4 From credential society to "learning capital" society

A rearticulation of class formation in Japanese education and society

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Introduction

Japanese society has long been seen, particularly by Western observers (e.g. Cummings 1980) as an egalitarian society, with meritocratic philosophy and practices. Until recently, these images of Japanese society have been shared by most Japanese people as well. In various survey instruments designed to measure social stratification, the majority of people identify themselves as some variation of "middle class" (Naikakufu). Moreover, some studies (Tachibanaki 1998) show that the extent of income inequality through the 1970s and 1980s was much smaller than that found in other industrialized nations, such as the US or the UK. This data has led writers in both academic and popular literatures to define Japan as a "classless society" or "middle-class society" (*ichioku sō chūryū shakai*) (Murakami *et al.* 1978).

These images of egalitarianism and equality have been supported by an understanding of the educational system as a reliable, if demanding, mechanism of meritocratic achievement and social mobility. The phrase, "examination hell" (*juken jigoku*) has epitomized this rigorous competition. It has commonly been assumed that through academic achievment in this educational meritocracy, all students are offered equal life chances, regardless of their social origin or class background. While the social and personal costs of this severe competition are high, Japanese education has been perceived as having an overall positive effect on both the levels of academic achievement of the population as a whole and on the production of a comparably narrow range of social class positions, from top to bottom. Thus, some academics (Asō and Ushiogi 1977) have argued that despite an education system that allocates young people into different socioeconomic positions strictly on the basis of meritocratic achievement, Japanese society also has produced broad patterns of equality, a rather unusual resulting pattern. These representations of the relationship between society and education have captured the subjective experience of many Japanese within the system as well as the mainstream commentary in the popular literature (Asō and Ushiogi 1977, Ushiogi 1980).

However, recently, the Japanese media has begun to report changing perceptions of society. Polarization of income, lifestyles, "hopes," and educational achievement

have been the focus of both media and academic attention. Over the last few years, there have been several bestselling books on social differentiation that document increasing inequality (e.g. Sato 2000, Yamada 2005, Miura 2005). Some of these arguments focus on the emergence of what is called a "class society," with reduced social mobility, more class closure and increased rigidity overall (especially in higher, non-manual positions) from one generation to the next. Others focus on patterns of expanding discrepancy in income, job security, consumption practices, and even educational achievement. Both groups often criticize neo-liberal reforms adopted by the current government as one of the factors that have produced or exacerbated the emerging patterns of inequality.

In this chapter, I focus on the patterns of differentiation in Japanese education in order to articulate and evaluate these claims of an emerging "class society." Education is a particularly privileged site to examine this dyanamic because differentiation in achievement and attainment among children is often influenced by their parents' socioeconomic-cultural status on the one hand, and linked to the students' future life chances on the other hand. Therefore, one advantage of focusing on differentiation within education is that we can isolate and predict future societal changes in connection with social class influences. I begin the chapter by asking a number of related questions. To what degree have patterns of inequality in education expanded? Have the dynamics of meritocracy in Japanese education changed? How much does social class background influence educational achievement and attainment? What societal mechanisms are behind those changes?

I will argue that we are seeing a shift from a previous pattern of Japanese meritocracy. That is, we are seeing a shift from what was once called a "credential society" (*gakureki shakai*) to a new society that I will call a "learning capital society." I will argue that this shift in the articulation of capital from credentials to competencies is contributing to the emergence of a new dyanmic of class cleavage. I focus especially on individuals' learning competencies, which are a combination of skills and attitudes, and include eagerness to learn, learning habits, initiation of active learning and the acquisition of facilitating skills. Then, I will analyze how these learning competencies are becoming central to the formation of a new type of human capital as Japanese society shifts to a more "flexible" labor regime, a knowledge economy in both education and employment, for the twenty-first century. Finally, by showing that these learning competencies are not equally distributed among schoolchildren, I will argue that this emerging regime will also lead to a newly configured class society, in which socioeconomic inequality is increasingly defined by and articulated through the unequal distribution of learning competencies, rather than simply levels of achievement and their documentation in credentials.

Japanese credential society as the pre-history of "learning capitalism"

To understand the recent changes in Japanese egalitarianism and meritocracy, social class and capitalism, it is instructive to begin by looking at how Japanese meritocracy has been transformed in the postwar period. During the 1970s and 1980s, "*gakureki-shakai-ron*" (translated as the discourse of "Japanese credential society") appeared in Japanese academic literature to describe the meritocratic characteristics of Japanese educational attainment and sorting within a particular social structure. More popularly, it became known as a distinctive and perhaps unique "J-mode of credential society."[1] In this regard, it could be said to have captured a "common-sense" acceptance of the relationship between education and society, particularly as it relates to career advancement in employment. *Gakureki-shakai* (hereafter called the "J-mode educational credential society")[2] was a commonly-used term and easily found in newspapers, TV news, books, and policy discussions in business and governmental councils.

This J-mode credential society is composed of two elements: on one side is schooling though which academic achievement and educational attainment are structured, and on the other is employment, where career attainment and advancement is based on the results of this educational sorting. The J-mode credential society is understood as the mechanism that generated the extreme academic pressure referred to as "exam hell," or the severe competition among students to pass entrance examinations for prestigious schools and universities. Because admission to both high schools and universities is organized through standardized entrance exams, students are stratified according to their academic achievement scores. Examinations are mostly objective tests of discrete pieces of information, often with a multiple-choice or short-answer format. In order to enter a competitive university, students are forced to prepare for these exams by cramming for years on end. Thus, competition for entrance to selective schools and universities pits students against one another, putting them under great pressure. According to many journalists, educators and policy makers (Rinji Kyōiku Shingikai 1985), the J-mode credential society is regarded as a primary cause of a variety of social problems within the school, including bullying and school violence, as well as a factor disrupting students' lives outside school, leading to student alienation and even suicide.

Furthermore, the curricular content that constitutes the vast majority of entrance exams is generally acknowledged to have virtually no bearing on any part of students' lives besides the exam-taking itself. Critics contend that the information that is taught in schools, especially that which is part of exam preparation, has little relevance to any future job requirements and virtually no connection to young people's lives outside a very narrow measure of academic achievement. Nevertheless, some degree of mastery of this exam knowledge is essential for the successful preparation for exams, and thus the tests are powerful tools that motivate students to work hard. While the relationship between intellectual ability and exam scores remains quite obscure, these scores are thought to measure the

degree of commitment and sacrifice students are willing to make in order to secure educational credentials and eventual occupational advantage. Put in psychological terms, under the J-mode educational society, students study for the exams out of "extrinsic motivation" rather than any "intrinsic motivation" (Ichikawa 2001).

As educators and policymakers became increasingly aware of the variety of social ills associated with the J-mode educational credential society, it was diagnosed as a "disease," sometimes referred to as "diploma disease" (Dore 1976), despite the fact that educational reforms have long sought ways to abolish or at least diminish the deleterious effects of this J-mode credential regime. While the rhetoric of these reforms has often explicitly focused on the ill effects of this "disease" for many years, empirical evidence linking any negative academic or social effects to the J-mode educational credential society has been lacking. Thus, it has been quite difficult to measure the effectiveness of any particular reforms even if they did get implemented, and by the same token, difficult to systematically generate new reforms with any confidence. In fact, a review of some of these reforms suggests that in many cases, reforms that were designed to ameliorate these various dysfunctions may have often had the opposite effect of reinforcing or even exacerbating social inequality (Kariya 2001).

