A Comparative Study of Academic Staff Teaching Activities between Japan and China: Based on national surveys in 2011-2012

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Introduction

Since the emergence of the medieval universities in Europe, teaching and curriculum development have constituted a core part of the activities of academic staff. Until the establishment of German research universities in the early 1800s, which saw the integration of teaching and research, university professors had not engaged in research and devoted almost all of their time and efforts to teaching and curriculum design (De Ridder-Symoens, 1992). A review of recent literature suggests that, although academics in several countries (such as Japan, Korea and Germany) now allocate more of their time to research, service activities and administration than they had in the early 1990s (Teichler, Arimoto, and Cummings, 2013), the majority of university professors still spend the largest proportion of their time on teaching in a typical week during semester. Many earlier studies were concerned with the major characteristics of the teaching activities of academic staff in individual countries, but international and quantitative research into aspects of teaching, the engagement of academic staff with curriculum development, and the features of their activities at mass and universal phases of higher education are rare. Much less research has been undertaken on academic staff involvement with university curriculum development, in particular the role academic staff play in the process, from an empirically based comparative perspective. Indeed, the patterns, content, methods of instruction, and curriculum development in university education not

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only change constantly over time, but also vary greatly from system to system and country to country. For example, Martin Trow points out that the different phases of higher education are associated with different curricula and forms of instruction (Trow, 2005). However, in recent years, some researchers argue that Trow's model does not apply to all higher education systems because of a considerable qualitative diversification across systems and diversified approaches to the massification of higher education in individual systems (Marginson et al., 2011).

The APA (Changing Academic Profession in Asia) surveys provide a recent indication of what academic staff in Asia do and what they think about what they do. For the analysis below, UNESCO statistics (UNESCO, 2012) indicate that, at the time of the APA survey in 2012, the gross enrollment ratio in tertiary education in China was 26.7 percent of the relevant age group, while in Japan it was 61.4 percent of the 18 year old population. China therefore represents a mass higher education system that has achieved enrollment rates over 15 percent but below 50 percent, whilst Japan represents a higher education system which has moved into the phase of universal higher education with enrollment rates exceeding 50 percent.

Based on case studies of China and Japan, this study attempts to undertake comparative research on major aspects of the teaching activities of academic staff and their role in curriculum development, as well as their perceptions of these activities, between a mass higher education system and a universal higher education system. Major findings from the APA surveys administered in the two countries in 2012 with a similar questionnaire provide hard data. However, the study also explores other contextual factors and drivers which might have affected the teaching activities undertaken by academic staff, their involvement in curriculum development, and their views of relevant activities. There are several reasons for selecting China and Japan as case studies. China provides an example of a higher education system which has moved into the early stage of mass higher education, while Japan's higher education has transformed into the stage of universal higher education. In terms of the origins of higher education, the formation of modern China's higher education in the late 19th century was primarily impacted by the French model, while Japan's modern university was basically modelled on the pattern of German research universities, especially at an institutional level. Economically speaking, China is still considered as an emerging country, whereas Japan is a typical mature country in terms of GDP per capita. Politically speaking, China is the largest communist country in the world. In contrast, Japan is a well-established market economy. As will be

discussed in the following section, clear differences between the two systems can also be found in other contextual factors and drivers for higher education development. This paper begins with a brief introduction to the research framework and methodology. It then analyzes similarities and differences in the teaching activities of academic staff and their involvement in curriculum development across the two different higher education systems. The paper concludes by arguing that, although differences can be found in some aspects of the curriculum and instructional methods, as well as in the relationship between student and teacher during the shift from the mass to universal phase of higher education, significant changes do not necessarily occur in all aspects of teaching and curriculum development for academic staff across the universal and mass higher education systems.

