

RESEARCH AND TEACHING—THE DILEMMA: FROM AN INTERNATIONAL COMPARATIVE PERSPECTIVE

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RESEARCH AND TEACHING—THE DILEMMA: FROM AN INTERNATIONAL COMPARATIVE PERSPECTIVE

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INTRODUCTION

In its present form, the academic profession is expected to keep abreast of teaching, research, social service, and administration, amongst other activities. Which of these tasks is given priority varies from one university faculty member to another. The historical time-frame in which faculty members undertake their academic career affects the kinds of activities they must engage in and the degree of importance which is attached to each of these activities. The roles faculty are expected to fulfill generally depend on the kind of higher educational institution they work for as well. Nevertheless, in higher education today, all faculty members are expected to teach students as well as to complete research in their academic field, so how best to balance teaching and research is a serious problem to tackle.

In tracing through history the changes in the roles of faculty members who naturally hold teaching and research as pivotal, the emergence of the research-oriented modern universities in Germany and the post-Second World War massification of higher education stand out as turning points, where the balance between teaching and research underwent huge changes.

Universities originated in twelfth and thirteenth century medieval Europe with the establishment, for example, of Bologna University in Italy, Paris University in France, and Oxford University in the United Kingdom. Ever since the inception of universities, one of the faculty member's most important tasks has been to teach students. However, from the nineteenth century, faculty were expected to engage in academic research in addition to teaching. The direct reason for this is said to have been the emergence of the German research-oriented modern universities which played a crucial role in the development of the German nation state.

At the time, Germany's modernization process lagged behind that of the United Kingdom and France so in order to reverse this handicap, the newly established German government presented the universities with large sums of financial aid to encourage research. In this way, research useful to the development of the nation state and industry, in particular research into the newly risen natural sciences, was promoted. From then on, research became the university's core

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function (Altbach 1987; Altbach 1991).

The development of the German-model research-oriented university system led Germany to become the major center of learning in the world from the middle of the nineteenth century, and it was not long before this model was implemented on a world-wide scale. The German-model was introduced in various European countries, the United States, Japan and not least in the Third World countries which, during the colonial periods, were influenced by mostly European suzerain states in the field of education (Altbach and Selvaratnam 1989).

The tradition of Japanese universities emphasizing research as the faculty member's most important role can be witnessed from their early development through to the present day. This tradition is rooted in the late nineteenth century Meiji Period, when the positive adoption and establishment of modern universities based on the German-model contributed significantly to Japanese modernization.

Johns Hopkins, the first American research-oriented university, was established in 1876 and emphasized graduate education and research. The founding of this university spurred the rapid development of scientific research in the United States and was an extremely important factor in transforming the United States into the most productive center of learning in the world, replacing Germany. One consequence of this university's success was that much of American active investigation, especially in pure scientific studies came to center around successively born graduate schools such as Harvard, Princeton, and Yale.

The world-wide spread and massification of higher education following the Second World War was another turning point, where the role of faculty shifted from emphasizing research to emphasizing teaching. This sudden quantitative expansion of higher education occurred first in the United States, then spread to Canada, Japan, and the European countries. The Third World is undergoing such an expansion in higher education at present (Altbach 1991). An extremely general and global overview of the development of higher education after the war shows, on the one hand, that research became an increasingly important activity for faculty in all countries. On the other hand, with greater numbers of students being accepted by the universities, the importance of teaching came to be recognized once more.

The importance of both teaching and research as faculty members' activities has been made clear but lacking are both concrete information and images of both activities, especially teaching. Faculty members have in fact little chance of knowing anything other than the lessons they teach and naturally, neither does the general public (concerned with university education) know anything apart from the lessons it has actually participated in. In research as well, the great majority of faculty members will generally have little understanding of the realities of academic disciplines other than their own. Furthermore, while the problems of teaching and research in higher education are important research themes and though this

research has advanced greatly, much more needs to be done. At present, international comparative studies of teaching and research at higher education level are extremely limited (e.g., Lindsay and Neumann 1988; Clark 1995).

This article will attempt to discern how faculty handle the balancing of teaching and research. This will be done from an international comparative perspective with the focus being primarily on teaching. In attempting this, the results of the reanalysis of the Carnegie Foundation for the Advancement of Teaching's International Survey of the Academic Profession will be used as a base.

The analysis' theoretical framework is as follows. First of all, the faculty members world-wide, who were the objects of this survey, were divided into two categories; the teaching-oriented faculty who are committed to teaching and the research-oriented faculty who are committed to research. The reasoning behind this division is that the handling of teaching and research in higher education is extremely different according to each group.

Second, the percentage of teaching-oriented faculty was indexed and the various countries the faculty members work in were classified into the three following groups: Latin-type, Anglo-American-type, and German-type. The percentage of teaching-oriented faculty is highest in the Latin-type countries and is followed by the percentage in the Anglo-American-type countries. The percentage of teaching-oriented faculty members in the German-type countries is low. Bringing together the two above mentioned divisions of teachers for each of the three country groupings results in six headings ranging from the mostly teaching-oriented Latin-type faculty to the mostly research-oriented German-type faculty.

