Chapter 21

Teaching and Research: A Vulnerable Linkage?

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21.1 The Variety of Perspectives

The comparative project "The Changing Academic Profession (CAP)" brought together almost 100 scholars from various countries of the world. They collaborated for many years, even though their conceptual frameworks, methodological approaches and working styles were based on a bewilderingly wide range of disciplinary and paradigmatic biases as well as cultural backgrounds. This is eye-opening and creative in many respects. But it poses a considerable challenge to the editors of a book who seek to present a collection of parallel papers neatly following the same format and overarching framework.

The readers of the chapters of this book will discover manifold findings and interpretations. But they will not find a well-structured set of major results. It becomes the task of this final chapter to offer a selection of a few issues that stand out amongst these notions and observations.

21.2 In Favour of a Linkage but Not a Balance

The international comparative survey on the academic profession clearly suggests that the credo of the academic profession that is generally viewed to be indicative for the modern university has remained alive for about two centuries: Three quarters

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of the academics surveyed on average across countries point out in response to a corresponding question that they are interested both in teaching and research. Only about 10 % express a clear preference for teaching and a similar small proportion express a singular preference for research.

This does not mean, however, that academics favour research and teaching equally. It is not surprising to note that a stronger leaning or a clear preference for research is expressed by almost six out of every ten academic surveyed. A stronger leaning or clear preference for teaching is indicated by only slightly more than four out of every ten academics surveyed.

As one might expect, the latter is more widespread amongst academics at those institutions of higher education that are explicitly expected to put the prime emphasis on teaching but even at those institutions sizeable shares of the academics indicate a preference for research.

21.3 Slow Change over Time

In recent years, the research role of universities has been strongly emphasised. Top universities consider themselves to be in a competition to be or to become "world-class universities", strong in the research function. Also, the terms "knowledge society" and "knowledge economy" are more frequently employed in order to underscore the utility of research over teaching. Finally, the competition for quality and reputation is emphasised at the national level, whereby again the research function is more in the limelight than the teaching function. Thus, one could expect an increasing preference of academics for research.

A comparison of the findings of this study with the previous comparative survey undertaken in the early 1990s in fact shows that research is somewhat more strongly emphasised now than some years ago. A closer look, however, reveals that this shift has taken place on average across countries not at those universities that strive strongly both for teaching and research and are even in some countries called "research universities", but rather amongst academics at institutions with a prime focus on teaching. This finding reflects the "academic drift" of teaching-oriented institutions.

21.4 No Consistent Typology According to Country, Institutional Type or Career Status

The analysis of the views and activities as regards teaching and research in the framework of this volume started off with the assumption that one could observe three groups of countries: those with a clear dominance of research (e.g. Germany), those with a balance of teaching and research (notably Anglo-Saxon countries),

and those with a dominance of teaching (e.g. the Latin American countries). The findings of this study confirm some differences along those lines, but they are not consistent across all countries. Moreover, more striking differences are visible between subgroups of academics within those countries—for example according to career status, institutional type, the discipline or the individual job assignment. It is interesting in this context to note, as pointed out in the respective chapter, that only about half of the academics at universities in England are officially both in charge of teaching and research.

In analyzing the views and the actual activities of academics, we have to bear in mind that a balanced option for research and teaching is not an open choice for all academics across career status and institutional setting. Senior academics (in this study defined as professors and associate professors in US terms) at universities both in charge of teaching and research certainly are in the best position to choose whether they want to strive for balance between research and teaching or for an even stronger emphasis on research. In contrast, senior academics at institutions with a strong teaching emphasis—named "other institutions of higher education" in this study irrespective of whether they are called universities in some countries or have other names in other countries—might be inclined to underscore the teaching functions more strongly in consonance with more of the work time being spent on teaching. Actually, we note that a clear distinction between "universities" and "other institutions of higher education" according the terminology chosen here is visible in some countries (e.g. in terms of teaching load and resources for research), while the functional differences are small in other countries. Also, distinctions of preferences and working time are substantial in some countries and marginal in other countries. By and large, we note a relatively clear distinction of the views and activities in countries with higher education systems that are often described as "two-type" or "binary" systems, e.g. Finland, Germany and the Netherlands.