Research framework and methodology

A conceptual framework

Taylor's basic principles of curriculum development and instruction, and Stark's new definition of curriculum are of relevance and significance to this study (Taylor, 1949; Stark & Lattuca 1997). They are discussed extensively in the literature on teaching and curriculum development (e.g., Dewey, 1938; Dressel, 1963; Evelyn, 1996; Goodlad & Associates, 1979; Goodlad & Su, 1992; Haworth, Lattuca, & Conrad, 2002; Levin, 1977). According to Taylor, the process of university curriculum development consists of four stages:

- What educational purposes should the school seek to attain?
- How can learning experiences be selected which are likely to be useful in attaining these objectives?
- How can learning experiences be organized for effective instruction?
- How can the effectiveness of learning experiences be evaluated?

Several scholars use 'plan' as a synonym for curriculum (Eisner, 1979; Taba, 1962). Stark and Lattuca (1997) use 'academic plan' to describe the current state of affairs and introduce 'design' when they wish to convey a revised and more intentional process which faculty members in any discipline might pursue after considering alternatives. Specifically, they propose that the academic plan should include at least the following elements: purpose, content, sequence, learners, instructional processes, instructional resources, evaluation and

adjustment (p.10). Each of the eight elements of the plan implies an associated planning step as follows (pp.15-16):

- Purpose: Setting educational goals and objectives
- Content: Selecting subject matter
- Sequence: Organizing content appropriately
- Learners: Considering characteristics, goals, and abilities of learners
- Instructional resources: Selecting learning materials
- Instructional processes: Selecting learning and teaching activities
- Evaluation: Assessing student outcomes, and appraising learner and teacher satisfaction with the plan
- Adjustment: Making improvements in both the plan and the planning process.

Due to limitations in the corresponding data between APA surveys in individual systems, and because this study focuses on a discussion of the key features of teaching activities and academic staff participation in and views of curriculum development, this study modifies both Taylor's principles and Stark and Lattuca's basic elements of an academic plan, as follows:

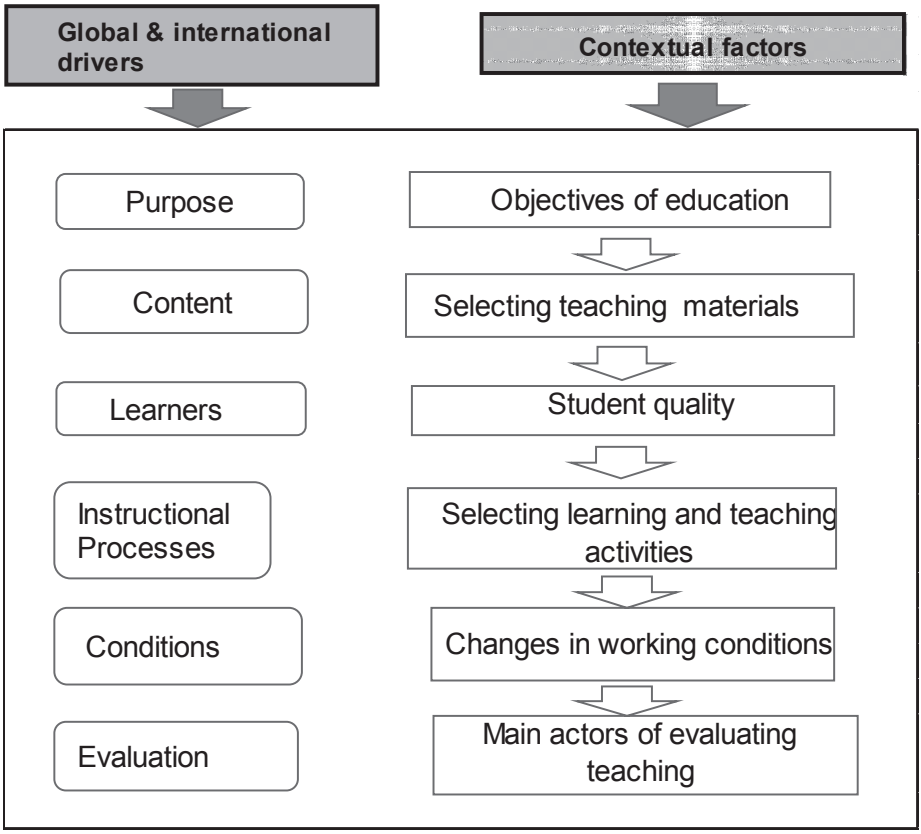
1) Purpose: the study focuses on four major educational objectives as viewed by the academic staff from the two countries
2) Content: the study analyzes how the academic staff select their teaching materials
3) Learners: the study provides data on how the academic staff view their students
4) Instructional processes: the study deals with major instructional methods employed by academic staff in their teaching activities
5) Working conditions: the study presents academic perceptions of changes in working conditions
6) Evaluation: the study discusses which actor has the most powerful impact on teaching evaluations.