In making use of this analytical framework, first I will bring to light the factors which result in the division of faculty as teaching-oriented or research-oriented. The factors include individual characteristics such as the faculty members' academic discipline, gender, age, current academic rank and highest earned degree. Secondly, I will look at how faculty members regard their own teaching and research situation and how they view teaching and research in present higher education. Finally, there will be a consideration, based on these results, of the direction reforms related to the problem of research and teaching in higher education will take in the future.

DATA AND METHODOLOGY

DATA SOURCE

The data reanalyzed for this study was gathered by the Carnegie Foundation for the Advancement of Teaching's International Survey of the Academic Profession from 1992 to 1993. The thirteen nations and one region selected for this survey were the United States, the

United Kingdom, Germany, the Netherlands, Sweden, Russia, Israel, Mexico, Brazil, Chile, Australia, Japan, Korea, and Hong Kong. The research team including research directors and consultants from each participating country, were responsible for the planning and implementation of the project and for conferring on points such as the survey's common procedures and questionnaire. They also translated the questionnaire into the language of each participant country. The organizations responsible for implementing the survey in each country mailed their own language version of the questionnaire to faculty members selected by a two-stage stratified random sampling. Of the 47,955 questionnaires sent, 19,486 were returned completed. The response rate varied considerably from country to country ranging from 14.5% for Russia to 97.2% for Brazil. The overall response rate was 40.6% (Boyer, Altbach, and Whitelaw 1994; Arimoto and Ehara 1996).

THEORETICAL PERSPECTIVES

Teaching or research - in which are faculty members most interested? Faculty around the world were posed the question, "Regarding your own preferences, do your interests lie primarily in teaching or in research?" Of these, 12.5% answered, "Primarily in teaching", 31.5% answered, "In both, but leaning toward teaching", 42.5% responded, "In both, but leaning toward research", and 13.5% responded, "Primarily in research". In other words, 44.0% of those asked are teaching-oriented faculty whose interests lie mainly with teaching, while 56.0% are research-oriented faculty whose interests lie primarily with research.

It is thought that a faculty member's handling of teaching and research is extremely different depending on whether he or she is teaching-oriented or research-oriented. This is because, although teaching and research are closely interrelated, their goals, methodology and requisite (human) abilities, facilities, and resources are different. Thus, these two types of activity do not necessarily find themselves in harmony. Consequently, the nature of the scholarship required of faculty differs depending on whether the faculty member is mainly to teach or research (Ben-David 1977; Boyer 1990; Paulsen and Feldman 1995). Moreover, in order to produce satisfactory results, both teaching and research require a considerable amount of energy to be expended making it difficult for both to be done equally well. Therefore, in analyzing how faculty members are grappling with the problem of teaching and research, it is important to classify them as either teaching-oriented or research-oriented and to use a multi-faceted approach.

There are many factors at work in this differentiation between teaching-oriented and research-oriented faculty members, but from the perspective of an international comparison, the base country where faculty members work, is an extremely important factor. While all countries' modern higher education systems share similarities, there are, at the same time,

differences which cannot be ignored, beginning with each country's education system's unique institutional characteristics, social roles, historical and cultural backgrounds and so forth, which claim different demands on the faculty. Furthermore, opinions and behavior among teaching-oriented faculty members themselves vary from country to country (Clark 1987b, Clark 1992). In this investigation the rate of teaching-oriented faculty has been indexed, and the thirteen countries and one region selected for this survey have been divided into Latin-type, Anglo-American-type, and German-type countries, based on this indexing (Table 1).

The countries with a high rate of teaching-oriented faculty include, in addition to Russia, the Latin American countries of Chile, Mexico, and Brazil. Accordingly, this group is brought under the heading of a Latin American-type higher education system. From its inception, the Latin American higher education system has not regarded the academic profession as an independent profession and has relied on outside specialists to work at universities part-time. From the latter half of the twentieth century onwards, the professionalization of the academic profession has steadily progressed, yet even today teaching university students is considered extremely important (leaving little time for research) (Pelczar 1977).

In marked contrast to the Latin-type countries, the five countries in the German-type group, ranging from Israel to the Netherlands, show little teaching-orientation. This German-type group includes Germany, where modern research-oriented universities were created, along with neighboring Netherlands and Sweden. Since its establishment as a nation in 1948, Israel's higher education policies have come to place importance on research and on the rearing of researchers (Iram 1992). Japan also figures as a country where the number of teaching-oriented faculty members is extremely low.

The Anglo-American-type group of five countries, in between the Latin and German group, include the United States, the United Kingdom, as well as Australia and Hong Kong which since colonial times have been strongly influenced by Anglo-Saxon culture. Korea, which from the 1970s aimed for "freedom of choice" reforms and expanded higher education facilities at high speed, essentially based its reforms on the American university model (an example of the double mirror phenomenon) (Umakoshi 1995).

These three divisions are made solely on the basis of the rate of teaching-oriented faculty members. Though it would be possible to devise other index-based classifications, the three groups are not arbitrary divisions, even though it may seem puzzling for Russia to be in a Latin-type group or for Japan to be in a German-type group. First, as already mentioned, the groups are based on the rates of teaching-oriented faculty. Moreover, the countries in each group show further similarities which cement each group's existence and distinguishes it from the others. Some of these similarities for example, concern enrollment in tertiary education and academic publication.