On average across countries, junior academics emphasise research more strongly and spend a higher proportion of their work time on research, but looking solely at such averages would be misleading. Junior academics at universities both in charge of teaching and research often have less room for manoeuvre in shaping their work tasks. In some countries, a stronger emphasis on research is expected in early career stages than in professorial positions, while in other countries, the work tasks as well as the views and activities of junior and senior academics are quite similar. In addition, a certain proportion of positions are characterised by a high teaching load, whereby the chances are limited on the part of those holding such positions to progress to senior academic positions.

21.5 The Precarious Balance of Work Time

The allocation of the actual work time is a conflicting arena. Frequently, teaching assignments and internal administrative and service functions are more highly regulated than research tasks and external service activities. This often reinforces the

notion amongst academics that they have to "fight" in order to allocate sufficient time for research (or external services as well). In this context, we have to take into consideration that customs vary substantially across countries and other dimensions as regards the extent to which academics spend more hours on their professional work than the official normal work time in their country. There are different customs by country, ranging amongst university professors—according to their own estimates—from more than 50 h weekly in Germany, Hong Kong and Korea to slightly less than 40 h in Norway, whereby strongly research-oriented professors are more inclined to work longer hours. On average across countries, junior academics as well as academics at other institutions of higher education are less inclined to work additional hours than university professors.

Occasionally, concerns are expressed that a balance of time devoted to teaching and research cannot be achieved anymore. On the one hand, voices are heard that a high teaching load, substantial needs of guidance and large student numbers do not leave sufficient time for research. On the other hand, a strong preference for research, reinforced in recent years by various factors, as pointed out above, is viewed as possibly leading to a neglect of teaching. In most of the chapters presented in the volume, emphasis is placed on averages—of all academics surveyed or subgroups, while it remains the task of further analysis to look at interindividual diversity. Looking at the time allocation on average of university professors and on average across the whole year, more time is spent on research than on teaching in all advanced countries, but this ratio varies substantially: between 1.1 times as much for research as for teaching in Portugal and Finland and 1.8 times as much in Australia. In three emerging countries, professors at universities both in charge of teaching and research spend more time on teaching than on research: most strikingly in South Africa, but also in Brazil and Malaysia.

21.6 Specific Issues of Teaching and of Research

Various issues have been addressed in the survey as regards teaching and as regards research. For example, the academics have been asked about the range of teaching modes they are involved in beyond merely lecturing in classes, e.g. individual guidance, e-teaching and learning, and supervising internships. In this respect, we note substantial differences according to country. Around 4.5 out of seven different modes addressed in the questionnaire are reported by respondents from Australia, Malaysia, Mexico and the United Kingdom, but less than three on average by respondents from Germany.

One of the key issues in the public debate about research in higher education has been in recent years the extent to which the goals of academic quality and social relevance are conflicting or compatible. The CAP survey did not explicitly address the linkages between these goals, but it asked the respondents to explain respondents' research approaches according to four possible objectives: to strive for the generation of original knowledge, to emphasise academic quality, to consider the

application of knowledge to real life settings and to apply knowledge to problems in society. Actually, most respondents underscored two or three of these objectives, whereby each of them was named by about six tenth of the academics surveyed. One can infer from these findings that many academics consider a broad range of research objectives and thrusts as compatible with each other.

21.7 Substantially Heterogeneous Academic Productivity

"Academic productivity" is the term widely employed in measuring research "output". The term, first, suggests that academic achievements with respect to teaching and learning hardly have any chance these days to be considered on equal terms with those in the area of research irrespective of the claims of balance and nexus between teaching and research. Second, the term underscores the popularity of measuring quality through quantitative measures.

Academic productivity in terms of publications and other "products" of academic work cannot be addressed in an international comparative study as sophisticated as assessment schemes in individual countries and institutions of higher education, because categories of high-quality publications vary by country. The respondents have been asked in the CAP questionnaire to name the numbers of books authored and edited, the number of articles published in books, academic journals, popular magazines, the number of research reports written, etc. over a period of 3 years.

The responses show that the frequency of publications differs strikingly between status groups and institutional types. Senior academics publish much more than junior academics, and, as one might expect, academics at universities more than those at teaching-oriented institutions. But even amongst the professors at universities both in charge of teaching and research, substantial differences are visible by country: University professors in Korea and Germany—according to the measures chosen in this study—publish about twice as much as university professors in Norway and the USA amongst the advanced and twice as much as well on average as professors in the emerging countries—thereby even four times as much as the university professors in South Africa.