Adopting Taylor's basic principles of curriculum development and instruction, and Stark and Lattuca's definition of academic plan, while utilizing relevant data from the APA surveys, this study will address the following research question:

Are there differences in the teaching activities of academic staff and their

involvement in curriculum development between Japan and China, and if so, why?

In order to address the research question, the author developed a conceptual model, shown in Figure 1, based on which both qualitative and quantitative discussion will be conducted. In this model, global and international drivers primarily refer to the advancement of information technology, marketization of higher education, internationalized teaching and learning activities and so forth. The principal contextual factors include the origins of higher education, economic level and growth, political and economic systems, academic culture, impacts from foreign models of higher education, differentiation of the higher education system, and relevance of higher education to the labor market.



Source: (Author, 2015)

Figure 1. A conceptual model

Method

As noted previously, the APA surveys were conducted in eight Asian countries and systems (Cambodia, China, Indonesia, Japan, Malaysia, Singapore, Taiwan, and Vietnam). Except for Singapore, seven of the national surveys were carried out in 2012. The common aim was to reach an "effective" sample of 800 professors in degree-granting institutions. Some countries used paper-based surveys, whilst others administered surveys online. Response rates were required to be at least 20 percent. However, where an electronic survey technique was used, many emails were blocked which led to lower response rates. The characteristics of the samples of almost all participating countries are available in existing publications (RIHE, 2015). Descriptive characteristics for the respondents who work in China (a mass higher education system) and Japan (a universal or near universal higher education system) are provided in Table 1.

With respect to their highest qualification, 81.6 percent of academic staff in Japan held doctoral degrees compared to only 41.3 percent of Chinese academic staff. With a greater percentage of academic staff in Japan holding an advanced level of research training, it is probable that more of them have conducted research than their counterparts in China.

Table 1. Respondent characteristics: China and Japan

		China	Japan
Valid responses		2480	1048
Gender	Male	1279 (52.7%)	882 (84.7%)
	Female	1147(47.3%)	159 (15.3%)
Age	20-29	188(7.8%)	20 (2.0%)
	30-39	1246 (51.9%)	236 (23.1%)
	40-49	752 (31.3%)	299 (29.2%)
	50-59	206 (8.6%)	258 (25.2%)
	Over 60	10 (0.4%)	210 (20.5%)
Discipline	Humanities	425 (17.5%)	112 (10.8%)
	Social sciences	653 (27.0%)	130 (12.5%)
	Sciences	370 (15.3%)	207 (19.9%)
	Engineering & Agriculture	659 (27.2%)	346 (33.3%)
	Other	315 (13.0%)	244 (23.5%)
Degree	Doctor	979 (41.3%)	825 (81.6%)
	Master	1131 (47.7%)	146 (14.4%)
	Bachelor	259 (10.9%)	40 (4.0%)

By discipline, the largest proportion of academic staff is from Engineering and Agriculture in both China (27.2%) and Japan (33.3%). In China, the second largest percentage of academic staff is from Social sciences (27.0%), followed by Humanities (17.5%). In Japan, academic staff from Other (unclassified) disciplines account for the second largest share of the total (23.5%), whilst faculty members from the Sciences are the third largest group (19.9%). Academic staff in both China and Japan undertake more teaching in disciplines, such as engineering, manufacturing and construction, and architecture. However, a greater percentage of Chinese academic staff is involved in teaching soft sciences: humanities and social sciences. By contrast, academic staff in Japan undertake more teaching in hard sciences, e.g. engineering, manufacturing and construction, architecture, and other disciplines. This may be one of the key variables in this study. Simply speaking, it is possible that the characteristics of the respondents from each country could affect the teaching focus and methods of instruction of academic staff, or their views of their students.

