Can Teaching Quality at Japanese Universities Be Improved through Teacher Incentives?

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(Abstract)

This paper investigates how to increase the quality of teaching through incentives at Japanese universities. Any proposal to increase the quality of teaching must take into consideration the fact that there is a stratification of teachers at Japanese universities: full-time tenured, full-time term limited, and part-time. Many of the lectures are not delivered by full-time tenured staff, and indeed much of the contact time between students and a university is through temporary or part-time teachers. The efficiency and equity of an incentive scheme in a stratified teaching environment is discussed, and it is argued that any incentive scheme must incorporate teachers at all levels. The evaluation of teacher performance, through teacher assessment and other criteria, is examined and the benefits and drawbacks of incentives are discussed. In conclusion, this paper proposes an incentive system to improve teacher quality through financial and non-financial rewards.

(論文要旨)

この論文は，日本の大学で報償制度を使い，いかに教育の質を向上させるかを考察するものである。教育の質を向上させるため，以下の点を考慮しなければならない。日本の大学には教師の階層がある：フルタイムの専任，期限付きフルタイム教員，および非常勤講師。講義の多くは，フルタイムの専

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任スタッフのみでは行われておらず，学生と大学の接点は，一時雇いおよび非常勤講師の指導にもよる。この論文では，階層が存在する教育環境における報償制度を使った効率と公平さについて議論される。いかなる報償制度の計画もあらゆるレベルの教師を含めなければならない。教師に対する評価と他の基準を通し，教師の教え方を精査し，報償制度の利点と欠点が論じられる。結論として，この論文は金銭的および非金銭的報酬を通し教師の質を高めるために，インセンティブを使った報償制度を提案するものである。

Key words: Teaching quality, incentives, university, Japan
キーワード：教育の質，インセンティブ，大学，日本

Introduction

How do Japan's universities measure up? Given Japan's relative wealth and stature in the world, it would be natural to expect Japan's university education standards to be on a par with Western Europe or North America. In terms of wealth, Japan has a per capita income at the levels of Western Europe, and tertiary education participation rates in Japan are high. The pay and conditions of university instructors are generally as good as in comparable countries. However, on the whole, Japanese universities are not so highly regarded. One way to improve the quality of Japanese universities is to improve teaching quality and this paper proposes to achieve this by motivating university teachers, through a focus on improving efficiency and equity, and outlines an incentive proposal consisting of academic recognition and financial remuneration.

Overview of Tertiary Education in Japan:

Japan, as the world's third-largest economy, has an appropriately large higher education sector. It is even claimed that Japan has the second-largest higher education sector in the world, after the United States (Dobson & Mori, 2007, 185). In total, there are 780 universities—national public, local public, and private—ranging

in size from very small (a few hundred students) to extremely large (more than 40,000 students) (Higher Education Bureau).

While the most highly regarded universities tend to be public, with the national public Tokyo University at the pinnacle, the majority of universities in Japan are private. Numerically, a total of 599 universities, or roughly 80 percent, are private (Higher Education Bureau), ranging widely in quality and size.

In terms of enrollment, Japanese people support higher education strongly. Approximately 50 percent of the student-age population (in Japan, 18 years old) is enrolled in university, and this figure increases even higher to 77 percent if junior college, vocational school, and technical college enrollment is included (Higher Education Bureau). Japan has passed the so-called stage of mass access and has entered the stage of universal access to higher education.

However, the Japanese higher education sector has also been faced with numerous challenges over the past decade, not the least being problems associated with a shrinking student-age population and struggles with internationalization and globalization. Reforms have been similar to but less stringent than in the United Kingdom, including increased accountability via strengthened internal and external evaluation, more competitive resource allocation, and the semi-privatization of national universities.

Another longstanding issue in Japanese universities is the quality of education. For various reasons, such as the rapid expansion in higher education from the postwar period onwards, Japanese higher education does not have a reputation for quality. This, of course, is in contrast to the image of Japanese compulsory education, but universities have traditionally been considered four-year playgrounds before students enter a company.

