

Faculty Development and Pre-Faculty Development in Japan: A

Dual-Track Analysis of Institutional Practice and Challenges

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Abstract Faculty development (FD) and the preparation of future faculty are central to university teaching quality, yet in Japan they are studied separately and remain underexamined in English. Pre-FD, a term coined within Japanese higher education rather than an established Anglophone term, denotes the pre-service teaching preparation of doctoral students and other prospective academics, broadly corresponding to the American "Preparing Future Faculty" (PFF) movement; it does not refer to induction for newly appointed faculty. Treating the two as tracks of a single academic-development continuum, this article asks how each has been institutionalized and localized in Japan, and what constrains the translation of policy into teaching improvement. The study is a narrative, document-based conceptual review of policy documents, statutory standards, national surveys, and Japanese- and English-language scholarship, using the Scholarship of Teaching and Learning (SoTL) as an analytical lens. Three findings emerge. First, both tracks advanced through top-down policy-driven and policy-induced reform: in-service FD became a legal mandate in 2008, whereas pre-FD remains a best-effort obligation. Second, in-service FD has developed a distinctive cluster of locally grounded practices: inter-university networks, mutual FD, the collegial model, and Student-Engaged FD. Third, national survey data show participation rising while collegial formats and dedicated provision did not consolidate, indicating that participation rates are a poor proxy for teaching-development quality. Reading the tracks together reveals what single-track accounts obscure: shared organizational carriers, and a common ceiling set by the absence of a continuing professional role in academic development. The article argues, as a proposition derived from the analysis, that sustainable development depends on connecting the two tracks into a continuous career pathway framed by SoTL.

Keywords faculty development, pre-FD, Scholarship of Teaching and Learning, digital transformation and generative AI, teaching assistant, Japanese higher education

1 Introduction

Enhancing the pedagogical capacity of university faculty is a shared concern of higher education systems worldwide, intensified by massification, accountability pressures, and the rapid digital transformation of teaching. International evidence underscores both the promise and the difficulty of this task: a decade-spanning systematic review of faculty development in the health professions shows that well-designed programs can enhance teaching effectiveness, but also that the mere provision of

programs does not automatically translate into improved practice (Steinert et al., 2016). Yet how and by whom faculty are prepared takes markedly different institutional forms across national systems, so any single system can be understood only against its own policy and academic culture. Faculty development (FD) entered Japanese higher education from Anglo-American systems in the 1980s and has since been institutionalized through national policy initiatives (Jiang & J. Lin, 2011). Like other university reforms in Japan, FD has thus followed a path of being both policy-driven and policy-induced (Yoshida, A., 2020). “Policy-driven” refers to reform driven by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) through deliberation council reports and legal revisions; “policy-induced” refers to reform steered through competitive funding programs for which universities apply.

Two terms require clarification at the outset. In this article, in-service FD refers to organized professional development for currently employed faculty members. Pre-FD is a term coined within the Japanese higher education context—an English-derived compound that is not in general use in Anglophone scholarship—to denote the pre-service preparation of graduate students, chiefly doctoral students, and postdoctoral researchers for future teaching roles. Its construction is itself informative. Neither term was translated into Japanese. “Faculty development” entered Japanese as a katakana transliteration, *fakaruti diberoppumento*, and circulates in policy and practice both in that form and, most commonly, as the Roman abbreviation “FD” (Taguchi, 2011). The official Japanese form of pre-FD follows the same pattern: it is written *pure-FD*, in which *pure-* is not the English word “pre-” but its phonetic rendering in katakana—the syllabary Japanese reserves for foreign loanwords—prefixed directly to the Roman letters FD. The term is therefore assembled inside Japanese out of imported parts, and the spelling “pre-FD” used in English-language writing is a re-spelling supplied for foreign readers. The term names its object by position relative to an already institutionalized “FD,” designating the stage that precedes it. Functionally, pre-FD corresponds broadly to the American “Preparing Future Faculty” (PFF) movement, which informed the development of several Japanese initiatives (Yoshida, S., 2020; Chikada, 2021); as a term, however, it reflects a specifically Japanese policy sequence, examined in Section 2.2. Pre-FD should therefore be distinguished from induction or probationary training for newly appointed faculty members: its participants have not yet entered regular faculty positions, and its provision is normally situated within or closely connected to graduate education. This distinction is fundamental to the dual-track logic of the article. Following international usage, academic development is used throughout as the superordinate term for the field encompassing both tracks; FD and pre-FD name the in-service and pre-service tracks respectively.

Existing research on Japanese FD and pre-FD faces two primary limitations. First, as much of the research is published in Japanese, systematic English-language analysis remains limited, constraining the international visibility of these developments. Second, FD (in-service) and pre-FD (pre-service) are typically examined in isolation, despite occupying connected stages of the academic-career continuum. While “FD” is often used as an umbrella term, this article distinguishes between in-service FD and pre-FD to clarify their respective roles. Both are shaped by common institutional conditions—including policy-driven mandates, a research-oriented culture, and a relatively thin professional infrastructure (Jiang & J. Lin, 2011; Chikada, 2021)—yet the structural relationship between these two tracks has received little analytical attention.

Examining the two tracks together is this article's central analytical move, and it is consequential. Constraints and resources that a single-track account leaves invisible become apparent once the tracks are read side by side. The same FD centers design provision for both, so that staff expertise, program formats, and inquiry orientation circulate between them; this shared infrastructure is unremarkable within either literature and is the existing basis of a continuum only when both are in view. And the ceiling on both tracks is set by a single condition—the absence of a continuing professional role in academic development—which appears in the in-service literature as a staffing problem and in the pre-

FD literature as a problem of supervisory discretion, and is not recognizable as one constraint operating at two career stages until the two are placed together.

This study addresses two research questions:

RQ1. How have in-service FD and pre-FD been institutionalized and localized within Japanese higher education?

RQ2. What structural and cultural constraints hinder the translation of formal policy into substantive and sustainable teaching development?

To address these questions, the article adopts the Scholarship of Teaching and Learning (SoTL) as both an analytical lens and an interpretive concept. By framing teaching as scholarly inquiry rather than a mere technical task, SoTL provides a reference point for assessing whether Japanese FD and pre-FD can move beyond policy compliance toward inquiry-based academic development. This lens is particularly appropriate for the Japanese context, where domestic scholars have increasingly drawn on SoTL to theorize pedagogical growth (Matsushita, 2011; Nakai, 2019).

Table 2 sets out the policy milestones through which both tracks were institutionalized, and Table 3 compares the two tracks across the dimensions the analysis identifies as decisive. The article proceeds as follows. Section 2 defines the conceptual scope and methodology. Section 3 examines the institutionalization and operational dilemmas of in-service FD, while Section 4 analyzes the emergence of pre-FD. Section 5 discusses the relationship between the two tracks and the conditions for a sustainable academic-development system, followed by concluding remarks in Section 6.

2 Conceptual and Analytical Framework

2.1 FD in Japan

In Japan's institutional context, FD is defined through the Standards for the Establishment of Universities—the ministerial ordinance that stipulates the minimum legal requirements all universities must satisfy and thus functions as binding national regulation—which require universities to conduct organized training and research to improve the content and methods of their teaching. This statutory framing, often described as the “legalization of FD,” accelerated the spread of FD across Japanese institutions. Crucially, it shifted FD from an individual, voluntary endeavor to an organizational mandate. By formally recognizing both training and research as legitimate FD activities, the MEXT explicitly underscored that the obligation to provide FD falls on the institution rather than isolated faculty members (MEXT, 2007; Terasaki, 2021).

The imported character of the term is consequential for the way it could be defined. As Taguchi (2011) observes, faculty development lacks a natural or succinct Japanese translation and was therefore adopted as it stood, circulating most commonly as the abbreviation FD. Because the term carried no established meaning in ordinary Japanese usage, its content was fixed less by scholarly convention than by the statutory text itself: the legal definition did not merely regulate an existing practice but, to a considerable extent, constituted it.

This statutory definition has nonetheless been criticized as too narrow. Compared with broader American conceptions of faculty development, which encompass instructional, professional, organizational, career, and personal development, the Japanese legal definition is considerably more restricted (Hada, 2011; Jiang & J. Lin, 2011). A similar gap emerges when contrasted with the British notion of staff development (SD): Japanese FD corresponds only to part of what SD denotes in the United Kingdom, since “SD” also carries a distinct, separately regulated meaning in Japan (Jiang & J. Lin, 2011). This narrowness stands out even more sharply against recent international mapping of the concept: a scoping review of 418 papers (2015–2023) finds that faculty development now functions internationally as a broad umbrella spanning instructional, professional, leadership, and organizational development (Van Schalkwyk et al., 2025). Japanese FD is therefore not a direct translation of Anglo-

American faculty development but a selectively imported concept that has been legally narrowed and institutionally reinterpreted.

