

# English Abstracts

# Reconsidering Reform in Articulation Between High School and College

ARAI Katsuhiko

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This paper examined reform content involving the problem of articulation between high school and college currently being advanced in Japan. In this work, I used two methods. The first was an international comparison of school systems. The second was a trend analysis of past entrance examination reforms. The first approach confirmed that the essence of the articulation problem between high school and college relates to general and specialized education. The second approach suggested that diversification of college entrance selection influences the level of university education, while diversified use of common tests makes test implementation very complicated. However, these problems have not been addressed in this reform. The Ministry of Education, Culture, Sports, Science and Technology has focused on reform of academic ability tests, but this reform does not contribute to solving the articulation problem, nor is it consistent with the educational request of the site.

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Examinations

# What Makes Administering the National University Entrance Examination Multiple Times Difficult?: Testing Culture in Japan and Stated Reasons and Problems

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Over 30 years have passed since multiple administration of the national university entrance examination was first considered. However, multiple administrations have still not been implemented. This paper examined what makes administering the examination multiple times difficult, especially considering testing culture in Japan, stated reasons and problems, and characteristics of several recent tests. Results revealed three remaining problems: (1) Whether the test should be used for selection or certification was unclear; (2) too much significance was placed on test scores; and (3) educational measurement and psychometrics have not become widespread in Japan.

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# Exploring Functions and Roles of Admission Offices in Japan: Toward Holistic Admissions

HAYASHI Atsuhiko

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According to the Central Education Council's December 2014 report, with the goal of developing human resources who survive globalized society, traditional knowledge-based education must be changed to logical thinking education. Specifically, the report appeals for the triple reform of senior high school education, university education, and of the university entrance examination system that bridges the two. In entrance examinations, the Council requested measures of examinees' thinking ability, judgment ability, expression power, subjectivity, diversity, and cooperation using holistic evaluation, with knowledge and skills in subjects as a foundation. And the university will decide whether to accept the candidate. Therefore, in this paper, we reviewed the installation process of the AO entrance examination in Japan, mentioned the selection method that works effectively for holistic evaluation, which has been cultivated to the present, and introduced the present situation's advantages and disadvantages. In addition, we discussed the functions and roles of admission offices, which is expected to become the headquarters in each university, or the research theme, activities, and skills there based on my experience.

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# “Three Missions” of Faculty Members of the Admission Offices

NAGANO Takuya

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To study the meaning and importance of admission offices in national colleges and universities and of faculty members who work there, this paper considers missions of the admission offices and roles of their faculty members. What sort of specialty, ability, and competency faculty members should possess and develop is also discussed. Several governmental conferences, such as the Central Council of Education, have indicated the necessity of “setting and reinforcement of admission offices.” However, in many colleges and universities, less is expected of admission offices. Moreover, many faculty members there are employed with limited-term. These facts make it difficult to develop and execute long-term plans.

In the current reformation of the entrance examination system, colleges and universities are forced to establish examinations that assess “three elements of scholastic abilities” multi-facetedly and comprehensively. In new entrance examinations, admission offices and their faculty members can take significant roles. This paper’s findings are worthwhile to consider for the reformation, and future problems should also be considered.

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# Versatility and Expertise for National University Admission Division Staff: Job Abilities' Development through Corporate National Universities and Reform Relations with High Schools

MUTO Hideyuki

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For the Admission Division and its staff, this paper considers the function and job abilities required by reform of the connection between high schools and universities since national universities have been conducting strategic management after becoming corporations.

Since before national universities' incorporation, the Admission Division has conducted applicant selection work faithfully and accurately, for instance, the "implement function" according to various "regulations" by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and other related organizations.

Meanwhile, entering the 21st century, the university staff's professionalization became a subject of discussion during review of the reform of connection between high schools and universities in a series of the Central Council for Education. At the same time, the professional Admissions Office and Admission Officers have been activated.

In this circumstance, I explore specialization in applicant selection work and methods of cooperation between faculty and staff by concentrating on the work's "planning function" and staff training by the Admission Division.

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# Articulation between High Schools and Universities in France and Their Impact on University Education Reform

NATSUME Tatsuya

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This paper clarifies the outline and some characteristics of activities for articulation between high schools and universities in France after 2000. Findings are as follows.

1. Many students fail to complete undergraduate courses. The law prohibits universities' selecting entrants. Students have a right to enroll in universities without an entrance examination if they have baccalaureates that certify completion of high school (*lycée* or *lycée professionnel*) as fundamental qualification for higher education.
2. In the early 2000s, universities strengthened their activities for articulation between high schools and universities, mainly by providing information. Activities included open campuses, visits to universities, and teacher exchanges. Activities aim to help students choose institutions of higher education and majors adapted to their aptitudes and academic backgrounds (types of high schools and courses). Nonconformity is considered one cause of failure in undergraduate courses.
3. Through activities, universities find that newcomers have different profiles and needs than traditional students and that adapting and enhancing education according to their needs is necessary.
4. Existence of specialized offices and counselors for school guidance, secondary teachers with special qualifications for charging classes in universities and who understand secondary students' current conditions and universities' requirements.

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# Use of Questioning in University Education: Identifying Research Issues through Functional Organization of Questioning

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This paper examines 1) research on questioning in Japan, focusing on elementary and junior high schools and 2) research on questioning in North American universities as preliminary work to examine effective questioning methods in university education in Japan. The results are as follows.

First, considerable research has been conducted on questioning in Japan in domains of educational technology and subject pedagogy studies. Therefore, documentation of actual conditions corresponding to historical trends and functions of questioning since the Meiji period has been conducted. On the other hand, that these research issues and interests are entirely concentrated in elementary school education and that actual conditions associated with questioning in classrooms have not been identified are future challenges.

