Original Article

# Trends in Publication in the Race for World-Class University: The Case of Taiwan

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Taiwan's government has launched policies rewarding universities for their faculty's publication rates in journals listed in the Social Science Citation Index or the Taiwan Social Science Citation Index with the goal of improving international visibility and global competitiveness. Consequently, a "publish or perish" situation has arisen, affecting university hiring, promotion, and reward systems across disciplines. This article illustrates how higher education policies re-oriented faculty research performance in two departments – anthropology and education policy – within one national university in Taiwan. In each department, faculty journal publication rates were calculated for 1993, 2003, and 2013. Then, in-depth interviews were conducted among senior faculty. Research findings indicate that Taiwan's new higher education policies have impacted academic culture and research practices in the social sciences and humanities. Although faculty visibility via publication has improved, this may be at the expense of local impact and social relevance.
*Higher Education Policy* (2016) 29, 431–449. doi:10.1057/s41307-016-0016-6

## Introduction

Globalization in higher education means that universities have faced increased pressure for global visibility and competiveness. This can be positive, since competition helps attract international talent, research collaboration and resources (Shin, 2013a; Baker and Wiseman, 2008; Shin and Harman, 2009). In order to reform their nations' higher education systems, governments have introduced different strategies for benchmarking their leading universities based on research output compatible with global standards (Chou *et al*., 2013). Many of these new higher education policies reflect a global and competitive demand for resources, and have ultimately changed academic culture and norms in an unprecedented way (Ball, 2012; Lorenz, 2012; Marginson, 2013). Such policies include China's Project

211 and Project 985 (Yang and Welch, 2012; Li and Tian, 2014); Korean Brain Korea 21 (BK21) Project (1999–2012), World-Class University (WCU) Project (2008–2013), and BK21 Plus Project (2013-2019) (Suh and Park, 2014); Taiwan's Five-Year-Fifty-Billion Plan (Chou and Ching, 2012); and Japan's National University Corporation Plan, Global 30 Program, and Super Global 37 (Ishikawa, 2014). All of these government programs use competitive funding mechanisms and accountability measures to try to transform the higher education profile (Chou, 2008), and research outputs in key international journals are one of the common criteria used to judge quality (Cheng *et al.*, 2014). (See Appendix A for a summary of these projects.)

One of the most demanding global drivers in higher education today is the pursuit of "world-class" university status using research quality assessment indictors to measure productivity, where productivity is based on international journal publication. The new linkages between publication, research output, and individual promotion have changed academia into a field with a more account-able and quantitative personnel assessment system (Guthrie *et al.*, 2012; Ortinau, 2011; KSB, 2010; Woodside, 2009; Kao and Pao, 2009; Reed, 1995). At the same time, as globalization increases contact and the sharing of information, values, and issues across all borders, it also promotes competition at home and abroad. This also emphasizes certain set forms of publication and the research agendas that are accepted by the international academic community (Soudien, 2014; Reed, 1995). A common language of publication and common agenda shared by main-stream publishers or editors may reinforce the idea that the globalized academic mind-set conforms to a single set of standards which leaves less room for pluralism (Ching, 2014; Ishikawa, 2009; Chen and Qian, 2004). The drive for "world-class" universities also creates a convergence in research interests and a risk of homogenization by favoring English as the *lingua franca* of scholarship (Kuteeva and Airey, 2014). Increasingly, higher education policies involve research assessment exercises based on "ranked" or "indexed" journals published in North America and West Europe. As a result, non-English literatures and topics outside these publications' interests may be less likely to find favor in a publishing regime that focuses on scholarship in English (Thelwall and Maflahi, 2015).

Additionally, higher education institutes (HEIs) have tended increasingly to hire faculty based upon their number of journal publications, regardless of disciplinary expertise, specialty, or experience (Guthrie *et al.*, 2012; Ortinau, 2011). Even departments of social sciences and humanities are being forced to compromise their traditional preferences for candidates with book publications, and instead recruit those with more journal publications (Li and Tian, 2014; Bauer and Bakkalbasi, 2005). Academics from science, technology, and quantitative backgrounds, who tend to publish more, will be more likely to succeed in job applications and enjoy high job mobility (Wu and Bristow, 2014; Liu, 2014). Prolific scholars based in non-English-media institutions world may switch to English but lose their domestic

relevance and local responsiveness. They may "publish globally and perish locally" (Wu and Bristow, 2014; Hanafi, 2011).

The Taiwanese government has responded to the twin pressures of competitive university rankings and higher education expansion by introducing a series of reform policies that emphasize quantitative research, while a new probation and basic self-evaluation system is designed to monitor faculty research output. Subsequently, an "SSCI Syndrome" in higher education has emerged, especially in the humanities and social sciences which create a dilemma for faculty who are forced to choose between local relevancy and international academic visibility. University teaching is now also at risk thanks to prioritizing research and promoting globally visible publication, a situation not uncommon in neighboring countries (Cheng *et al.*, 2014; Suh and Park, 2014). The analysis of career paths in Australian faculty shows that of the staff on fixed-term or continuing contracts, those in teaching positions constitute nearly half at the lowest ranks compared to merely one-tenth at the highest ranks. The situation for research-focused academics was almost exactly reversed (Bentley *et al.*, 2014).