In practice, Japanese universities have adopted diverse local understandings of FD (Jiang & J. Lin, 2011). One early attempt to broaden the concept was the FD Map, developed by the National Institute for Educational Policy Research (NIER) drawing on the work of the Professional and Organizational Development (POD) Network in Higher Education in the United States. The FD Map reconceived FD as an organizational activity operating at three levels: the micro level of classes and teaching methods, the meso level of curricula and programs, and the macro level of educational environments and institutional systems (NIER FDer Study Group, 2009; Matsushita, 2011). More recently, FD has been situated within broader frameworks of learning quality assurance, educational management, and institutional research. As a result, FD in Japan is marked by a tension among a legally narrow definition, an administratively expanding scope, and locally divergent practices—a tension central to understanding both the achievements and the limits of its institutionalization.

2.2 Pre-FD in Japan

As defined in the Introduction, pre-FD denotes the pre-service teaching preparation of graduate students—especially doctoral students—and postdoctoral researchers for future academic roles. This section situates the term within Japanese policy history, since the circumstances of its coinage are analytically significant rather than merely lexical.

The sequence in which the two terms entered Japanese higher education was the reverse of the career sequence they describe. As Section 3.1 details, FD was institutionalized from the top down: it became a best-effort obligation in 1999 and a binding legal mandate for graduate and undergraduate courses in 2007 and 2008 respectively, and it was directed at faculty members already holding full-time appointments. The limits of that approach became apparent early. Development addressed to incumbent faculty had to contend with established teaching routines, the autonomy of disciplinary units, heavy research and administrative workloads, and a reward structure in which teaching carried little career weight; participation was frequently nominal (Sections 3.3 and 5.1). This diagnosis prompted a shift of attention upstream. If pedagogical capacity was difficult to cultivate after appointment, it might be cultivated more effectively before it—while prospective academics were still in graduate education, before teaching habits had settled and before socialization into a research-centered professional identity was complete. MEXT council reports issued in 2008 accordingly identified the preparation of prospective university faculty as a function of graduate education, and the emerging activity was named by reference to the established one: *pure-FD*—the katakana rendering of “pre-” prefixed to the already familiar abbreviation, denoting development positioned before FD. Pre-FD is therefore not best understood as a separate policy domain that merely resembles FD. Rather, its emergence can be interpreted as extending the developmental logic of an already institutionalized FD system to an earlier, pre-appointment stage of the academic career. The term itself reflects this historical and institutional relationship. The coinage is thus the earliest and most direct evidence for the dual-track continuum this article analyzes: in Japan the two tracks were conceptually linked from the moment the second was named.

Attending to these origins also clarifies how pre-FD relates to, and differs from, the PFF movement with which it broadly corresponds. In the United States, graduate teaching assistantships have long carried substantial instructional responsibility—leading discussion sections and laboratory classes, and in some settings teaching courses of record—so that a considerable part of teaching preparation occurs through the assistantship itself. PFF programs were designed to add what the assistantship does not supply: an understanding of the full faculty role across different institutional types, encompassing the integration of research, teaching, and service, and socialization into an academic career (Austin, 2002; Yoshida, S., 2020, 2024). Austin's (2002) longitudinal study reinforces the rationale that PFF

institutionalized: graduate school functions as socialization to an academic career, but socializes unevenly, preparing students for research while leaving the teaching and service components of the role largely implicit. Japanese pre-FD emerged under different conditions. Because FD entered Japan with a strong emphasis on improving the content and methods of teaching (Section 2.1), and because the Japanese teaching assistant (TA) system did not develop into a vehicle of substantive instructional training (Section 4.2.3), pre-FD has centered principally on how to teach: course design, class delivery, micro-teaching, and assessment. The two are functionally convergent—PFF programs also address teaching, and the content of Japanese pre-FD has broadened in recent years toward research ethics, career development, and academic identity—but their points of departure differ, and each reflects the particular gap it was created to fill.

The 2019 revision of the Standards for the Establishment of Graduate Schools introduced a best-effort obligation for universities to provide teaching-related preparation for graduate students (Chikada, 2021). The regulatory asymmetry between the two tracks—a binding mandate for in-service FD, a best-effort obligation for pre-FD—is examined in Section 4.2.1. Section 4 examines the forms that pre-FD has taken in practice and their subsequent development.

2.3 SoTL as an Analytical Lens and Interpretive Concept

As suggested by the tensions described above, the legalization of FD may lead universities to formalistic compliance. SoTL therefore serves here both as an analytical lens and as an interpretive concept for assessing whether FD is substantive. Tanaka (2011) argues that the philosophical core of FD lies in protecting the subjectivity of the educational process through a collegial model (Taguchi, 2011; see Section 3.2.3), thereby resisting bureaucratic-technical rationality. Huber and Hutchings (2005) describe SoTL as a generative approach that builds a ‘teaching commons,’ transforming teaching from a private act into a shared domain open to public deliberation. The foundation for this move is Boyer’s (1990) framework of scholarship, later developed into SoTL by Shulman and Hutchings (Hutchings & Shulman, 1999).

In pre-FD, the empirical work of Oyama et al. (2022) is instructive: by guiding graduate students through SoTL cycles of inquiry, analysis, and reflection grounded in evidence of learning, pre-FD is oriented less toward remedial instruction in teaching techniques than toward helping students internalize SoTL. Nakai (2019) and Maruyama et al. (2020) likewise argue that, by defining teaching as scholarly inquiry on a par with discovery, SoTL offers a reference point for balancing faculty members’ multiple professional identities.

The article’s theoretical position on SoTL warrants explicit statement, because SoTL is used here in two ways that must not be conflated. As an analytical lens, SoTL supplies criteria—inquiry, evidence, peer review, and public sharing—for judging whether development activity is substantive or merely ritualistic. As an interpretive concept, what is normative is this underlying set of scholarly values, not their Anglo-American institutional embodiment in specialist faculty developers or centralized teaching centers. On this reading, Japan’s indigenous practices—mutual FD, the collegial model, and Student-Engaged FD (Section 3.2)—are not “second-best” approximations of a Western ideal but parallel and equally legitimate institutional expressions of the same values, realized through different organizational carriers. Conversely, when this article criticizes formalistic compliance or the drift of the TA system, the standard applied is SoTL’s core values, not fidelity to American organizational forms. Indigenous form and substantive quality are thus assessed on separate axes: a practice is not substantive because it is indigenous, nor deficient because it is not American.

One qualification must be entered before SoTL is put to this use. Its standing is itself contested, and contested most sharply in systems of the kind examined here. Boshier (2009) argues that SoTL has proved a hard sell in research-intensive universities, tracing the difficulty to conceptual imprecision in Boyer’s original formulation, to the problem of operationalizing scholarly teaching, and to a reliance on

peer review that reproduces the evaluative hierarchies SoTL was meant to unsettle. This article therefore does not treat SoTL as a settled standard that Japan has yet to reach. The obstacles Boshier identifies are of the same kind as those analyzed below: where research performance governs career advancement, an activity that reframes teaching as scholarship must compete for recognition on ground already occupied. SoTL is accordingly used here less as a remedy than as a diagnostic lens. It specifies what substantive teaching development would involve, and in doing so makes visible why systems organized around research find such development difficult to sustain.

Because this article examines faculty development at both the pre-service and in-service stages, SoTL serves as an appropriate organizing framework. The aim is not to evaluate specific SoTL projects empirically, but to use SoTL as an interpretive reference point for considering how far Japanese FD and pre-FD have moved from policy compliance toward inquiry-based, faculty-driven, and sustainable academic development.

2.4 Review Approach and Methodology

This article adopts a narrative, document-based conceptual review combining policy analysis, document analysis, and conceptual comparison. It is interpretive rather than systematic or exhaustive, and no systematic-review or pre-registered protocol is claimed. Japanese-language scholarship and Japanese policy documents constitute the primary evidence base, reflecting the article's focus on institutional developments that remain only partially accessible in English. Supplementary searches of selected English- and Chinese-language databases were used to identify comparative and conceptual literature rather than to construct an exhaustive international corpus.

Source identification proceeded in two steps. A seed corpus was assembled from the authors' sustained engagement with Japanese FD and pre-FD scholarship and policy. This corpus was then extended and cross-checked through structured searches of CiNii Research and J-STAGE for Japanese-language scholarship. Policy and institutional documents were retrieved separately from official sources, including MEXT, e-Gov, JST, university websites, and relevant council archives. English-language literature is cited where it supplies the conceptual reference points against which the Japanese case is read—the SoTL tradition, the PFF movement, and recent international syntheses of faculty development. It was selected for this comparative function rather than assembled through systematic searching, and the article accordingly makes no claim to comprehensive coverage of the international literature.