To illustrate this point, Universitas 21 higher education rankings, which benchmark national higher education systems, in their most recent study placed Japan

21st out of 50 countries, sandwiched between Spain and Portugal (Universitas 21).

Although teaching quality does not play a significant role in determining the Universitas 21 rankings, the improvement of teaching quality in Japanese institutions has also been a continuing theme over the past decade. Yamanoi (2008, p. 34) concurs, stating that "current university structural reform emphasizes reform of university teaching." Teaching quality has become a buzzword, especially at the private universities which are less research-oriented, but so far progress has been slow. In 2002, McVeigh claimed that there was little incentive in the higher education sector for quality teaching. Twelve years later, still not enough has been done to ensure quality.

Overview of Teachers in Tertiary Education in Japan:

In Japan, the teaching profession, at all levels from primary through tertiary, is highly respected. This is especially so in higher education, where the teacher's authority is generally unquestioned and he or she is considered to have a degree of wisdom and specialist knowledge that deserves respect.

As might be expected, the pay scale for university teachers is relatively high, although international comparisons remain difficult due to fluctuating exchange rates and differing rates of purchasing power. A newly-minted PhD graduate, if able to obtain a tenured position immediately, is likely to earn about six million yen and a full professor should be able to collect more than ten million yen, putting Japanese remuneration roughly on par with the situation in the United Kingdom (Burton, 2013, p. 44). The pay levels in comparison to other jobs in Japan have also been relatively favorable, although not as highly rewarded as, say, medical doctors. It might be said, taking into account that most full-time, tenured teachers have a PhD which required the investment of a significant amount of time and money, that teachers should be rewarded better, but this could be said in numerous other

countries also.

Overall, Japanese university teachers compare similarly to their Western counterparts in educational achievement and monetary reward. Perhaps one significant difference is that tenure still exists, unlike in the United Kingdom, and it is almost always given immediately upon employment (if one is deemed capable), rather than after several years of tenure-track employment as in the United States. This makes the labor market less fluid, although in the past fifteen years term-limited contracts have increased substantially (Yamanoi, 2008, 30). Likewise, there has been an increase in the number of part-time teachers employed in the sector (McVeigh, 2002, p. 135). This trend towards term-limited and part-time workers is, of course, not only evident in Japan.

Wage bargaining is another area where the Japanese system differs from that of the United Kingdom and the United States. Almost all university teachers' labor unions are university-specific, and in principle all full-time tenured teachers are required to join. Term-limited and part-time teachers are usually not required to participate. There are labor unions that are not university-specific, and these will sometimes bargain for the term-limited and part-time teachers if requested to do so, but their role, being outside the university structure, is minimal and often limited to addressing the most contentious disputes.

In the 80 percent of universities that are private, the employer is the university itself, represented by the senior administration staff. In most cases, the senior administration staff—the vice-chancellors—are chosen in an election by the teachers, with candidates being actual teachers at that university, rather than through a recruitment process. This practice, along with other powers traditionally given to the teachers and their departments, tends to weaken the power of the vice-chancellors to unilaterally achieve new policies. It also leads to wage bargaining sessions with the employer being a former employee as well as being eventually slated to become

an employee again after their term as vice-chancellor finishes. The resulting consensus is more steady-as-she-goes management, rather than the top-down management of a vice chancellor in the US or UK systems.

Wage bargaining between the employer and the labor union is almost always conducted on the principle of across-the-board salary raises or cuts, with little effort at differentiation based on research or teaching competence. As Oshio and Seno (2007, p. 56) indicate, teachers' pay is primarily determined by seniority and is "unrelated to their research performance or contributions to education, and instead are uniformly based on wage tables." This situation generally holds for both public and private universities. McVeigh (2002, p. 135) similarly concludes that in Japan "most pay systems are pegged to age, not performance."