This article reveals how higher education policies have shaped faculty research performance in the departments of ethnography and education at a national university in Taiwan. The study was conducted in accordance with the research design used in a larger World Universities Network (WUN) project. Faculty members' publications of journal articles was calculated for 1993, 2003, and 2013, as specified in the WUN project, and analyzed based on the language and place of publication as either "local" versus "international" according to our common WUN project methodology[1]. One senior faculty member from each department, chosen for length of service, was interviewed in-depth to discuss the connection between policy and research output. The questions put to them were as follows:

(1) What are key factors that have changed your academic publications in terms of topics and languages selected since your first publication? How may these factors be related to the regular appraisal/publication assessment implemented by your university?
(2) What have you observed the changes of publication topics and languages over years by your colleagues in your own department? Similar or dissimilar, and in what ways?
(3) How is the regular appraisal/publication assessment in your university related to the national scheme of research assessment or ranking if there is any?
(4) What are the advantages and disadvantages of the research assessments used in your university since the 1980s?

Once the questions had been answered, the session evolved into an open-ended interview.

## The Context of Taiwan Higher Education

### De-regulation and expansion

Prior to 1994, higher education policy in Taiwan was heavily focused on economic development and political stability. The government implemented strict controls over the sector, including the establishment of new HEIs, monitoring their size and scale, the appointment of presidents, admission quotas, curriculum standards, and faculty and student affairs on campus. As a result, there was only limited establishment of new universities (Mok, 2014).

Since 1994, the MOE has launched a series of new policies, including revising its Universities Law and setting up the Executive Yuan Education Reform Commission to draft reform plans for HEIs (Mok, 2014; Chou and Ching, 2012). Subsequently, domestic political changes and social demand caused Taiwan's Higher Education sector to expand in an unprecedented way: there were only seven HEIs in 1950, rising to 105 in 1986 (a 15-fold increase) and peaking at 163 in 2012. University student enrollment was only 6665 in 1950 but by 1986 it had increased 52-fold to 345,736. By 2012, the university student population had more than tripled again to 1,259,490. Today, nearly 70 % of Taiwan's between 18 to 22 years old are studying in the university, which is the second highest rate in the world after South Korea (Wang, 2014). Concurrently, government spending per university student declined from US$6700 (200,000 NT) to US$4300 (130,000 NT) today (MOE, 2013), while the university admission rate has soared from around 20 % in the 1960s to over 90 % since 2006 (MOE, 2013). Concomitantly, there has been a significant increase in postgraduate education and from 1995 to 2015, and the number of doctoral students increased 3.43 times (MOE, 2015). The total growth of postgraduate enrollment was 1.75 times within a decade (MOE, 2013) and nowadays one out of 3.7 undergraduates ends up attending graduate school, with nearly 60,000 students graduating from master's programs and 4000 from doctoral programs each year. In short, 58.2 of every 1000 Taiwan citizens are university students (MOE, 2013), making the education sectors in Taiwan a major economic actor as well as a tool for national development.

At the same time, public finance was under pressure from other directions: national investment, infrastructure development, national defense, and social security were all becoming costlier. Even the education budget itself was becoming stretched as a result of population growth of the 70s and 80s, given Taiwan's mandatory 9 years of schooling (introduced in 1968). As a result, the massive expansion in HEIs and student numbers was conducted with relatively constrained public spending, as compared to Hong Kong and Mainland China, even while quality assurance was demanded by political leaders, business employers, and tax payers to guard against declining admission thresholds for new students. In order to ensure higher education quality after rapid expansion and budgetary constraints,

MOE began to launch new policies in early 2000s in an attempt to incentivize universities toward greater quality assurance.

## Pressure for the world-class university ranking

To cope with social change and competition for global human resources (Bersin *et al.*, 2015) in Taiwan, the MOE first promoted the World-Class Research University Project in 2003, then the Higher Education for Excellence Plan (also called Five-Year-Fifty-Billion Plan, approximately US$1.6 billion). In the first, fiercest round of competition, twelve Taiwanese HEIs were selected in 2005 to receive additional funding over a span of 5 years. The project was renewed in 2011 to further increase universities' cross-border collaboration and publication, and to compete for global talent.

Ten years after the Five-Year-Fifty-Billion Plan was implemented, participating universities have made progress in university ranking and research output. In the QS World University Rankings of 2015, National Taiwan University (NTU) ranked 70th, having been a top 100 university since 2009 (Quacquarelli Symonds, 2015). At the same time, Taiwan's overall publication in SSCI-recognized journals rose by over 56 % from 2298 to 3590 between 2008 and 2013 (World of Science, 2014). Korea similarly showed an 80 % increase in publications but neither country improved its ranking for academic impact, while the United States has maintained its prime position as the publishing nation with a rise of only 9.5 % in the same period. This discrepancy between absolute and relative gains shows that despite the huge investments poured into its higher education sector, Taiwan's research still lacks international competitiveness in research under "world-class university" criteria (World of Science, 2014).

## University quality assurance

The rapid expansion of the higher education system derived from upgrading vocational/technical colleges into "comprehensive universities," despite their original mission of vocational and technical training as the foundation of Taiwan's economic development since the 1960s (Chou, 2008; Hayhoe, 2002). As a result of concerns from the general public and policy makers regarding declining educational quality, the University Law was revised in 2001, and it mandated evaluation as the basis for budget allocation. Quality Assurance (QA) systems were introduced and strengthened with the commissioning of a professional evaluation association in 2005. Teaching resources, extension services, student affairs, general education, administrative support, degree of internationalization, and research output all serve as indicators of institutional prestige in global academia (Hou, 2015).

Each individual university, along with MOE and Taiwan's major research funder, the Science Council, had to comply with new QA systems. Among the other

things, these systems did was to monitor the publication records of individual faculty members in international and domestic journals. The systems used Thomson Reuters' Science Citation Index (SCI), the Social Science Citation Index (SSCI), and the Taiwan Social Science Citation Index (TSSCI). Each university has, therefore, set up its own criteria for bringing its scholarship into line with international standards, enhance recognition, and increase scholarly contributions (Mok, 2014). Most of these criteria were chosen to be as standardized and quantifiable as possible, to limit accusations of bias, and to improve Taiwan's international visibility and competitiveness.