Under the J-mode credential society, graduates from highly selective universities are offered more chances to work for larger firms or public offices, which provide better economic and social rewards. These graduates are offered not only the chance to be employed by privileged workplaces, but also a better chance of being promoted after they secure employment. They receive positions that usually ensured higher levels of job security, especially under the assumption of "lifelong employment" a practice popular at the time. As a result of this link between education and work, these "winners" in the J-mode credential society, namely graduates from prestigious universities, are highly likely to enjoy much better career chances. These two components of the J-mode credential society are closely linked, mutually reinforcing the credibility of the educational sorting mechanism and its perception of the legitimacy of its results. In this model, it is considered obvious and "natural" that great rewards are given to winners, and so, getting into better schools is very advantageous to secure employment and life status. On the other hand, this perceived relationship makes competition to enter prestigious schools increasingly severe, more selective, and more competitive as the school becomes the final arbiter in determining life course.

However, recently the J-mode credential society regime is undergoing a transformation that appears to be mitigating the severity of the self-perpetuating selection system and reducing competition. There have been many new school policy initiatives attempting to introduce new curricula which emphasize learner-centered ideals of pedagogy. Also, the demographic decline in the number of students completing high school has also reduced pressure on students as they compete for university entrance. We will discuss both of these features in more detail below.

Second, on the employment side, rapid changes have taken place as well. Partly because of the economic recession of the 1990s and partly because of

pressures to cut labor costs, the job market for new graduates and young people dramatically changed during the 1990s and early 2000s. The number of part-time jobs increased, job turnover rates increased, and the lifelong employment system was no longer assumed to function for young workers. Today, a much higher rate of fluidity and instability characterizes the youth labor market, with differing effects on the self-perception and subjective understanding of young people. The number of "freeter" (a neologism from the contraction of the English word "free" and the German word "arbeiter," meaning temporary or part-time employee) and NEET (a term originally used in British social policy, meaning those Not in Education, Employment, or Training) has greatly increased. Statistics indicate that there were about 3 million freeter between the ages of 18 and 35 in the early 2000s. While there is some appeal among young people to finding employment that does not bind them to a very demanding company for the whole of their lives, recently more of the negative features of this sort of employment are also being documented. Because most of these jobs are in the low-level service sector, these young people lack job security and earn substantially lower wages, with greatly reduced opportunity to learn valuable occupational skills while working (Genda 2001, 2005). In this climate of "flexible" labor, fewer companies are willing to invest in training any new labor, especially for those in the part-time sector (Ohki 2003).

At more elite levels of society, images of a new career trajectory have also emerged. Young entrepreneurs such as Mr. Mikitani of Rakuten or Mr. Son of Softbank, both presidents of fast growing IT companies, provide a new corporate image and model of career success for able young people. These young entrepreneurs opted out of large companies or public offices and launched their own businesses, amassing a great fortune from stock options. These new success models contrast with the former success model under the J-mode credential society, in which lifelong employment and status promotions within a large company were central to a successful career. The new model conveys the message, particularly to the younger generation, that they do not have to wait for many years to realize their talents as long as they believe in their own potential and are willing to take a risk in their careers. Clearly, degrees from highly selective universities are still correlated with better job opportunities, particularly at large firms. Nevertheless, even for many graduates of the most prestigious universities, there is increased uncertainty about job security. Large and famous companies like Sony have announced that they will no longer consider university names when making hiring decisions (although it is difficult to evaluate any change in actual practice that announcements such as this one might have generated). With an increased number of students ending up as "freeter" and NEET, if educational achievement cannot be reliably and predictably translated into desirable occupational success, we can say that the assurance of a smooth transition from school to work that was once a defining characteristic of the J-mode credential society has been called into question.

All of the changes detailed above indicate the nature and scope of the transformation of the J-mode credential society. However, it is not clear yet

what direction this shift is taking. To predict the direction, we must focus on the accumulation and formation of human capital because changes in successful career trajectories are supposed to reflect changes in the process of human capital formation (Kariya 2008). I argue that these transformations of the J-mode credential regime show the emergence of a "new class society," where *learning competencies* are the core of the new types of human capital formation. In place of the exam-taking skills which were crucial to success under the J-mode educational credential society, the *ability to learn* has come to occupy the central place in the new class society.

Job competition model and trainability

To understand the importance of learning competencies and the ways that human capital formation are changing, an analytic model of "job competition" is useful. This model is provided by the American economist Lester Thurow (1975).Thurow suggests that a real labor market does not fit the so-called "wage-competition model" used by neo-classical economists, and in particular, by human capital analysts. In the neo-classical argument, workers are regarded as competitors for higher wages. Human capital, which is composed of skills and knowledge used in the workplace, is mostly learned before the workers enter the labor market.[3] Instead of this neo-classical model, Thurow introduces what he calls a "job-competition" model which proposes that workers compete for jobs, not for wages. The job competition model presumes that workers do not have fully valued vocational skills prior to entering the workplace, but instead learn many essential skills through on-the-job training, after being employed. Therefore, employers are more concerned with selecting workers who have the potential to learn skills efficiently. Unlike the wage competition model, in which employers seek workers who already have skills directly applicable to the jobs, the job competition model contends that employers seek workers who have higher "trainability" indicators because the skills needed by the employers will be learned on the job. "Trainability" is a concept that refers to one's competencies or readiness to be trained; workers with higher trainability indicators can learn skills faster and more efficiently than those with lower trainability indicators. Of course, this is important to employers because workers with higher trainability will involve lower training costs, and be more able to learn new skills as the nature of their work changes. As we will discuss later, a clear corollary exists between workers' trainability and learning competence. Thurow also suggests that employers use the job seekers' background characteristics – such as education, gender, and race – to predict their trainability.

The job competition model seems to fit the J-mode credential society well for several reasons. It fits with the Japanese discourse on credential society, in that graduates are hired not because they have learned any relevant skills or accumulated any particularly valuable knowledge by the time they leave schools to enter the workplace. That is, the job competition model does not assume that workers possess useful skills prior to entry into the labor market, but rather that firms will provide important training on the job after hiring the workers. As the

job competition model assumes, the J-mode credential society also envisions a society in which long-term employment is desirable and able to be secured. This allows workers to use the skills learned on the job for a relatively longer period of time in the same firm, thereby offering the firm a better investment in the training of its employees.[4]

If we use the job competition model as our guide, we can see the J-mode credential society model as rationally organized and efficiently functioning during the high-growth postwar period. This would suggest that employers were capable of screening workers utilizing the names of the universities or high schools from which they graduated as an index of trainability. The entrance exams to get into university could then be understood to measure students' trainability (rather than simply achievement), and thus, even if the universities themselves did not teach their students any relevant skills or knowledge, graduating from a particular university would convey useful information to employers as they screened potential employees. Thus, even if Japanese schools and universities do not teach any relevant skills for future careers, the rank and reputation of the schools would still certify students' trainability.

However, under the conditions of the J-mode credential society, it is not clear how important trainability is in the explanation of workers' successful careers because trainability, opportunities to learn skills, and career paths all overlap in life-long employment and advancement processes. The ports of entry into jobs are determined by employers' decisions based on indexes of trainability, usually indicated by the rank of universities or high schools from which applicants graduated. In the J-mode credential society, career paths and opportunities to learn skills usually develop at the same time in ways that prevent us from being able to analytically separate them. Of course, both are strongly influenced by early career stages (Takeuchi 1995); the early career stages are affected by the ports of entry into jobs, which again are allocated based upon the schools and universities attended and graduated from. Afterward, the first positions assigned to the workers tend to link in a predictable way to future career trajectories.