Current Problems in the Teacher Labor Market in Japan:

There are numerous issues in the teacher labor market in Japanese higher education. An incomplete list would include lack of job mobility, over-stratification of salaries, gender imbalances, lack of diversification (e.g., lack of international faculty), questionable research capability, and various promotion issues.

However, perhaps the biggest problem in the teacher labor market is the quality of teaching. Moreover, teaching quality does not exist in isolation; Schemes that attempt to tackle this problem often must also address issues of job mobility, stratification, and training of the teachers.

Recognition of the problem with teaching quality has been longstanding. As early as 1971, in a report entitled Basic Guidelines for Reform of Education, the need for improved teaching quality at universities was acknowledged by the government and generally supported by business and the public alike (Okada, 2005, p. 41). In a more recent study, Lee-Cunin (2005, p. 154-155) says students' negative perspectives of university center on dissatisfaction with teaching methods. In spite of this,

as Arimoto (1997, p. 204) claims, evaluation of teaching quality in Japan has been "relatively under-developed."

It has been only over the past decade or two that specific government policies and university-level schemes have been enacted to improve teaching quality, with so far only a modest amount of success. In 1999, the government urged universities to create faculty development programs, approximately 20 years after their popularization in the United States and the United Kingdom. Furthermore, in 2008, permanently-staffed faculty development centers became required for every university. Improvement of teaching quality as a goal has been set by government guidelines, with each university expected to arrive at their own specific reforms. However, as one recent governmental report describes, it is difficult to proclaim enough improvement in teaching quality, as student surveys still indicate low levels of satisfaction with classroom teaching, and surveys of the opinions of vice-chancellors on teaching quality at their respective universities also suggest little improvement (MEXT).

Thus, it can be concluded that teaching quality is an important issue that unfortunately has not improved as much or as quickly as hoped. Goodman (2005, p. 15) places much of the blame on the labor market structure, stating that Japanese tenured teaching posts offer "both a very high level of security and, by global standards for academics, a very good salary. There has been little incentive, therefore, to reform teaching practices." McVeigh (2002, p. 136), taking a somewhat different stance, suggests that the "lack of objectivity and standards kills off" quality teaching. However, it must be mentioned that there is relatively little empirical research in the Japanese higher education sector (or even at the primary or secondary levels) into the production function of education.

Other scholars speculate that the predominance of research over teaching is the central issue. Fujimura (2002) claims that significant incentives exist for

professors to prioritize research. Arimoto (2004), in analyzing faculty members' orientation towards both research and teaching, concludes in a cross-country comparison that a research orientation is strongly evident in Japan.

Interestingly, many universities have at least made some attempt to better evaluate and monitor their teachers. For example, as noted in Iwasaki (2011), approximately 80 percent of national public universities now have an evaluation system for teachers' performance, and approximately 45 percent of local public universities and 40 percent of private universities have implemented similar systems. However, the results are seldom used for personnel decisions such as promotion and re-hiring. The emphasis also is on research results, and teaching performance is measured, if at all, by factors such as number of classes taught per year or number of student theses mentored (Iwasaki, 2011).

It is obvious that Japanese universities have come to understand the importance of quality teaching, and also that more effort needs to be put into the actual improvement. Faculty development centers need to be enriched, and more universities, especially in the private sector, should institute evaluations of teacher performance, but just this is not enough. Universities must go at least one step further in their development of faculty teaching, through evaluating individual teachers and rewarding good teaching practices, through more specifically targeting teaching performance and incentivizing it. As Yamanoi (2008, p. 35) states, "in practice, it is the professors who actually guarantee educational quality, and inevitably this implies establishment of a system for individual evaluation of professors."

Teaching Quality, Efficiency, and Equity

Taken from an economic perspective, the issue of teaching quality in Japanese universities can be succinctly analyzed via the concepts of 1) efficiency and 2) equity.