Looking at the gross enrollment ratio into tertiary education (equivalent to higher education) in 1990, the ratios for the Latin American countries were low in comparison to the Anglo-American and German ratios with 11.3% for Brazil, 14.0% for Mexico, and 20.6% for Chile. Comparatively speaking, higher education in Latin America continues to cater to a small number of the elite. Even looking at the school enrollment rate for those in the 6 to 23 year old age bracket, the difference between the Latin-type countries represented by Chile's 66% (the highest) is considerable vis-a-vis the Anglo-American German groups which show ratios consistently of and above 70% (UNESCO 1993).

Again, from a topographical perspective, the Latin-type countries remain at a peripheral and developing stage as regards world publication output and performance in the sciences. The United States is overwhelmingly strong both qualitatively and quantitatively in research, followed by the United Kingdom and Germany. The total number of Dutch and Swedish academic publications is not as high as that of the above-mentioned three countries, but in terms of relative citation rate the quality of the research is comparable. Japan is a leading country as far as total output of academic publications and has achieved world leading rank in a significant number of fields. However, from the perspective of relative citation rate, Japan fares worse than Australia, having a middle ranking similar to Israel (Arimoto 1994).

These national differences are furthermore reflected in faculty members' opinions on faculty evaluation. For example, based on experience at their own universities, the rate of faculty who agreed that, "A strong record of successful research activity is important in faculty evaluation at this institution", reached 78.7% in all countries and regions apart from Russia and Korea where the rates were 48.1% and 51.7% respectively. However, the number of teachers in the Latin-type countries who agreed that, "In my department it is difficult for a person to achieve tenure if he or she does not publish", were few while many agreed that, "Teaching effectiveness should be the primary criterion for promotion of faculty" (Table 1), seemingly at variance with the above result. In other words, according to the Latin American countries' faculty, official stance and theory aside, teaching is in effect considered more important than research.

While the difference is not too great, the Anglo-American-type countries stress the importance of research results slightly more than the German-type countries. The reason for the low Korean and Japanese ratios of agreement with the above statement on research and evaluation is that factors besides research results are considered important such as the firmly entrenched tradition of the seniority based status system. The rate of Anglo-American-type faculty members who said that teaching ability should be the primary criterion for promoting faculty members was higher overall than the German-type group members. At any rate, along with the massification of higher education, the balance between teaching and research is once again shifting toward teaching. If we place the three ideal types established here in the midst of such

historical currents, we can discern within the system of higher education as a whole a movement starting with the Latin-type system moving to the German-type and now on to the Anglo-American type system (from teaching-oriented to research-oriented to in-between).

TABLE 1
RATE OF TEACHING-ORIENTED FACULTY (%)

		Rate of Teaching-Oriented Faculty	In my department it is difficult for a person to achieve tenure if he or she does not publish*	Teaching effectiveness should be the primary criterion for promotion of faculty*
Latin-Type Countries	Russia	67.6	31.7	82.7
	Chile	66.6	33.6	62.9
	Mexico	64.9	27.2	69.9
	Brazil	61.9	24.6	52.9
Anglo-American-Type Countries	United States	49.2	88.0	33.3
	Australia	48.2	63.7	34.0
	Hong Kong	45.9	59.5	41.8
	Korea	44.4	37.5	46.0
	United Kingdom	44.3	—	32.6
German-Type Countries	Israel	38.6	80.0	38.9
	Germany	34.3	78.2	26.3
	Sweden	33.1	57.6	30.4
	Japan	27.5	47.7	37.4
	Netherlands	24.8	—	—
Total		44.0	62.5	39.7

* The percentage of faculty who agreed with two of the answer headings (i.e. "very important" or "fairly important")

METHOD

Bringing together both of the divisions mentioned above (teaching-oriented vs. research-oriented) for each of the country groupings results in a division of faculty world-wide into six groups, ranging from the largely teaching-oriented Latin-type faculty to the mostly research-oriented German-type faculty. Using this analytical framework, this essay will look at the factors which result in the division of faculty as teaching-oriented or research-oriented, with the

focus being on the teaching-oriented. The following five personal characteristics were used as variables; the faculty member's (1) discipline, (2) gender, (3) age, (4) present position, and (5) highest earned degree.

Secondly, the way faculty members regard their own teaching and research situation as well as university teaching and research in general was systematically outlined. This analysis centers on - (1) the faculty member's orientation and the actual results of their teaching, research, and other related matters, (2) working conditions, including teaching and research, at their institution, (3) the faculty member's commitment to the institution he or she is affiliated to, and (4) the faculty member's degree of satisfaction. Finally, based on these results, there will be a study into the direction reforms related to the problems of teaching and research in higher education will take in the future. Cross tabulations will be used to illustrate the analysis and, unless otherwise pointed out, the significance level is 1%.

LIMITATIONS

The International Survey of the Academic Profession, the results of which were reanalyzed in this study, is the most large-scale and comprehensive international comparative survey concerned with the actual state of the academic profession ever undertaken. This survey, like many other international comparative studies on education, has not managed to resolve all problems in international comparative research, but its design and procedure were standardized and as a questionnaire it presents no problems, particularly from a statistical viewpoint (Berting, Geyer, and Jurkovich 1979; Smelser 1988). Each country's version of the questionnaire was completed after careful translation and back translation. However, it cannot be said that there are no problems with the data, as the response rate varied considerably from country to country. It is also unclear whether the selection of faculty members as respondents and the distribution of questionnaires in each nation corresponded with common procedure. Consequently, during the reanalysis of the results, the data gathered from countries where the possibility of bias existed underwent the most meticulous examination before it was decided whether or not it could be used. This essay aims to use all accurate information extracted from this valuable international comparative survey and uses data from all the countries chosen for this survey.