Japanese-language searches used the terms *fakaruti diberoppumento* (faculty development) and its abbreviation FD, *pure-FD*, *kōtō kyōiku* (higher education), *daigakuin* (graduate school), and *daigakuin kyōiku* (graduate education), employed singly and in combination, together with related terms for the TA and teaching fellow (TF) systems where relevant. The principal period covered was January 1990 to June 2026, with earlier sources included selectively when required to establish the historical or conceptual background.

Throughout the article, Japanese terms are given in Hepburn romanization in italics with an English gloss on first use; institutional names are given in their established English forms.

Source selection was purposive and iterative. Sources were included if they provided institutional data, program documentation, policy analysis, or sustained conceptual interpretation concerning FD, pre-FD, university teacher preparation, or TA and TF arrangements in Japan; or if they offered an international conceptual or comparative reference point necessary for interpreting the Japanese case. Sources concerned exclusively with primary or secondary education, anecdotal commentary without evidentiary or conceptual contribution, and duplicate program descriptions were excluded. Reference lists of included publications were examined through backward citation tracking.

Three forms of evidence are distinguished throughout the analysis: national-prevalence evidence based on government statistics or national surveys; institutional-practice evidence based on program-

level studies and evaluations; and conceptual interpretation based on theoretical and comparative scholarship. Table 1 identifies the principal sources and their analytical functions; it is illustrative of the composition of the corpus rather than a complete list of the works cited. Because source selection remains purposive and interpretive, the review does not claim exhaustiveness.

The synthesis proceeded in three stages. First, policy and regulatory documents were ordered chronologically to reconstruct the institutional trajectories of FD and pre-FD. Second, empirical and program-level studies were grouped by organizational form, implementation pattern, and reported constraint. Third, these findings were compared across the two tracks through the interpretive concepts of policy-driven institutionalization, professional capacity, and SoTL-related scholarly practice.

Table 1 Principal sources and their functions in the analysis

Source	Type of source	Track	Analytical role
MEXT (2007); University Council (1998); Standards for the Establishment of Universities / of Graduate Schools (revisions of 1991, 1999, 2007, 2008, 2019)	Statutory / policy documents	Both	Statutory definitions; policy trajectory
MEXT (2021, 2025), national survey of curricular reform	National survey (786–792 universities)	FD	National prevalence (FD centers, participation, provision, FDers)
JST (2021), SPRING program outline	Policy / funding document	Pre-FD	Funding mechanism; policy convergence
Kadomatsu & Kato (2024)	National survey (813 universities)	Pre-FD	National prevalence
Arimoto (2020)	International comparative surveys	Both	National prevalence (research orientation)
Jiang & Z. Lin (2023)	Comparative institutional study	FD	National prevalence; institutional practice
Jiang & J. Lin (2023)	Policy and historical analysis	Both	Institutional context (<i>kōza</i> system; personnel reform)
Brown & Bradford (2022)	National faculty survey (EMI)	FD	National prevalence (EMI support)
Naganuma (2024)	Quantitative program evaluation	Pre-FD	Institutional practice (outcomes)
Oyama et al. (2022)	Qualitative program evaluation	Pre-FD	Institutional practice (SoTL identity)
Chikada (2021, 2025)	Policy analysis; case study	Pre-FD	Institutional practice; conceptual interpretation
Kato (2024); Kato et al. (2025)	Surveys of STEM programs	Pre-FD	Prevalence and practice (disciplinary divide)
Konno (2016, 2018)	Program reviews (Tohoku PFFP)	Pre-FD	Institutional practice
Jiang & J. Lin (2011); CPEHE & Matsushita (2011); Matsushita (2011)	Case studies (Kyoto Univ.; networks)	FD	Institutional practice
Ozeki et al. (2023)	Qualitative expert study	FD	Institutional practice (professionalization)
Tanaka (2011); Taguchi (2011); Oki (2013)	Theoretical essays	FD	Conceptual interpretation (indigenous models)
Boyer (1990); Hutchings & Shulman (1999); Huber & Hutchings (2005)	Foundational SoTL texts	Both	Conceptual interpretation

Source	Type of source	Track	Analytical role
Steinert et al. (2016); Van Schalkwyk et al. (2025)	Systematic / scoping reviews (international)	Both	International conceptual benchmark
Yoshida, S. (2020, 2024); Kira (2011); Xia et al. (2025)	Historical and comparative reviews	Pre-FD	Conceptual interpretation (PFF; TA comparison)

Table 2 Policy milestones in the institutionalization of in-service FD and pre-FD in Japan

Year	Instrument	In-service FD	Pre-FD
1991	Deregulation of the Standards for the Establishment of Universities	Institutional self-monitoring introduced; teaching ability added to faculty qualification criteria	—
1998	University Council, A Vision for Universities in the 21st Century	Organized institutional support for teaching improvement called for	—
1999	Revision of the Standards for the Establishment of Universities	FD becomes a best-effort obligation	—
2004	Incorporation of the national universities	Financial and governance environment for specialized units altered	—
2007	Revision of the Standards for the Establishment of Graduate Schools	FD becomes a legal mandate for graduate courses	—
2008	Revision of the Standards for the Establishment of Universities; MEXT council reports	FD becomes a legal mandate for undergraduate courses	Preparation of future faculty identified as a function of graduate education; the term pre-FD (Japanese <i>pure-FD</i>) enters policy discourse
2009	MEXT Core Center for Education-Related Joint-Use system	Inter-university FD networks given a formal framework and funding	—
2019	Revision of the Standards for the Establishment of Graduate Schools	—	Teaching-related preparation becomes a best-effort obligation
2021	JST SPRING program	—	Doctoral stipends tied to provision of transferable skills

Note: Entries summarize the principal provisions relevant to FD and pre-FD; they are not exhaustive renderings of each instrument. Legal status (best-effort obligation vs. binding mandate) is discussed in Sections 3.1 and 4.2.1.

3 The Institutionalization, Indigenization, and Operational Dilemmas of In-Service FD

3.1 From Best-Effort Obligation to Legal Mandate

The institutionalization of FD in Japanese universities has been driven primarily by national policy. The 1991 deregulation of the Standards for the Establishment of Universities introduced institutional self-monitoring and added teaching ability to the qualification criteria for faculty appointment, setting the stage for FD (Yamada, 2010; Jiang & J. Lin, 2011). The University Council's 1998 report, A Vision for Universities in the 21st Century, then called for organized institutional support to improve educational content and methods (University Council, 1998). On this basis, the 1999 revision of the Standards made FD a best-effort obligation, requiring universities to strive to implement organized training and research for teaching improvement (Yamada, 2010; Jiang & J. Lin, 2011).

The turning point came when FD was elevated from a best-effort obligation to a binding legal mandate. The 2007 revision of the Standards for the Establishment of Graduate Schools mandated FD

for graduate courses, and the 2008 revision of the Standards for the Establishment of Universities did the same for undergraduate (bachelor's-degree) courses, requiring all universities to conduct FD in an organized and sustained manner (Yamada, 2010; Hada, 2011; Tanaka, 2011). This gave the nationwide diffusion of FD an element of institutional compulsion and spurred the establishment of dedicated FD and teaching centers. By 2016, the share of universities with dedicated FD centers reached 87.5% (MEXT, 2021), indicating that Japan had largely achieved nationwide coverage of the FD model—though, as Section 3.3 shows, this proved to be a peak rather than a plateau.

Institutional coverage, however, is not substantive realization. While the mandate quickly raised implementation rates, it also pushed FD into a structural contradiction: a persistent tension between the “organizational shell” produced by policy compliance and the “professional core” required for genuine teaching improvement. This tension runs through the rest of the section.

3.2 Indigenization: A Distinctive Cluster of Locally Grounded Practices

It is precisely within this gap between shell and core that a distinctive cluster of locally grounded FD practices took shape. From the outset, Japan's institutionalization of FD took the United States as its template: national universities established FD centers, deployed teaching-support staff, and offered programs for faculty, closely modeled on American Centers for Teaching and Learning (CTLs). Beneath this organizational shell, however, the operating philosophy and implementation pathways of Japanese FD gradually diverged from the American model. This section traces this locally grounded cluster across four lenses: its organizational foundation (inter-university networks), its content philosophy (mutual development), its implementation pathway (the collegial model), and its practical extension (Student-Engaged FD).

3.2.1 Organizational Foundation: Inter-University FD Networks

Inter-university networks constitute a primary pathway for the institutionalization of Japanese FD and represent a homegrown feature of its development. A significant driver in this process was the 2009 establishment of MEXT's Core Center for Education-Related Joint-Use system, which provided a formal framework and financial support for resource sharing. Under this policy, the former Center for the Promotion of Excellence in Higher Education (CPEHE) at Kyoto University was accredited as a national hub; it designed a collaborative network spanning regional and international levels and founded the Kansai Faculty Development Association (Kansai FD) to institutionalize resource sharing (CPEHE & Matsushita, 2011).