Efficiency:

Efficiency as an economic term is a measurement of output relative to inputs. According to Lockheed and Hanushek (1994, p. 1779), "a more efficient system obtains more output for a given set of resource inputs, or achieves comparable levels of output for fewer inputs, other things being equal."

In the Japanese higher education sector, teachers can be regarded as an input, and actually as one of the most costly inputs, since teacher salaries are a significant expense for universities (Chevalier, Dolton, & Levacic, 2005, p. 42). If teacher salaries are high but teaching quality is low, then this suggests inefficiency in the system.

Internal efficiency, also sometimes known as productive efficiency, is achieved when either "a given quantity is produced at the minimum feasible cost" or "the maximum possible amount of output is produced for a given total cost" (Levacic, 2004, p. 3). In the case of Japan, the application of this definition indicates that internal inefficiency exists because the output—the quality of student education—is lower than might be expected from the level of input, which is teacher salaries. If internal efficiency is, according to Lockheed and Hanushek (1994, p. 1780), "concerned with obtaining the greatest educational outputs for any given level of spending," then the Japanese higher education sector could substantially increase its output (student education) through improvements in teaching quality.

The concept of x-inefficiency also applies to the teaching quality issue. According to Levacic (2004, p. 8), x-inefficiency can be described as "the extent to which firms' costs are higher than they would be if they were operating on the technical efficiency frontier at minimum cost." Levacic (2004, p. 8) further explains that "the existence of x-inefficiency is attributed to lack of incentives for firms to be internally efficient and lack of information about the most efficient methods of production." This concept matches the teaching quality dilemma in Japan, since

incentives for teachers are lacking and, in many cases, the teachers and the universities are lacking in information about the best methods. McVeigh (2002), Yamanoi (2008), Oshio and Seno (2007), Okada (2005), Lee-Cunin (2005) and other scholars have all mentioned the poor incentivization and/or lack of information as serious problems in Japanese universities, especially regarding teaching quality. It can also be said that technical efficiency—producing the maximum output from minimum inputs—is impossible when x-inefficiency exists.

Allocative efficiency and external efficiency are terms worth mentioning in relation to teaching quality. According to Levacic (2004, p. 8), allocative efficiency "refers to the value that consumers of a good or service place on it." A university that has allocative efficiency would produce only graduates with an education that is desirable in society and also in high demand. Similarly, external efficiency occurs when there is a good match between the skills of graduates and employment opportunities. Therefore, an increase in the quality of teaching would result in increased efficiency to the extent that the teaching is delivering education that is valued by society and in demand by the jobs market. Thus, external inefficiencies exist, since both individual and social benefits are lost due to an inefficient learning environment.

Another economic term commonly utilized is dynamic efficiency, which measures the long-term production efficiency. In the case of education, improved management of faculty can lead to dynamic efficiency. However, investment in these innovations can initially result in a loss through added costs, so not all higher education institutions would be willing to implement the changes leading to increased dynamic efficiency. As has been mentioned previously in this paper, various scholars of Japan suggest that the higher education sector lacks dynamic efficiency, although both the government and the individual universities have made some strides towards improving this situation. Further action over the next decade or

two will be crucial in improving dynamic efficiency.

Equity:

Equity, like efficiency, is a fundamental concept within the field of economics. While efficiency compares the output relative to its inputs, equity considers what is fair. Equity, also called social justice, thus is a subjective judgment of the fairness of the particular resource distribution. Lockheed and Hanushek (1994, p. 1781) claim that the concept of equity plays an important role in policy decisions because analyzing only efficiency might lead to a "general neglect of any distributional matters," and the most efficient policy "may not always be the optimal policy for society." Equity, however, is a highly contested term "subject to many different interpretations in policy contexts" (Le Grand & Bartlett, 1993, p. 18). Basically, equity is important, but there is little agreement as to what is actually equitable.

At first glance, the issue of teaching quality in Japanese universities does not appear to be related to equity issues, but there are some key points embedded in the teaching quality dilemma that indicate equity could be improved.