Trainability is a form of learning competence, which is a combination of eagerness to learn skills and acquire knowledge, good learning habits, being able to initiate active learning, and having the ability to learn how to learn, so to speak. But trainability is strongly and deeply embedded in career structure in this J-mode credential regime. Even if workers do not explicitly know how to obtain training and improve their skills themselves, their career paths necessarily lead them to opportunities and structures of training. Thus, trainability is a latent factor in explaining career successes, but its influences are very difficult to isolate and its effects very difficult to measure. Moreover, one might say that in the J-mode credential regime, individual high learning competencies are not necessarily regarded as so important partly because trajectories and opportunities of both training and promotion are strongly correlated and therefore it is difficult to distinguish relative influence or causality, and partly because for both, subsequent opportunities for training to enhance learning competences and promotion are greatly influenced by the entry jobs.

The narrow definition of "trainability" is one aspect of the larger and more generalized concept of "learning competencies." In order to better understand the transformations that are going on in today's market, we need to focus on this wider "learning competence." Like human capital theories, Thurow's job competition model also implicitly assumes that valued skills and knowledge are structured and provided by employers in a form that can be easily and regularly accessed by workers, and which employers can call upon to provide and structure training. But this is no longer the case in Japan. Particularly, as life-long employment disappears, firms are no longer providing long-term training for entry-level workers, and thus we cannot assume that firms will be able to develop these competencies in their workers. Instead, today it is the responsibility of the workers to accumulate these skills and knowledge and thus develop these competencies on their own.

In the contemporary Japanese context, not only can the company no longer be assumed to be the source of training but the very nature of competencies must be reevaluated. A much broader and more flexible concept of learning competencies becomes necessary in today's flexible and fluid labor markets. What is called for is a much more general and self-reflective notion of learning competencies that will include the ability to learn, adapt and improve by recognizing and exploiting disparate resources (including those not provided by the company at all). "Learning" in this new context requires competencies that go beyond the ability to be trained for a particular job or position. In the "knowledge economy,"or "high skills society" (Brown *et al.* 2001), skills and knowledge required for a job change so rapidly that workers cannot acquire them fully within the context of their job experience. Without high learning competencies, which enable workers to find and develop suitable and appropriate skills wherever, however and whenever they are required, workers will be unable to exploit the full range of learning situations to their own advantage and, eventually, will miss the chance for career advancement.

Finally, it is no longer the employers who make the effort to train employees; indeed, it is not considered the employer's responsibility to do so. Instead, it is now the workers who are required to shoulder the risks and responsibility for developing and improving their own skills. These changes are transforming the representations and practical formation of human capital in the Japanese labor market today. More flexible ways of human capital formation have become more important than ever before. Workers must have not only the knowledge and skills to be trained, but also the learning competencies to know how to learn in innovative and self-directed ways in order to fully participate in, and contribute to, this rapidly changing knowledge-based economy. Successful workers must move from being "trainable" to being more generally competent if they are to be of value to their employers, as well as if they are to thrive or even survive in this new fluid market as their career trajectory takes them from one employer to another. Thus, transformation of the J-mode credential society emphasizes, beyond trainability, the significance of learning competencies, which are a combination of eagerness to learn, good learning habits, initiating active learning, and learning how to learn. Today, all of these tasks must be understood as the worker's own responsibility.

Educational reforms and learning competencies

As social and economic needs shift, new skills and new competencies are necessary, not only in Japan, but also in all industrialized societies. Brown *et al.* (2001) contend that in a "high skills society," the new set of skills involve greater emphasis on problem-solving, cooperation, collaboration, and the like. They insist that under a new and more flexible paradigm of employment, skills required for professional and managerial jobs shift from "Fordist" to "Post-Fordist" skill sets. In Japan, too, borrowing the idea of "knowledge worker" from Drucker, one Japanese management consultant characterizes the importance of new styles of learning as follows:

> Knowledge workers are individuals with more autonomous resources, who properly fit within the new knowledge economy. Regardless of age, these workers make attempts to solve problems in changing environments through continuously developing new potentials and exploiting new knowledge.
>
> (Yamazaki 2000)

These discursive shifts, emphasizing the importance of learning, have very different implications from those in the former J-mode credential society regime. Under the credential regime, achievement in school was measured by the individual's ability to take in large amounts of intrinsically irrelevant knowledge for the sake of entrance examinations. On-the-job training under long-term employment was the primary mode of skill transmission but was often seen as lacking flexibility. Knowledge and skills learned on the job were limited in scope and thus ended up being obsolete quite quickly. Advocates of learning competency insist that the J-mode credential society must adapt to the knowledge economies of the twenty-first century. This pattern has been echoed in the educational literature as well. In education discussion as early as the 1980s, two lines of argument emerged: one was to reform educational practices at the level of classroom pedagogy in an effort to push Japan out of its exam-oriented education mode. The other was to proceed towards a "life-long learning society."

In the late 1980s, the *Rinji Kyouiku Shinjikai*, the Prime Minister's Ad-hoc Council for Education Reform, was set up by Yasuhiro Nakasone, and began a series of reports that were very critical of the J-mode credential society regime. According to the council, Japan had finally caught up with Western industrialized societies, and therefore the education system should shift its emphasis from just cramming in knowledge to more creative and independent learning practices. "Creativity" (*sōzōsei)* and "individuality" (*kosei*) were the keywords in the reforms.[5] The Council also proposed that *gakureki-shakai* (the credential society) should shift to a "life-long learning society" (*shōgai gakushū shakai*) in which people are given more chances to develop their own potential throughout their lives, in school and beyond. Unlike in the J-mode credential society, where learning is organized around the passing of university entrance exams during adolescence, the proposed new style of learning would continue throughout one's life. The

Council insisted that second and third chances to learn after schooling should be given to all, and that the new school curriculum must be organized around a longer perspective. Thus, creativity, individuality, and expanding opportunities for lifelong learning were seen as the means to develop young people's and the nation's full potential. These factors were all thought to be necessary for Japan to survive in the twenty-first century under a knowledge-based economy.[6]

Since then, many reform plans have been proposed and some parts of them implemented. So-called "room for growing" educational reforms (*yutori no kyōiku*) have been implemented in the following ways: to transform the cramming in of knowledge into learner-centered education; to reduce onerous demands on children; and to establish multiple criteria to measure students' achievement. All of these emphasize the importance of learning competencies. Below is a brief summary of these reform ideals, how they were manifest in policy rhetoric, and an outline of the actual effects.

Since the early 1990s, a new perception of academic achievement/ability (*atarashii gakuryoku kan*) has been introduced. This new pedagogical philosophy emphasizes the importance of students' self-learning competencies for critical discovery and problem-solving instead of teacher-centered education, in which learning is manifest usually as rote memorization of information and facts.[7] While difficult to actually pin down in any specific programmatic statements, the key words surrounding educational discourses of this period shift from a focus on the content of teaching to the styles of learning, and particularly to self-learning (*mizukara manabu*). "Life studies" (*seikatsuka*), a new subject that combines social studies and sciences, was introduced in the revised national curriculum in 1989 for first and second graders in elementary schools. Life studies is designed to integrate a set of skills and concepts that fosters children's intellectual growth by calling upon their own experiences, thereby motivating them to find and develop their own interests. In the same line of thought, integrated learning across subjects (*sōgōteki na gakushū no jikan*) has been introduced for all students from third to twelfth graders. This new subject area asks teachers to design a curriculum particularly suitable to the students at each different school. It is thus suggested, even demanded, of teachers not to teach in the former teacher-centered style of pedagogy but rather to support and stimulate students in ways that encourage students to learn for themselves. One of the famous slogans from this period is "shidō yori shien wo" ("from guidance to support"), indicating a new student-teacher orientation as well as a new pedagogical goal and style to reach that goal. Thus, not only do these reforms demand new types of curriculum and pedagogy, but also new forms of social relations between teachers and students, all designed to promote students' active exploration of self-learning through the school curriculum.

