



Higher Education Research Community in Taiwan: An Emerging Field

Sheng-Ju Chan^a and Ying Chan^b

^aNational Chung Cheng University, No.168, Sec. 1, University Road, Min-Hsiung Township, Chia-yi County, 621, Taiwan.

^bGraduate Institute of Educational Policy and Leadership, Tamkang University No. 151, Yingzhuan Road, Tamsui District, New Taipei City, 25137 Taiwan.

This paper aims to explore the evolution and characteristics of the higher education research community in Taiwan. In echoing the development of the East Asian region, Taiwan has made substantial progress during the past two decades. The massification of higher education itself has played a major role in promoting the academic differentiation or division of labour, including higher education research area. With the momentum gathered since the 1990s, we have seen the appearance of a professional society and its official journal. A national quality assurance agency and its research arms also promote the deepening of higher education research in Taiwan. Despite more emphases initially on instrumental or management-oriented purposes, higher education research in Taiwan today is moving in diverse and balanced directions, with a variety of themes and methods. However, the lack of a university-level degree programme due to constrained graduate employment prospects is inconsistent with the development of massification in higher education. In addition, the incoming large-scale higher education restructuring due to the rapidly declining birth rate has become an unstable factor to the development of this emerging field.

Higher Education Policy (2015) 28, 459–475. doi:10.1057/hep.2015.16

Keywords: higher education research; disciplinary formation; research community; massification

Introduction

On the basis of past research conducted in wider academic fields, scholars have come to the conclusion that the scope or nature of academic fields varies substantially according to the dominant methodologies, research foci, knowledge traditions and beliefs, and even key participants. These relevant factors substantially define or demarcate the shape, format, content, and even applications of this particular subject. These strong characteristics and features of different academic regimes gradually constitute a unique space and boundary, thereby enabling researchers to conduct their scientific study. In view of the importance of knowledge power and norms, Becher and Trowler (2001) called these phenomena ‘academic tribes’ with territories, rules, and standards.



Higher education, as a subfield of education or an interdisciplinary topic, has gained wider acceptance among academics across the globe since the 1970s (Clark and Neave, 1992). Notable advancements come from several leading scholars in the United States, such as Burton R. Clark, Philip G. Altbach, Clark Kerr, and Martin Trow. Similarly, we have witnessed the prosperous development of higher education research in the European context (Teichler, 2013), whereas a wide range of specialized journals and alliances were established. In a similar vein, Asian scholars have paid much more attention to higher education research since the mid-1990s (Horta and Jung, 2014). One remarkable case is that of China. Highly connected to the nation-state and communist support, Chinese higher education research has attracted much more attention through the institutionalization of master's level and doctoral programmes (Chen and Hu, 2012). Some leading scholars from Japan, Korea, Hong Kong, China, and Taiwan sought to establish an Asia Pacific Higher Education Research Association in 2014. All such developments indicate the trend that research in higher education has become an emerging field in the Asian region.

This paper deals with the evolution and characteristics of the higher education research community in Taiwan. The knowledge gleaned from the empirical findings suggests a rather complicated picture. On the one hand, higher education research has increasingly been regarded as an independent academic area in recent years; on the other hand, the lack of a university-level degree programme and the limited graduate employment market pose challenges to the formation of a mature subject. Studies were mainly concentrated on policies and systems, and institutional management and practices in the initial stage. Such an instrumental approach should be supplemented by the research in teaching, learning, curriculum, course design and so on.

This paper comprises five major parts. First, attention will be devoted to a brief review of the higher education research community. The second section deals with the research methods employed in detailing how data and information are garnered. This is followed by an exploration of the interlinked relationship between massification and higher education research in Taiwan in relation to social, cultural, and economic contexts. The fourth part concentrates on professional societies, journals, and agencies in higher education research. In the fifth part, our analysis extends to the dynamic relationship between the unsuccessful institutionalization of a degree programme within the university campus and the constrained graduate labour market. Research themes and methods in Taiwanese higher education research are discussed in the sixth part. After reviewing these main traits and developments, a comprehensive discussion on driving forces, growths, and core issues is presented with a focus on massification.