Nevertheless, while these measures may have improved rankings and global exposure, more and more academic staff at Taiwan's leading universities in social sciences and humanities experience the "publish globally and perish locally" phenomenon (Hanafi, 2011).

### New probation and regular performance evaluation system

Before 2001, new faculty went through a two-year probation period, then progressed annually based on seniority. All university salaries and benefits were standardized regardless of public/private status. The University Law evaluation requirement of 2001 prompted many universities to adopt a probation system for new faculty members to stimulate their educational quality and research productivity. For example, in 2001 National Chengchi University (NCCU) applied a six-year probation deadline system to new faculty with a grace period of two extra years. To support their research, new faculty can temporarily be exempted from some teaching. At the same time, another more standardized formula for promotion was adopted, which required research papers in key journals (listed in SCI, SSCI, and TSSCI). Those who could not meet the deadline for promotion could be suspended or discharged by the university (Chou, 2014).

HEIs also introduced internal faculty assessment mechanisms for all faculty members under the University Law's Article 21. In 2001, NCCU launched another Faculty Basic Performance Evaluation Policy which required faculty members to comply with a 5-year cycle of self-evaluation for individual teaching, research, and social service performance. Again, those who cannot pass the evaluation will encounter sanctions (NCCU, 2008).

### Research Framework

As part of a cross-national investigation, we focused on the same WUN research framework. At this initial stage of the investigation, we focused only on two departments of a national university in Taiwan. Each faculty's journal publication was recorded and calculated for 1993, 2003, and 2013, and then analyzed based on selected criteria. In-depth interviews were conducted among prominent senior

faculty members from each department. These faculty members were chosen both because their length of service meant that their tenure was unaffected by the probation policy and because they had attained sufficient seniority to oversee the hiring and cultivation of junior faculty. This therefore placed them in a position to see the effects on their departments of the policy since the 1980s. National Chengchi University (NCCU) was selected as a social sciences-oriented university which has been impacted by these changes to a greater extent than have comprehensive universities and which has drawn public attention from the response to these reforms of its faculty. In addition, it is home to Departments of Ethnography and Education, as required in the WUN survey. The university includes nine colleges including Liberal Arts, Law, Commerce, Science, Foreign Languages, Social Sciences, Communication, International Affairs, and Education. There are 34 departments and 48 postgraduate institutes; NCCU has long been among the top universities in Taiwan and is renowned for its liberal arts and humanities, social sciences, management, politics, international affairs, communication, and education programs. Consequently, a great number of alumni have worked in the government sector (http://www.studyintaiwan.org/∼NCCU).

In this study, faculty in the Departments of Ethnography and Education were selected as the sample in accordance with the overall cross-national research design. The Department of Ethnography was one of the original departments established in Taiwan during the early 1950s and focused on studying ethnic minorities in the South and West of China before combining Chinese and Taiwanese studies with the ethnography of Southeast Asia and Australia. Faculty in this department conduct interdisciplinary research combining anthropology, education, history, geography, and linguistics.

Prior to 1955, Education was taught by the Civic Education Graduate Institute which later divided to form the Graduate Institute of Education and the Department of Education, respectively, dedicated to teacher preparation and educational administrator's training. Affiliated pre-school, primary, and high schools are all under the guidance of Education and dedicated to educational experiments and trial programs in curriculum and instruction. Faculty members are expected to engage in both teaching and research on policy- and school-related affairs at NCCU.

## Research Findings

How has the faculty research output in social science fields evolved in the last two decades? In 1993, the average publication rate of faculty was 0.78 papers per year in Ethnography Dept and 1.48 in Education Dept. In 2003, it was still 0.78 in Ethnography but 1.67 papers in Education. By 2013, the average publication was 1.3 papers in Ethnography Dept and 4.17 in Education Dept, where faculty research

output in terms of conference papers, research reports, etc. had increased dramatically after 2005.

The trend in publication remained quite constant in both departments before 2003, when there were no policy incentives to publish in English or in key journals. Nevertheless, professors in Education started to publish more journal articles after 2003: for example, one senior professor, A, published 8 journal articles between 1993 and 2013, with 7 published after 2003: nearly 90 % of his publication output took place between 2003 and 2013. Higher education policy geared toward international journal publication under the Five-Year-Fifty-Billion Plan may have played a major role in shaping this trend in Education.

In other words, all of the Education Department's publications were in Chinese in 1993 and 2003, but after 2003 this declined from 100 to 74 % and an increase in this Department's English-medium publication became visible. On the other hand, faculty in Ethnography continued to publish in Chinese throughout these three time slots and the rate remained low, i.e., 1.3 papers per person in 2013. Promotion rates at all academic ranks were also fairly constant over the last two decades.

## Journal origin

Only 28.6 % of publications from Department of Ethnology professors were with Taiwanese publishers in 1993, but this percentage soared to 71.4 % each in 2003 and 2013. In contrast, faculty in Department of Education mainly published in Taiwan before 2003, and afterwards in other regions (26 % in 2013).

## Disciplinary variation

Scholars from science backgrounds tend to publish journal articles at a much higher rate than those in social sciences and humanities, as a result of the different nature of the work and discipline-specific conventions on publication (Wanner *et al.*, 1981; Chou, 2014). In this study, variation by discipline in research paper productivity is evident.