Teacher equity might be improved by addressing teaching quality. For example, there are two concepts within distributional equity—horizontal equity and vertical equity—that apply to teacher equity. Horizontal equity is defined as being the equal treatment of equals. This is a concept that resonates with many Japanese people, since salary structures and educational opportunities have traditionally been based on a version of this principle. However, in the Japanese university situation, tenured salaries are, as noted previously, based almost entirely on seniority rather than ability or achievements. Furthermore, there is a huge disparity between the benefits received by part-time teachers and tenured professors, with full-time term-limited teachers somewhere in between these two extremes. As

mentioned previously, many new positions have opened for part-time and term-limited teachers rather than tenured ones, and this has led to increasing stratification within the sector. If the part-time and term-limited teachers are not substantially different from the tenured teachers in terms of teaching and/or research ability, then the principle of horizontal equity is likely compromised.

Vertical equity, on the other hand, is often defined as being the unequal treatment of unequal beings. This principle might also be compromised unless it can be shown that senior tenured professors are worth more than other teachers in terms of their teaching and/or research. In Japan, part-time teachers earn approximately 330,000 yen per class, while full-time tenured professors typically receive more than 10,000,000 yen for a typical load of six classes. If only teaching were used in comparison, then senior professors earn at least five times as much as part-timers for an equal load of classes. This suggests vertical inequities exist, although at least some of the pay differential could be a result of better teachers and/or researchers receiving a greater share of benefits.

Even if, as seems likely, large inequities exist in teacher salaries, disputes still remain as to what approach towards social justice would engender a fair situation. For example, desert theories, which tend to limit the scope of the concept of equity, focus on the fairness of the allocation rather than the fairness of the outcome, with Buchanan arguing that only birth differences are unjust, and luck, choice, and effort are acceptably fair in determining distribution (Konow, 2003). However, desert theorists also argue strongly that individuals should be compensated by how hard they work, and how valuable they are to their employer (Konow, 2003). Thus, depending on the particular desert theory being utilized, pay differential in Japan would be tolerated if it reflected the actual contributions of the individuals.

Utilitarian concepts of equity are somewhat broader in scope than the rather narrow desert theories. Utilitarianism is commonly defined as being concerned with

the greatest happiness for the greatest number. It tends not only to examine allocations, but also the consequences of these allocations. This broader interpretation of equity would suggest that there are greater inequities in teacher salaries. The rigidity of the pay scale could be viewed as having negative consequences of lower motivation for teachers and less learning for students. Also, the increasing stratification evident in the system could be a sign that only a privileged few senior professors are receiving the benefits, thus negating the concept of greatest happiness for the greatest number.

Other, more radical theories of equity, such as Marxist interpretations or Rawlsian-based principles, could likewise be applied, and the results would almost certainly show even greater inequities. However, Konow (2003) suggests that most theories of equity are flawed by lacking applicability, and that context is a necessary element of social justice. Jones (2009) synthesizes several theories in stating that equity is about 1) equal life chances, 2) equal concern for people's needs, and 3) meritocracy. Tenured professors, with opportunities for greater training, more support, more research, and of course higher pay, most likely receive more than their fair share of chances. Also, with part-time teachers earning about 330,000 yen per year-long class, and various books categorizing part-time university teachers as the working poor, clearly some people's needs are not being met. Finally, as argued previously, the situation does not reflect a meritocracy.

Proposal for a Teaching Fellows Incentive Scheme

So far, it has been determined in this paper that inefficiencies exist in the Japanese higher education sector regarding teaching quality, and also that inequities exist in the teacher salary structure. This can be understood as an incentivization problem, with the inequities actually encouraging the inefficiencies.

Thus, the scheme proposed below is designed to improve the quality of teaching

through proper incentivization of teacher salaries. It is a merit-based pay and rewards scheme designed to affect the entire teaching population at a university—from part-time to tenured professors—with dispersed yet relatively significant term-limited monetary and other benefits for a large minority of teachers.