Higher Education as a Research Community

After more than 100 years of evolution, higher education research has, without a doubt, become a diverse community. According to Harland (2009, 580), this



community includes three different groups. First, several persons carry out rigorous research in higher education and regard this as their primary discipline. Most participants in this group, coming from faculties of education or social sciences, devote their academic life to higher education research. The second group tends to consist of part-time researchers, who are typically academics from other disciplines or administrators whose main focus is on teaching and learning in their fields (e.g., designing a chemistry course or programme for undergraduate students). The final group within the higher education research community involves those 'who simply have an interest in the field'. The current study focuses on the first group of individuals, who conduct generic higher education research instead of disciplinary higher education research. However, we realize that the higher education community gains support from sub-groups and other academic subjects with their own professional journal in higher education. The *Journal of Geography in Higher Education* is an example from the field of geography. Our subsequent investigation into the Taiwanese scenario also echoes this point that other disciplinary researchers somehow expand the scope and content of this emerging field in Taiwan.

In defining higher education research as a community of practice, Tight (2008, 596) asserted that, if a better understanding into this research community is intended, we have to explore 'the topics they study, the methodologies they use, the journals they publish in, their disciplinary backgrounds or some combination of these'. This claim provides a basis for examining the features or characteristics of any research community. Moreover, these distinctive configurations with respect to topics, methodologies, journals, and disciplinary backgrounds present indispensable ingredients to form the topic's identity or recognition from academic peers. Similarly, while discussing the nature of a discipline, Becher and Trowler (2001, 41) argued that the emergence of the international community, professional associations and specialist journals, and differentiated departments/programmes are important indicators for assessing the development of this particular field. In this study, we adopt the conceptual frameworks proposed by Tight (2008) and Becher and Trowler (2001) by exploring professional associations, specialized journals, differentiated programme, research themes and topics, disciplinary backgrounds and so on.

As previously outlined, higher education research could have diverse natures and complex academic origins or backgrounds. A brief summary about the main themes or topics from three different periods of time can serve to illuminate the changing content of this young research community. Traditionally, major international works before the 1970s focused on the philosophical and historic analysis of the university and their relationship with the wider society, as Cardinal Newman did. However, the main components of themes indexed by Clark and Neave (1992) changed dramatically, including national systems of higher education, higher education and society, the institutional fabric of the higher education system, governance, administration and finance, faculty and students, teaching, learning and research, disciplinary perspectives on higher education, and academic disciplines. Almost 10 years later,



Tight (2003) proposed a classification with respect to research issues in higher education. Eight categories cover teaching and learning, course design, student experience, quality, system policy, institutional management, academic work, and knowledge. Along with the increasing progression of internationalization/globalization, David (2011) identified three major topics in the globalized context: social stratification and mobility in relation to the labour market, widening access and participation in global higher education, and finally social transformation of global higher education. These topics point to the fact that the internationalization of higher education should become another critical issue in the higher education community. In this study, we employ some of Tight's (2003) categories in our subsequent analysis of journal articles.

Research Methods

In order to explore the entire spectrum of the higher education research community in Taiwan, three research methods are adopted to examine this academic field: document analysis, participation observation, and interview. Document analysis is useful for providing relevant information and materials for the current research. In general, the main sources of documents include public records, published materials, meeting minutes, websites, and even regulations/rules (Bryman, 2012). In this case, we reviewed academic publications (books and articles) and relevant organizations' websites and content to understand the real outcomes and features of the higher education research community over the past two decades. As professional higher education associations and journals were established in the early 2000s, their institutional missions, activities, and publications are under review as well. In particular, we did a rather thorough analysis of the leading domestic journals with respect to the articles' themes or topics. The in-depth information gleaned from these articles provides insightful perspectives on the focus and development of higher education research in Taiwan.

As insiders in higher education, both authors can be considered experts in this field and adopt participation observation to garner inside information. Having published research on a wide range of topics, we have also been appointed as editorial board members for two major academic journals in Taiwan: *Journal of Higher Education* (高等教育, abbreviated as *JHE*) and *Higher Education Evaluation and Development* (*HEED*). These academic and professional positions have provided the authors with first-hand experience and insights into the development of the higher education community for the past two decades. As far as the research method is concerned, participation observation emphasizes the indispensable value of being part of the investigated target so as to garner the in-depth meaning of daily events. According to this definition, both authors' reflections, comments, and meta-interpretations are meaningful materials for participation observation.

In addition to the document analysis and direct observation, three key persons were interviewed in 2013 in order to broaden the information sources of this study. The three interviewees were the *JHE* Editor-in-Chief (Interviewee A); Taiwan Higher Education Society's (THES) Secretary-General (Interviewee B); and the Director of the Office of Research and Development, Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) (Interviewee C). All interviews were conducted in January 2013. The interviewees are experienced academics in this field and have comprehensive knowledge about higher education research in Taiwan because of their professional positions. During the 1-hour interview, they were asked to identify the wider backdrops and incentives for the emergence of the higher education research community; the establishment of specialized academic associations, organizations, and journals; the mainstream research topics and themes; and the provision of higher education programmes. Such information is critical in terms of answering research questions.