Professor B specializes in educational statistics and assessment and has been working since 1993. He has published 127 journal articles, among which 65 out of 127 were published between 2003 and 2013, 51.2 % of his total research output. Another senior faculty, C, entered in 1992 and specialized in educational philosophy but had published only 41 journal articles up to 2013, a much lower rate than B.

## Publication and promotion

Hamilton (1990) argued that the "the publish or perish syndrome" and the phenomenon of over-publication in academia were due to aggressive marketing by the publishing industry coupled with academic incentive systems which place too

much emphasis on journal article publication, thus generating both greater research output and greater capacity for publication. The current study also echoed that the academic culture in Taiwan uses "promotion" as incentive to encourage faculty publication regardless of discipline. The proportion of faculty who remained at the same rank in Ethnography outnumbered their counterparts in Education, indicating a correlation between research output and promotion success in these two departments.

In education, at least three junior faculty members specializing in educational psychology and technology started as assistant professors and gained promotion to full professor within 10 years. For example, professor C specializes in e-learning classrooms and educational innovation, and has published 21 journal articles up to 2014. Professor D, who specializes in learning technology and science education, joined Education as an assistant professor in 2004 and attained associate professor rank 4 years later, succeeding to full professorial rank in 2012. A third junior faculty who is an expert in educational psychology also entered Education in 2004 as an assistant professor and succeeded to full professorial rank in 2012 with 21 journal articles and no book publications. It seems evident that paper publication is more important than other forms of research in achieving promotion (Chou, 2014; Wang, 2014).

## New faculty hiring strategy

As indicated earlier, NCCU is under pressure to promote faculty research productivity to boost its world university ranking. As a result, the Department of Education increasingly hires junior faculty from quantitative backgrounds such as educational psychology, science education, and educational technology to boost its research output. The introduction of new faculty with these quantitative backgrounds increases the chances of departmental research papers being accepted by the journals used in world rankings and has changed the traditional profile of the discipline at NCCU. For example, more than 70 % of senior faculty hired before 1993 majored in educational administration, philosophy, and educational systems. They undertook a variety of research and social engagements, including textbook and monograph publication for local readers. By contrast, nearly 70 % of the younger generation hired under the post-2001 6-year probation contact have quantitative expertise and have tried to obtain faster promotion rates through their journal publications. The only exception is Professor E who entered in 2010 and, having published no journal article since, is at risk of dismissal under the current probation system.

A different experience is seen in the Department of Ethnography, which has two full professors out of 11 members. The first professor, who published 27 papers out of 41 research publications, has achieved full professorial rank prior to the implementation of the probation policy. The second professor was recruited from

overseas and published four English papers out of 6 publications in his first 2 years of employment. Of the remaining 9 faculty in the department, the 3 most recently hired tend to publish more journal articles, i.e., 33 out of 45 publications are journal papers. The remaining 5 faculty members, who have been employed for between 18 and 26 years, remain at Associate Professor rank. They have published in total 96 papers out of 196 publications. Another Associate Professor, F, has published 104 articles out of 122 publications but, nevertheless, remains at the associate rank because many of those works were not in peer-reviewed journals.

The new hiring strategy has led newer faculty to adopt a different approach to academia. Those with a quantitative background and fluent English tend to receive more academic recognition through English-medium papers, but they are less well known at home. They publish fewer books and are less likely to engage in social debates or government consultancies. It is likely that the six-year probation policy and emphasis on paper publication greatly changed faculty hiring practices and research outputs. Nevertheless, faculty in ethnography remain quite passive in responding to university policy. Their different attitude toward publication and promotion may be connected to the tradition of a more qualitative methodology and time-consuming field work, since their research is hard to quantify and adapt to numerical forms. Their low publication rate may be due to the highly interdisciplinary nature of most research in the department and the consequent difficulty in finding a publication which will accept it.

## In-depth interview

How far were faculty publication strategies and individual decisions shaped by the increasing priority attached to institutional ranking, and the pressure to publish in key journals from university and government? And what are the impact and outcomes of these higher education policies? In this section, interviews with faculty members are used to address these questions.

Higher education policy did not prioritize faculty's research or publication before 1993 and the only purpose of research was book publication to win funding from the Science Council. Before 2000, most professors in education earned promotions via book publication, which carried more weight in terms of research output. The academic educational community also did not encourage English-medium research and this was less likely to be accepted for publication.

Since NCCU was renowned for social sciences and humanities, it was also more focussed on teaching and social services. NCCU faculty conducted research in a variety of forms, thus falling behind competitors who were more sensitive to global change and focussed primarily on journal publication. News coverage in October 2003 undermined NCCU's overall social prestige by reporting the headline number of SSCI, SCI, and Engineering Index (EI) publications from universities and

colleges in Taiwan. This simplistic measure gained popularity and damaged the university's national status. After that, NCCU started a long race to catch up, spurred by competition for the Five-Year-Fifty-Billion plan launched in 2005 (Chou, 2014).

Although NCCU was eventually selected as one of the top universities under this plan, most senior faculty in Ethnography and many from Education have not followed the new publication-driven policies, partly because they were hired before 2001 and thus felt less pressured by the new requirement. It is also challenging to identify faculty specialities in ethnography, with the result that few journals at home or overseas are interested in their research topics or publishing their papers. Some ethnography faculty had already published quite a few books before the new policy and did not catch up in paper publication later. In addition, there is an inconsistency between one's initial academic diploma and later academic capacity. It has become a matter of choice in one's academic career especially for those who are not under the probation scheme. "We may not have visibility in SSCI journals but we expect ourselves to be more recognized in our own research on Taiwanese/ Chinese minorities, though it is only limited to a small readership," a faculty member in ethnography who has joined the department two decades ago and now chairs the department commented.