Another limitation is that the organization of the questionnaire and the choice of question headings were heavily influenced by characteristics of the American higher education system and by the results of higher education research undertaken in the United States. Consequently, the interpretation of the analyses' results is not necessarily sufficient and, to the extent that people are not particularly conscious of this American bias, the fear is that the American higher education system will be mistakenly evaluated in an over-positive manner. Three reasons for

this over-positive evaluation of the American system are that (1) the body administering this International Survey of the Academic Profession is an American research organ, (2) American researchers play a leading role in the world of higher education research, and (3) the United States' higher education system is seen as a frame of reference for other countries (a double mirror). That the American higher education system is a vital frame of reference is unsurprising or at least understandable in view of its preponderance as shown in the first two points.

It is said that the research directors from the participating countries were involved in sufficient consultation. However, this research process has made clear that while similarities exist between each country's modern higher education system, there are at the same time overriding differences which cannot be ignored, yet which cannot be adequately explained. I venture to point out that future empirical international comparative studies of education must override this limitation.

THE CHARACTERISTICS OF THE TEACHING-ORIENTED FACULTY MEMBERS

PERCENTAGE DIFFERENCE BY ACADEMIC DISCIPLINE

The ratio of teaching-oriented faculty members varies greatly from country to country, but the faculty member's academic discipline also influences his or her interest in teaching and research. There are universal factors common to all disciplines in the handling of specialist knowledge in higher education. However, each academic discipline has its own peculiar subculture, unique values, and tradition. In other words, each discipline is shaped by its own distinctive type of knowledge and its own approach toward the discovery, integration, application, and teaching of knowledge. It is easy for faculty members to be influenced by this subculture as they are in contact with it for a long time (Ladd and Lipset 1976; Clark 1987a). Faculty members as a group, differ from other professionals in many points, but as experience shows, even among faculty themselves ways of thinking and looking at things vary greatly even if their academic disciplines are only slightly different.

Calculating the rate of teaching-oriented faculty by academic discipline illustrates the trends shown in Table 2. First, the greatest number of teaching-oriented faculty members - more than 60 % - are found in the fine arts disciplines, such as art, drama, music and so forth. This is probably because faculty members responsible for teaching are indispensable in this area where the actual transmission of practical skills is necessary for the development of artistic ability. The number of teaching-oriented faculty becomes consecutively lower in the liberal arts, such as social sciences and humanities, and in the applied sciences, such as engineering and health science. The rate of teaching-oriented faculty is lowest in the discipline of natural sciences where, at 30%, it is less than half the ratio of teaching-oriented faculty in the fine arts.

TABLE 2
ACADEMIC DISCIPLINE AND TEACHING ORIENTATION (%)

	Discipline of the Department in which You are Employed					
	Humanities	Social Sciences	Natural Sciences	Engineering	Health Sciences	Fine Arts
Latin-Type Countries	63.7	70.7	51.2	67.2	69.6	74.0
Anglo-American-Type Countries	48.7	52.1	31.4	47.1	47.4	67.1
German-Type Countries	36.8	39.7	21.6	31.3	24.7	47.3
Total	45.9	51.1	30.1	44.8	42.4	61.2

Rate of teaching-oriented faculty

Secondly, each country shows roughly the same pattern of difference according to discipline. However, the rate of teaching-oriented faculty members varies according to country, as can be witnessed by the fact that in the Latin-type countries there are twice as many teaching-oriented faculty members for each academic discipline as there are in the German-type countries. So, within the academic profession itself the ratio of teaching-oriented faculty in fine arts in the Latin American-type countries reaches 74% in contrast to the 21.6% of teaching-oriented faculty in the natural sciences in the German-type countries, demonstrating the considerable differences in faculty members' interest in teaching.

THE CONTEXT OF TEACHING-ORIENTATON

University teachers' predilection for teaching or research is prescribed by individual characteristics other than academic discipline as shown in Table 3. Analysis demonstrates that there are more female teaching-oriented faculty members, more teaching-oriented university teachers among the senior faculty, rather than among junior faculty. Again, as far as current academic rank, it is clear that faculty with ranks other than professor and those without doctoral degrees tend to be more partial to teaching.

In saying this, I would also like to bring attention to the fact that this result reflects the trend in the present set-up of the higher education system. The significance and influence of sociological factors change periodically and different patterns occur. Taking gender for example, were the number of female faculty to exceed that of men, as has happened in the percentage of females continuing onto higher education, the above result would probably be the

reverse, i.e. there would be more teaching-oriented men than women. It is also likely that were the structures and functions of the higher education system to change, the significance and influence of the status of professor and of the doctoral degree would also change.