Massification and Higher Education Research

According to the reviewed documents and interviewees, the increasingly prominent role that higher education research has played since the 1990s is highly related to social, educational, political, and economic transformation. We can even argue that a strong sense of instrumental purpose in problem solving exists in the higher education community. The most frequently mentioned driver inspiring the emergence of a higher education research community is the process of massification of higher education itself and the relevant issues involved (Interviewees A and B). Since the 1980s, the Taiwanese higher education system has expanded its scope and size by allowing the establishment of more new colleges and universities (mainly private ones) and admitting more secondary school leavers (Wang, 2003). This transition from an elite system to a massified system was driven by a series of factors. Economically, as one member of the 'four little dragons', Taiwan's industries had been going through structural transformation from an agriculturally and manually oriented entity to a more technology-, capital-, or even knowledge-oriented economy. On the basis of the crucial need to provide a more skilled workforce at the tertiary level, the higher education system was encouraged to enlarge so as to cultivate more graduates for the then-emerging labour market. The developments taking place in Taiwan created a more diverse and larger higher education system in a short period of time (Chou and Wang, 2012).

Around the same time, the political democratization movement set the major landscape at the societal level. Some politicians and scholars urged all of society to become further democratized by removing inappropriate and illegal regulations and engaging diverse stakeholders in participatory decision making during the



political procedure. Universities in Taiwan were formerly part of governmental organizations and under direct bureaucratic control. The spirit of democratization provoked a general belief that higher education should be liberalized in pursuit of academic freedom and autonomy without governmental intervention (Chan, 2010). On the basis of such objectives, the Education Reform Committee, a high-level advisory board to the Executive Yuan (行政院), was created in 1995 and advised that the higher education sector should be free from political constraints. The relationship between higher education and government was thus redefined, and universities were granted more decision-making rights and autonomy. A wide range of relevant issues require academic inputs and professional judgments, thereby creating a positive atmosphere for higher education research.

In addition to the economic and political factors in reforming the higher education sector, educational rationale was responsible for providing the required incentives for the formation of the higher education research community. The 'universal establishment of university and senior high school' (廣設高中大學), endorsed by the Civil Educational Reform Movement in 1994, was a major appeal in order to cater to the demands for wider access to higher education. In principle, this reform agenda was adopted and transformed into policy by the then (and subsequent) governments, which resulted in rapid expansion of higher education with respect to the growth in net enrolment rate from 20.98% in 1991 to 68.27% in 2011 (Ministry of Education (MOE), 2014). The parallel effect on the higher education research community, due to such massification, is the prevalence of academic department/programmes in the education field, including centres for teacher education. More undergraduate and postgraduate programmes have been established and in turn recruited more academic staff (Interviewee A). These increased academic populations paved the path for new educational research, including higher education. As a matter of fact, we witnessed new buds appearing during the same period, such as educational administration and policy, curriculum and instruction, and educational technology and learning. Therefore, further academic specialization and differentiation, in response to the diverse needs of social and economic development, became common during the massification of higher education.

The discussion thus far highlights the critical impact of higher education massification upon the formation of new research areas. Reviewing academic publications and archives, few scholarly higher education works were found in Taiwan before the 1990s. Among them, some publications dealt with reforms in the admission system with an eye to easing the pressure of access to higher education. Interestingly, these works are highly related to the comparative education fields, as these scholars were keen to borrow foreign systems for local implementation. This linkage has led to a lasting impact upon the subsequent overlapping of key participants in higher education and comparative education. Moreover, other active authors in higher education came from other specialized disciplines, such as law, sociology, or economics. For example, in order to attract public support for

