in the natural sciences. In contrast, the last society sought its foundation in pedagogy, i.e., the disciplinary orientation of subject pedagogy has been compounded since the establishment of subject pedagogy. As a result, academic societies based on different disciplinary backgrounds emerged in subject pedagogy, which still coexist today.

2.2 *Period 2: The Independence of Subject Pedagogy (1970s-)*

After establishing teacher education programs in universities, the next task was to train scholars engaged in teacher education and research on subject pedagogy in universities. In other words, a doctoral program was established in subject pedagogy and the number of students and graduates in this field were increased in order to avoid outsiders being involved in teaching and researching a subject by chance. In the long run, the goal was to reduce the degree to which history and political science researchers were training social studies teachers without adequate pedagogical experience and without having published sufficient academic research. In 1966, for example, the Graduate School of Education at Hiroshima University established a Ph.D. program in subject pedagogy for Japanese, mathematics, science, social studies, and English. The Tokyo University of Education followed suit.

When a new doctoral program was to be established or expanded, administrative procedures were required to explain the need for such a program to the Ministry of Education, Culture, Sports, Science and Technology. In 1971, the Japan Association of Universities of Education (JAUE) published a bibliography that seriously proposed the establishment of subject pedagogy as a research discipline in educational science and demonstrated the accumulation of past research articles. Several ideas for a disciplinary structure of subject pedagogy were proposed in the 1960s and 1970s. The representation of subject pedagogy as a triangle in Figure 1b became influential in this process.

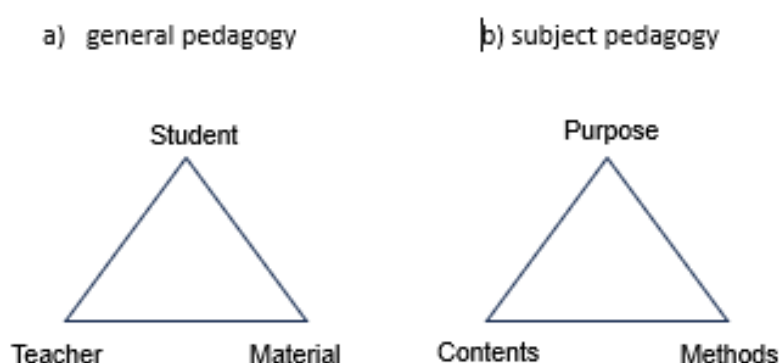


Fig. 1: Subject pedagogy and neighboring disciplines

In Nakahara (2017), the word “assessment” was added to the right figure and subject pedagogy was represented as a square. In this paper, however, the square has been replaced by the more commonly used triangle.

The diagram in Figure 1b illustrates that subject pedagogy and its related disciplines are distinct and have their own unique disciplinary perspective. That is, the framework in Figure 1b argues that subject pedagogy is differentiated from the framework in Figure 1a, which represents general pedagogy and which comprehensively clarifies the relationship between children, teachers, and teaching materials. Subject pedagogy is also distinguished from (educational) psychology, which is concerned with the cognition of children and teachers; (educational) sociology, which is concerned with the social interaction between children and teachers; and art & science, which is concerned with the coherence between materials and grounded discipline. In contrast, the mission of subject pedagogy is to study the purpose, content, and methods (plus evaluation) specific to each subject, and such subject pedagogy has a different paradigm from other disciplines (Nakahara, 2017, pp.13-14). Academic societies that wanted to pursue the independence of subject pedagogy chose the framework shown in Figure 1b.

For example, Moriwake, who later served as the president of JERASS, strongly supported the establishment of subject pedagogy specific to social studies. He stated that the subject pedagogy of social studies is neither an applied area of the science of history or geography nor an area of accumulation of the technique of educational practices (Moriwake, 1986, 178-183). He argued for the establishment of subject pedagogy as a discipline that constitutes educational science, and for placement of social studies research within subject pedagogy. He also proposed two possible methodological strategies for subject pedagogy: one is to “study” the subject-oriented aim, curriculum, and teaching methods of practitioners, and the other is to “develop” the aim, curriculum, and teaching methods in collaboration with practitioners and lead the reform of the existing system as to teaching this subject (Moriwake, 1999).