TABLE 3
FACULTY PERSONAL CHARACTERISTICS
AND TEACHING ORIENTATION (%)

	Gender		Age		Academic Rank		Highest Earned Degree	
	Female	Male	39 or Less	Fifties	Professor	Others	Doctoral	Others
Latin-Type	66.9	63.8	58.9	69.6	56.7	69.7	41.6	70.7
Anglo-American-	56.6	43.9	38.2	54.2	37.6	50.7	37.4	68.2
German-Type	38.2	29.6	23.5	38.0	34.6	33.9	25.4	39.5
Total	54.0	40.8	36.0	49.9	37.6	47.6	32.2	55.8

Rate of teaching-oriented faculty

The influence of individual characteristics on teaching-orientation is, as in the case of academic discipline, about the same in each country. Exceptions are in (1) the Latin-type countries where gender based differences are minimal and statistically insignificant, and in (2) the German-type countries where many professors are teaching-oriented (this is also statistically insignificant). In the case of faculty in Japan, it is abundantly clear that professors are more interested in teaching (31.2%) than other university faculty members (23.1 %). I would also like to point out that the impact of individual characteristics is generally stronger in Japan when compared to other countries. In other words, in Japan differences in teaching-orientation do not only depend on current academic rank, but on gender with 47.1% of females compared to 25.9% of males being teaching-oriented, on age with 31.4% of the senior faculty members compared to 17.5% of the junior faculty members being teaching-oriented, and on highest earned degree with 15.3% of teachers with doctorates compared to 43.4% of teachers with other degrees being teaching-oriented. These are quite considerable differences.

TEACHING AND RESEARCH CONDITIONS

ORIENTATION AND ACTUAL RESULTS

Now, how do university faculty members view their own working conditions? Moreover,

what do they think of teaching and research in today's higher education, and how do they cope with it?

First of all, it is necessary to stress that faculty members' orientations and teaching and research results are intimately related. For example, in every country without exception, faculty whose teaching responsibilities are entirely undergraduate show a high rate of teaching-oriented members (Table 4). This is especially so in the Anglo-American-type countries where most faculty members also have graduate classes to teach, and where there are twice as many teaching-oriented faculty members than research-oriented faculty members, who teach only at undergraduate level.

TABLE 4
TEACHING, RESEARCH ORIENTATION
AND ACTUAL RESULTS

		Faculty who Teach Entirely at Undergraduate(%)	Average Hours per Week to Spend: In Session		Scholarly Contributions: Number of Articles in Three Years	Faculty Currently Engaged in Research Projects(%)
			Teaching	Research		
Latin-Type Countries	Teaching-Oriented	72.2	18.8	8.5	2.8	73.9
	Research-Oriented	52.3	16.4	15.1	4.7	92.7
Anglo-American-Type Countries	Teaching-Oriented	34.0	22.3	9.3	3.2	80.3
	Research-Oriented	16.3	18.1	19.0	7.2	95.4
German-Type Countries	Teaching-Oriented	62.7	21.0	12.8	4.5	62.3
	Research-Oriented	37.0	15.1	21.6	7.4	83.7
Total		40.1	18.5	15.4	5.8	83.4

This close connection between orientation and actual results is also made evident in the number of hours per week spent on teaching and research. That is to say, in a typical week when classes are in session, faculty members on average devote 18.5 hours to teaching and 15.

4 hours to research activities, but teaching-oriented members spend more time on teaching and less time on research than the average indicates. The difference between the two groups can be most clearly seen in the time spent on research activities and by looking at the percentage of faculty currently engaged in research projects. Again, a look at the number of articles published in academic books or journals in the last three years show that the research-oriented faculty are much more productive than the teaching-oriented members in their scholarly contributions.

WORKING CONDITIONS AT AFFILIATED INSTITUTIONS

In the International Survey of the Academic Profession, faculty members are asked to indicate how their teaching and academic investigation are influenced by certain working conditions at their institutions. Nine circumstances were selected, with most of the headings having something in common, making comparison of the circumstances' different effects possible.

The circumstances directly related to teaching activities which have a strong positive influence on teaching begin with "the kinds of courses assigned to teach" (57.3%), "the amount of student advising responsible for" (33.5%), "the institution's teaching facilities and resources" (33.1%), "the number of students enrolled in their classes" (33.0%), and "the number of courses they are assigned to teach" (30.3%) among others.

Among circumstances directly related to research activities, 38.9% felt their research commitments have a positive influence on teaching, but that the availability of research funding has a less positive influence (21.5%) than their non-academic professional activities (26.4%) on their teaching. The factor with the least positive effect on teaching is administrative work (12.2%).

In marked contrast to these results, among the circumstances directly related to research activities, the availability of research funding was regarded by the highest number - 54.0% as having a positive influence on one's academic research. Next, the facilities and resources for research were regarded by 49.2% as having a positive influence on one's research, while the quality of students available as research assistants was regarded by 43.0% as having a positive influence.

The circumstances directly related to teaching activities were not seen to influence their research activities positively with the kinds of courses assigned to teach regarded by 24.1% as having a positive effect, followed by the number of courses assigned to teach (17.2%), and the number of students enrolled in their classes (13.2%). Furthermore, neither did non-professional activities (20.4%) have a positive influence on research. The circumstance regarded as having the least positive influence on academic research is administrative work at their affiliated institution (9.5%).

Consequently, from the faculty members' point of view, though their teaching and research activities are strongly influenced by circumstances directly related to each respective activity, it is important to note that research commitments are seen as exerting a positive influence on teaching activity while all the circumstances directly relating to teaching are regarded as having a relatively negative influence on research, demonstrating an extremely contrasting appraisal.