Data analysis and discussion

Table 2. Positive views of academic staff on the objectives of education in their institution (percentage: responses of 4 and 5)

	Japan	China
To have students acquire knowledge and qualifications necessary for a member of society	75.9	81.0
To have students acquire a broad range of academic interests and knowledge	86.8	73.0
To have students acquire knowledge and qualifications necessary as a professional	87.4	78.1
To have students acquire knowledge and qualifications necessary as an academic researcher	67.4	53.5

Question: How much does each of the following goals have to do with the objectives of education in your institution? Please answer on a scale of 1 (not related) – 5 (strongly related) (please check only one column on each decision)

Table 2 presents the respondents' positive views of the objectives of education in their institutions. In general, over half of the academic staff in both Japan and China agreed that their institutions pursued all four educational objectives. This suggests that a wide variety of educational objectives is set in both countries at an institutional level. However, differences were found in the objectives of education between the two countries. In Japan, a greater

percentage reported that the objectives of education in their institutions were "strongly related" and "related" to the statements "To have students acquire knowledge and qualifications necessary as a professional", and especially "To have students acquire a broad range of academic interests and knowledge" and "To have students acquire knowledge and qualifications necessary as an academic researcher". In China, 81 percent reported that their institutions "strongly related" and "related" to the statement "To have students acquire knowledge and qualifications necessary for a member of society", in comparison with 75.9 percent of Japanese responses to this objective. Perhaps the major reasons behind this are as follows. Firstly, in contrast with U.S. undergraduate studies, both Japan and China focus on the cultivation of graduates with the knowledge and qualifications required to be a professional. General education studies were only introduced to Japanese undergraduate education from the U.S.A. after the end of the Second World War. In China, under the influence of the former Soviet model, professional studies have played a central role in undergraduate education since the early 1950s. Secondly, because the modern Japanese higher education system was founded on the pattern of German research universities in terms of governance and academic culture especially at an institutional level in the late 19th century, earlier research has demonstrated that Japanese academic staff show a primary interest and preference for research and allocate a greater percentage of their time on research than do Chinese academics (Arimoto, 2008). Unlike in China, the educational objectives "To have students acquire a broad range of academic interests and knowledge" and "To have students acquire knowledge and qualifications necessary as an academic researcher" are still considered to be key objectives in Japanese universities. This is especially true in the large national and research-intensive universities. Finally, curriculum reforms focused on general education studies in both Japan and China since the early 1990s have also made individual universities realize the importance of having students acquire the knowledge and qualifications necessary to be a member of society. By way of illustration, in 1998 the University Council recommended that undergraduate curriculum reform in Japanese universities should seek to adopt American models, in particular the model of the U.S. liberal arts colleges (University Council, 1998). It was expected that more emphasis would be placed on the provision of general studies at undergraduate level, with specialized programs taught intensively at the level of graduate education. Similarly, since the mid-1990s, "culture quality education" aims at supplying basic or common education programs for students and placing priority on cultivating students' various abilities and potentials in

addition to their professional knowledge and skills. By the end of the century, the idea of *Tongshi* education (often interpreted, in the Chinese context, as general education from the U.S. universities) had also been widely used in Chinese universities. Similar to the "culture quality education" at an idea level, its objective is also to bring breadth to an otherwise specialized education (Huang, 2015).