Secondly, to remove pressure from students – especially in test-oriented education – the contents of national curricula have been reduced by about 30 percent, with classes no longer being held on Saturdays. "Return children to communities and families" is the phrase capturing the ideal, and it is also supposed to give more "room for growing" to all children. Unfortunately, when the reforms

were implemented, many local communities lacked sufficient funding to provide any educational replacement programs on Saturdays, and less wealthy families did not have enough resources to provide meaningful activities for their children.

Third, multiple criteria to measure students' achievement have been introduced both for daily teachers' evaluation and entrance examinations. Thus, students are no longer evaluated simply on their exam scores, but instead, admission procedures also include letters of recommendation, student essays, and some systematic review of other non-academic skills or strengths in order to have a fuller picture of each student's ability, potential and achievement. In daily teachers' evaluations, students' interests, motivations, and attitudes are regarded as integral parts of academic achievement and reported in school transcripts and report cards (*tsūshinbo*). Some high schools and universities now place more emphasis on student achievements reported in school transcripts and accept students on the basis of recommendation by their high schools instead of only through the regular entrance examination procedure.

Thus, in contrast to the J-mode credential society, this new set of educational reforms is designed to serve as the foundation for the development of a lifelong-learning society that can provide all people with the opportunity to continue learning after leaving school by developing their own individual potential through "self-learning," "learning how to learn," "learning by doing," and "learning through the community." Expanding learning opportunities was and still is expected to increase chances to learn, chances beyond the period of university entrance exams, thereby providing second and third chances to develop oneself, as well as to reduce pressures at the point of entrance exams.

But reformers tended to ignore the fact that the discursive shift and set of policy initiatives through which this new lifelong learning society was generated could also create a strong social norm, a set of expectations that would compel everyone through a particular learning route throughout their lives, whether or not they desired it, whether or not they had the material support, whether or not they had the outside opportunities to take advantage of this route. In other words, one can never stop learning; in order to enrich his/her life economically, socially, and culturally, but also to maintain one's status as being productively employed and secure occupational status, he/she has to continue learning and improving, adapting and exploiting new opportunities. Thus, reformers put into place a set of expectations that could easily develop into a norm requiring everyone to learn forever in the lifelong learning society.

Demographic decline and market shifts

In addition to these reforms, demographic changes have also reduced entrance examination pressures. The numbers of 18 year-olds have declined significantly since the 1990s, decreasing from more than 2 million in 1992 to 1,260,000 in 2008. Thus, independently of any educational reforms introduced, college admissions have become much less selective. As a result, except for highly ranked universities and top rank high schools and private junior high schools,

the most severe competition for admission has disappeared. Nearly half of new students entering post-secondary and higher education institutions now do not take competitive entrance examinations (MEXT 2008).

Changes in the labor market also have hastened the transformation of the J-mode credential society. Due to the increasing number of part-time and temporary jobs, particularly for young people, the labor markets have become divided more clearly and severely than before, into a primary or core labor market, and a secondary or peripheral labor market. This "dual labor market" has also weakened the J-mode credential society by placing more importance on learning competence. The numbers of jobs which require high skills are limited and difficult to secure, while there is an increasing number of temporary and part-time jobs that require low skills offering only limited opportunities to develop learning competencies. Once workers, particularly young ones, are allocated into the secondary labor market, few can improve their learning capacities or upgrade their skills sufficiently to allow them to move up into jobs within the the primary labor market. These shifts have a number of different effects.

Opportunities to learn skills are no longer provided automatically by the workplace. The coordinated trajectories among learning opportunities, career success and the formation of human capital, once characteristic of the J-mode credential society with lifetime employment, have now become disaggregated within the new economy. The skills, knowledge and technology required by employers that must be mastered by employees is changing faster than even personnel and management can often keep up with. Accordingly, what employees learn becomes out of date much more quickly. Individuals are required to renew skills and update knowledge, and to obtain new skills and develop new familiarity simply to keep the jobs that they have, let alone transfer to better ones. Finally, employers are no longer willing to wait for a return on their investment in employee training; they need to see demonstrable outputs in a much compressed time frame. They want to see more results more quickly and thus, demand that workers learn skills quickly and work more efficiently. Employees have to adapt themselves to the changes in this very fluid market more rapidly or face relegation to an even less secure secondary market.

Diminishing job security and long-term employment means that workers must pay their own training costs, costs which had been paid at least in substantial part by the employer in the earlier, more stable markets. Responsibility for human capital accumulation has shifted to the workers themselves. Self-development (*jiko-kaihatsu*) and self-education (*jiko-keihatsu*) are today commonly used words that capture this shift of responsibility to the individuals for their own working lives. This new and more dynamic definition of learning competencies over and against the anachronistic "on-the-job-training" (*shanai kyōiku*) of the J-mode credential society becomes all the more important in such a fluid and insecure labor market that is especially precarious for young people.

The rise of learning capital society

As discussed above, the labor market bifurcation has developed into more distinctive tracks in recent years. The initial ports of entry into jobs determine not only workers' economic rewards but also future opportunities to learn skills and to improve learning competencies. In the primary labor market, job security is higher, opportunities to learn skills are greater, and there are more chances to improve learning competencies as well. In contrast, in the secondary labor market, usually the "dead-end jobs" of part-time or temporary work, opportunities and resources to learn skills are limited and scarce. The divide between these two labor markets explains why it is so difficult for workers to transfer from secondary to primary labor markets. Different opportunities to learn skills are a key factor here.

By nature, any sort of learning is an incremental process, and this includes self-learning. Learning competencies are developed and expanded through learning itself. The more one learns, the more one's learning competencies improve, and the more one is able to learn. With higher learning competencies, one can recognize learning resources and opportunities more proficiently and exploit them more efficiently. Given the same availability of learning resources, those with higher learning competencies will be able to utilize the resources more efficiently, and thus learn more than others. On the other hand, in a context where there are fewer available learning resources and fewer learning opportunities, or where learning competencies are of uneven or compromised quality, a vicious circle develops. In such a case, even if individuals have good initial learning competencies, their competencies diminish over time if they are not continuously exposed to and engaged in active learning opportunities. As a result, human capital not only fails to develop, but can spiral downward and end up being "devalued" or even obsolete in this quickly-changing market if and when a job is secured. We would expect that the greater the segmentation of the dual labor markets becomes, the more divergence in the distribution and development of individual human capital between those two markets. If this premise is correct, differences in learning opportunities not only produce differences in acquired vocational skills, but also create gaps in learning competencies. This results in individual differences in learning efficiency as well as in the social structural characteristics associated with the dual labor markets.

Furthermore, if learning competencies acquired through school education become used as a screening device to allocate different people into the primary or secondary labor markets, it will be increasingly difficult to move from the secondary into the primary markets. If this happens, the way learning competencies are distributed in relation to individuals' socioeconomic and cultural background will become an important question because the differentiation of learning competencies that occurs in the early stages of life will be crucial to the shape of one's occupational trajectory and life chances.