Furthermore, in addition to teaching and research, faculty members are expected to engage in social service and administrative work yet, non-academic professional activities aside, administrative work is regarded as negatively affecting their investigative and teaching activities. Nevertheless, one argument on university roles has it that university administration is integral to the faculty member's role. In fact, though, many faculty members regard participating in university committees and department meetings and so on as troublesome and trivial duties which take time away from teaching and research - their primary jobs.

In addition to this general trend, I would also like to point out that the higher the level of interest faculty members have in teaching, the more positively the conditions of teaching and research activities at their institutions are evaluated as exerting a positive influence. In other words, in accordance with the original choices on the questionnaire for faculty members, looking at the 4 groups of answers divided from "interested mainly in teaching" to "interested mainly in research", the higher the respective interest of faculty in teaching (or conversely the higher the respective level of interest in research), the more the various conditions directly related to teaching (or conversely research) activities are evaluated as being positive influences. However, faculty members with a high level of interest in teaching tend to positively evaluate conditions directly related to teaching activity as being beneficial for their own research work also. Not only that, they also take a positive approach to their non-academic professional activities and administrative work.¹

COMMITMENT TO THE INSTITUTION AND ACADEMIC DISCIPLINE AND THE DEGREE OF SATISFACTION

One way that the teaching-oriented faculty positively regard their work conditions is that, compared to the research-oriented faculty, they have a stronger sense of commitment to their institutions and departments (Table 5). Most faculty members in every country, irrespective of teaching or research-orientation, think their own academic discipline is the most important. In the Latin-type countries where the rate of teaching-oriented faculty members is high, nearly every university teacher regards his or her institution and department as important as his or her academic discipline. For faculty, especially the research-oriented faculty in the Anglo-American and German-type countries however, the university and department to which they are

attached is not that important.

Though teaching and research are both essential activities, the reference group differs, being either internal or external. Although most research activities are conducted at the faculty members' own institutions, their publication, evaluation, and approval depend mainly on scientists working outside their institution. This results in research activities being rather cosmopolitan. Teaching, in contrast, is concerned with the students at the teacher's own institution, making it an extremely personal and localized activity. Therefore, the hallmark of this latter activity is that it prompts positive evaluation of the institution the teaching-oriented faculty work at as well as of research and teaching activities there.

TABLE 5
SENSE OF COMMITMENT TO INSTITUTION
AND RATE OF PERSONAL STRAIN (%)

		Sense of Commitment*			My job is a source of considerable personal strain**
		Discipline	Institution	Department	
Latin-Type Countries	Teaching-Oriented	98.8	93.7	94.5	28.8
	Research-Oriented	98.7	93.3	92.5	32.3
Anglo-American-Type Countries	Teaching-Oriented	95.2	79.3	90.4	41.3
	Research-Oriented	96.1	72.6	86.4	43.9
German-Type Countries	Teaching-Oriented	90.0	62.3	74.1	40.0
	Research-Oriented	94.2	54.7	69.3	44.5
Total		95.3	72.4	83.4	40.3

* The percentage of faculty who answered they felt a strong sense of commitment to their discipline, institution and department

** The percentage of faculty who felt their job was a source of considerable personal strain

Again, compared to research, teaching is not always necessarily a source of strain (Table 5). The faculty members whose job is a source of considerable personal and psychological strain are those working in the Anglo-American and German-type countries, rather than in the

Latin-type countries where the rate of teaching-oriented faculty members is high. Furthermore in every country more research-oriented than teaching-oriented faculty complain of mental stress (though statistically insignificant).

As to satisfaction with university life, half of the faculty (49.2%) are satisfied with their job situation as a whole, yet no difference can be discerned between the teaching-oriented and research-oriented members. Looking in detail at individual cases such as satisfaction with the opportunity to pursue their own ideas, the higher the faculty member's level of interest in research is, the higher the level of satisfaction becomes. However, more teaching-oriented faculty than research-oriented faculty believe their institutions' objectives are clear. Not just that, but the stronger the interest in teaching, the stronger the degree of satisfaction with the courses they teach, their relationships with colleagues and the way their institutions are managed, so the teaching-oriented faculty members tend to be slightly more satisfied with university life.²

IMPLICATIONS AND RECOMMENDATIONS

BALANCING TEACHING AND RESEARCH

Classifying faculty members world-wide as either teaching-oriented or research-oriented and studying their working conditions from various angles, we see they fulfill their roles by making the most of their own special abilities. If anything, the teaching-oriented seem more satisfied with campus life than the research-oriented. With their respective interests and achievements, both groups of faculty appear to easily coexist with no particular need for confrontation. Can it be said that both groups share the same opinions concerning the problem of balance between teaching and research however?

Table 6 pertains to this problem of balance, looking at responses to questions on teaching and research in relation to faculty evaluation. Focusing first on research activities, the majority of faculty in every country replied that a strong record of successful research is important in faculty evaluation at their institutions. That is to say, under the existing system, faculty in every country are expected to be productive in research activities. Nonetheless, this official stance aside, in the Latin-type countries it is thought that the actual results of research activities are in fact not terribly important. This applies not only to the teaching-oriented faculty but to the research-oriented as well. Furthermore, the differences in viewpoint between the teaching-oriented and research-oriented faculty members on the topic of institutional claims on research activity can be thought to result from the fact that their answers reflect differences in their affiliated institution and achievements.