democratizing the higher education system in 1994, law school professor De-fen Ho (賀德芬) published the book *The Rebirth of University* (大學之再生). James Hsueh (薛承泰), a sociologist focusing on population and education, reviewed the education reform movement in 1994 by publishing the comprehensive book *Ten-Year Education Reforms for Whose Dream?* (十年教改 為誰築夢?). The disciplinary approach points out that higher education research can be diverse, with multiple orientations and purposes. However, it was clear that, before the 1990s, no scholar in Taiwan claimed that he or she specialized exclusively in the higher education field. Along with increasing internationalization or globalization, more local researchers and faculty members aware of the worldwide concerns in higher education also paid attention to this field. Interviewee B asserted that the growing exchange with Mainland China inspired greater involvement of the Taiwanese side in this emerging field. Some well-known scholars specializing in higher education research in China, such as Maoyuan Pan (潘懋元) at Xiamen University, inspired the Taiwanese interests in developing this embryonic area. The further occurrence of cross-border higher education cooperation and activities also brought about new incentives for engaging in relevant research (Interviewee C). Therefore, after two decades of accumulation and development, the new identity and recognition steadily formed and attracted different stakeholders to this field. In the next section, we turn to the accumulative achievements with respect to the professional association, journal, and agency examined herein.

Taking Shape: The Emergence of a Specialized Society, Journal, and Agency

As we mentioned earlier, wider social backdrops in the 1990s provided the necessary foundation for higher education research. The concrete outcomes began to take shape in the mid-2000s. If we define community as a sort of institutional cooperation, then we see the formation of THES and its publication of *JHE*, both in 2006, as excellent examples. With the financial support of the MOE, HEEACT also started operations in 2005. Through investigation into these two organizations and the relevant research publication platform (journals), we can gain an in-depth understanding of the evolution and characteristics of this field in recent years.

When it comes to the establishment of specialized associations for higher education research, some discussions started in the late 1990s (Interviewees A and B). Due to the expanded higher education sector and the complicated governance and management issues involved, a small group of scholars, led by Professor Yuan-tsun Liu (劉源俊), a private university president, sought to form a professional higher education society in about 1998. However, this attempt was not successful for several reasons. Following this, Tamkang University (淡江大學), another private university in Taiwan, introduced a Higher Education Research Forum (高等教育研究論壇) with about 1 dozen members who presented, discussed, and even published research



findings through this platform. This forum was later transformed into the Centre for Higher Education Research in 2002, the first such centre in Taiwan, with missions to engage in literature collection, host conferences, publish proceedings, carry out research projects, and provide advisory services (Tamkang University, 2015). This pioneer experiment aimed to ‘strengthen the capacity to do research on policy and governance so as to improve the university practice in a scientific manner’ (Interviewee C). Although it had not existed for a long time, this centre quickly became the main basis of THES.

In 2006, THES was established with comprehensive support from Tamkang University. If we examine the constituents of directors and the supervisors, many representatives from this institution were responsible for daily operations (THES, 2015). In order to effectively expand the society’s outreach, influence, and participation in policy formation, key persons from THES came from diverse backgrounds such as the university president, MOE officials (current and former), managers of relevant university agencies, and higher education researchers. This diversified component of the society’s representative conveys an important message that this newly established society was attempting to engage in the policy-making arena, internal university governance and management, and the enhancement of research capacity. This policy- and management-oriented strategy can have direct links with policymakers and the institutional manager by providing professional services to different higher education segments. The configuration of THES, therefore, aims to fulfil the mandated mission of ‘providing advices to higher education policy’ (THES, 2015). In enhancing the power of higher education experts and debating critical issues in higher education reforms, the *JHE* — the official publication of THES — began its biannual publication in 2006. This journal is academically oriented, with an editorial board composed exclusively of (higher) education researchers. In other words, the positioning of this journal does not target primarily university practitioners or managers. The key participants of THES and contributors to *JHE* come from academic backgrounds of sociology, comparative education, educational administration and policy and so on. Such experts tend to be concerned with macro forces and issues at the systemic or institutional level and ignore meso or even micro topics. These main actors in higher education research have a direct influence on the choices of mainstream themes/topics to be investigated later.

In addition to THES, a new agency that deserves our attention is HEEACT, established in 2005 with financial support from MOE and constituent domestic colleges and universities. HEEACT aims to enhance the quality of higher education through a variety of activities, including research. Its main task is to implement the external evaluation and accreditation of colleges and universities so as to install quality assurance mechanisms nationwide. Therefore, the nature of this organization focuses great attention on institutional evaluation, accountability measurement, quality enhancement, or even university ranking with respect to teaching,



research, and industry — academic cooperation (HEEACT, 2013a). This semi-autonomous entity established the Office of Research and Development, which is responsible for a series of research projects and book publications focusing on higher education evaluation and quality assurance in major countries. As far as publication is concerned, the main topics include quality assurance systems in different countries or regions, ranking and research evaluation, student learning outcomes assessment, internationalization, and faculty development (HEEACT, 2014). These works tend to focus on institutions/systems, policies, management, and teaching and learning. These traits are actually consistent with the expertise of the previously identified key participants in the higher education community. With an eye to constructing a new higher education evaluation system in Taiwan, major efforts (including research/publication) have been included in the appropriate regime and management.