In sum, through different learning processes and contexts, human capital is formed differently. With better opportunities and resources, and higher learning competencies, learning creates more learning, and thus more human capital.

And the opposite is equally true: for those who are in disadvantaged learning situations, their diminished competencies will continue to compromise any future chances. Once learning competencies become a key factor in the formation of human capital, opportunities to improve learning competencies become crucial in determining life chances. With higher learning competencies, individuals' investment in their own human capital becomes more efficient. Thus, insofar as learning competencies are the core of human capital development, we can call it a form of "learning capital." High learning competencies, as in other forms of capital, continually increase in value, and can be transformed into other forms of capital, such as human capital, cultural capital (through a richer learning environment in the family, for example), social capital (through the development of a wider and more effective social network) and financial capital (through expanded occupational opportunities). Here we also find a mechanism, embedded in the transformation processes of the J-mode-credential society, of how learning capital divides people into two separate worlds: haves and have-nots. Therefore, as in other capitalist societies, a learning capital society is one where the unequal distribution of capital leads to social inequality, and its reproduction over time. This is the dynamic we will examine in the next section.

Social class differences in learning competencies

This line of discussion raises a question: what is the effect of the shift from the J-mode credential society to a lifelong learning society on different segments of society? Has this transformation of capital facilitated or even promoted the development of a society in line with egalitarian ideals? As learning competencies are becoming more important for everyone's ability to survive in society as a whole, the opportunity to develop adaptive and marketable learning competencies at younger ages becomes all the more crucial for each individual's life chances. This raises a second and related question linked in important ways to education: are learning competencies distributed equally regardless of individuals' socioeconomic and cultural background? We have seen that educational reforms are ostensibly aimed at establishing and developing learning competencies necessary for individuals' market survival and the development of the market as a whole. If chances to learn these skills in employment are harder to acquire in any systematic way for some segments of the population, then our schools must take responsibility for developing learning competencies at early stages in young people's development. But if schooling fails to do this, and instead *expands* the unequal distribution of learning competencies, ideals of lifelong learning represent a betrayal to its egalitarian ideal – one primary ideal that educational reformers set for themselves. The final section of this chapter examines the effect of these educational reforms and their implications under today's quickly changing labor market and wider society.

It has been argued that schooling is vital in the development of learning competencies and crucial for future learning and future life chances. If learning competencies are unequally distributed at an earlier stage of life, differentiation in

the processes of incremental accumulation of human capital may be irreversible. If some children are exposed to fewer or lower quality learning chances, the effect of this differential exposure will retard initial development, and have lifelong effects. If lifelong competencies are linked in this way to early exposure, it cannot be convincingly argued that subsequent failures to develop such competencies by an adult is attributable to individual irresponsibility. Rather, in this case, the development of competencies would have to be considered the effects of systemic unequal exposure to learning situations in childhood. That is, systemic effects institutionalized through the very school system educational reforms have targeted as the primary site to develop learning competence in every child.

Are different social classes of young people being systematically exposed to different learning situations in ways that demonstrate a clear difference in the ways they develop learning capacities? This is an important question because of the way that the school channels young people into the dual market. But more enduringly, it is important because it points to an issue that educational reformers have often ignored in their attempts to make schooling more adaptive to shifting conditions in the labor market and society: the school's role in the development of social class inequality. It seems that the educational reforms assumed that if every child had his/her own interests in learning and every school and teacher could develop individual students' interests appropriately, no such class differentiations would appear. If every child were acting in her or her own best interest, and if all schools and teachers were able to promote and support students properly, a truly meritocratic system would emerge, one where the full range of distributive talent, ability and drive would be rewarded regardless of the differences in socioeconomic or cultural background of students.

In reality, not all schools and teachers are able to provide learning opportunities and resources sufficient for all students to develop in this way. When the schools fail to realize this goal, it is the most vulnerable students who are most adversely affected. Especially students from disadvantaged families, those who have the least support from their parents and home environments, are more likely to fall behind in developing learning competence as well as basic skills. Since methods to nurture these new competencies are not yet well developed in actual classrooms, even well-intentioned practices may actually hurt these students. From both students' and parents' points of view, it is not easy to find concrete ways to develop these competencies when the school fails them. In sum, although the ideals of education reforms seem clear, real classroom pedagogy designed to allow students to acquire those goals is still not fully developed and is unevenly practiced. Eventually, students with the least support from their families may be more likely to miss out on important opportunities to develop these learning competencies, and thus never develop the mechanism of lifelong human capital formation.

Survey instrument

It is not easy to measure individuals' learning competencies, in part due to the fact that it is best considered an ability to adapt to a number of different stimuli that develops over time, rather than a set of discrete degrees of achievement, such as could be measured in entrance exams. Nonetheless, we can observe the development of these competencies indirectly by examining individuals' learning attitudes. On the behavioral level, learning competencies can be indicated by students' learning attitudes. We attempted to develop an instrument that would allow us to measure these attitudes as reliable indicators of leaning competencies. In our survey, we conducted two basic tests of Japanese language and mathematics. The survey was conducted in 16 public elementary schools and 11 public junior high schools in Japan in 2001. In total, 921 fifth grade students and 1,281 eighth grade students were surveyed.[8]

We ran a factor analysis with variables of students' learning attitudes. Factor analysis allows us to construct an underlying unobservable factor (which we call "learning competency") from the observed variables. Students were asked to indicate among the following variables which ones accurately characterize their own in-class behavior.

"I always take notes in class."
"I often raise my hand and give my opinions in class."
"When I don't understand, I ask my teacher."
"When I make a mistake in exams, I always correct it afterward."
"I actively engage in research in class."
"I am often a leader in group-work activities."

The variables above are designed to measure students' degree of active participation and their perception of themselves as taking responsibility for their own learning. These were judged to be central to the main construction of "learning competencies," that is, of being able to "learn how to learn." Because "learning competence" includes the ability to recognize and exploit learning situations, we tried to specify those paradigmatic situations relevant to the students' immediate situations that would offer them this sort of chance, and then to measure self-perceptions of performance in those situations. It should be noted that the last two questions were designed to measure students' attitude toward the set of recent educational reforms that focused on "New Perceptions of Academic Achievement/Ability" (MEXT 1993). We assumed that the higher a student's score, the more positive his/her learning attitudes were, and therefore, the higher his/her learning competence would be. Based on the results of these tests, we organized the respondents into three groups: a Higher LC ("learning competence") Group, a Middle LC Group, and a Lower LC Group, each of which was composed of one-third of the students sampled.

In order to use this sample to address the issue of students' social class position, we examined the data to determine correlation between levels of LC and

family background. Because we have no data on parental occupation, education or income, in order to test the influence of family background on LC, we ran a factor analysis with variables from the students' family cultural variables. These variables presented a gradient from "culturally rich" to "culturally poor" based on indicators from students' home life, such as if their family regularly "watches news on TV," "owns a computer at home," "takes trips to museums," "read books to me when I was young," and "baked sweets at home." Using the frequency of each of these activities, a one-dimensional statistical measurement was created by factor analysis, and students were grouped into the following three categories: High Cultural Group (HCG), Middle Cultural Group (MCG), and Low Cultural Group (LCG), each of which consists of almost one-third of the sampled students. In this analysis, we used these variables as indicators of social class background, reflecting students' socioeconomic position.