Beyond these government-accredited initiatives, networking expanded through other channels. Private universities pursued their own collaborative platforms, such as the Japan Private Universities FD Coalition Forum (JPFF) launched by Ritsumeikan University, while regional networks such as SPOD (Shikoku Professional and Organizational Development Network in Higher Education) in the Shikoku area and Tsubasa (East Japan Regional Interuniversity FD Network) played vital roles in knowledge circulation independent of the MEXT center system (CPEHE & Matsushita, 2011; Jiang & J. Lin, 2011). Whether driven by national policy or by voluntary institutional cooperation, these networks have become an essential survival strategy for many small and mid-sized private universities that lack the capacity to sustain independent FD programs (Matsushita, 2011).

3.2.2 Content Philosophy: Mutual FD

Tanaka (2011) situates FD within two cross-cutting dimensions. On the content dimension, he distinguishes training courses (the one-way delivery of established knowledge and technique) from mutual study (faculty deliberating together and generating practical knowledge within a community). On the form dimension, he distinguishes systematization (top-down arrangement) from self-initiated organizing (spontaneous formation by practitioners). The resulting four types (Figure 1) locate the training workshops typical of policy mandates in Type I (communicative training courses ×

systematization paradigm). By contrast, the mutual FD that Tanaka advocates points toward Type III (the ideal of mutual study—self-initiated organizing paradigm) and serves as a necessary counterweight to restore balance within a systematized environment. For Tanaka, the essence of FD is not remedial training for “faculty who cannot teach” but the sustained mutual stimulation and self-renewal of a professional teaching community (Tanaka, 2011; Jiang & J. Lin, 2011). Kyoto University’s early public experimental lessons and inter-university workshops exemplify this approach, with networks such as Kansai FD providing the organizational container.

		<i>Form dimension</i>	
		Self-initiated organizing	Systematization
<i>Content dimension</i>	Training courses	Type II Communicative training courses— self-initiated organizing paradigm	Type I Communicative training courses— systematization paradigm
	Mutual study	Type III Mutual study— self-initiated organizing paradigm	Type IV Mutual study— systematization paradigm

Figure 1 Four types of faculty development organizing. Prepared by the authors based on the typology developed in Tanaka (2011, p. 9).

Tanaka further argues that, under the pressure of legal mandates, FD risks being reduced to an instrument of technical rationality—such as a rigid Plan–Do–Check–Act (PDCA) cycle—and of bureaucratic control that constrains faculty initiative. He advances mutual FD deliberately as a counterweight to this top-down, compliance-driven mode of training (Tanaka, 2011). The related question of who should promote FD—addressed through the specialist and collegial models proposed by Taguchi—is taken up in Section 3.2.3. Mutual FD is thus not merely a methodological preference but a conscious response to the way policy compliance can hollow out FD.

This indigenous model resonates with the SoTL tradition (Boyer, 1990; Hutchings & Shulman, 1999), which reframes teaching improvement as scholarly inquiry governed by investigation, peer review, and public exchange. The public experimental lessons noted above, together with Kyoto University’s Forum for Research on Higher Education, illustrate this convergence: teaching practice is opened to observation, collegial discussion, and publication (Jiang & J. Lin, 2011). Participation in FD then becomes an extension of faculty academic identity rather than an externally imposed burden, which partly offsets the resistance to FD generated by a research-oriented culture.

3.2.3 Implementation Pathway: The Specialist Model and the Collegial Model

Taguchi (2011) distinguishes two models of FD support according to who advances FD (Figure 2). The specialist model, derived from the United States, treats faculty as experts in research but novices in teaching, with faculty developers providing specialized training and consultation. The collegial model instead assumes that faculty are dual professionals in both research and teaching, so that FD rests on mutual stimulation among peers and the person convening it acts as a coordinator rather than an expert. In Japan, which lacks an established profession of faculty developers, Taguchi argues that transplanting the specialist model inevitably meets a staffing bottleneck, whereas the collegial model and its network-based variants fit Japan’s organizational culture and resource conditions more closely (Taguchi, 2011).

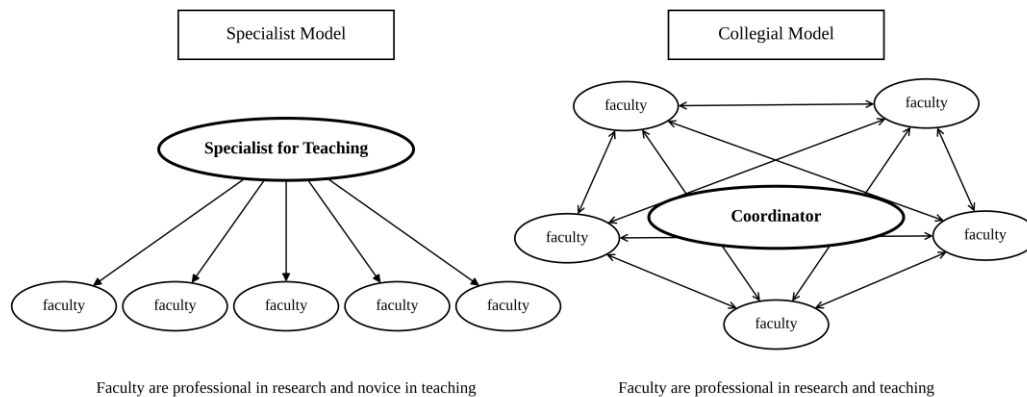


Figure 2 The specialist model and the collegial model of faculty development. Prepared by the authors based on the model developed in Taguchi (2011, p. 128).

The two models are complementary: Tanaka specifies what happens in FD (mutual study among peers rather than one-way transmission), while Taguchi specifies who carries it out (peers as coordinators rather than external experts). Together they give inter-university networks an independent rationale rather than treating them as a stopgap for missing experts. It should be stressed that the collegial model does not dispense with professional support so much as redefine it: a coordinator who convenes peer inquiry, sustains it over time, and carries institutional memory occupies a professional role even if not an expert one. Taguchi's own diagram indicates as much: a coordinator stands at the center of the collegial configuration (Figure 2), not outside it. This point becomes consequential in Section 3.3. They also expose a structural misalignment: the organizational form of Japanese FD outwardly imitates the American specialist model (FD centers, training programs), yet its operating logic depends on the collegial model and the indigenous tradition of mutual development. This is the root of FD centers that are “similar in form but different in spirit” (Jiang & J. Lin, 2011; Ozeki et al., 2023), and it underlies the operational dilemmas discussed below.

3.2.4 Practical Extension: Student-Engaged FD

If the collegial model shifts the agent of FD from external experts to internal peers, another of Japan's distinctive, indigenous practices, Student-Engaged FD, extends that logic by widening the boundary of who counts as a colleague from faculty to students. Oki (2013) conceptualized Student-Engaged FD as a process driven by student agency to enhance higher education. In practice, this takes the form of collaborative teams—comprising student staff, faculty, and administrators—engaging in teaching-focused dialogues, evaluating courses, and executing improvement projects. The practice emerged in the late 2000s, with Ritsumeikan University and Okayama University as pioneers, and spread nationwide through the annual Student-Engaged FD Summit, forming a inter-university network and a national movement for teaching improvement (Oki, 2013; Nakazato, 2023). In creating a teaching-and-learning community in which faculty and students participate jointly, Student-Engaged FD resonates with the “students as partners” discourse in European and North American scholarship (Cook-Sather et al., 2014; Healey et al., 2014; Nakazato, 2023). The parallel is close but not exact. The partnership literature locates students principally in curriculum design, pedagogic consultancy, and SoTL inquiry (Healey et al., 2014), and rests on an explicit claim about student agency in shaping learning and teaching (Cook-Sather et al., 2014). Student-Engaged FD developed instead from within an FD apparatus already constituted by policy: student involvement entered it as an extension of collegial development outward from the faculty, rather than as a claim advanced on students' behalf. Student-Engaged FD thus extends the collegial model by redefining the concept of a colleague. While Taguchi's model argues that FD need not rely on outside experts, Student-Engaged FD posits that this

collegial community should not be restricted to faculty alone. This conceptual shift marks a critical step in the indigenization of Japan's FD.

In sum, these four lenses are complementary: inter-university networks (3.2.1) provide the organizational foundation; mutual FD (3.2.2) supplies the content philosophy; the collegial model (3.2.3) defines the implementation pathway; and Student-Engaged FD (3.2.4) extends the boundary of the collegial community. Together, these intersecting elements give FD in Japan a distinctive local character. They are, however, unevenly distributed across institutions and should be read as an emerging and locally grounded orientation rather than as a fully established national paradigm.