> Although NCCU has introduced its own Faculty Basic Performance Eval-uation Policy, the standard is still quite vague and almost everyone meets the criteria. An exception is one associate professor with outstanding teaching awards who refused to comply and was forced to take early retirement in 2010 (Chou, 2014). Even without much publication in English or key jour-nals, faculty in Ethnography passed their five-year cycle of self-evaluation. While the Five-Year-Fifty-Billion Plan has resulted in publication pressure on campus, its impact has been limited to those who can publish in English and thus are able to receive rewards from this scheme. NCCU total research output in indexed journals increased by 30 % from 2005 to 2008, but was limited to certain faculty and disciplines. It has also created a "winner take all" phenomenon, which caused conflict and disharmony among faculty. The more the publications in SSCI and other indexed journals, the faster one will get promotion and receive more material rewards (Chou, 2014; Wu and Bristow, 2014). The pursuit of SSCI journal publications has become "so-mething that you do not like but must accept as reality," the Education professor commented.

## Discipline, generation, and research productivity

Both senior interviewees concluded that there exists a great variation in discipline and generation regarding research output. Owing to the interdisciplinary nature of their research, the Professor in Ethnography commented that the entire department

has experienced an "identity crisis" in being unable to find a home for their articles. This professor was hired in the late 1980s and was not subject to the probation policy, but has more than 26 years' experience in administrative and managerial roles, with oversight of staff hiring, retention, and probation practices. Due to their limited number of journal publications and the difficulty in placing interdisciplinary research in global journals, they have remained at Associate Professor rank despite their academic experience and the level of managerial responsibility they have shouldered. The low publication rate in Ethnography which results from the nature of their research has hindered faculty academic visibility and social impact for the past two decades, and most faculty members remain at the same rank throughout their academic career as a result of their relatively few peer-reviewed journal publications compared with disciplines such as Education. Some recently hired faculty with foreign experience buck this trend, have published more, and are therefore better able to comply with university probation criteria. *"It is obvious that the strong get stronger and the weak get weaker under the current university evaluation system which rewards only journal articles rather than books with a diverse research outcome,"* the professor continued. *"The promotion issue is that for those who were hired before probation scheme, the current evaluation system will either push you to increase your academic visibility by publishing more international journal articles, or push you down to stick with your own alternative career in teaching, engaging in social services or assuming administrative duties."*

## Pros and cons of the probation system

As of 2013, NCCU faculty SSCI publication had increased noticeably. Education faculty especially increased their publication rates, led by those hired under 6-year probation contracts. Since 2003, NCCU has introduced a series of incentives such as monetary rewards per paper and decreasing teaching loads in exchange for research publication, in its efforts to push its faculty toward SSCI publication. Even the Dean of Education was asked to take the lead in SSCI publication from 2007 onward. As a result, most junior faculty members only write articles for SSCI or TSSCI publications instead of books, partly because most of them are on employment terms under which SSCI papers are a major criterion of productivity. In the last decade, almost all faculty members who used SSCI papers as their major promotion criteria succeeded in gaining promotion, while not one submitted books for consideration. Acceptance by SSCI and TSSCI publications has become a de facto threshold for all kinds of promotion, rewards, and faculty hiring.

There is a tension between senior and junior faculty because of their research outputs. Many senior faculty members who have not reached the rank of full professor are under great pressure to publish papers in those key journals, while those who are professors tend to publish less than before. The overall faculty SSCI

publication rate increased greatly but was concentrated in a small number of professors, 90 % of which are junior and specialize in quantitative research or science and published more in SSCI journals compared to those specializing in curriculum, administration, and philosophy.

English has become a barrier for some faculty but less so for those who are under probation contracts. According to a professor in education, "Like faculty at University of Hong Kong and Chinese University of Hong Kong, junior faculty in Education at NCCU now tend to publish more papers in English and have no Chinese books… partly due to promotion requirements in which SSCI or TSSCI[2] carry more weight with the academic senate whose members also support this mentality."

Faculty in Ethnography and Education often confront choices such as whether one should choose to publish in English to increase international visibility and meet the university criteria, or to improve social and local impact with Chinese publications. "It often depends on whether you are hired under probation scheme or not and what your specialty can come up with," a professor in Education commented. The ethnography professor indicated a different trend: *"Although our faculty do not publish as much as some disciplines, and suffer from low visibility at home and abroad, we play a key role in ethnic policy making in Taiwan* via *our social field work and provision of graduate students in our Department*." Owing to the language barrier and cultural differences of local readership, many junior faculty members enjoy more international exposure (rather than international academic impact) with their English publications at the expense of losing their local contacts and impact on Taiwan's policy via government consultancy.

According to a senior former Chair and Dean of Education, *"The younger generation is keener on internationalization and global compatibility in their research and mostly publish in English, whereas the senior faculty come from a time which was less likely to welcome English publication thanks to the limited academic network in education. But now the pendulum is swinging to the other extreme, which is in favour of more English publication."* This professor specialized in Education Administration for 30 years and achieved full professorial rank prior to the introduction of the probation policy, but had management responsibility for implementing it and supervising the careers of junior faculty. According to the professor, this younger generation has not been encouraged nor required to fulfill their public intellectual role as a condition of advancement to professoriate rank, as they are used to conducting pure research rather than publication aimed at social participation. "The younger educational experts become less-known in the education profession and are alienated from local educational practices," the education professor added. The older generation, however, tend to assume public intellectual roles via social participation and have more social impact via their textbooks and services to the community. Many senior faculty members worked with local schools as advisor, consultant, research

collaborator, and so forth. These social engagements do not necessarily relate to their research output. But the younger generation feels less obliged to do so now. *"The trade-off is that now you have created a generation who are good at and more used to publishing English papers and have more exposure and network in the international community. But at the same time, they are less likely and show no interest in engaging in local educational discourse and practices accessible to the taxpayers*," reflected the Education professor.