To see the relationship between students' learning competencies and the standard measures of academic achievement, we compared the mathematics and Japanese language mean test scores. Figure 4.1 (for fifth grade students) and Figure 4.2 (for eighth grade students) both show that the higher the LS, the higher the achievement test scores. Correlatively, the lower LC group students show the lowest test scores; the high LC group students have the highest scores. Thus, we can conclude that learning competencies are positively related to students' conventional academic achievement. The same result is confirmed by regression analyses with test scores of eighth graders as dependent variables (Table 4.1). Even after controlling for gender, the grades students received on report cards in elementary school, and cram school attendance, students' learning competencies have a significant positive effect on test scores.

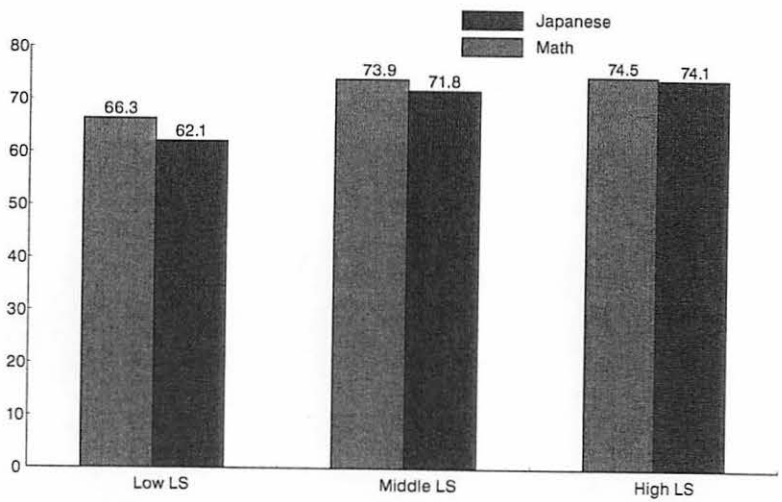

Figure 4.1 The mean of test scores of students with different learning competencies (5th grade)

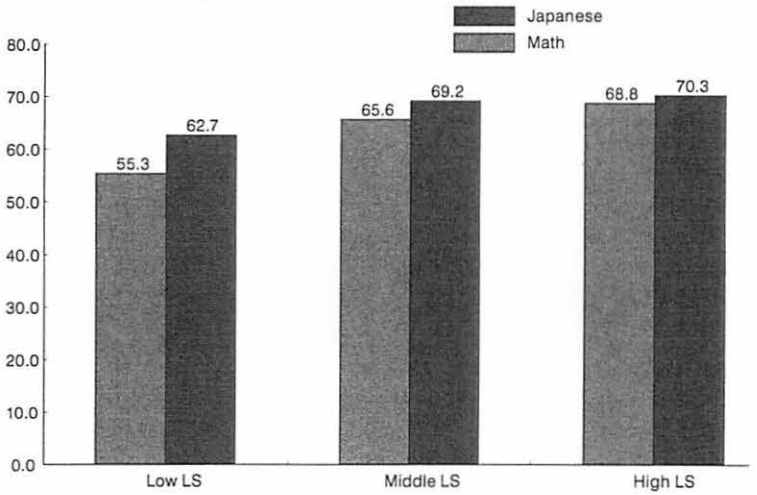

Figure 4.2 The mean of test scores of students with different learning competencies (8th grade)

Table 4.1 Regression analyses for test score (8th grades)

	Mathematics			*Japanese*		
	B	*Beta*	*Sig.*	*B*	*Beta*	*Sig.*
Constant	39.797		0.000	50.931		0.000
Male dummy	–3.425	–0.070	0.008	–9.008	–0.239	0.000
JUKU attendance	17.194	0.353	0.000	7.694	0.204	0.000
Grades in elementary school	4.792	0.235	0.000	4.913	0.311	0.000
Learning competencies	4.184	0.173	0.000	1.961	0.105	0.000

How are learning competencies distributed? Figures 4.3 and 4.4 show the results of cross-classifying students' learning competence groups and their family background as measured in LC groupings. As the figures indicate, it is obvious that those students from families with higher cultural status are more likely to have higher learning competencies. This is true for both fifth and eighth grade students.

Next, we ran a regression analysis for learning competence scores with family background, cram school attendance, and gender as independent variables. As shown in Tables 4.2 and 4.3, both for fifth grade students and eighth grade students, the two dummy variables of family cultural background have significant effects. Those from lower cultural background groups tend to have lower LC scores. On

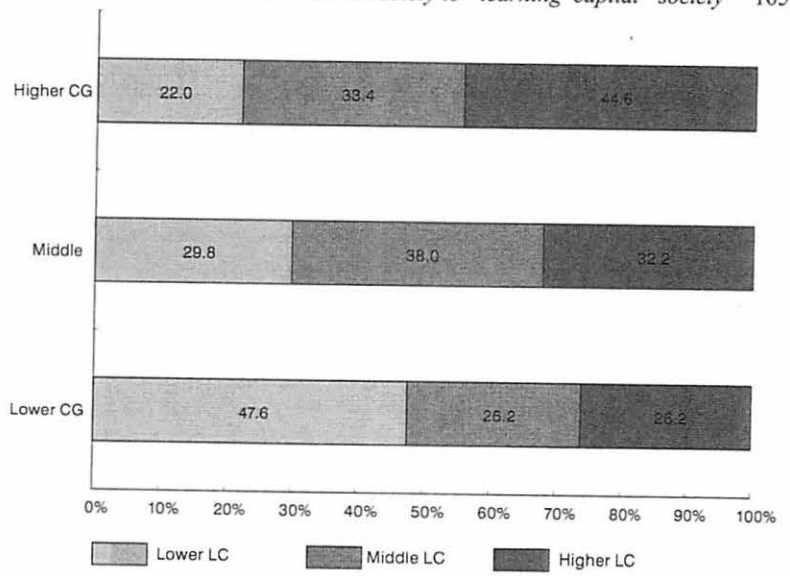

Figure 4.3 Cross tabulation table: family background by students' learning competencies (5th Grade)

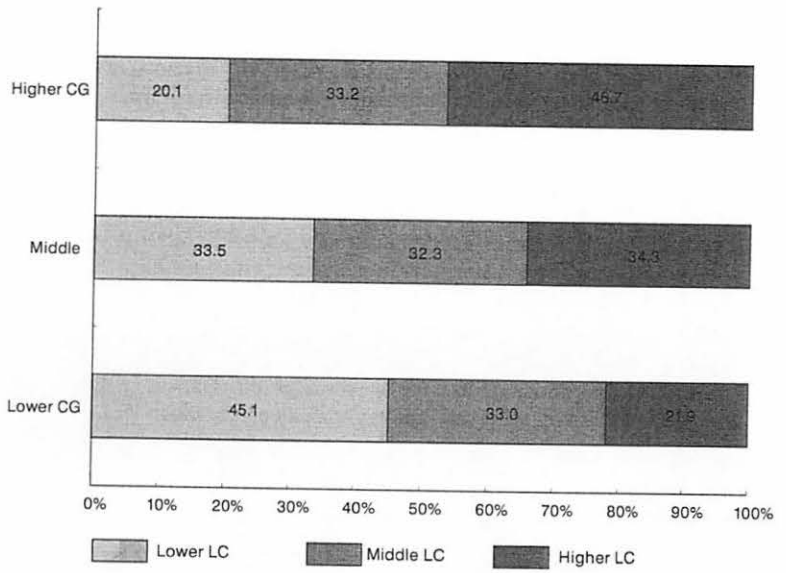

Figure 4.4 Cross tabulation table: family background by students' learning competencies (8th grade)

Table 4.2 Regression analysis predicting learning competencies (5th grade)

	B	*Beta*	*Sig.*
Constant	–0.059		0.374
Male dummy	0.051	0.026	0.451
JUKU attendance	0.076	0.035	0.298
Cultural–low	–0.287	–0.136	0.000
Cultural–high	0.362	0.166	0.000

Table 4.3 Regression analysis predicting learning competencies (8th grade)

	B	*Beta*	*Sig.*
Constant	–0.172		0.005
Male dummy	0.264	0.132	0.000
JUKU attendance	0.070	0.035	0.219
Cultural–low	–0.294	–0.136	0.000
Cultural–high	0.333	0.155	0.000

the other hand, the higher the cultural background of the students, the higher the LC scores, after controlling for other independent variables. In other words, learning competencies are distributed unequally among students from different family backgrounds, even after controlling other variables.

