The Education of Transferable Skills at Japanese Universities

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Abstract

Colleges and universities in Japan are responding to the shift of educational goals due to the diffusion of new learning methods such as active learning and deep learning. The positive use of active learning and deep learning is a common goal for schools and colleges in our country. This movement generated a new task for our college education: the mastery of transferable skills. It is one of the central components of general attributes for our college students to learn during their university lives. Transferable skills are the essential components of practical intelligence, which will be applied to future life situations. The aim of learning transferable skills is to nurture a person of independent mind and cooperative intelligence. Colleges of education are expected to play an important role not only in the provision of liberal arts education to their students but also in the development of special teacher education programs for their students to learn the methods of active learning and deep learning. Those students are the future teachers who will disseminate the methods of active learning and deep learning to their students. We should carefully watch the development of this reform movement at our schools and colleges.

Keywords

Active learning, deep learning, transferable skills, teacher education, independent mind, cooperative intelligence

Introduction

Colleges and universities in Japan faced a radical change of educational policy during the early 1990s. Especially college education and university research went through a drastic change during this decade. The Deregulation of University Establishment Standards, which started in 1991, set the basic orientation of the present reform. Also, the enactment of the National University Corporation Law in 2004 accelerated this trend. In the 1990s, the teaching methods and learning techniques widely practiced in the American colleges were introduced into Japanese college education. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) reported that the introduction of these methods and techniques improved our college teaching practices and upgraded the quality of our students' learning activities.

In the meantime, Japanese universities had to respond to the market principle introduced by the MEXT to win competition-based financial support for excellent research. This policy accelerated the development of useful university research activities and university researchers suddenly noticed the merits of evidence-based scientific research. In this sense, our university reform was basically initiated, supported, and accelerated by the government. Also, the government started to introduce a new policy of functional grouping of our national universities based on the two standards of "research and service." This policy will be another stimulus for transforming the function and hierarchical structure of colleges and universities in Japan.

The service ideal is rapidly changing the mission of our university teaching and research. In the process of changing from loosely structured communities to tightly controlled organizations, Japanese universities are facing the challenge of incorporating the new ideal of "serviceability" into their own missions. This service ideal also influences the direction of our college education. Our colleges and universities should produce "useful" human resources for the 21st century society. In this context, the new goal of our undergraduate education will be discussed with reference to the learning of transferable skills, one of the main goals for our college education proposed by the MEXT.

1. The new goal of college education in Japan: The mastery of transferable skills

In 2008, the Central Council of Education announced a new goal for our college education. It is called the education of "Bachelor's competencies," or "graduate attributes." They are the common learning outcomes of undergraduate education and those competencies or attributes consist of four skills. Those four skills are "knowledge, generic skills or transferable skills, interpersonal and social skills, and comprehensive learning and thinking ability." These skills are essential for all our college graduates to live in the 21st century knowledge-based society. The focus of this proposal is the mastery of generic skills or transferable skills. They include such skills as "communication skills, numerical skills, information literacy, logical thinking, and problem-solving skills."

The focus of our undergraduate education after World War II has been the nurturing

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of the "breadth" of knowledge. Now, the focus has moved to the mastery of useful and practical skills. Generic skills or transferable skills are considered to be practical and useful skills in the 21st century. The mastery of these skills for college graduates is a widely shared goal by British universities.

Liberal arts education in Europe started as the education of seven liberal arts in the Middle Ages. Liberal education in the modern age stressed the importance of the cultivation of intellect or mind for the educated person. However, the idea of intellect or mind was gradually transformed after the infiltration of natural sciences into college curricula. American universities in the 20th century experienced the influence of the scientific method upon the social sciences and the humanities. Gradually, the concept of "practical intelligence," which appreciates the value of practical and useful knowledge, influenced the goals and contents of the college education. Up against this tide of higher education in the United States, the College of the University of Chicago introduced the "Great Books" curriculum and the education for "speculative intellect" in the 1930s (Butts, 1939). This program adopted the study of classics as the core of their curriculum.

After World War II, Japanese college education adopted the idea of "general education" proposed by Harvard University (Harvard University, 1945). The basic goal of general education was to cultivate the free person living in a new democratic society through the learning of "intelligence in action." Intelligence in action is an intellectual and practical tool not only to cope with pressing problematic situations but also to be applied to future life situations. At the beginning of the 21st century, Japanese colleges and universities confronted the unfinished task of the 20th century college education: the cultivation of practical intelligence, which is presently called the learning of generic skills or transferable skills.

2. Active learning for the education of independent mind

In accordance with the rising need for learning the generic skills or transferable skills at our colleges, new types of learning methods are also proposed: active learning and deep learning. While the first phase of our university education reform during the 1990s can be called the time for innovation in "teaching," the second phase of that in the 21st century can be called the time for innovation in "learning." It is also called the time for introducing innovative learning methods, because the active and participatory learning methods are required to upgrade the qualities of the learning activities of our college students.

According to the survey conducted by the MEXT, almost 70 percent of our college

teaching is conducted in lecture style and only 30 percent is delivered in an active type of teaching such as seminar, experiment, fieldwork, internship, etc. Another survey conducted by the MEXT informs us that those students who are good at problem-solving tend to score high on tests and examinations and those positively engaged in active learning find independent and cooperative learning more congenial. The OECD's Programme for International Student Assessment (PISA) test evaluates student academic performance in both basic knowledge and the application of knowledge to life situations. In order to cope with this PISA test, our schools started to concentrate on the teaching of creative problem-solving knowledge.