The third unexpected consequence is the neglect of research topics containing more social and local relevance and the de-valuation of book publication in disciplines where cultural relevance and local bonds are commonplace regardless of society (Huang, 2015; Chou, 2014; LERU, 2012). According to the education faculty, "*social sciences and humanities are treated as natural sciences in terms of becoming more quantifiable and objective regardless of their great differences in nature*," as a result of the new evaluation system. For social sciences and humanities, and especially for ethnographic studies, it is better to embrace "academic localization, and political globalization" rather than the opposite. *"For an island state like Taiwan, we should start with research topics relevant to the needs of society in Taiwan and China, and then apply our research findings to the global community which can build up our strong capacity later in theories and foundation," said an* Ethnography faculty member.

## Conclusion

Taiwan's 2001 higher education policy has impacted academic ideology and practices, as can be seen by comparing experiences between 1993 and 2013. Since the early 2000s, government policies have placed institutional and faculty research output under pressure to achieve 'world-class university' status and meet quality control measures stemming from higher education expansion. NCCU began to impose reward incentives and regulations to gear faculty research publication toward key journals. The introduction of 6 years' probation for new faculty and the five-year-cycle-faculty basic performance evaluation systems in 2001 played a key role in monitoring faculty research performance and output. Consequently, faculty members, especially junior ones with science, technology, and quantitative research backgrounds, obtained faster promotion by publishing more papers in journals indexed by the SSCI and TSSCI. Critics acknowledge that those who are on a track to rapid promotion enjoy more international recognition and academic networking via publication in English key journals. However, others worry that the younger generation will simultaneously lose contact with their local audience and tend to have less social impact in their home country. The current academic reward system in Taiwan has narrowed the definition of academic research to paper publication by seeking to apply a particular definition of 'world-class university.'

In reality, a top institution should be expected to be globally competitive, but also to embrace a humane value orientation, and maintain the core mission of teaching and research (Shin, 2013b). In Taiwan, the most easily quantifiable measure of global competitiveness – English-language journal publication – has been adopted.

Critics emphasize that more important than publication output is one's impact on society. This impact includes both the quantity and the quality of research output. It also includes journal papers, books, and many other forms of research outcomes and social contribution. In countries without centralized funding or assessment schemes, the SSCI is not emphasized and university professors are judged in a holistic way. But in a Chinese society like Taiwan, an objective system with impartial and quantifiable indicators is widely accepted, even if the system has flaws and controversies.

The introduction of the indexed journal publication policy aroused social controversies from the beginning. Among these debates, an on-line petition endorsed by more than three thousand local academics and educators was initiated in 2010, promoting an alternative reward system consisting of multiple criteria for research output (Chou *et al.*, 2013). In response, to overcome the drawbacks of the current publication-first policy and respond to academic disquiet, MOE initiated a trial program entitled "Faculty Multiple Promotion" in 2013 (http://amaaa.nsysu. edu.tw/ezfiles/258/1258/img/1547/200341783.pdf; http://c014.wzu.edu.tw/front/bin/ ptdetail.phtml?Part=1040608_01). This program, scheduled for nationwide implementation in 2016, attempts to offset the over-emphasis of key journal papers in faculty promotion by introducing at least three types of performance criteria linked to research, teaching, or practical contribution to business and industry. The reform is especially welcomed by faculty from institutes of technology whose practical skills and knowledge have been neglected by the current promotion system.

Although the SSCI-focussed mentality has been imbedded in all faculty reward and evaluation systems across Taiwan, social concerns and awareness over the preceding issues have been more and more evident and have increasingly become accepted as grounds for change.

## Acknowledgments

## Notes

1 Please see the preface of this special issue for details on the research framework and common methods. A 'national' journal was defined as one that is published in the country where the professor works, while an 'international' journal was published elsewhere, regardless of whether the terms 'local' or 'international' appear in the journal's title.

2 TSSCI was first introduced by National Science Council (Taiwan) in 1995 with the attempt to standardize local academic journals in Taiwan via a few fixed criteria including Chinese language, external peer review, publication on a regular basis, etc.

# References

Baker, D.P. and Wiseman, A.W. (2008) 'Preface', in *The Worldwide Transformation of Higher Education,* Bingley, UK: Emerald, pp. ix–xii.

Ball, S.J. (2012) 'Performativity, commodification and commitment: An I-Spy guide to the neoliberal university', *British Journal of Educational Studies* 60(1): 17–28.

Bauer, K. and Bakkalbasi, N. (2005) 'An examination of citation counts in a new scholarly communication environment', *D-Lib Magazine* 11(9): no pages, http://www.dlib.org/dlib/september05/bauer/09bauer.html, accessed 2 August 2016.

Bentley, P.J., Goedegebuure, L. and Meek, V.L. (2014) 'Australian Academics, Teaching and Research: History, Vexed Issues and Potential Changes', in J.C. Shin, A. Arimoto, W.K. Cummings and U. Teichler (eds.) *Teaching and Research in Contemporary Higher Education: Systems, Activities and Rewards,* New York: Springer, pp. 357–377.

Bersin, J., Agarwal, D., Pelster, B. and Schwartz, J. (2015) *Global Human Capital Trends 2015. Leading in the New World of Work*, Westlake, TX: Deloitte University Press, http://www2.deloitte.com/content/dam/Deloitte/at/Documents/human-capital/hc-trends-2015.pdf, accessed 2 August 2016.