3.3 Operational Dilemmas: Three Tensions and Their Structural Roots

Institutionalization and indigenization have not proceeded smoothly. Under the mandate, Japanese FD continues to reflect a tension between external policy compliance and internal academic culture. Hada (2011) identified three persistent bottlenecks: FD content narrowly confined to instructional techniques, implementing units lacking professional expertise, and development mechanisms disconnected from faculty career paths and promotion systems. Read together, these bottlenecks suggest three structural tensions that help explain why Japanese FD remains difficult to substantively consolidate.

The first tension is between policy compliance and teaching improvement. In practice, FD is often reduced to formalistic compliance, with activities counted as completed but only weakly connected to teaching improvement (Kawashima, 2018; Oki, 2019; Jiang & Z. Lin, 2023). Yoshida, A. (2020) similarly notes that although FD implementation rates have increased, evidence of corresponding improvements in teaching quality remains limited. In Tanaka's typology, this can be read as the expansion of Type I FD under policy pressure, while Type III remains weak. National survey data allow the two to be set side by side, though the available series do not cover identical periods. The proportion of universities in which every full-time faculty member participated in FD rose from 12.9% in 2015 to 22.8% in 2019 and 32.7% in 2023. For collegial formats, comparable items are available only for the shorter interval from 2016 to 2019, over which their prevalence did not rise with participation: workshops on active learning fell from 42% to 33% of universities and mutual classroom observation from 57% to 53%, while mutual peer review of teaching was essentially unchanged at 20% and 19% (MEXT, 2021, 2025). Two cautions follow. The series cover different windows, so the juxtaposition is indicative rather than exact; and of the three formats, only the fall in active-learning workshops is large enough to be read as a substantive change rather than as survey variation. What the data support is accordingly the weaker claim: rising participation was not accompanied by a corresponding spread of the collegial formats that give FD its substance. Participation and developmental format are distinct indicators, and over this period the first moved without the second.

The second tension concerns weak professionalization and the instability of dedicated FD provision. The organizational base has not consolidated: the share of universities with a dedicated FD center peaked at 87.5% in 2016 and then fell in each of the following three years, to 76.9% in 2019; by 2023 it stood at 623 of 786 responding universities (79%), still below both the 2016 peak and the 2015 level of 84.4% (MEXT, 2021, 2025). Provision expanded rapidly under the mandate and has since proved difficult to sustain. Three cautions follow. First, the reporting base is not constant: the 2023 figure is given as 623 of 786 responding institutions, so the series tracks reported provision among respondents rather than a fixed population. Second, the financial environment of Japanese universities has tightened since the incorporation of the national universities in 2004 and amid the continuing contraction of the eighteen-year-old population, which has constrained the maintenance of specialized units of many kinds; the decline need not be specific to FD. Third, some centers may have been reorganized into broader units rather than closed, in which case the function persists under another organizational label. Why dedicated provision has not consolidated is a separate question. Ozeki et al.

(2023) show that Japanese higher education still lacks a distinct FD career track, and that FD work is often handled by faculty members on rotation or by researchers in concurrent roles. Jiang and Z. Lin's (2023) comparison of major universities further indicates that FD quality depends heavily on a small number of core staff, while many centers rely on unstable or fixed-term personnel. This pattern resonates with Taguchi's discussion of the limited fit between the American-style specialist model and Japanese university structures—but the deficit is not confined to that model. Rotation, concurrent duties, and fixed-term appointment erode continuity of relationships and institutional memory, which are precisely what the collegial model depends on. What is missing is therefore not American-style specialists but a continuing professional role of any kind, including the coordinating role that Japan's own preferred model presupposes.

The composition of provision points the same way, and has not shifted in five years. In both 2019 and 2023 the most common form of FD was the lecture or symposium (62% and 57% of universities), while individual teaching consultation—the most labor-intensive and developmental format—was among the rarest (6% and 7%). How expertise is engaged explains why: in both years the most common arrangement was to bring in outside specialists as needed, a category that explicitly includes inviting them as workshop lecturers (59% and 57%), while appointing even a part-time specialist within the institution remained the rarest arrangement, at 3% in both years (MEXT, 2021, 2025). Without an internal professional core, consultation—which requires a developer who knows the institution and returns to it—cannot readily be offered. Taguchi's (2011) argument that the specialist model meets a staffing bottleneck in Japan is thus visible in the national profile of provision itself. The resulting arrangement serves neither model well: expertise is bought in episodically, in the thinnest version of the specialist mode, while the coordinating capacity that peer-led development requires is not built.

The third tension is a research-oriented academic culture that marginalizes teaching. Drawing on three international surveys, Arimoto (2020) shows that Japanese faculty have remained strongly research-oriented over time. Consistent with this, Maruyama et al. (2020) find that research performance remains central to hiring and promotion, while teaching carries less weight in personnel evaluation. FD in Japan therefore faces not only institutional constraints but also a broader research-oriented culture that offers little incentive for teaching-oriented development.

These three constraints should not be understood as separate deficiencies; they form a mutually reinforcing institutional configuration. Their persistence is rooted primarily in a misalignment between regulatory obligations and academic career incentives. Although the Standards require universities to organize FD, research performance remains central to faculty recruitment and promotion, whereas teaching and participation in teaching development carry comparatively limited weight in personnel evaluation (Arimoto, 2020; Maruyama et al., 2020). Under these conditions, the incentive structure encourages faculty members to protect the time devoted to activities that more directly affect career advancement. Compliance with FD requirements may consequently take low-cost and readily auditable forms—such as attendance, completion records, or standardized training—without necessarily producing sustained inquiry into teaching. Formalistic compliance is therefore not simply a failure of faculty commitment or policy understanding. It is an institutionally induced response to a system in which teaching development is mandated but weakly rewarded.

This incentive structure also helps explain why internationalization, often expected to reorient institutional priorities toward teaching, has not done so. Internationalization generates new pedagogical demands, particularly in English-medium instruction and intercultural teaching, but it does not alter the criteria by which academic careers are evaluated and rewarded. Brown and Bradford (2022), for example, document a shortfall in the pedagogical support available to English-medium instruction faculty in Japan. Where internationalization proceeds without corresponding change in personnel

evaluation, it therefore adds teaching obligations while leaving the research-centered reward structure intact—increasing the demand for FD without strengthening the incentive to engage in it substantively.

The absence of a stable professional role in academic development is both a cause and a consequence of this arrangement. Where teaching development occupies a marginal position in institutional reward systems, universities have limited incentives to establish stable, recognized career paths for faculty developers. FD work is consequently often assigned to faculty members in concurrent or rotating roles or to fixed-term personnel, weakening institutional memory, specialist expertise, and the capacity to build long-term relationships of trust with academic departments (Taguchi, 2011; Jiang & Z. Lin, 2023; Ozeki et al., 2023). The absence of a strong professional core, in turn, makes it more difficult to move FD beyond administratively measurable activities toward discipline-sensitive consultation, sustained pedagogical inquiry, and evidence-based improvement.

Tanaka's (2011) critique of technical rationality clarifies the resulting feedback loop. When FD is organized mainly through standardized Plan–Do–Check–Act procedures and auditable indicators, administrative completion can become a substitute for pedagogical transformation. Research-centered career incentives encourage minimum-cost participation; weak professional staffing limits the availability of deeper developmental alternatives; and readily countable participation enables universities to demonstrate compliance with the legal mandate. In this sense, formalistic compliance is the organizational expression of research dominance under regulatory pressure, rather than an independent problem. The three constraints thus reproduce one another: research-oriented evaluation weakens demand for substantive FD, weak demand limits investment in professional developers, and weak professional capacity leaves compliance-oriented provision as the most feasible institutional response.

3.4 New Challenges: Internationalization and Digital Transformation

Beyond these institutional challenges, internationalization and digital transformation are introducing new variables into FD: the former broadens FD content to encompass language and intercultural competence, while the latter reshapes both delivery methods and the professional competences that FD staff themselves require. These are not appended concerns but direct extensions of the tensions in Section 3.3: both raise the professional demands on FD precisely where its staffing base is weakest.

3.4.1 Internationalization: Support for English-Medium Instruction

Driven by national internationalization projects, English-medium instruction (EMI) has expanded across a substantial share of Japanese universities, yet pedagogical support has lagged behind this growth. Brown and Bradford (2022) found that, while EMI requires distinct competencies, fewer than half of EMI faculty receive relevant training, and existing support prioritizes language over pedagogy. Leading universities have responded proactively: the University of Tokyo developed English-language pre-FD programs; Kyoto University integrated English-discussion segments into new-faculty orientation; and Waseda University's Global FD Program combines active learning and EMI through online courses and overseas training (Jiang & Z. Lin, 2023). Integrating language, pedagogy, and cross-cultural management, EMI support serves as a testing ground for FD's transition from uniform training to individualized support.