The second period of “subject pedagogy” summarized above was a period of accelerated institutionalization of subject pedagogy. To recount the trends in the second period using the three meanings of “subject pedagogy” as a theoretical framework, the controversy over the status of “subject pedagogy” in the administrative and institutional context of Meaning A (Academic System) was activated in order to revitalize research and accelerate the training of researchers in “subject pedagogy” according to Meaning B (Research Practice).

It is important to note that not all societies and researchers agree on the representation of subject pedagogy as the triangle shown in Figure 1b. Several definitions of subject pedagogy have persisted as competing paradigms. This led to the coexistence of academic associations aligned with different paradigms and the mixing of articles from different paradigms in journals. For example, there are two significant associations in social studies education: JERASS and the Japan Association for Social Studies (JASS). In the authors’ interpretation, the journal of the former association advanced the theorization of social studies education by radicalizing the framework shown in Figure 1b. At the same time, the journal of the latter organization tended to take on the role of a comprehensive arena for research on social studies education by not limiting itself to the framework shown in Figure 1b but also embracing the framework shown in Figure 1a. In addition, the Education in the Social Studies Department Research Association (ESSDRA), founded in 1989, promoted more practical design research while choosing the proper framework. Thus, academic communities with

different research cultures and which apply different methodologies existed parallel to one another. This meant that the emergent multiple paradigms of subject pedagogy in the dimension of Meaning A (Academic System) as well as B (Research Practice) entered into an era of competition and co-existence during this second period.

2.3 *Period 3: The Period of Instability of Subject Pedagogy (2000s-)*

In the early years of the third period, a subject pedagogy emerged that continuously produced researchers through its own doctoral programs; it offered obligatory courses in faculties of education that trained teachers nationwide, and guaranteed research funding and posts. The three meanings of “subject pedagogy” were thus fully established. Since the 2000s, however, there have been a number of external challenges.

Firstly, the proliferation of a competency-based curriculum, influenced by the Organization for Economic Co-operation and Development (OECD), has emphasized teaching more generic, rather than subject-specific, competencies since the revision of the national curriculum in 2008. “The labor market has increased the demand for creative work that only humans can do, such as problem solving, research, and higher-order thinking such as design, as well as complex communication such as collaboration and negotiation with different others and management (Ishii, 2015, p. 16),” and as a result, these generic skills have come to be seen as competencies required of postmodern intellectual workers. The national curriculum embraced this perspective, and subjects were required to contribute to its implementation. Opportunities and expectations to discuss subject-specific content and purpose gradually diminished (Nakahara, 2017, p.13).²

The second external challenge to mention is the establishment of graduate schools of teacher education for in-service teachers. The first one was established in 2008, and there are now 54 in Japan. The main courses offered in these schools are (1) professional development in leadership and school administration, and (2) professional development in curriculum management that bridges multiple subjects and educational counselling for children. In both programs, priority has been given to meeting the managerial and clinical demands of solving educational problems schools face, resulting in a significant decline in subject pedagogy. The number of master's degree students majoring in subject pedagogy has decreased relative to previous years.

Thirdly, some influential educational researchers such as Sato (2005) have argued against the value of subject pedagogy. Sato stated that teacher education reform should strengthen foundation education, subject content, and teaching practice. He suggested that teaching general pedagogy can cover subject pedagogy (ibid.). He also suggested that subject pedagogy should focus on the content of each subject and elucidate “knowledge as design” or pedagogical content knowledge (PCK) that contributes to lesson design (Sato, 2016). Sato's critique had quite some influence on a discourse that expressed a distrust of the research findings and clinical contributions of subject pedagogy. At the same time, a new discipline opposed to the existing subject pedagogy emerged. The School Subject Content Construction

² Nobody discovered at that point yet, that generic skills and competencies can only be built up on the basis of in-depth subject-specific knowledge and procedures which can then be generalized and transformed later (remark from the editors of the special issue).