It is intended as a comprehensive plan for the improvement of teaching at a university, but some of its main features, which will be discussed later in the paper, include 1) a system whereby roughly 10 percent of teachers of all ranks are selected as so-called Teaching Fellows, recognized for their excellence in teaching, 2) an annual monetary reward of 50,000 yen per class in addition to salaries for each of the selected teachers, and 3) an annual departmental award of 500,000 yen for the department with the best teachers and most innovative teaching practices.

Teaching Fellow Awards:

This scheme is similar in many ways to an Edinburgh Napier University initiative described by Gibbs and Haveshaw (2002) that elects to fund 50 Teaching Fellows every year. The concept there, and in this proposal likewise, is that reasonable monetary awards and peer recognition can work together in providing the correct incentives for quality teaching. An initiative such as this views university teachers as neither entirely self-interested "knaves" nor altruistic "knights," as Le Grand (2003) notes, but somewhere in-between. Overly large monetary rewards would likely insult the altruistic tendencies of many teachers, perhaps even demoralizing some very good teachers. Likewise, too great an individual reward would ignore the collegial, cooperative aspects of teaching, perhaps again creating a demoralizing or overly competitive environment. Moreover, university teachers are thought to be "risk-averse," so a large reward would most likely be inappropriate (Lazear, 2003). Therefore, the financial compensation should not be so extreme, but a zero reward would not be considered an incentive. As Lavy (2002, p. 1316) indicates in

a study of the compulsory education sector, "the power of incentives observed elsewhere in the economy is also evident in schools, even in the case of relatively low performance bonuses." Furthermore, a university's act of paying financial rewards signals to the teachers that this goal of quality teaching is valued, and at least theoretically teachers will attempt to align their teaching to the university's preferences.

However, financial considerations are only one part of the benefits package. In this proposal, as well as in the Edinburgh Napier University example, the title of Teaching Fellow is an important non-monetary benefit because the not-quite-knavish and not-quite-knight-like teachers often crave the recognition of their peers as much as any financial recognition. Gibbs and Haveshaw (2002, p. 11) mention that "mechanisms which involve public acknowledgment and status can be both effective and economical ways to recognize excellent teachers." Dolton, McIntosh, and Chevalier (2003, p. 102) even go so far as to state that "the knowledge that their job is well done appears to be more effective at motivating teachers than monetary reward." Teachers want to be appreciated and acknowledged, so in this scheme the monetary and non-monetary benefits are designed to work hand-in-hand.

The part of this proposed scheme that proves the most radical is the notion that the Teaching Fellow titles, with their financial and non-financial rewards, are open to all faculty members, including term-limited full-time and part-time teachers. As mentioned previously, increasing stratification not only could be a disincentive to quality teaching but also very inequitable. With, as reported earlier, roughly 50 percent of the faculty being part-time teachers, it is important to include them in any scheme to improve teacher performance through higher motivation, more training, and the like, and to make things more equitable by giving excellent part-time teachers the chance to earn significantly more and gain valuable professional recognition.

Part-time teachers can be active, motivated agents and, without their inclusion in this scheme, it is quite possible that they can be neither "knights" nor "knaves," but rather "pawns" that Le Grand (2003, p. 2) says are "demotivated workers and disgruntled beneficiaries."

With inclusion of the part-timers, two significant benefits accrue. First, it is possible that more teachers, and perhaps especially motivated ones, would want to work in such a university, so recruitment of good part-time teachers becomes easier. This is what Lazear (2003) calls the sorting effect. Second, and somewhat related, retention of good part-timers should increase, as the lower-paid, less talented, essentially less valued part-timers (those with less chance of receiving a Teaching Fellow award) might move to other posts, but the better teachers would be incentivized to stay for the various benefits they can potentially receive from the Teaching Fellows program. This is in contrast to the concept of adverse selection mentioned by Lazear (2003), whereby poorly paid part-timers may stay only if they have nowhere better to go, leaving some lower-paying universities with only the least experienced, least talented teachers from the overall labor pool.