The findings indicate a number of disturbing patterns: first, learning competencies are distributed unequally; second, this unequal distribution is strongly influenced by students' family background. In fact, as early as fifth grade (11 years old) these patterns are already manifest. We can speculate that differences in cultural capital and social capital embedded in family background contribute to the gaps in learning competence. Therefore, if schools fail to develop the learning competencies of these disadvantaged students, then those who have the least support from families eventually face the most severe challenges in developing those competencies later in life.

Expanding inequality in education

The analyses so far indicate that learning competencies are distributed unequally among students from different social backgrounds. In this sense, education reforms in Japan do not seem to have been successful. Thus, it is difficult to see any positive effect in terms of learning competencies, which was, after all, what the educational reforms were supposed to bring about. For all of the policy rhetoric of "individuality" and "creativity," of taking greater initiative for one's learning, etc., it would be impossible from this data to identify any positive educational effect. In fact, it appears that social class background is actually reproduced in relatively regular and efficient ways in both learning attitudes and academic achievement. Not only is there little evidence to suggest that these sets of educational reforms improved anything at all, in fact, there are some

indications that they have actually made the situation worse, at least for some segments of the population.

Over the duration of these reforms, there is evidence of expanding inequality in students' academic achievement, in a traditional sense. Due to a lack of comparable data sets from the past, it is not easy to test whether students' social class backgrounds are having a stronger influence on patterns of academic achievements now than they did before. We do not have appropriate data to chart any correlation between students' social class background and their academic achievement over time. However, the survey mentioned above includes the same 16 public elementary schools in which a similar study was conducted in 1989. Both surveys included comparable data on mathematics and Japanese achievement. Also, although the survey in 1989 did not include exactly the same questions about students' family cultural backgrounds, both surveys did have exactly the same questions about students' daily habits, and a series of questions was asked on both surveys about students' daily habits and relations with family members. These focused on a domain one might call "self-discipline." Questions included:

"Do you have breakfast and brush your teeth every morning?"
"Do you use conventional greeting ('tadaima') to your parents when you arrive home?"
"Do you arrange your school satchel the night before?"
"Do you have a fixed bedtime?"

Based on the responses to these questions, we categorized fifth grade students into three groups: Upper Scored Group, Middle Scored Group, and Lower Scored Group. We then correlated these groupings with the test scores for mathematics and Japanese. The distributions of the test scores correlated with the "self-discipline" grouping are shown in Figures 4.5 and 4.6. Both mathematics and Japanese test scores are perceptibly more polarized in 2001 than in 1989. In other words, differences in "cultural capital" seem to be growing. Moreover, these differences appear to have had a greater effect on school achievements in 2001 than in 1986, before the education reforms began. If we consider the "self-discipline" score an indirect indicator of students' social class background, class inequality in traditional academic achievement shown by test scores seems to be expanding under the educational reforms.

Conclusions

We have found that learning competencies are unequally distributed among students, and that social class represented by family cultural background is strongly related to this pattern of inequality. Note that variables here include elements of new academic competencies (and not simply measures of academic achievement), features that were emphasized by the new set of educational reforms, and cast doubt on the efficacy and even suitability of these reforms. Of course, there are limits to the range of claims we can make from this data: we do not know whether

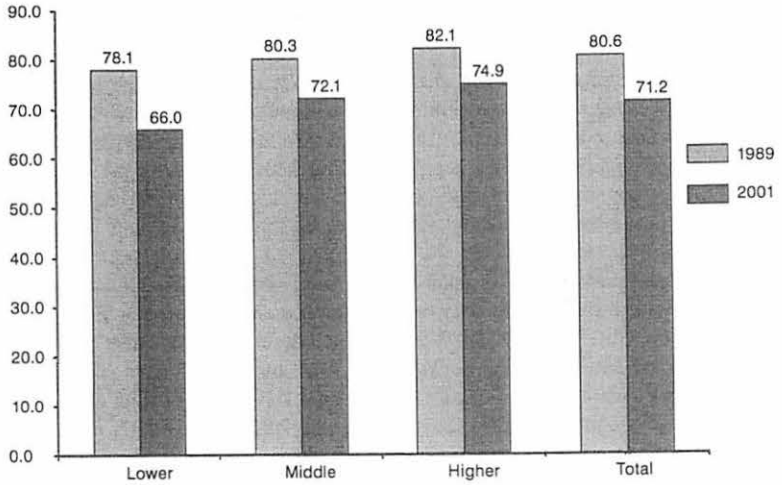

Figure 4.5 Mathematics test scores by students' daily habits (5th Grade)

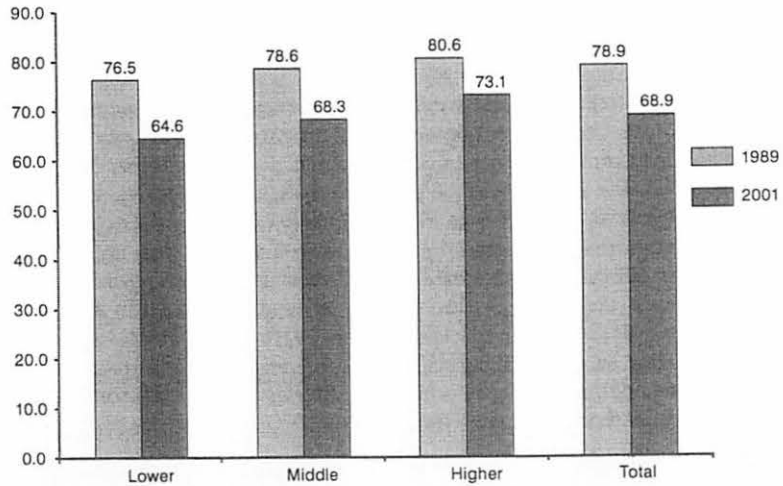

Figure 4.6 Japanese language test scores by students' daily habits (5th Grade)

patterns of emerging inequality are actually created by the educational reforms in question or if they are more general effects of the transformation of the J-mode credential society into today's lifelong learning society. That is, it is not easy to identify the relevant effects of each of our variables. Nevertheless, from these findings we can evaluate the attempt by educational reformers to establish an effective and measurable regime of lifelong learning. We can evaluate the effect of reform on the development of more flexible learning competencies that are both responsive to the new knowledge economy and more able to develop the innate potential of each individual student across the spectrum of social class. The evaluation is negative.

Under the J-mode credential society regime, the goals for success in education were very clear and the rules were very obvious: achieving higher scores in examinations was a clear target and unambiguous goal for everyone, in large part because it was understood as a path to educational, occupational and social success. This widespread agreement among students, teachers and parents supported the assumption that linked educational aspirations and the meritocratic pursuit of socioeconomic success, regardless of social origins. As we saw in the last section, the discrepancies in traditional academic achievement among students with different "self-discipline" scores were smaller before the reforms began. This distressing trend can be attributed to a number of features, as outlined above, and have a number of different possible implications.