In addition to setting up a new evaluation system, HEEACT contributed to the higher education research community by supporting an all-English journal entitled *HEED*. Positioning itself as an international platform for worldwide audiences, *HEED* is a scholarly refereed journal aimed at ‘encouraging research in higher education evaluation and development, raising standards of evaluation research, and sharing outcomes of evaluation and higher education worldwide’ (*HEED*, 2013). Unlike *JHE* supported by THES, *HEED* is international, and its contributors are mainly abroad, discussing comprehensive topics related to higher education, evaluation, and development. According to one of the interviewees, its internationalized character reflects a strong belief that ‘we have to understand other countries due to greater internationalization’ (Interviewee C). However, this internationally oriented journal does not present domestic features or characteristics in Taiwan. Another publication warranting attention, also supported by HEEACT, is *Evaluation Bimonthly*. This professional newsletter has many readers online and focuses ‘on the latest evaluation knowledge, newest trends, in hopes of creating a platform for sharing evaluation knowledge with the aim of allowing the public to understand the importance of evaluation’ (HEEACT, 2013b).

We can argue that the establishment of the professional association, journals, and quality assurance agency rapidly crystalized the fundamental configuration of the higher education research community in Taiwan. After obvious massification of higher education, these institutionalized organizations and academic journals attracted the participation of policymakers, institutional managers, and researchers. The main functions of these organizations and journals are mainly twofold: to provide professional advice or assistance to practical issues in the higher education sector and to raise the research capacity. Their main concerns, echoing Clark and Neave’s (1992) and Tight’s (2003) classifications, concentrate on national policies, governance, institutional management, and even quality assurance while the internationalization of higher education has become an emergent issue to be addressed (David, 2011).



Dynamics of the Constrained Labour Market and Its Impact on Degree Programmes

For any disciplinary development, the institutionalization of the formal degree programme at a university would constitute an important indicator for judging its success, influence, and maturity (Becher and Trowler, 2001). Despite the successful experiences in forming research organizations and journals, the pursuit of such development has proved a failure. Several attempts have been made to build master's-level programmes at different universities, but most cases have failed. The main challenge, as suggested, could relate to the limited labour market for graduates of such programmes.

In the early 2000s, some universities expressed an interest in establishing higher education programmes at the master's degree level. Tamkang University, the most active institution in this academic field, realized the vision and established its Graduate Institute of Higher Education in 2006 to 'cultivate talent on higher education planning and management' (Tamkang, 2015). Unfortunately, this master's degree programme was short lived and ended with a merger with the Graduate Institute of Education Policy and Leadership in 2008. As a result, the higher education master's degree programme was no longer an independent unit, but a division of educational policy and administration. The short-term existence of this programme was attributed to the limited source of students and the pressure of programme evaluations (Interviewee B). In fact, all three interviewees stressed that main negative factor was the very limited employment prospects for graduates. Graduates of programmes who specialize in many aspects of higher education naturally would expect to work in the university sector. However, those employed in this sector are actually qualified civil servants working at a public university in Taiwan, meaning they would need to pass the official national examination rather than specialize in higher education. Similarly, private universities have their own policies for recruiting personnel. Instead of emphasizing the professional skills of higher education management, these private institutions tend to select employees from larger pools with certain qualifications/thresholds, such as computers skills, English proficiency, and other professional licences. This misalignment prevents students from enrolling in higher education degree programmes and applying professional skills and knowledge in the real world. Many higher education programmes exist in Mainland China, and most of their graduates become university staff who help complete educational projects, institutional planning, and even management (Chen and Hu, 2012). If their professional knowledge and skills are not valued by universities, the employment opportunities are substantially limited at other industries.

After the closure of this programme at Tamkang University, a new spark was lit at National Taichung University of Education in 2012. The Master of Higher Education Management was created to explore 'theories and emerging issues on higher education management, higher education institutions and policies in developed countries, and problems faced in Taiwanese higher education' (National Taichung

University of Education, 2015). Programme graduates are expected to become the 'critical workforce of higher education institution management'. This mission statement shows the strong intention of combining higher education theories, policies, management and practices in order to strengthen the effective governance at the institutional level. If examined closely, we can discover that this programme's objective is consistent with Tamkang University's. This similarity is not coincidental and highlights two important points. First, Taiwanese colleges and universities really require a professional workforce to raise management effectiveness and efficiency in a systematic way. This is true, at least, in the eyes of higher education researchers or scholars. Second, as we have already argued, the higher education research community in Taiwan has an instrumental or practical feature, as evident in these two programmes devoted to improving policy making and enhancing higher education management.