Measurement Issues:

Undoubtedly, the most difficult part of this proposal to implement is the measurement of teaching quality. Teachers often object to teacher evaluations, on the basis that teacher performance is difficult to measure, is subjective, is not transparent, and is subject to manipulation for other ends. Perhaps this is why so few universities around the globe actually implement this kind of initiative. Therefore, this proposal recommends a process of triangulation in evaluating teaching quality, with student assessment, peer assessment, and self-assessment.

Student evaluations have become nearly universal in the Japanese university setting. However, these evaluations have been introduced, for the most part, only for

perusal by the respective teacher and as data pieces for the university, with their effect on teaching quality being unfortunately limited (Kawaguchi, 2009). Making student evaluations part of the process of rewarding teaching quality would give more voice to the students' perspective, although the present design and implementation of student evaluations would, in most universities, have to be reconsidered. This would give each university a chance to align its evaluations with institutional goals such as student satisfaction or active learning.

Peer assessment, on the other hand, is seldom used in Japanese universities, so the infrastructure would have to be built before attempting quality peer assessment. Dolton, McIntosh, and Chevalier (2003, p. 26) suggest that peer assessment can be problematic for four reasons: 1) favoritism, 2) bias towards leniency, 3) misallocation of worker effort towards the review process, and 4) overall cost of evaluation and monitoring. However, as Japanese faculty development centers expand, it is likely that they can conduct many of the evaluations, or at least train regular teachers in the proper methods of peer assessment, so that some of the above four concerns might recede.

The third part of the review through triangulation involves self-assessment through portfolio. Teaching portfolios have gained favor in many Japanese universities as a method of recording one's own teaching activity, often for promotion and sometimes for accreditation bodies. Universities usually need to provide training in portfolio techniques, again likely through the faculty development center, but the benefit of self-assessment through portfolio is teacher reflection on their own teaching practices (Biggs, 2003, p. 311-312). However, compilation of a portfolio, not even including the training, requires a significant amount of time, so the portfolio itself should be as brief and clear as possible. Items that can be included in the portfolios are, for example, a short self-evaluation, a response to the student and/or peer evaluations, records of attendance at seminars and conferences on teaching

practices, syllabi, and test results.

Triangulation of the review process provides a better, but still necessarily imperfect, attempt at measuring teaching quality. Belfield and Heywood (2008) mention that there must be procedural justice (the process must be fair and measure accurately) and distributive justice (distributed according to actual output). Triangulation should address these two concerns. Certainly, other measurements, such as test results, often used in compulsory education, would be problematic in the university setting, where standardized tests are often unavailable and students are influenced by very many teachers over the length of their studies. Other commonly used measurements, such as teacher training and years of service, likely have little impact on teaching quality (Glewwe, 2002). However, as Chevalier, Dolton, and Levacic (2005, p. 42) state, "the education process is very reliant on teacher labor as the most important factor of production." Hanushek (2003), in a meta-analysis of data, also affirms that teaching quality is a significant factor in student outcomes. Therefore, it can be said that disregarding evaluation of actual teaching quality due to its inexact measurability has simply become unacceptable, especially now that the infrastructure for evaluation is mostly in place, and advances in research on teaching effectiveness now allow us to identify good practices with more conclusiveness than in the past.

Departmental Award:

While the Teaching Fellow awards are the most conspicuous aspect of the proposed scheme, there also is the departmental award totaling 500,000 yen as another incentive. The individual awards will be attainable for a significant minority, but the departmental award should exist as a reminder of the collegiality and cooperation that are necessary in effecting student learning. Belfield and Heywood (2008), for example, find team-based performance pay schemes to be more appropriate than

individual ones in the education sector. However, as Lazear (2003, p. 188) mentions, there is at least some evidence that individual teacher-centered rather than group-based incentives are more effective, and "there is little evidence that team compensation dominated individual compensation for motivating teachers." Thus, the departmental award remains, albeit much less endowed than the total of the individual rewards, as a method of signaling the importance of collegiality and cooperation at the departmental level.