Study was proposed by scholars of the disciplines underlying each subject to construct a curriculum that adapts academic content and methods to school education and to conceptualize the significance and teaching strategy of such a subject (Nishizono & Masui, 2009). In 2012, the Japan Society of School Subject Content Education was established as an academic society to study this issue. This movement was the antithesis of the position of Terakawa, who stated that “it is self-evident that the content of education in each subject is not the same as the discipline on which it depends” (Terakawa, 1986, p.11).

These three challenges during the third period are by no means discrete phenomena. They were all critical discourses directed at issues that had been overlooked or insufficiently discussed during the maturation phase of subject pedagogy. To summarize, the trends during the third period in terms of the three meanings of subject pedagogy, the significance of “subject pedagogy” was questioned from the perspective of Meaning C (Teacher Education), which also spurred the stagnation of research activities in “subject pedagogy” in Meaning B (Research Practice). The status of subject pedagogy as an academic institution has stabilized, with a large number of researchers and a large number of academic associations arising in Period 3. Gradually, however, the destabilizing factors also increased.

2.4 *Period 4: The Restructuring of Subject Pedagogy (2020s-)*

The destabilization of subject pedagogy’s status gave rise to a movement aimed at its restoration, seeking to enhance its social relevance and to disseminate its research outcomes. This momentum culminated in the formation of the Japan Consortium of Subject Pedagogy Associations (JCoSPA) under the guidance of the Japan Curriculum Research and Development Association (JCRDA). Following an appeal to 20 organizations within the Liaison Council of Education-related Societies, 14 societies (12 at its inception, with two more joining later) expressed their interest in participating. The JCoSPA was officially launched in 2021.

The primary objective of the Consortium, as articulated in its founding statement, was to “propose a vision and research paradigm for future education, school education, and subject pedagogy” (Japan Consortium of Subject Pedagogy Associations, 2022). The scope of the accompanying journal published by the Consortium encompasses three key areas:

- 1) Innovative research on subject pedagogy: This includes studies on philosophy, goals, history, curriculum, teaching materials, methods, assessment, and student learning of specific subjects, as well as research on teacher education. Moreover, the journal welcomes studies that go beyond individual subjects to explore the organization of curricula and relationships among subjects, and to offer recommendations for educational policy.
- 2) Comprehensive reviews of research trends: This involves reviewing the methodologies and findings from member academic associations and providing an in-depth analysis of ongoing research in subject pedagogy.
- 3) Research addressing academic and societal challenges: This includes studies that engage with pressing issues affecting subject pedagogy and its role within broader educational and social contexts.

As highlighted in the first area, the journal welcomes contributions that examine broader issues, such as the rationale for curriculum organization and the relationships between subjects. The Consortium’s focus on cross-curricular advocacy reflects a critical stance toward views that either take the existence of traditional subjects for granted or impose overly prescriptive guidelines.

Historically, this interdisciplinary interest aligns with the founding philosophy of the Japan Curriculum Research and Development Association (JCRDA), which was established in 1976. The first president of the JCRDA, Y. Ebitani, identified the core areas of subject pedagogy as the foundations of school subjects, curriculum structure and division, and teaching practices of each subject (Ebitani, 1976). Over time, however, this initial vision faded, and the JCRDA journals came to focus primarily on research on teaching individual subjects, losing sight of the cross-disciplinary potential of the field.

The establishment of JCoSPA thus represents a return to this foundational vision. However, the Consortium is not replicating earlier ideas from 50 years ago. Instead, it seeks to respect and integrate the work of established academic associations, working collaboratively to explore the significance, boundaries, and interconnections between subject areas. The Consortium’s commitment to this collaborative philosophy is evident in the annual symposia it has organized (Japan Consortium of Subject Pedagogy Associations. 2024):

- 2021: 1st Kick-off Symposium, “History and Prospects of Subject Pedagogy: What have we discussed and what will we discuss?”
- 2022: 2nd Symposium, “How to Analyze and Evaluate Curriculum Standards (Courses of Study) as Subject Pedagogy.”
- 2023: 3rd Symposium, “Is There a Common Language among Subject Pedagogies? A Comparison of Terms and Concepts across Subjects and Associations.”