21.8 By and Large Compatibility of Teaching and Research

The nexus between teaching and research has been explicitly addressed in the questionnaire with a few overarching questions. Three quarters of the academics state in response to a respective question that their research activities reinforce their teaching activities. The opposite question has not been asked whether their teaching activities reinforce their research.

Moreover, less than one quarter of all respondents respond affirmatively to the statement "Teaching and research are hardly compatible with each other". This proportion, however, varies strikingly according to country. Problems of compatibility of that kind are stated by less than one tenth of respondents in Argentina and Brazil and slightly more than one tenth in Korea, Mexico, the USA, Italy and Norway. But more than half of respondents from Japan, more than four tenth in China and more than three tenth each in Finland, Germany and Portugal note problems as far the compatibility of teaching and research is concerned.

Certainly, it would be fruitful theme for a future study on the academic profession to explore what major problems of compatibility between research and teaching are noted. It would be interesting as well to explore why such a notion is so rare in some countries and so frequent in other countries.

21.9 Some Caveats

The individual chapters of this volume provide substantial contextual information that helps explain the variation of findings across countries. It would surpass the possibilities of this concluding chapter to summarise these interpretations appropriately.

The various chapters vary strikingly with respect to the aggregation or disaggregation of findings. Some chapters present primarily the results for all respondents from the respective country, in some cases in comparison to all respondents from other countries. Other chapters often point out differences according to universities and other institutions, senior and junior academics, respondents from various disciplines, differences by gender, etc. Actually, the proportion of senior academics (professors) amongst all academics at universities both in charge of teaching and research varies by country from less than 20 % to more than 80 %, and there are not smaller differences in the proportion of academics at other higher education institutions amongst all academics surveyed. This is not an issue of high or low return rates for different subgroups, but weighing was undertaken, and certainly not an issue of overall return rates, but rather that of a different composition of institutions and staff categories between countries.

The above named findings vary in many respects according to such subgroups, but the authors obviously assess the importance of analysis according to such subgroups differently. Some want to pay attention to the academic profession as a whole, while others consider the differences according to institutional type and career position so salient that one might question the notion that there is a single academic profession. The authors of the chapters take different views in this respect—in some instances obviously influenced by the diversity of findings in their respective countries.

It should be pointed out in this context as well that the views and definitions vary as to who should be viewed as belonging to the academic profession. The survey addressed here has included as a rule academics in charge of teaching and/or research who are employed by an institution of higher education full time or at least half time. In some countries respondents were included with an even lower share of

the usual work time employed in academia. Not included are academics with a lower proportion of their time active at institutions of higher education as well as academics in tertiary education sectors with programmes not at least equivalent to a bachelor. But these definitions do not guarantee comparable groups. For example, many doctoral candidates in some countries are employees at universities, while they are students in other countries. Some young teachers and researchers in some countries might be excluded because they are considered auxiliary staff or because contract-paid scholars are not counted as employees of higher education institutions, while their peers are included in other countries. As a consequence partly of these different notions and partly of real differences, we note that less than one quarter of the academics surveyed at universities in Japan and Korea are junior academics in contrast to more than 85 % in Argentina and Germany. Similarly, the proportion of respondents from other (teaching-oriented) institutions of higher education ranged from none (non-existing or not surveyed) via less than one tenth in Norway to a clear majority in Japan, Korea, Mexico, the Netherlands and Portugal. These definitions are salient for the result of the study. First, the question has to be raised whether the total responses by country are meaningful under these diverse configurations. Moreover, we have reason to assume that the nexus between teaching and research is weaker amongst persons active at institutions of higher education who cannot be viewed as the core staff.

We have to name further limitations of the study. The authors of only a few chapters embarked in thorough analyses of the interrelationships of the responses to the different questions posed. Moreover, the questionnaire survey as a whole had to make compromises and could not embark into a detailed analysis in each of the various thematic areas addressed. Finally, we have to bear in mind that information was collected only by asking the academics themselves to present their perceptions and views and to describe their activities. Subjective elements might be pervasive in some thematic areas, for example, in the description of the quality of their working conditions. Certainly, further analyses of the material addressed in this survey could be valuable, future questionnaires might address issues of the nexus between teaching and research more thoroughly, and a more complex mix of methods of investigation is certainly desirable for future research in the area.