Table 3. Positive views of academic staff on teaching activities (percentage; responses 1 and 2)

	Japan	China
Practically oriented knowledge and skills are emphasized in your teaching	53.2	85.3
In your courses you emphasize international perspectives or content	46.4	69.1

Question: Please indicate your views on the following: (Scale of answer from 1 = Strongly agree to 5 = Strongly disagree)

Table 3 shows that over half of the respondents in both Japan and China reported that practically oriented knowledge and skills and international perspectives or content are emphasized in their teaching activities. In China, this number is over 80 percent. On the one hand, this shows that the teaching activities of individual academics reflect the objectives of education pursued by their home institutions, as discussed in Table 2. On the other hand, it also indicates that academic staff in China put more emphasis on the provision of practically oriented knowledge and skills in their teaching. This partly relates to the ongoing impact of the former Soviet model, as well as the considerable and evident demand for graduates with practical knowledge and skills in the Chinese labor market. Furthermore, in relation to teaching activities with an international dimension, less than half of academic staff in Japan indicated that they emphasized international perspectives or content in their courses. This is a much lower percentage than in China (69.1%), but may relate to an assumption by academic staff in Japan that the level of international teaching activities in their courses is already very high and, as such, teaching does not need to include a more international dimension. In a related fashion, as respondents in China thought the level of their teaching at an international level was still low, they claimed that the level of international teaching at a course level should be enhanced.

As indicated in Table 4, significant differences can be found between Japan and China in perceptions of the quality of currently enrolled students. More than half of the Chinese respondents (56.1%) believed that the quality of their students was excellent or good. By contrast, only 10.5 percent of the Japanese

respondents held a positive view of their students. Furthermore, whilst only 5.4 percent of the Chinese respondents viewed the quality of their students as poor, 44.6 percent of the Japanese respondents held this view of their students. As pointed out by Trow in his definition, with an expansion of student enrollments from the phase of mass higher education to that of a nearly universal or universal higher education system, a decline in the quality of students tends to emerge in the U.S. context. The APA data show that Trow's argument can be largely applied to both Japan and China, too.

Table 4. Quality of currently enrolled students (percentage)

	China	Japan
1 Excellent	6.2	1.8
2 Good	49.9	8.7
3 Fair	38.5	44.9
4 Poor	5.4	44.6

Question: How would you rate the quality of the students currently enrolled in your department?

With respect to instructional methods, Table 5 indicates that more diversified mediums of instruction were employed by the academic staff in each country. Amongst the various teaching strategies, over 70 percent of the academic staff from the two countries carried out individualized instruction, over half of them undertook face-to-face interaction with students outside of class, and very few of them were involved in distance education. However, clear differences can also be identified in the use of teaching methods between the academic staff in the two countries. In Japan, over 90 percent of academic staff continue to use classroom instruction/lecturing as their primary method. Nearly 60 percent of them engaged in practice instruction/laboratory work (59.4%). In China, on the other hand, the largest percentage of academic staff was concerned with ICT-based learning/computer-assisted learning (79.4%) compared to less than 30 percent in Japan. Interestingly, although higher education in Japan has moved into the stage of universal higher education, a greater percentage of Japanese academic staff employed traditional teaching strategies compared to China, with a smaller percentage of Japanese academic staff adopting teaching methods based on new technology or information science.

As shown in Table 6, although a small percentage of academic staff from Japan (11.6%) agreed that their working conditions had been very much improved, over 70 percent of academic staff from China (71.9%) indicated a significant improvement to their working conditions. By contrast, over half of

the academic staff from Japan (51.7%) stated that their working conditions had significantly deteriorated, compared to only 12.2 percent of the Chinese academic staff. Various factors could contribute to this perception of increasingly deteriorated working conditions in Japan. For example, an ongoing reduction in public funding for national universities and a decline in the size of the population of 18 year olds, etc.

Table 5. Types of instructional methods (percentage; multiple responses)

	Japan	China
Classroom instruction/lecturing	91.9	39.7
Individualized instruction	72.7	77.2
Learning in projects/project groups	24.8	42.2
Practice instruction/laboratory work	59.4	47.5
ICT-based learning/computer-assisted learning	29.4	79.4
Distance education	5.8	5.2
Face-to-face interaction with students outside of class	58.7	70.9
Electronic communication (e-mail) with students	57.0	15.0

Question: During the current (or previous) academic year, have you been involved in any of the following teaching activities?