The diffusion of active learning at our colleges also aims to promote the dissemination of problem-solving skills and transferable skills. Problem-solving skills are required for the solution of a pressing current problem and for tackling future life situations. We need more experience in the teaching of problem-solving skills and the assessment of the mastery of transferable skills at our colleges and universities. New types of performance assessment to evaluate the mastery and validity of transferable skills are still at the development stage. The introduction of active learning in college education will transform the curricular contents and evaluation system in the near future.

3. The mastery of the structure of knowledge through deep learning

Deep learning, an advanced form of active learning, is also considered to be another method for the mastery of transferable skills. It aims to advance student's learning abilities such as the deep understanding of concepts, the bridging of concepts with experience, the discovery of the structure and pattern of knowledge, the promotion of critical thinking, and the deeper interest in knowledge. Deep learning consists of the mixture of two orientations: one is a deep commitment to the object of learning and the other is the widening of the horizon of knowledge.

The problem-solving learning adopted by Japanese schools after World War II was criticized as a vulgar form of activism—a busy but empty learning activity. Deep learning should avoid the trap of the misguided idea that to be active is a guarantee of learning deeply. Active mind or intelligence grows *because* the student thinks and learns deeply. In that sense, we try to examine the untested possibility of experiential learning and cooperative learning of the 20th century: the nurturing of independent and cooperative mind. Deep learning in the 21st century, which aims to promote the advancement of independent mind and cooperative intelligence, will be a common method shared by primary, secondary, and higher education in our country.

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For the time being, the mastery of transferable skills through deep learning will be a vital tool for the activation of our college education. Deep learning should be useful and effective for all the students. We need the evidence that every student can learn deeply. Every student can engage in some type of deep learning: some are intelligent enough to learn the sophisticated method of research and inquiry, others are good at learning the methods of problem-solving, and still others are committed to productive projects. The diffusion of deep learning is harder than that of active learning. We should carefully examine the relationship between active learning and deep learning and its implications for the mastery of transferable skills.

In addition, we should refer to the role and meaning of the dominant type of teaching at Japanese colleges: lecture. Lecture is an unpopular learning method for the present educational reform in our country. In contrast to the emphasis upon student's active learning and deep learning, the role of lecture is rarely discussed. Lecture is considered to be one-way and passive, and teaching is of secondary importance compared with learning. We should notice that the deep understanding and interpretation of the structure of knowledge can be achieved through the education by lecture. An excellent lecture has its own unique structure and irreplaceable quality. It will be a stepping board for self-reflection and the beginning of deeper thinking. Can a MOOC or flipped classroom be an alternative tool for an excellent lecture? The proposal of active learning and deep learning will be a good opportunity for rethinking the meaning of lecture in the 21st century.

4. The role of transferable skills in teacher education

The education of transferable skills in our country will be utilized for another purpose: education in response to the diverse needs of our students. Ortega Y Gasset, the Spanish philosopher, indicated that the university in the 20th century would be an institution accessible to the average man (Ortega Y Gasset, 1944). This is true for Japanese universities. Our colleges and universities need to develop new academic programs responding to the diverse interests and needs of our youth. The education of transferable skills is considered to be an effective means to this end. Our universities are required to maintain the tradition of liberal education to cultivate a new generation of independent citizens. The mastery of transferable skills will play a significant role in achieving this goal. Transferable skills must be integrated with the tradition of liberal education. In that sense, the learning of transferable skills should play a pivotal role in nurturing the art of problem-solving and inquiry and the love of wisdom.

In our present higher education reform, the colleges of education play a central role in promoting the diffusion of active learning and deep learning. They should be a model school to impart the teaching and mastery of transferable skills to their students and to upgrade the quality of their own teacher education programs. Some colleges of education are successful in introducing the new learning systems such as problem-based learning, the flipped classroom, cooperative learning, etc. They are ready to develop unique teacher education programs for nurturing the future teachers who will be experts of teaching through active learning and deep learning. They are missionaries to spread the method of active learning and deep learning. Colleges of education should become experimental centers of active and deep learning, so that they can disseminate the results of their educational experiments to the primary and secondary schools. We need to watch carefully the future development of active learning and deep learning at our colleges of education.

Conclusion

The idea of *in loco parentis* is firmly embedded in the tradition of Japanese college education. This culture of "caring" is pervasive throughout various practices of our college education and, thanks to this culture of protection, those students who succeed in graduating from their colleges within six years were almost 88 percent in 2014. Needless to say, we should be careful not to produce a loosely controlled system of college education, where over-protection is dominant and the mastery of transferable skills to cope with real-life situations is insufficient. The introduction of active learning and deep learning into our college education and the learning of transferable skills should produce a new balance between the search for academic excellence and the care for students.

The reconstruction of university education is one of the vital concerns of our country. Our colleges and universities, where more than 50% of our 18-year olds enroll, should exemplify the three missions of higher education: education, research, and service. In such citadels of higher learning, some students attend the classes of liberal education for the nurturing of free and independent minds, others engage in the cutting-edge research activities, and still others seek advanced professional training.

Our duty is continuously to reconstruct our higher education system in order to implement the ideals of original research, education, and service in the rising tide of tighter control and lessening discretion. Can the teaching and learning of transferable skills be a new means to promote this goal? Now is the time for us to examine the role of transferable skills as an essential tool for the reconstruction of 21st century higher

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