3.4.2 Digital Transformation: From Emergency Response to Normalization

The COVID-19 pandemic forced the rapid digitalization of university teaching, in effect providing a live drill for FD. Shimizu and Harada (2022) note that FD shifted comprehensively online within a short period, that demand for training in online course design and tools surged, and that interaction between FD centers and faculty reached unprecedented intensity. During this period the pandemic unexpectedly validated the value of the collegial model, mutual FD, and inter-university networks: in

the absence of experts able to provide definitive solutions for emergency remote teaching, peer inquiry and shared experimentation among faculty became the primary mode of professional learning (Jiang, 2021b), demonstrating that mutual FD is both necessary and effective.

Since then, FD themes have expanded toward digital transformation (DX): Murakami (2023) notes that DX requires FD to move from operational training to holistic support encompassing instructional design, learning-data use, and educational quality. The diffusion of generative AI has accelerated this shift, and international scholarship has begun to specify what AI-era faculty development requires: strategic integration grounded in adult-learning principles rather than one-off tool training (Conceição, 2025); a staged progression from AI literacy to AI-supported teaching and assessment (Burneo-Arteaga et al., 2025); and differentiated provision, since faculty perceptions of AI range from expectations of productivity gains to fears of deskilling (Buele & Llerena-Aguirre, 2025). Research on generative AI and FD in Japan remains limited, which makes these frameworks an immediate agenda rather than a distant reference. Three implications follow for the Japanese case. First, DX and AI intensify the second tension of Section 3.3: they raise the professional-competence demands on exactly the FD staff whose career track remains undeveloped. Second, the pandemic experience suggests that Japan's peer-based, mutual-development infrastructure—rather than scarce specialist expertise—is the more realistic vehicle for AI-era professional learning, since generative AI is new to all participants and thus well suited to collective experimentation and inquiry. Third, because generative AI is reshaping what counts as competent teaching for entrants and incumbents alike, AI-related capability is one of the few domains in which the in-service and pre-service tracks face an identical and simultaneous learning demand rather than sequential ones. This makes digital and AI literacy a natural site for the cross-track integration developed in Section 5.4.

3.5 Section Summary

Policy-driven institutionalization has nevertheless created a risk of hollowing out: formalistic compliance, weak professionalization and the instability of dedicated FD provision, and the marginalization of teaching within a research-oriented academic culture continue to obstruct the movement from institutional coverage to substantive improvement. Section 3.3 analyzed how these constraints reinforce one another. Internationalization and digital transformation add new pedagogical demands and further increase the need for stable, specialized support.

4 Pre-FD in Japanese Graduate Education: Institutionalization, Structural Tensions, and Disciplinary Divides

Recognized as a vital early stage in academic development, pre-FD has emerged as a focal point of reform in Japanese graduate education. Its institutionalization, however, reveals an ongoing negotiation between top-down mandates and entrenched institutional cultures. This section examines the implementation and empirical outcomes of Japanese pre-FD programs, followed by an analysis of the structural tensions and disciplinary divides that impede its translation from policy mandate into substantive teaching development.

4.1 Pathways and Evolution of Japanese Pre-FD

Japanese pre-FD has developed along three overlapping pathways: credit-bearing graduate courses, position-based training, and extracurricular programs (Konno, 2016; Jiang & Wei, 2017). Rather than operating in isolation, these formats often intersect to create localized models of pre-service training.

The most widespread vehicle for position-based training is the TA system—the paid employment of graduate students to support undergraduate courses. Instituted in the 1990s under MEXT directives, it was conceived to provide financial aid for graduate students, strengthen undergraduate education, and train future faculty (Jiang & Wei, 2017). By 2014, over 60% of Japanese universities had implemented a TA system (Jiang & Z. Lin, 2023). To address the lack of systematic instructional training within this

framework, several research-intensive universities introduced the TF model in the 2010s. This model aims to create a structured pathway enabling senior doctoral students to transition from administrative duties to independent teaching (Chikada, 2025). As an institution through which graduate students perform teaching-related work under faculty supervision, the TA/TF system is also a potential structural bridge between the pre-service and in-service tracks, a point developed in Section 5.3.

Parallel to position-based training, curriculum-driven programs have emerged, heavily influenced by the American Preparing Future Faculty (PFF) movement (Yoshida, S., 2020, 2024). As noted in Section 2.2, Japanese adaptations of this model have given greater relative weight to instructional preparation than the American original, in which the teaching assistantship already supplies much of that experience. Japanese universities have contextualized this model into varied initiatives, such as the University of Tokyo's Future Faculty Program (UTokyo FFP). Similarly, Kyoto University evolved its early pedagogical workshops into a comprehensive pre-FD program by 2009. This program guides participants—including postdoctoral researchers—through pedagogical theory, micro-teaching, and authentic classroom practice, which was later integrated into credit-exchange frameworks within regional consortia (Matsushita, 2011; Taguchi & Fukuda, 2018). Notably, these flagship programs are typically designed and delivered by the same FD or teaching-and-learning centers that serve in-service faculty, so that pedagogical expertise, program formats, and SoTL orientation circulate between the two tracks (Taguchi & Fukuda, 2018). While other institutions like Tohoku, Osaka, and Kyushu universities have built comparable initiatives, three common challenges persist: programs are primarily driven by FD centers rather than academic departments, completion rates remain low, and participation is largely extrinsically motivated by credits or certificates (Jiang & Wei, 2017). Responding to the limitations of these voluntary, bottom-up experiments, MEXT revised the Standards for the Establishment of Graduate Schools in August 2019. This revision introduced a “best-effort obligation” for graduate schools to provide instructional training, marking a pivotal shift toward top-down national regulation (Chikada, 2021).

Empirical evaluation of these programs remains limited, but has begun to move beyond self-reported satisfaction (Konno, 2018). Naganuma (2024) provides quantitative evidence that structured pre-FD reduces teaching-related anxiety and improves instructional skills, and Oyama et al. (2022) find that integrating SoTL fosters a professional identity extending beyond teaching technique. The evidence base is necessarily small: as Section 4.2.2 shows, few institutions offer sustained provision to evaluate. These findings are nonetheless consistent with international evidence that systematic pre-service training yields durable, positive effects on teaching self-efficacy (Xia et al., 2025).

4.2 Structural Tensions and Cultural Resistance

Despite its integration into national guidelines, the systemic adoption of pre-FD is constrained by three interrelated tensions, hindering the cultivation of a sustainable culture of pedagogical inquiry.

4.2.1 The Weak Force of the Best-Effort Obligation

Unlike in-service FD, which is backed by statutory mandates and direct funding, pre-FD remains merely a best-effort obligation (Chikada, 2021). Devoid of strict compliance measures or dedicated appropriations, implementation relies heavily on the individual commitment of faculty or FD-center directors. Consequently, pre-FD often remains marginalized within broader institutional structures.

4.2.2 Institutional and Disciplinary Segregation

Systematic pre-FD remains concentrated within a few elite research universities, leaving the great majority of institutions without systematic provision (Chikada, 2021). Kadomatsu and Kato (2024) found that among all 813 universities in Japan, while 230 universities (28.3%) nominally mentioned pre-FD terminology, a mere 2.5% (20 institutions) actually offered sustainable, hands-on instructional training.

A severe disciplinary divide further exacerbates this gap. Participation rates are significantly higher in the humanities and social sciences than in STEM fields. Kato et al. (2025) note that STEM doctoral students face intense laboratory demands and frequently encounter incomprehension from their supervisors regarding teaching development. This pattern reflects the legacy of the *kōza* (chair) system, in which a professor headed a semi-autonomous laboratory unit staffed by junior academic colleagues and exercised decisive influence over its resources and over the supervision and career sponsorship of its graduate students. Provisions for the *kōza* were removed from the Standards for the Establishment of Universities in 2007, but its customary expectations did not disappear with its legal abolition (Jiang & J. Lin, 2023), and its organizational logic persists in research-intensive STEM settings, where doctoral training is conducted largely inside the laboratory. Access to pre-FD therefore depends on the disposition of individual supervisors rather than on institutional policy, and doctoral socialization remains embedded in research apprenticeship rather than in explicit pedagogical preparation. Consequently, establishing pedagogical seminars in STEM disciplines depends heavily on exceptional departmental support (Kato, 2024), effectively excluding many STEM candidates from pre-FD opportunities.