Table 6. Perceived changes in working conditions in higher education (percentage; arithmetic mean)

	Japan	China
1 Very much improved	11.6	71.9
3	36.7	15.9
5 Very much deteriorated	51.7	12.2

Question: Since you started your career, have the overall working conditions in higher education and research institutes improved or declined? (Scale of answer from 1 = Very much improved to 5 = Very much deteriorated)

Table 7. Main actors for evaluating the teaching activities of academic staff (percentage)

	Government or external stakeholders	Institutional managers	Academic Unit managers	Faculty committees /boards	Individual faculty	Students
China	14.8	46.8	16.8	15.7	1.5	4.3
Japan	2.3	25.4	26.3	31.4	8.8	5.8

Question: At your institution, which actor has the primary influence on each of the following decisions?

Table 7 suggests that significant differences can be identified in academic responses to the influence which different actors have on their teaching activities. From a comparative perspective, the largest percentage of academic staff in China (46.8%) believed that their institutional managers had primary influence on the evaluation of their teaching activities, followed by academic unit managers (16.8%). The least influence was felt from individual faculty members (1.5%). In Japan, the largest percentage of academic staff (31.4%) asserted that faculty committees/boards had primary influence on evaluating their teaching activities, followed by academic unit managers (26.3%), and then institutional managers (25.4%). The least influence in Japan was felt from government or external stakeholders (2.3 %), compared to 14.8 percent in China. Given that faculty committees/boards have the most powerful influence on evaluating teaching activities in Japan, this can essentially be seen as a typical bottom-up arrangement. China, however, is characterized by a top-down arrangement, with institutional managers taking principal responsibility for evaluating teaching activities. Furthermore, government and external stakeholders in China also exert influence on the evaluation of the teaching activities of Chinese academics. Major reasons for this could include rigidly centralized control and regulation of higher education in relation to the relationship between government and individual institutions in China. At an institutional level, the recruitment and appointment of institutional leaders (including both Party secretaries and Presidents) by the Communist Party could mean that these institutional managers have the most powerful impact on both administrative and academic matters in their institutions. This relates closely to the current political system of China in which the Party is understood to lead all universities. In Japan, on the other hand, despite changes to its national universities where they became corporations from 2004, there is a long tradition of academic freedom and autonomy, and faculty committees are still influential in deciding many aspects of academic affairs.

Curriculum development is a complex and changing process in which many actors, activities and components are involved. Because the main purpose of the APA international surveys was not focused on the role of academics in curriculum development, this study has certain limitations. Firstly, as presented earlier, the research framework only deals with various stages or aspects of curriculum development. Issues concerning the full range of academic roles in curriculum development, and the extent to which the objectives of education are attained, are not addressed, and information on learners is lacking. Secondly, due to the limited questions and data about curriculum development, this study

cannot provide in-depth information about the level of academic involvement with curriculum development. Thirdly, even within each higher education system, there exist more complicated contextual factors and global or international drivers. These huge differences make it impossible to describe an accurate portrait of the teaching activities of academic staff and their engagement in curriculum development. Finally, with regard to the study of teaching and curriculum development, given that the sample of academic staff from two phases of higher education systems only includes two countries from East Asia, their characteristics may not apply to other countries or other regions.

Conclusion

This initial study of the teaching of academic staff and their participation in curriculum development, based on the cases of Japan and China, from the comparative and empirical perspective partly supports Trow's research on the changing character of the curriculum and the forms of instruction, as well as the relationships between student and teacher during the transition from mass to universal higher education. As student numbers grew, nearly half of the academic staff from the universal higher education system admitted that the quality of their students was poor. Over half of them complained that their working conditions had deteriorated. A very small percentage indicated that students were the primary influence on evaluating their teaching activities. However, the study of the two cases also suggests that the differences between mass higher education and universal higher education are not quite so fundamental and are not identified in every aspect of higher education. In other words, with the advancement of higher education enrollment rates from the mass phase to the phase of universal access in higher education, remarkable changes do not necessarily happen to all aspects of the teaching of academic staff and their role in curriculum development.

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