Improving Efficiency and Equity

It is hoped that this scheme improves the quality of teaching through incentivization, thus providing students with a better learning experience. The university will be able to advertise its goals clearly to the teachers, students, and parents, and the teachers should have enough incentive to improve their teaching. This will function much better than across-the-board pay raises, which are popular with labor unions and are easier for universities to implement, but which rarely achieve increased teaching quality. As mentioned by Chevalier and Dolton (2005, p. 66), "numerous authors advocate the lack of efficiency of across-the-board pay increases," and "raising the pay of existing teachers is inefficient since it is unlikely to radically improve their performance." Furthermore, Hanushek (2003) states that the evidence strongly suggests that not only across-the-board raises but also other added resources are an ineffective way to improve quality. Therefore, merit-based pay is the better option for most future pay raises.

It can be argued that the effect of merit-based pay on tenured professors will be minimal, which is why the scheme should, even must, be extended to term-limited full-time and part-time teachers. Incentivization will most likely work with these teachers, and perhaps more importantly, will have a positive sorting effect, since "raising teacher pay could improve the quality of the stock of teachers" (Chevalier

& Dolton, 2005, p. 65). As discussed previously, better recruitment and retention practices would exist. Moreover, from the students' perspective, a teacher with the title of Teaching Fellow suggests quality teaching, so students could enroll in courses based on this information.

Nonetheless, this proposed scheme is not guaranteed to be a success. Hanushek (2005, 21), one of the strongest proponents of merit-based pay in schools, writes that "the best way to create incentives and to reform the quality of teaching is not well known, and policy will have to include experimentation with different approaches."

Implementation

In this scheme, individual student learning should improve, benefits to society should increase, and further innovation in teaching practices should accrue. Unfortunately, however, measurement of any of this improvement would prove challenging. Furthermore, it must be said that the proposed scheme is not without risk and cost. First, risk exists that a poorly-designed and clumsily implemented scheme could have detrimental effects on things such as collegiality and cooperation, motivation, and teachers' time to comply with the evaluation process (Levacic, 2009; Dixit, 2002). Any such scheme would need to be trusted by the teachers, and be transparent in its operation. Second, actual monetary costs must be calculated into any claims of efficiency. For example, in a typical mid-sized university of approximately 10,000 students, there might be 500 teachers, and of these the scheme might aim to create 50 Teaching Fellows. Based on an average workload of six classes per teacher, the reward pool would be 15 million yen (50 teachers x 6 classes x 50,000 yen per class). In addition there would be the departmental incentive of 500,000 yen, resulting in a total reward pool of 15.5 million yen.

The transaction costs of evaluating and monitoring could be quite burdensome for the university, even though much of the basic infrastructure is already in place. After introducing the scheme, the workload of operating the scheme would revolve around careful evaluating teachers, and communicating this in a transparent manner. For the teachers, peer- and self-evaluations would be additional tasks. It is likely that the workload would be concentrated during a single period once per semester or per year. Implementation would certainly incur costs for both administrating and teaching.

Conclusion

There is a perception that the teaching quality at Japanese universities could be improved, and that this in turn would improve the reputation of Japanese universities. Teaching quality can be improved by designing a suitable incentive system for teachers that provides both financial and non-financial rewards. Although not without controversy, there are systems for evaluating the performance of teachers as part of an incentive system.

This paper proposes a scheme that recognizes the best teachers with the title of Teaching Fellow and endows them with a financial reward for each class taught. This would help universities to retain their best teachers, and motivate all teachers, including part-time ones, to improve their teaching quality.

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