In addition to the limited employment prospect, another minor factor in relation to academic differentiation prevents the appearance of programmes of higher education. Most Taiwanese researchers in education seem to regard higher education as a subfield of educational administration and policy studies. If this is the case, the higher education research community will not have an independent identity. Moreover, this confusion also relates to the overemphasis on the linkage with the policy-making arena and application to management practices. This intertwined disciplinary development between educational administration and higher education deserves further investigation.

Research Themes and Methods: Towards Diversification

In this section, we decipher the main themes and methods in the Taiwanese higher education community. To this end, we use two methods: interview results and journal article analyses. The first perspective we have is from the interviewees' responses. Their answers are similar to each other. They point out that policy studies, institutional research, and higher education reforms are mainstream themes. Interviewee A even stressed that higher education evaluation and rankings could be the current focus, while enterprise theory and practices are used to explore leadership and management at universities. In addition to echoing Interviewee A, our second respondent added that internationalization/globalization, marketization, and world-class universities have been popular topics. In recent years, quality assurance, evaluation, and governance have also gained attention. Our final interviewee claimed that comparative or foreign studies constitute another major thread, as most of the key participants in higher education have academic backgrounds in comparative education (Interviewee C). This concise exploration of the main themes leads to the conclusion that higher education research tends to concentrate on national policies, institutional management, and conceptual topics such as globalization. We also sense a strong preference for issues like quality assurance, rankings, and evaluation.



From these preliminary results, we can infer that research focuses are highly related to the missions of THES and HEEACT.

Turning attention to the second source of research themes, we reach a slightly different conclusion from the analysis of articles published between the mid-1990s to 2014 in major domestic journals including the *JHE*, *Bulletin of Educational Research* (教育研究集刊), *Educational Review* (教育學刊), *Educational Policy Forum* (教育政策論壇), and *Contemporary Educational Research Quarterly* (當代教育研究季刊). Table 1 classifies the reviewed articles into four categories: learning and performance, policy and system, curriculum and teaching, and institutional management. Policy and institution (36.39%) accounts for the largest share of the published articles, followed by learning and performance (26.56%), institutional management (21.97%), and curriculum and teaching (15.08%). Using Horta and Jung's (2014) classification for benchmarking, there are two larger groups in higher education research: policy approach and teaching and learning approaches. In these authors' findings, these two approaches in Asia as a whole (in specialized higher education journals) tend to be equal in size (50% vs 50%). However, the Taiwanese proportions of these two research approaches are slightly different: approximately 58.36% (policy) vs 41.64% (teaching and learning). If we take papers published in *Curriculum and Instruction Quarterly* (課程與教學季刊) into account, these ratios can be more even and balanced between two approaches. Therefore, unlike the interview results, where policy and management were emphasized, the article analysis of major journals revealed a different scenario.

In terms of the research methods employed by higher education researchers, we found rather different theoretical orientations. Our data were gleaned from a deeper analysis of a mainstream and comprehensive journal, the *Bulletin of Educational Research*, and a meta-analysis of dissertations/theses in the subfield of teaching and

Table 1 Research themes of articles by percentage and frequency (in parentheses)

Themes journal	Learning and performance	Policy and system	Curriculum and teaching	Institutional management	Total
<i>Journal of Higher Education</i> (2006–2014)	10.98% (9)	39.02% (32)	14.63% (12)	35.37% (29)	100% (82)
<i>Educational Review</i> (1994–2014)	48.28% (14)	10.34% (3)	20.69% (6)	20.69% (6)	100% (29)
<i>Bulletin of Educational Research</i> (1994–2014)	20.59% (14)	39.71% (27)	23.53% (16)	16.18% (11)	100% (68)
<i>Contemporary Educational Research Quarterly</i> (2008–2014)	37.50% (9)	29.17% (7)	29.17% (7)	4.17% (1)	100% (24)
<i>Educational Policy Forum</i> (1998–2014)	34.31% (35)	41.18% (42)	4.90% (5)	19.61% (20)	100% (102)
Total (frequency)	26.56% (81)	36.39% (111)	15.08% (46)	21.97% (67)	100% (305)

learning. Using 61 articles published in the *Bulletin of Educational Research* as an example, Table 2 presents a quite uneven distribution of research methods. Almost 48% of the published articles use description and discourse, while only 23% and 25% adopt qualitative and quantitative approaches, respectively. In other words, nearly half of the articles do not mention specific research orientations but provide analytic interpretations. However, if we examine the distribution chronologically, qualitative and quantitative methods begin to significantly exceed the frequency of description and discourse from 2009 to 2014. This new direction highlights a rather balanced development of methodology orientations in this well-known journal since 2009.