4.2.3 Functional Drift of the TA System

Although modeled on the American system as a vehicle for broad instructional training, the Japanese TA system diverges from it in practice (Kira, 2011; Jiang, 2021a). Crucially, unlike American TAs who often lead discussion sections and laboratory classes, Japanese TAs are generally not permitted to teach independently. Ministerial guidelines issued in 1995 confine TA work to auxiliary support in laboratory, practical, and seminar classes, on part-time contracts limited to three-quarters of full-time hours; because funding was tied to those course types, TA deployment concentrated there. The arrangement has been criticized for neither making full use of TAs nor providing them with training (Jiang, 2021a). TA orientations consequently often amount to administrative briefings, decoupling the TA experience from instructional training. This absence also accounts for the pedagogical emphasis of Japanese pre-FD described in Section 2.2: where the assistantship does not function as teaching preparation, the task of teaching graduate students how to teach falls to dedicated pre-FD programs, which must supply from the outset what American PFF programs could largely presuppose.

While reforms distinguishing “regular TAs” from “teaching fellows (TFs)” attempt to provide actual teaching opportunities, systemic misalignments persist. Chikada (2025) highlights that even where TF roles exist, their job descriptions, compensation, and instructional responsibilities remain poorly coordinated, highlighting the ongoing gap between Japanese practice and progressive American TA models.

4.3 Policy Convergence: The JST-SPRING Initiative

The trajectory of pre-FD is currently intersecting with broader research policies, notably the Support for Pioneering Research Initiated by the Next Generation (SPRING) program launched by the Japan Science and Technology Agency (JST)—the national funding agency for science policy—in 2021 (JST, 2021). Designed to counter declining doctoral enrollments via competitive stipends paid directly to doctoral students, SPRING mandates that universities equip students with transferable skills for diverse careers. This investment presents an opportunity to embed pre-FD into formal doctoral curricula, as pedagogical competence serves as a core transferable skill. However, a distinct tension remains: SPRING’s evaluation metrics focus almost exclusively on research outputs and career placements, largely ignoring teaching development. Consequently, students under intense research pressure may view teaching seminars merely as an added burden. Resolving this tension—by organically integrating pre-FD into doctoral funding policies—constitutes a critical challenge for the future (Chikada, 2021).

4.4 Section Summary

Japanese pre-FD reflects a complex interplay of international policy borrowing, localized adaptation, and deep structural constraints. Notably, the imported TA system has largely drifted toward a financial-aid mechanism dominated by clerical labor, failing its intended mandate to cultivate future educators (Jiang, 2021a). This reality demonstrates that pre-FD cannot rely solely on voluntary, bottom-up initiatives; it necessitates robust national steering and dedicated resources. Building on this premise, the subsequent Discussion explores the mechanisms that already connect the two tracks and how SoTL might serve as a normative bridge integrating pre-FD with ongoing in-service faculty development.

5 Discussion

5.1 Shared Policy Drivers and the Compliance Gap

Across both tracks, institutionalization has been driven by top-down policy-driven and policy-induced reform (Yoshida, A., 2020), which has produced formal frameworks but also a gap between formalistic compliance and substantive teaching improvement. In the in-service track, the 2008 legal mandate rapidly expanded FD centers, yet because faculty-evaluation systems were left unchanged, universities often responded formalistically, adjusting activities to satisfy compliance rather than to pursue genuine pedagogical growth (Kawashima, 2018; Jiang & Z. Lin, 2023). In the pre-service track, the 2019 best-effort obligation produced only limited systematic provision, with only 2.5% of Japan's 813 universities offering sustained, hands-on instructional training (Kadomatsu & Kato, 2024). Both cases show that top-down mandates have limited effect when they are not aligned with institutional incentives. This compliance gap echoes the international finding that the provision of faculty development does not in itself improve teaching (Steinert et al., 2016); what the Japanese case adds is a clear view of the institutional machinery that produces the gap. The comparison also runs in the other direction. The two most comprehensive syntheses of faculty development available to date—a systematic review of initiatives to enhance teaching effectiveness and a scoping review of 418 papers—both draw their evidence from health professions education, and both describe practice largely within systems where academic development is carried by a recognized professional role (Steinert et al., 2016; Van Schalkwyk et al., 2025). Read against them, the Japanese case—in which peer-based, network-mediated approaches have developed without such a professional role—raises a question worth pursuing comparatively: not simply whether academic development can proceed without specialists, but what forms of continuing professional capacity peer-based models themselves require.

The national survey evidence in Section 3.3 sharpens what this compliance gap means for policy. Participation rose while the collegial formats that carry developmental substance did not, which implies that participation rates are a poor proxy for the quality of teaching development, and that a monitoring framework built on them will register improvement precisely where substance may be thinning. The difficulty is not only that the indicator is imperfect. Because compliance is assessed on what can be counted, and because counting is cheapest for the formats that ask least of participants, the measurement regime itself supplies an incentive toward the substitution it cannot detect. Frameworks intended to verify that development occurs may therefore help produce the appearance of development in its place. The implication is not that better indicators are needed—indicators of developmental form are already collected in the national series drawn on here, and they too can be satisfied nominally. Where the capacity for substantive development is absent, any countable requirement will be met in whichever form is cheapest to count, which suggests that the binding constraint lies not in indicator design but in the absence of a continuing professional role.

The Japanese case also bears specifically on professional-school settings, from which much of the international FD evidence derives. Medical, dental, nursing, and comparable faculties combine three conditions that this analysis identifies as decisive: clinical or professional service obligations that

compete with teaching for time; a research culture that governs academic advancement; and teaching distributed across many clinician-educators who hold no formal appointment in education. These are the conditions under which compliance-oriented provision is most likely to substitute for development, and under which peer-based, network-mediated models of the kind Japan has developed may be more feasible than a centralized specialist unit, precisely because the teaching workforce is dispersed and already organized into professional communities. The Japanese experience indicates both the promise and the limit of that route: peer-led development can operate without a specialist profession, but not without some continuing coordinating role—and it is the erosion of exactly that role, rather than the absence of specialists, that the national data document.

5.2 Shared Constraints: Personnel and Research Culture

The two tracks are constrained by the same underlying structural conditions. The first is the absence of a stable professional role in academic development. This is usually described as a problem for the specialist model, which faces significant hurdles in Japan for want of established career pathways (Taguchi, 2011; Ozeki et al., 2023); as Section 3.3 argued, however, it equally deprives the collegial model of the continuity on which peer-led development depends. This deficit is reflected in the difficulty many institutions face in sustaining dedicated FD units, documented in Section 3.3, while in graduate education the same shortage leaves TAs serving a financial-support function rather than a developmental one (Jiang, 2021a; Chikada, 2025). The second is a research-oriented culture: the stable, high research preference of Japanese faculty (Arimoto, 2020) marginalizes teaching in promotion, and the same culture constrains the pre-service track, where STEM students in particular struggle to find time for instructional training and receive limited supervisory support (Kato et al., 2025). The two tracks thus share not only a policy logic but a common structural ceiling. Section 3.3 analyzed this configuration as a self-reinforcing cycle within the in-service track. What the dual-track view adds is that the cycle does not stop at the boundary of employment: in both tracks, documented participation can be substituted for demonstrated teaching development, and in both the substitution is a rational response to prevailing career incentives rather than a failure of individual commitment. Breaking this cycle requires not only expanding programs but also aligning faculty evaluation, institutional investment, and professional career structures with teaching development.

Table 3 The two tracks compared

Dimension	In-service FD	Pre-FD
Participants	Faculty members holding appointments	Graduate students, especially doctoral students, and postdoctoral researchers
Regulatory status	Legal mandate (2007 graduate; 2008 undergraduate)	Best-effort obligation (2019)
Principal funding	Institutional budgets; MEXT programs	Competitive research funding (JST-SPRING); institutional discretion
National prevalence	Dedicated center in 79% of responding universities (2023)	Sustained, hands-on provision in 2.5% of universities
Principal organizational carrier	FD and teaching-and-learning centers	The same centers, together with graduate-school curricula
Characteristic formats	Lectures and symposia; mutual classroom observation; workshops	Course design, micro-teaching, supervised teaching practice
Dominant constraint as it appears in each literature	Unstable staffing of FD units	Dependence on the disposition of individual supervisors
Shared constraint	Absence of a continuing professional role in academic development; research-centered career incentives	As for in-service FD

Dimension	In-service FD	Pre-FD
Bridging mechanisms	Shared centers; TA/TF arrangements; movement of pre-FD completers into faculty roles	As for in-service FD

5.3 Mechanisms of Interaction between the Two Tracks

Table 3 summarizes the comparison developed across Sections 3 and 4. Treating in-service FD and pre-FD as a single continuum is not merely a normative aspiration; the two tracks already interact through at least three concrete mechanisms, each currently underdeveloped.

The first mechanism is shared organizational carriers. Japan’s flagship pre-FD programs—Kyoto University’s pre-FD program, the UTokyo FFP, and Tohoku University’s PFFP—are designed and delivered by the same FD or teaching-and-learning centers that serve in-service faculty (Konno, 2016; Taguchi & Fukuda, 2018). Staff expertise, program formats such as micro-teaching and course-design seminars, and the SoTL orientation of these centers flow across the two tracks. This shared infrastructure means that strengthening the professional base of FD centers would benefit both tracks simultaneously—and, conversely, that the instability of dedicated FD provision (Section 3.3) weakens both at once.