Under the new constructions of academic achievement, students are evaluated by teachers on their attitudes, behaviors, interests and learning competencies. Thus, the methods of evaluation have changed from an objective, one-dimensional gradient of test scores to being largely based on teachers' subjective evaluations of a whole range of subtle factors that are very difficult to quantify. Moreover, consensus on the best way to set and attain academic goals also have become less clear because the measurement of students' competencies is more subjective and involves multivariate criteria. While these new forms of evaluation might be more detailed, even more thorough, they also are less likely to point in a single direction, and less likely to generate any unambiguous expectations or desirable practices at either home or school to realize these expectations.

Just as importantly, the collective understanding of how the school is oriented to external goals for success is similarly becoming less clear. Success in school is no longer a guarantee of success in career or life. As a result, the incentives for working hard are less clearly defined. Especially for those at the bottom of the school hierarchy, the high probability of relegation to the secondary tier of the dual labor market could very well signal the futility of hard work to many. Once young people begin to question the possibilities of transferring from the secondary to the primary labor market, it may be difficult for them to maintain high aspirations and motivation to work. Thus, just as an "incentive-divide" (Kariya 2001, Kariya and Rosenbaum 2003) appears to be taking place in the labor market, we would expect to see it also trickle down into secondary schooling.

Of course, the deterioration of a discernible J-mode credential society did not eradicate everything that came before. Learning competencies must have been important even under the former credential society, as discussed above. And in fact, we would expect that learning competencies would have been unequally distributed under that regime, too. But in the previous regime, which stressed the concrete result of academic achievement, from a personal perspective it was

thought that through effort and hard work one could overcome a compromised family cultural background. From a more systemic perspective, higher levels of academic achievement were one of the established mechanisms for social mobility over and above the reproduction of family-based inequality. In fact, previous empirical research indicates that there were achievement gaps among students from different socioeconomic family backgrounds even in the era of the credential society (Kariya 1995).Although the gaps were relatively stable until the end of the 1980s, they began expanding during the 1990s and the early 2000s (Kariya and Shimizu 2004). In other words, until the 1990s, the differential among different social classes as measured in conventional academic achievement levels was smaller than it is today.

The shift from the credential society toward a "high skill society" has ushered in new labor requirements and types of human capital. These changes have resulted in shifts into a more clearly visible dual labor market that today divides people not only according to their performances, but maybe even more significantly, according to their general ability, and their ability to continue to learn in this new market structure. What we have called "learning competencies" have thus emerged as a new form of capital, which like other forms of capital, are not equally distributed. The situation appears to be getting worse, and it is not clear that the most recent spate of educational reforms are improving the situation[9]. We do not have any data showing changes in students' learning competence differentiation during the 1990s and into the 2000s, but based on other data that indicate patterns of increasing class-based differentiation of academic achievement measured by conventional tests, we can speculate that the distribution of learning competence is also falling out according to class lines and exacerbating these patterns.[10] If this is the case, we can expect to see other societal and economic changes accompanying the transformation of the J-mode credential society to generate increasingly severe conditions for those students who are from home and school situations that limit their exposure to learning opportunities, and thus their development of adaptive, efficient and successful learning competencies. As the formation of human capital has become less structured through employment, opportunities to improve learning competencies in the workplace have become more limited and less clearly defined. Therefore, differentiation of learning competencies at the early stages of schooling places disadvantaged children in more severe positions than similarly placed students in the J-mode credential society regime. This differentiation seems to be exacerbated, rather than ameliorated, by the present state of schooling, which is characterized by the introduction of a series of educational reforms with very little positive impact.

It is a bitter irony, of course, that neither educational reformers nor advocates of "knowledge workers" intended these reforms to increase patterns of inequality in learning competencies. Rather, they tried to remove "useless" learning that was generated by what they saw as excessive emphasis on the preparation for exams. They attempted to introduce more "authentic learning," both in education and employment, under the banner of "lifelong learning." It was supposed that every student or worker would have his/her own interests, motivation and ability to learn

to develop into a more fully-realized learning competence. It is possible that if there existed truly open and universal accessibility to potential learning opportunities, this intention might have proved correct. But in practice, the unrealistic idealism, one that ignored the pre-existing differential distribution of these all-important learning opportunities, has worked in exactly the opposite way. In fact, "learning competencies," understood as a product of the shift in market structure and human capital formation characteristic of this new "knowledge economy," are proving to be just as strongly correlated to class divisions, and may very well prove to be even more so over time, than the older notion of academic achievement and occupational training.

Where has the J-mode credential society gone? Our answer is found in today's "Learning Capital" society. As discussed above, learning competencies are the core engine that structures and runs the accumulation and distribution of this new form of human capital. Given better learning competencies, individuals are able to utilize learning resources and opportunities more efficiently and more meaningfully (and even more enjoyably). Employers look for those with higher learning competencies and give them better learning opportunities. Of course, inequality in learning competence expands through different patterns of exposure in the workplace, but it begins in the school.

Is this a new type of class society? So far as learning competence is unequally distributed among children from different social class families, this is certainly not any more of an egalitarian society than what preceded it. Thus, we can call this class society a new form of human capitalist society, namely, a "Learning Capital Society," where social and class inequality is manifest between those with high learning competence and those without. As reformers intended, the J-mode credential society has indeed been radically transformed, and in some ways, eradicated altogether. But the lifelong learning society that has replaced it has brought upon us a potentially more divisive, even polarizing "Learning Capital Society," an outcome that few reformers would have foreseen.

Notes

1 Ishida (1993) summarizes discourses which characterize such distinctive nature of Japanese educational credentialism.
2 The term "J-mode" was used by Kaneko (2007) in a different context, in which he characterized relationships between higher education and occupation in terms of knowledge formation.
3 Human capital theories do not deny that new skills are learned after hiring, but the initial hiring decisions are still mainly based on academic achievement, a measurement of human capital that is constituted by the skills and knowledge obtained through schooling.
4 Some sociologists of education in Japan have borrowed Thurow's idea to propose a "Company Competition model," which resembles Thurow's original idea. The difference is that in this adaptation, competition is for a place at a particular firm rather than for a particular job (see Kobayashi 1985).
5 "Creativity" (*sōzōsei*) is used often in phrases such as "Japanese people lack creativity due to their cramming style of learning in school," or "Because we lack creativity,

Japan has a smaller number of Nobel Prize winners." "Individuality" (*kosei*) is another key word in education, with the usual suggestion that it is something that Japanese lack compared with Westerners. However, the contents of these two terms are not well-defined and the methodologies designed to nurture them are not well articulated in the educational policy reform rhetoric.

6 See the arguments made by Honda (2005).

7 Of course, not all learning and teaching were rote memorization of knowledge and facts even in the 1980s (see Lee, Graham, Stevenson 1996).

8 For details of the survey, see Kariya and Shimizu (2004).

9 In 2008, the Ministry of Education released a new national curriculum. The Central Council of Education, which generated the revision, admitted that the education reforms in the 1990s and 2000s are not working well and decided to increase the contents of curricula and class hours. Additional resources were necessary, but the government has not yet approved budget increases sufficient to implement these revisions.

10 Results of PISA indicate that influences of socioeconomic background on students' PISA-type learning competence, which is supposed to be the type needed in the twenty-first century knowledge economy, are moderately expanding (OECD 2007).

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