As to the countries in the Anglo-American and German-type groups, most faculty members

replied that academic publications are important in order to achieve tenure and consolidate their academic rank. This trend is particularly strong in the Anglo-American-type countries where both teaching-oriented and research-oriented faculty members are under more pressure to research.

TABLE 6
TEACHING AND RESEARCH ACTIVITIES
AND FACULTY EVALUATION (%)

		A strong record of the successful research activity is important in faculty evaluation at this institution	In my department it is difficult for a person to achieve tenure if he or she does not publish	Teaching effectiveness should be the primary criterion for promotion of faculty	The pressure to publish reduces the quality of teaching at this institution	Faculty should spend more time with students outside the classroom
Latin-Type Countries	Teaching-Oriented	70.3	27.0	73.4	23.0	67.7
	Research-Oriented	74.0	32.0	48.2	23.3	64.7
Anglo-American-Type Countries	Teaching-Oriented	77.0	69.2	57.0	50.8	49.7
	Research-Oriented	85.0	78.0	15.3	37.1	35.6
German-Type Countries	Teaching-Oriented	75.4	59.2	53.8	43.6	59.2
	Research-Oriented	80.6	70.6	20.7	33.7	48.9
Total		78.7	62.5	39.7	37.5	52.1

The percentage of faculty who agreed

Regarding this present situation at universities whereby faculty evaluation depends largely on research, a big difference of opinion is apparent between the teaching-oriented and research-oriented faculty members when asked about the relation between teaching activity and evaluation. The difference was startlingly clear in the response to the statement "Teaching effectiveness should be the primary criterion for promotion of faculty members". Naturally a high number of teaching-oriented teachers agree with this precept in every country. In the German-

type countries where the emphasis on research is a deep-rooted trend, the difference in opinion between the teaching-oriented and research-oriented faculty was predictably large.

Nevertheless, it must be pointed out that there was a sharper conflict of opinion in the Anglo-American-type countries where there are more teaching-oriented faculty members than in the German-type countries, with 57.0% of the teaching-oriented members agreeing with the above statement against only 15.3% of the research-oriented faculty members. This conflict of opinion between the research-oriented faculty and teaching-oriented faculty in the Anglo-American countries is further verified in their response to the statements "The pressure to publish reduces the quality of teaching at this institution" and "Faculty should spend more time with students outside the classroom" (Table 6).

Furthermore, it should be added that regular evaluation of faculty members' activities at their institutions is most widespread in the Anglo-American-type countries. In these countries, over 70% of faculty members say their activities are regularly evaluated. The Latin-type countries faculty members are the next most regularly evaluated, followed by those in the German-type countries.³ In other words, along with the massification of higher education, the balance between teaching and research has shifted once again to an emphasis on teaching. If one construes the vector of reform as striving from a German model towards an Anglo-American model, then the nearer it approaches the Anglo-American model, the sharper the difference of opinion on the concept of teaching and on the criteria for faculty evaluation becomes between the teaching-oriented and research-oriented faculty members.

THE DIRECTION OF CHANGE AND RELATED CONDITIONS

Now, let us consider the problem of teaching and research at university by focusing on the roles of faculty.

1. Looking over the course of higher education since the Second World War, it is evident that research has become an increasingly important role for the faculty member. On the other hand, the intake of large numbers of university students has meant that teaching has once again been given importance. The present problem is how to balance teaching and research effectively.
2. Complications arise with this issue as it is not easy to argue that faculty members should attach great importance both to teaching and to research as both require a huge expenditure of energy in order to achieve good results. However, all manner of factors play a role in how a faculty member decides to which he or she attaches greater importance, starting from personal characteristics such as the base country, academic discipline, gender and age, present status, and highest earned degree among others - so there is little merit in giving general recommendations. Again, as mentioned before, though teaching and research are

undeniably closely related, each has its own aim and methodology as well as its distinct predilection for particular talent, particular facilities and resources. The essence of teaching and research do not necessarily find themselves in natural harmony.

3. In actuality, regardless of country, faculty who place emphasis on education and those who place emphasis on research are found in the same workplace, and they all respectively perform roles based on their interests and achievements, making the most of their own special abilities. Furthermore, compared to research, teaching is not always necessarily stressful. If anything, teaching-oriented faculty members seem to be more satisfied with their campus life than research oriented members.
4. Teaching-oriented faculty members strongly hope that their teaching activities will be the basis of faculty evaluation. This wish is strongest in the Anglo-American-type countries where there are more teaching-oriented faculty members (than in the German-type countries). If, from now on, in addition to research, teaching students becomes all the more important, the method for evaluating faculty members will have to shift from the present policy of attaching most importance to research to a policy which attaches importance to teaching as well. Developing appropriate and applicable means of assessing faculty members activities is another necessary task (Braskamp and Ory 1994).
5. However in order for this, an improvement in institutional conditions is also called for. For example, one solution would be to introduce formal opportunities for graduate students to learn about the meaning of college education, as well as to learn about teaching methods, and to receive practical training in the classroom. This would be in addition to the already established training programs on how to research. Otherwise, as in the United States, higher education bodies could be institutionally divided into those emphasizing research and those emphasizing teaching. Nonetheless, fundamental policies of institutional reform would necessarily vary from country to country. For example, the number of research-oriented faculty is extremely high in Japan, so a division into teaching and research institutions along American lines would be difficult here, as most faculty would want to continue with research. However, the implementation of institutional reforms which balance teaching and research - having Japanese faculty teaching more while still researching - is a substantial, realizable, and desirable aim. Furthermore, another important point is that university teachers themselves should be systematically guaranteed the right to decide at their own discretion, whether to attach more importance to teaching or research.