Chen, K.S. and Qian, Y.X. (2004) Academic production under the neo-liberalism globalization (in Chinese). Paper presented at the Reflecting on Taiwan's Higher Education Academic Evaluation Conference; 25–26 September, International Plenary Hall, National Library, Taipei, Taiwan.

Cheng, Y., Wang, Q. and Liu, N.C. (2014) *How World-Class Universities Affect Global Higher Education: Influences and Responses*, Rotterdam: Sense, pp. 1–10.

Ching, G.S. (2014) 'ISI perceptions and hard facts: An empirical study from Taiwan', in C.P. Chou (ed.) *The SSCI Syndrome in Higher Education: A Local or Global Phenomenon*, Rotterdam: Sense, pp. 81-96.

Chou, C.P. (2008) 'The Impact of Neo-Liberalism on Taiwanese Higher Education', in D. Baker and A. Wiseman (eds.) *The Worldwide Transformation of Higher Education,* Bingley, UK: JAI, pp. 297–312.

Chou, C.P. (2014) *The SSCI Syndrome in Higher Education: A Local or Global Phenomenon,* Rotterdam: Sense.

Chou, C.P. and Ching, G. (2012) *Taiwan Education at the Crossroads,* New York: Palgrave Macmillan.

Chou, C.P., Lin, H.F. and Chiu, Y.J. (2013) 'The impact of SSCI and SCI on Taiwan's academy: An outcry for fair play', *Asia Pacific Education Review* 14(1): 23–31.

Guthrie, C.P., Everett, J.O., Vijayakumar, J. and Olds, P.R. (2012) 'Evaluating faculty publications in accounting Ph. D. Programs: The author affiliation index as an alternative', *Journal of Accounting Education* 30(3): 290–306, http://www.sciencedirect.com/science/article/pii/S0748575112000723, accessed 2 August 2016.

Hamilton, D.P. (1990) 'Publishing by – and for? – the Number', *Science* 250(4986):1331–2.

Hanafi, S. (2011) 'University systems in the Arab East: Publish globally and perish locally vs publish locally and perish globally', *Current Sociology* 59(3): 291–309.

Hayhoe, R. (2002) 'Teacher education and the university: A comparative analysis with implications for Hong Kong', *Teaching Education* 13(1): 5–23.

Hou, A.Y.C. (2015) 'The Quality of Mass Higher Education in East Asia: Development and Challenges for Asian Quality Assurance Agencies in the Glonacal Higher Education', in J.C. Shin, G.A.

Postiglione and F. Huang (eds.) *Mass Higher Education Development in East Asia: Strategy, Quality, and Challenges*, Singapore: Sense, pp. 307–324.

Huang, S.-J. (2015, December 4) *The Predicament of Small Nation Sociology: The Case of Taiwan*, retrieved from Global Dialogue: Newsletter for the International Sociological Society, http://isa-global-dialogue.net/the-predicament-of-small-nation-sociology-the-case-of-taiwan/, accessed 2 August 2016.

Ishikawa, M. (2014) Ranking regime and local scholarship under threat: Through a study of Japanese research universities. Paper presented at The WUN Project Meeting 'World-class Universities, Publication and Research Assessment: Rethinking the Mission of Higher Education in the Global Agei; 12–14 July, Chinese University of Hong Kong.

Ishikawa, M. (2009) 'University rankings, global models, and emerging hegemony: critical analysis from Japan', *Journal of Studies in International Education* 13(2): 159–173.

Kao, C. and Pao, H.L. (2009) 'An evaluation of research performance in management of 168 Taiwan universities', *Scientometrics* 78(2): 261–277.

Kogod School of Business (KSB) (2010) *Kogod School of Business Guidelines for Recommending Promotion to Associate Professor with Tenure and for Hiring Tenured Associate Professors*, Washington, D.C.: American University.

Kuteeva, M. and Airey, J. (2014) 'Disciplinary differences in the use of English in higher education: reflections on recent language policy developments', *Higher Education* 67(5): 533–549.

League of European Research Universities (LERU) (2012) *Social Sciences and Humanities: Essential Fields for European Research and in Horizon 2020. Advice Paper, No.11*, https://www.kowi.de/Portaldata/2/Resources/horizon2020/LERU-AP-11-SSH-Essential-fields.pdf, accessed 2 August 2016.

Li, J. and Tian, X. (2014) Comparative Studies on the Ranking Regime and SSCI Syndrome in China and Hong Kong. Paper presented at The WUN Project Meeting 'World-class Universities, Publication and Research Assessment: Rethinking the Mission of Higher Education in the Global Age'; 12–14 July, Chinese University of Hong Kong.

Liu, Y.-J. (2014) 'Problems, Strategies, and Impact of SSCI Publication in English: Perceptions and Negotiations of Taiwanese Researchers', in C.P. Chou (ed.) *The SSCI Syndrome in Higher Education: A Local or Global Phenomenon*, Rotterdam: Sense, pp. 109–126.

Lorenz, C. (2012) 'If you're so smart, why are you under surveillance? Universities, neoliberalism, and new public management', *Critical inquiry* 38(3): 599–629.

Marginson, S. (2013) 'The impossibility of capitalist markets in higher education', *Journal of Education Policy* 28(3): 353–370.

Ministry of Education, Republic of China (Taiwan) (2013) *Education statistics*, Taipei: MOE. https://stats.moe.gov.tw/, accessed 2 August 2016.