However, judging from another complete survey of the subfield of teaching and learning in dissertations and theses published between 1973 and 2006 (Wu, 2009), we reached an alternative conclusion. The most frequently used method is questionnaire/survey (36%), followed by quasi-experimental design (13%) and others (12%). In addition, we found a combination of questionnaire and interview (9%), teaching system development (7%), and case study (7%). It seems that a quantitative approach (combining survey and quasi-experimental) is the dominant methodology orientation. However, this can be explained primarily by the specific nature of research in terms of teaching and learning in higher education. As far as the research methods are concerned, Taiwan's higher education research community tends to use a wide variety of strategies depending on the topics, subfields, or even time period.

Discussions of the Driving Forces, Growth, and Core Issues

The overall development of the higher education research community has been highly related to the process of massification since the 1990s. The evolution and characteristics of this community can be summarized with four layers, as shown in Figure 1. In this section, we explain their dynamic relationships among different layers.

The drivers for forming a research community can vary significantly. For example, China's higher education research is strongly linked to the nation-state or even communist party (Chen and Hu, 2012). The nation plays a major role in

Table 2 Research methods of articles from the *Bulletin of Educational Research*

	1994–1998	1999–2003	2004–2008	2009–2014	Total (percentage)
Description and discourse	10	10	6	3	29(47.54%)
Qualitative	0	1	2	11	14(22.95%)
Quantitative	1	2	2	10	15(24.59%)
Mixed	2	0	1	0	3(4.92%)
Total (percentage)	13	13	11	24	61(100.00%)

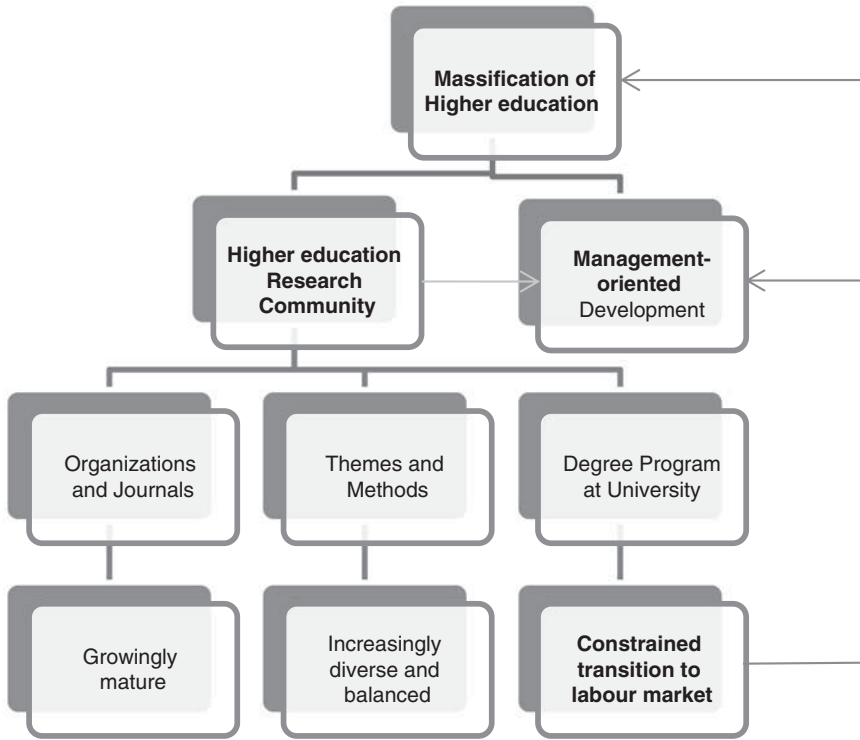


Figure 1. Evolution and characteristics of a higher education research community.