FOOTNOTES

- 1 For example, the rate of teachers who answered that their research activity is positively

influenced by the number of courses they are assigned to teach is 22.1% of those “primarily interested in teaching”, 20.2% of those who are interested “in both teaching and research, but leaning toward teaching”, 16.1 % of those “interested in both, but leaning toward research”, and 12.2% of those interested “primarily in research”. Again as to administrative work, the rate of teachers who think it has a positive influence also declines successively. The rates, ordered in the same way as above are 14.4%, 11.6%, 8.5%, and 6.5%. In a typical week when classes are in session, the average total hours spent on professional work on top of teaching and research, including social service, administration and other work is greater among the research-oriented faculty than the teaching-oriented faculty. For instance, in the German-type countries the hours spent by teaching-oriented faculty on work is 49.4 a week, compared to 51.7 hours are week spent by the research-oriented faculty.

2 For example, concerning the freedom to pursue their own ideas in teaching and research at their institution, the rate of those who replied they were satisfied was 55.2% for those who are “primarily interested in teaching”, 56.8% for those who are interested “in teaching and research, but leaning toward teaching”, 64.3% for those who are interested “in teaching and research, but leaning toward research”, and reaches 68.8% for those whose interests lie “primarily in research”. Looking at the percentages of the courses they teach we see that they are 77.7%, 79.7%, 71.0%, and 52.0% respectively with the teaching oriented teachers having the highest rate. Furthermore, looking at the rates of teachers who replied that the clarity of their institution’s mission was good, we see that they are 45.4%, 38.3%, 34.2%, and 34.6% respectively with the higher the level of interest of faculty in teaching, the more positive the evaluation.

3 The overall rate of faculty members who answered that their academic activities are regularly evaluated is 61.4%. The rate according to teaching-oriented versus research-oriented faculty is as follows; in the Latin-type countries 59.1% for the teaching-oriented and 65.9% for the research-oriented. In the Anglo-American-type countries, the rates are 74.9% and 78.7% respectively, and in the German-type countries the rates are 41.5% and 45.9% respectively. Among the German-type countries Japan is different in that the rate for the teaching-oriented (50.6%) is higher than that for the research-oriented (41.9%).

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教育と研究：そのジレンマ——国際比較の視点から

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職業としての大学教授職は教育、研究、社会的サービス、大学の管理運営といった、いくつもの仕事を並行して進めることが期待されている。これらの仕事のうち、どれを優先するかは一人ひとりの大学教員によって違っている。しかし今日の日本の大学で、どの大学教員にも期待されているのは、学生を教育することと専門の研究を進めることであり、そのバランスをどのようにすればよいかは深刻な解決すべき課題になっている。

ところで、教育と研究はどちらも大学教員の重要な役割だが、問題なのは大学における教育と研究、とくに教育とは何かについて、その具体的な情報やイメージがきわめて乏しいことである。そこで本稿では、大学教員が教育と研究の問題をどのようにとらえているかを、おもに教育に焦点をあてながら分析することを試みる。使用するデータは、カーネギー教育振興財団が1992年から93年にかけて、13カ国1地域の大学教員を対象に実施した「カーネギー大学教授職国際調査」のデータである。

分析の理論的な枠組みは次のとおりである。まず第1に、世界の大学教員を主として教育に関心のある「教育志向教員」と、主として研究に関心のある「研究志向教員」の2つに分類する。第2に、13カ国1地域をその国や地域の大学に勤務する教員に占める「教育志向教員」の比率を指標にして、教育志向教員の多い「ラテン型」、研究志向教員の多い「ドイツ型」、およびその中間にある「アングロ・アメリカ型」の3つのグループに分類する。この2つの分類をくみあわせると、大学教員はラテン型の諸国の大学に勤務する教育志向の教員から、ドイツ型の諸国の大学に勤務する研究志向の教員までの、計6つのタイプに分かれるが、本稿ではこの大学教員のタイプを基本的な分析軸として使用する。分析結果の整理に際しては、まず第1に、大学教員はどのような条件によって、教育志向と研究志向に分かれるのか、その実態を明らかにする。続いて第2に、大学教員は自分の教育・研究活動の状況をどのようにとらえ、今日の大学における教育と研究についてどのように考えているのかを整理する。そして最後に、これらの結果をふまえて、大学における教育と研究の問題を考える手がかりを考察する。

分析結果のうちとくに強調する必要があるのは、教育に関心のある大学教員は彼らの教育活動が教員評価の対象になることを強く望んでいることである。とくにそうした要望が研究志向の教員と比べて強いのは、ドイツ型よりも教育志向の多いアングロ・アメリカ型の諸国である。したがって日本でも、これから研究に加えて学生の教育がいっそう重要になるとしたら、教員評価のあり方を現在のもつばら研究業績を重視する方針から、教育活動も同時に重視する方向へ移行させる必要がある。

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