Ministry of Education, Republic of China (Taiwan) (2015) *Education Statistical Indicators*. Retrieved from Education Statistical Indicators: http://english.moe.gov.tw/ct.asp?xItem=14504&CtNode=11430&mp=1

Mok, K.H. (2014) 'Promoting the global university in Taiwan: University governance reforms and academic reflections', in C.P. Chou (ed.) *The SSCI Syndrome in Higher Education: A Local or Global Phenomenon*, Rotterdam: Sense, pp. 1–23.

Ortinau, D.J. (2011) 'Writing and publishing important scientific articles: A reviewer's perspective', *Journal of Business Research* 64(2): 150–156.

Quacquarelli Symonds (2015). *QS World University Rankings 2015/16*. Retrieved from QS Top Universities: http://www.topuniversities.com/university-rankings/world-university-rankings/2015#sorting=rank+region=+country=+faculty=+stars=false+search=national, Taiwan University

Reed, K.L. (1995) 'Citation analysis of faculty publication: beyond Science Citation Index and Social Science Citation Index', *Bulletin of the Medical Library Association* 83(4): 503.

Shin, J.C. (2013a) 'The World-Class University in Different Systems and Contexts', in J.C. Shin and B.M. Kehm (eds.) *Institutionalization of World-Class University in Global Competition,* Singapore: Springer, pp. 1–13.

Shin, J.C. (2013b) 'The World-Class University: Concept and Policy Initiatives', in J.C. Shin and B.M. Kehm (eds.) *Institutionalization of World-Class University in Global Competition,* Singapore: Springer, pp. 17–18.

Shin, J.C. and Harman, G. (2009) 'New challenges for higher education: global and Asia-Pacific Perspectives', *Asia Pacific Education Review* 10(1):1–13.

Soudien, C. (2014) A Reflection on South African State Initiatives since 1994 to Stimulate Scientific Output. Paper presented at The WUN Project Meeting 'World-Class Universities, Publication and Research Assessment: Rethinking the Mission of Higher Education in the Global Age';12–14 July, Chinese University of Hong Kong.

Suh, G.-S. and Park, S.-J. (2014) 'The Korean Government's Policies and Strategies to Foster World-Class Universities', in Y. Cheng, Q. Wang and N.C. Liu (eds.) *How World-Class Universities Affect Global Higher Education: Influences and Responses*, Rotterdam: Sense, pp. 65–84.

Thelwall, M. and Maflahi, N. (2015) 'Are scholarly articles disproportionately read in their own country? An analysis of Mendeley readers', *Journal of the Association for Information Science and Technology* 66(6):1124–1135.

Wang, H.H. (2014) 'The Political Economy of Quantitative Indexes for Measuring Academic Performance', in C.P. Chou (ed.) *The SSCI Syndrome in Higher Education: A Local or Global Phenomenon,* Rotterdam: Sense, pp. 25–38.

Wanner, R.A., Lewis, L.S. and Gregorio, D.I. (1981) 'Research productivity in academia: A comparative study of the sciences, social sciences and humanities', *Sociology of Education* 54(4): 238–253.

Woodside, A.G. (2009) 'Journal and author impact metrics: an editorial', *Journal of Business Research* 62(1): 1–4.

World of Science (2014) *Science Citation Index,* New York: Thomson Reuters.

Wu, L.-Y. and Bristow, A. (2014) 'Perishing Confucius: An analysis of a rupture point in the discourse of Taiwanese "New Higher Education"', in C.P. Chou (ed.) *The SSCI Syndrome in Higher Education: A Local or Global Phenomenon,* Rotterdam: Sense, pp. 127–140.

Yang, R. and Welch, A. (2012) 'A world-class university in China? The case of Tsinghua', *Higher Education* 63(5): 645–666.

## Appendix A – National Higher Education Globalization Projects

*Most major East Asian economies have sought in recent years to make their HE systems more globally competitive, using a variety of strategies.* China's Project 211 was announced by the Ministry of Education in 1994 and aimed at setting the HEIs and key disciplinary areas which would be priorities in China's national development. Another leading project was Project 985, launched by Premier Jiang Zemin in 1998 and which targeted several universities in China for development into world-class institutions. Nine universities were included in the first phase, expanding to nearly forty after 2004. The Republic of Korea has launched the Brain Korea 21 (BK21) Project (1999–2012) to boost research capability by funding researchers at all levels, the World-Class University (WCU) Project (2008–2013), to internationalize Korean campuses by recruiting overseas talent, and the BK21 PLUS Project (2013–2019), which essentially merged the previous two in order to

boost teaching and research excellence on Korean campuses. Taiwan similarly launched the "Aim for the Top University Plan" (2004–2009), also known as the 'Five-Year-Fifty-Billion Plan' in which 12 selected universities (the 'T12' universities) were given additional investment totaling NTD5bn over 5 years. This funding was directed at efforts to develop international links, improve campus infrastructure, or enhance research and teaching either across the university or in specific key areas.

Japan's main globalizing effort has been the National University Corporation Plan, which aimed to boost creativity within Japan's HEIs by transforming them from government agencies into independent bodies with high degrees of financial and decision-making autonomy (National University Corporations or NUCs), and altered the public funding model from an allocation basis to one based on quality assessments by independent bodies and the Ministry of Education, Culture, Sports, Science & Technology (MEXT). The Global 30 and Super Global 37 plans shared many common features, notably an emphasis on attracting foreign talents to Japanese campuses. These included expanding the numbers of English-taught programs offered and recruiting foreign academics. China's HE globalization has emphasized the development of home-grown talent with international outlooks. The Project 985 (1998–2011) and Project 211 plans identified key universities at state and provincial levels to receive additional funding aimed at boosting their international reputations through improved facilities and greater international visibility. Project 211 in particular aimed to stimulate domestic research capability through improved training, opportunity, and facilities for upcoming researchers.