assisting the formation of the Chinese higher education community. Alternatively, the appearance of new knowledge production and methodology typically inspires the creation of new research fields or even disciplines. Our previous analysis highlighted that massification plays a major role and tends to be the stimulus for greater ‘academic differentiation’. More specialized, differentiated, and professional fields or areas gradually develop from an expanded higher education sector based on the notion of labour division (Becher and Trowler, 2001). In addition to higher education research, we also found a similar proliferation of research areas in the education field, including educational administration and policy, curriculum and teaching, and sociology of education, throughout the 1990s and 2000s in Taiwan. Indeed, massification fundamentally paves the basis for the formation of a higher education research community by providing a ‘critical mass’ of institutionalized agencies, self-identified researchers, and relevant issues and topics. These new elements help define this emerging research field. Thus, massification has been a major driving force in Taiwan to differentiate the higher education community from the larger educational studies.

As we observed in previous sections, the Taiwanese higher education community has been keen to build up research capacity so as to 'serve' the demands of the policy making and institutional management. We have seen the establishment of professional organizations and their corresponding research arms, such as academic journals and the research and development office of the HEEAC. The general agreement in this newly emerging field is that the function of research should be substantially strengthened and enhanced if greater recognition within the educational academic circle is to be achieved. The development of research production and knowledge application has grown increasingly mature during the past two decades. Using Tight's (2003) classification of higher education research themes as the benchmark, Taiwanese higher education research themes and methods are gradually diversifying and developing rather balanced coverage as a whole. More attention is being paid to student learning, university teaching, disciplinary curriculum, faculty development and so on. The publication of the English-language journal *HEED*, sponsored by HEEACT, even symbolizes the immersion of higher education research into internationalization, as David (2011) suggested. This research theme has attracted more and more attention in recent years.

Nevertheless, with an expanded, differentiated, and diverse higher education sector, Taiwan indeed has faced a wide range of challenges and issues at the national and institutional levels. Taiwan's higher education research community, as demonstrated earlier, initially concentrated on instrumental or management-oriented functions (see Figure 1) to meet the needs of rapid systematic transformation and restructuring nationwide. In other words, the research emphasis on national policies, management, and governance, as previously revealed, was directly affected by the process of massification as well because the expanded and more complicated higher education sector required better management, good governance, and novel initiatives and policies to achieve new social and economic objectives. Further massification and the management-oriented research reinforce each other and constitute an interlinked cycle.

The only inconsistent development between the massification process in Taiwan and the formation of a higher education community, as shown in Figure 1, is the unsuccessful institutionalization of degree programmes at universities. This is mainly due to limited employment prospects in the labour market because graduates cannot easily find positions at higher education institutions. Indeed, if these graduates can apply their expertise and professional knowledge in running or even managing higher education institutions, then management-oriented function research can be valued and supported. Moreover, their presence within the higher education sector can offer professional assistance in addressing challenging issues in a massified system like Taiwan. Therefore, as Figure 1 indicates, a higher education degree programme is closely related to the development of management-oriented research as well as higher education massification. Unfortunately, the degree programme might be the missing link in this mutually reinforced system.



Conclusions and Prospects

In considering the changes in the higher education research community in Taiwan, we are left with a positive impression of the rapid development over the past two decades. Using professional or specialized associations and journals as criteria to judge the formation of this research field, the higher education community has achieved some domestic visibility, credibility, and even recognition from a wide variety of stakeholders, such as policymakers, university managers, and scholarly researchers. This achievement, as we have argued, is based on the massification process since the 1990s. This period also dealt with certain political (democratization and institutional autonomy), economic (industry upgrading and structural transformation), and educational (greater participation and equal access) agendas. With such differentiated demands, the higher education research community concentrated its major efforts on dealing with policy making, institutional management, and learning foreign systems. This problem-solving or management-oriented approach is effective for responding to social changes and challenges (Teichler, 1996).

The Taiwanese higher education research community is facing a critical moment. On the basis of past achievements, this field has been expanding and thriving, but it has encountered a lack of institutionalized academic programmes within universities. This has significant implications for the research community, policymakers, and institutional managers. In addition, the emphasis on an instrumental approach has to be supplemented with studies at the meso or micro levels, such as teaching and student learning, which should become main themes for a massified higher education system like Taiwan (Shin and Teichler, 2014). The current achievements and accomplishments of Taiwan's higher education research community have been supported by the continuous massification process. The declining birth rate and insufficient student recruitment in recent years, resulting in possible comprehensive institutional mergers or closures, has posed a potential threat to this newly emerging field. If the 'de-massification' of higher education is gradually taking place, the potential impacts on this research field warrant further study.

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