Second, regarding university education, many initiatives to provide new teachers effective questioning techniques have been observed, especially in teacher learning centers in North American universities. On the other hand, however, most techniques remain general guidelines; with respect to teaching materials and preparing questions based on materials, questioning techniques have hardly been incorporated.

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# Impact of Educational Organization on Elementary Schoolteacher Training: Focusing on Instructing Plural Subjects

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This study critically examined elementary schoolteachers' present training systems in college and after employment, oriented toward constructing "favorite subject of instruction," especially focusing on elementary schoolteachers' uniqueness in that they instruct plural subjects.

The National Elementary Schoolteacher Survey, conducted to serve this object, sheds light on the present situation in which undergraduate students belong to a specific subject-related seminar and obtain a certificate for teaching secondary school in addition to that for elementary school. This contributes to demonstration of "favorite subject of instruction" after employment, but does not cultivate competence in course instruction straddling plural subjects or interrelating different subjects. Furthermore, post-employment training systems are not structured to build such competencies.

Survey results offer a third method for training elementary schoolteachers in circumstances of a request to facilitate linkage between kindergarten and elementary school, elementary school and secondary school, or for competence in deep subject instruction.

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# Qualitative Transformation of University Education and Student Engagement

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This paper aims first to outline the trend of rapid qualitative transformation in university education, for instance, design of outcome-based curriculum, promotion of active learning as a means to cultivate diverse abilities, and establishment of an internal quality assurance system that measures and assesses multifaceted learning outcomes (institutional research: IR) and leads to their improvement in drastically changing times and social situations. The second aim is to organize theories and empirical knowledge focusing on “student engagement” as a necessary viewpoint and concept to encourage both students’ learning and development so that they overcome transition problems from university to society. Furthermore, the paper aims to gain a practical perspective on university education through investigation based on national surveys (for university students and working adults, respectively) conducted in Japan.

The investigation’s result shows: 1) It is important to focus on and enhance “student engagement (process),” which influences their learning outcomes; and 2) in addition to introduction of a quality assurance system, tools, and implementation of active learning as an educational method, faculty members’ engagement is also required to enhance student engagement.

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# University Entrance Examination Based on Comprehensive and Multi-Dimensional Evaluation and Visualization of Academic Achievement: The Case of 21st Century Program in Kyushu University

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This paper introduces the university entrance examination system of the 21st Century Program in Kyushu University, and the visualization of academic achievement. The said program is the pioneer example of a university entrance examination based on comprehensive and multi-dimensional evaluation. As a result, Kyushu University succeeded in acquiring high-level students in accordance with an admission policy that seeks “highly specialized generalists.” However, the university entrance examination has been high-cost system, because testing for 26 students required an admission committee with over 30 faculty. Furthermore, using text mining on the learning portfolio of the program’s students (for example, proposal for admission, high school activity report, research plan, research report, graduation thesis summary, and so on), we have tried to visualize their academic achievement. As a result, we found a higher level of motivation in students whose GPA gradually rose over four years, rather than the students whose GPA began at the top. Also, some students classified as “generalist type” lost sight of their purpose in academic learning at university.

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# Proposal of Information Elements by Research Type in Engineering Papers: Focusing on Interdisciplinary Communication

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This paper proposes new interdisciplinary research communication on the basis of research categorization in engineering fields. In recent years, our society's problems have tended to greater complication, and solutions are not completed within only a single field. Too, interdisciplinary educational programs are more stressed and more widely implemented for promoting innovation. However, communication across multiple fields is difficult, particularly for advanced research content. So far, the author has collected many research summaries through academic English writing training for engineering students. These studies differ completely when observed from a disciplinary viewpoint, but the concept of functional analysis provides an interdisciplinary recognition that can be classified into five patterns. In this research, we analyzed research summaries collected from students with respect to the five patterns. Then, a research communication format was presented as a solution for problems observed in the analysis. We expect this format may be utilized for academic writing training, interdisciplinary workshops, cross-cultural events, and other activities.

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# Do We Achieve Teaching and Learning Effectiveness in a Flipped Classroom without Video Lectures?: Evaluation of a “Poor Man’s Flipped Classroom”

YAMAZATO Takaya

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This report evaluates active learning techniques employed by the author in a so-called “poor man’s flipped classroom.”

Different from a flipped classroom that provides video lectures, students self-learned outside of school hours using a textbook and references in the poor man’s flipped classroom. A challenge is achieving equivalent teaching and learning effectiveness with this active learning pedagogical method.

This report estimates lectures given by the author in 2015 and 2016. As a result, the flipped classroom shows positive impact on students’ learning effects, especially for students who work hard on advance preparation.

Self-learning outside school hours is often viewed as the critical element in the flipped classroom. However, enhancing self-learning performance is difficult without the aid of information systems.

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# How Has IPE Been Incorporated into the National Curriculum?: A Case Study of Japanese Psychologists

MARUYAMA Kazuaki

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In recent years, Inter Professional Education (IPE) prevails among various professional educators in Japan, especially in healthcare. When many professionals' tasks overlap, conflict between occupations cannot be avoided. To overcome such conflict and to conduct high-quality practice, designing institutions to motivate collaboration and to build good relationships in daily practice are essential. In this circumstance, IPE has been incorporated into some professions' public curriculum. However, little study on institutionalizing IPE has been conducted.

This paper analyzes IPE's institutionalization through a case study of Japanese psychologists. In Japan, the Ministries of Education and Health formed a committee to build a national curriculum for psychologists from September 2016 to May 2017. Using text analysis of the committee's minutes, this paper examines the following two points: First, it clarifies the main actor who claimed that IPE should be added to the national curriculum. Second, it considers committee members' multifarious interests in IPE for psychologists.

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