The second mechanism is the TA/TF system as a structural bridge. TA and TF positions place graduate students inside undergraduate teaching under faculty supervision: for the student, the position is (potentially) supervised teaching practice; for the supervising faculty member, structuring and mentoring that practice is itself a form of in-service development, since articulating one’s teaching for a novice is a core SoTL activity. The functional drift of the TA system (Section 4.2.3) is therefore a loss to both tracks—it deprives students of practice and faculty of a mentoring role—and TA/TF reform is best understood as a joint in-service FD and pre-FD project rather than a graduate-education issue alone (Kira, 2011; Chikada, 2025).

The third mechanism operates through people over time. Pre-FD completers who later obtain academic posts may enter faculty roles with greater familiarity with inquiry-based approaches to teaching (Oyama et al., 2022); and may become contributors to collegial forms of in-service development. Pre-FD thus seeds the next generation of mutual FD, while regional credit-exchange arrangements that open pre-FD courses across consortium universities (Matsushita, 2011) extend the inter-university networks of Section 3.2.1 downward into graduate education. In each mechanism, the direction of influence runs both ways; what is missing is not contact between the tracks but deliberate institutional design that consolidates these local and fragile links into a system.

5.4 Toward Sustainable Integration

Building a sustainable system requires connecting the pre-service and in-service tracks into a continuous career pathway. What follows is a proposition derived from the preceding analysis rather than an evidence-tested prescription. Three primary levers are available. First, regional networks and the collegial model of peer-led mutual development (Tanaka, 2011; Taguchi, 2011) can distribute scarce capacity across institutions rather than requiring each to build its own. This does not do without professional support; it relocates that support to the network level, where it must still be staffed and sustained. Extending these networks to include doctoral students, and linking them to Student-Engaged FD (Oki, 2013), can foster mutual study across different career stages. Second, the JST-SPRING initiative offers a mechanism to fund pre-FD as a core transferable skill. Third, the digital infrastructure normalized since the pandemic lowers the cost of inter-university mutual development, while generative-AI literacy constitutes a shared curriculum for both tracks: because the technology is new to faculty and graduate students alike, it is particularly well suited to the mutual-study mode in which

participants across career stages inquire together (Conceição, 2025; Burneo-Arteaga et al., 2025). For such integration to be substantive, both tracks can adopt SoTL as a shared frame of reference (Boyer, 1990; Matsushita, 2011). SoTL is more than a methodological tool: it functions as a normative bridge that reconciles the perceived conflict between research and teaching. By framing teaching as an evidence-based, reflective, and peer-reviewed form of inquiry, SoTL allows graduate students and faculty to integrate teaching development into their professional identities as scholars. This realignment redefines teaching not as a rival to research, but as an essential form of scholarship, thereby offering a philosophical response to the research-oriented culture that currently constrains both tracks (Nakai, 2019; Maruyama et al., 2020). This is a claim about direction rather than about ease. As Section 2.3 noted, SoTL is itself difficult to establish in research-intensive systems (Boshier, 2009), and for the same reason that teaching development is: it competes for recognition under criteria set by research. Framing teaching as scholarship does not dissolve that competition, but it makes its terms explicit, which is the precondition for altering them. Consistent with the position stated in Section 2.3, this is not a call to replace indigenous practices with a Western template: mutual FD, the collegial model, and Student-Engaged FD already embody SoTL's core values in Japanese organizational forms, and it is precisely these indigenous carriers—rather than imported specialist structures—that offer the most realistic vehicle for integration.

6 Conclusion

This study analyzed the institutional trajectories, locally grounded practices, and structural constraints of in-service FD and pre-FD in Japanese higher education, treating them as two tracks of a single academic-development continuum. Its contribution is to show that the two tracks, although usually studied separately, share a common institutional logic: policy-driven frameworks are translated into locally differentiated practices, including peer-led mutual development, regional consortia, student participation, and structured graduate curricula. What the dual-track lens adds is specific. Two features of the Japanese case are invisible from either track alone. The shared organizational carriers through which expertise circulates appear, within a single-track account, as unremarkable facts of institutional housekeeping; read across the tracks, they are the existing infrastructure of a continuum. And the absence of a continuing professional role registers separately in each literature—as unstable staffing of FD units in one, as dependence on the disposition of individual supervisors in the other—so that its character as one constraint operating at two career stages becomes visible only when the two are analyzed together. At the same time, both tracks remain constrained by formalistic compliance, weak professional capacity, and a research-oriented culture that marginalizes teaching. These constraints are reproduced through a self-reinforcing relationship among research-centered career incentives, compliance-oriented implementation, and unstable or insufficient professional support. The professional deficit is not simply an absence of American-style specialists: rotation and fixed-term appointment also deny the collegial model the continuity on which peer-led development depends, so that neither model is fully realized. Their expression varies across institutional and disciplinary contexts, including research-intensive environments shaped by the historical legacy of *kōza*-based laboratory organization, while internationalization and digital transformation generate additional pedagogical demands. The two tracks are connected through shared FD centers, TA/TF arrangements, and the potential movement of pre-FD participants into subsequent faculty roles.

These findings suggest that the sustainability of academic development in Japan depends on moving from compliance-oriented initiatives toward an integrated career continuum, in which instructional training is funded through mechanisms such as JST-SPRING, framed through the inquiry-based lens of SoTL, supported by the digital and peer-based infrastructure consolidated since the pandemic, and in which peer-led networks of mutual development link the two tracks. This integrative proposal is offered as an analytically grounded proposition; its feasibility remains to be tested.

Although the analysis is specific to Japan, the configuration it describes—mandated development, research-governed advancement, and a dispersed teaching workforce without a continuing professional role in education—is not. It is recognizable in professional-school settings elsewhere, including the health professions from which much of the international faculty-development evidence derives, and the Japanese case offers those settings a documented account of what follows when participation is mandated but developmental capacity is not built.

The study is a narrative, document-based conceptual review; it does not include primary fieldwork or program-level outcome data, its source selection, though criterion-guided, remains purposive and interpretive; its engagement with the international faculty-development literature is selective by design and does not constitute a comparative review; and its conclusions are specific to the Japanese context. Future research could test the proposed integration empirically, and each of the three mechanisms set out in Section 5.3 is tractable with existing methods: whether institutions whose FD centers serve both tracks show greater continuity of pedagogical orientation among newly appointed faculty; whether participation in pre-FD predicts later engagement in collegial forms of in-service development; and whether TA and TF arrangements redesigned to include supervised teaching with structured mentoring have a measurable effect on the supervising faculty member's own teaching. Comparative institutional case studies and longitudinal evaluation would suit these questions. A further task, following from the indicator problem identified in Section 5.1, is to test whether any countable requirement can register developmental substance, or whether verification of development presupposes the very professional capacity whose absence it is meant to detect. Analysis of how generative AI is reshaping academic development in both tracks remains a priority.

Abbreviations

AI	Artificial intelligence
COVID-19	Coronavirus disease 2019
CPEHE	Center for the Promotion of Excellence in Higher Education, Kyoto University
CTL	Center for Teaching and Learning
DX	Digital transformation
EMI	English-medium instruction
FD	Faculty development
FFP	Future Faculty Program
JPPF	Japan Private Universities FD Coalition Forum
JST	Japan Science and Technology Agency
MEXT	Ministry of Education, Culture, Sports, Science and Technology
NIER	National Institute for Educational Policy Research
PDCA	Plan–Do–Check–Act
PFF	Preparing Future Faculty
PFFP	Preparing Future Faculty Program
POD	Professional and Organizational Development Network in Higher Education
pre-FD	Pre-faculty development
SD	Staff development
SoTL	Scholarship of Teaching and Learning
SPOD	Shikoku Professional and Organizational Development Network in Higher Education
SPRING	Support for Pioneering Research Initiated by the Next Generation
STEM	Science, technology, engineering, and mathematics
TA	Teaching assistant
TF	Teaching fellow

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Declaration on the Use of AI During the preparation of this manuscript, the authors used Claude (Anthropic), a generative AI assistant, for language editing, consistency checking, and refining the wording of specific passages. The AI tool was not used to generate research questions, data, analyses, or conclusions. The authors reviewed and edited all AI-assisted content and take full responsibility for the final content of the manuscript.

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Conflict of Interest The authors declare no conflict of interest.

Ethics Statement The authors declare that, as a conceptual and document-based study using only publicly available sources, no institutional ethical review was required.

Data Availability Statements The authors confirm that all data analyzed in this study are drawn from publicly available published sources cited in the article.

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