Beginning in the fiscal year 2022, the JCoSPA’s Research Promotion Committee was awarded a Grant-in-Aid for Scientific Research to initiate a joint research project entitled “Systematization of Terminology and Methodology of Subject Pedagogy: Toward the Construction of an Academic Community.” The results of this three-year project are expected to culminate in the publication of a comprehensive handbook on subject pedagogy research.

To summarize the trends in Period 4 within the framework of the three meanings of “subject pedagogy,” this period represents a significant effort to reconstruct subject pedagogy according to Meaning B (Research Practice), which pertains to research on multiple subjects. The creation of the Consortium and the promotion of collaborative research have brought greater cohesion and depth to the previously fragmented field of subject pedagogy. This restructuring may also influence the status of subject pedagogy as an institution, according to Meaning A (Academic System), in the future.

3 Spatial Dynamics and State Protection of Subject Pedagogy

Subject pedagogy in Japan has a history spanning three-quarters of a century. In this article, the authors described its development in terms of two main axes: the process of (re)constructing the meaning of subject pedagogy and (re)constructing the national and academic contexts that have influenced this process. In particular, through the application of the competing paradigm theory, the development and differentiation of subject pedagogy could be described in terms of the juxtaposition of educational science and non-educational science paradigms, the divergence of research and teaching norms within the subject pedagogy paradigm as educational science, and the rise of competing paradigms against the existing prominent subject pedagogy paradigm.

However, more global contextual factors beyond the national level were only indirectly mentioned. In particular, the influence of research on curriculum and instruction from U.S. academic practice, the scholastic influence of the German notion of *Fachdidaktik*, the influence of the results of the International Assessment of Educational Progress, and the influence of the OECD Learning Compass could not be fully dealt with nor explained. In addition, the authors hypothesize that subject pedagogy in Japan, which is said to be strongly influenced by indigenous methodologies and a strong sense of domestic interest and practical purpose (Ikeno, 2014; Kusahara et al., 2014; Kusahara, Mizoguchi, & Kuwabara, 2015), was not always unrelated to global academic trends and may have developed embedded in a global spatial dynamics.

Another potentially important factor that has promoted the institutionalization and restructuring of subject pedagogy, which has not been sufficiently mentioned here, is the influence of the teacher licensing system. Prospective teachers are required by decree to take courses in subject pedagogy in the meaning of C (Teacher Education); moreover, the Ministry of Education, Culture, Sports, Science and Technology supervises the quantity and quality of research achievements of subject pedagogues and manages who can teach these courses through the approval system of teacher training programs.

It is, therefore, undeniable that subject pedagogy in Japan has an ambivalent structure and status in its institutionalization process, being developed under the protection of the state, while at the same time pursuing academic independence and freedom.

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ANNEX

FIGURE LEGEND

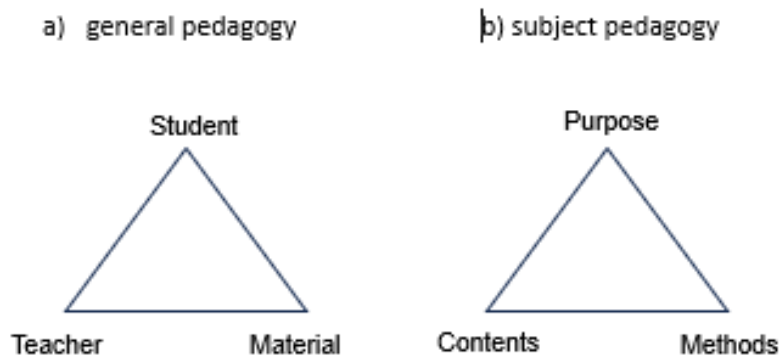


Figure 1. Frameworks of (a) general pedagogy and (b) subject pedagogy

(a) This model shows the common framework shared by educational scientists, especially general pedagogists, who have interests in analyzing the relationship between student, teacher, and material.

(b) This model shows the common framework shared by subject pedagogists, who have interests in analyzing the relationship between purpose, contents, and methods in specific school subjects. In Nakahara (2017), the word “assessment” was added to this model, and subject pedagogy was represented as a square. In this paper, however, the square has been replaced by the more commonly used triangle.