

A Study of Curriculum Development

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Abstract

In section [I], curricular elements that have emerged in response to changing societal needs are examined referring to the history of the curriculum development in the United States. In section [II], expectations and demands that may lead to curriculum changes in the future in Japanese universities are identified and the factors when curriculum is evaluated are discussed.

Key Words: curriculum development

和文要旨

カリキュラムは、定義はもとより、その内容は、時代の要求・様々な教育論の誕生によって変化してきた。小論では、その歴史的推移と将来のカリキュラムの展望を考察した。[I]では、アメリカの教育史をたどりながら、時代の流れと共にカリキュラムはどのように変化していったのか、そして、その過程で生まれたカリキュラム論が現在、日本の教育にどのように影響を与えているのかを考察した。[II]では、日本の大学に焦点を当て、カリキュラム改定は、今後どのような方向に進むべきか、そしてその評価は何を基準になされるべきかを検討・議論した。

カリキュラム展望への一考察

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[I] Perspective in Evolution of Modern Curriculum

Fundamentally, curriculum should be structured by the purpose of schooling: what we want students to learn, or, putting it another way, what kinds of subjects we want students to learn. When we look on the educational history in the United State, we find that the subjects taught in school have changed or broadened according to changing societal needs.

The history of curriculum development in the United States

Before the modern age, the curriculum was centered largely on the basics of reading, writing and arithmetic. Mechanical instruction was used because teachers had to teach children in large classes. At that time, it was a more important task for educators to provide education to as many children as possible, especially the poor, rather than focusing on what or how they educate them. Furthermore, they had some substantial problems of poor equipments or lack of materials for teaching. Having gone through these difficult times, the curriculum has developed remarkably in accordance with the modern way of life and the way of thinking of the times.

After the year of the Declaration of Independence, the new technological age had begun. New tools and machines were invented. Increasingly, new education was demanded to apply science to the development of new tools and machines. Educational reform based on Realism was made in England first and then in the United States. As a result, new subjects in response to the demand for a more practical education were introduced into the curriculum. Benjamin Franklin (1706-1790) played an important role in the movement. He believed in secular and practical education and stressed the need for practical education experiences. He devoted special attention to social studies, which included modern history, geography, social history, and political science. After that, more subjects, which related to the real life, were introduced into the curriculum.

At the beginning of the 18th century, the new world view called environmentalism, which held that “people were what they were for natural and discoverable reasons” (D. Tanner & L. Tanner: 1995:14), was born and began to deeply affect educational policy. John Lock (1632-1704) played an important role in this movement and introduced the new educational theories based on environmentalism. He believed that the individual learned through perceptions of the world provided by sense and that children learned through playing. From this time on, the ideas of environmentalism and learning from experience and observation

emerged into the curriculum, and the learner's point of view was taken into great account in curriculum development. This is an important stage for curriculum because not only what to teach but also the learner's point of view came to be considered. Environmentalism and learning from experience and observation became the main basis of modernizing the curriculum.

After the Civil War, the idea of evolution influenced American Education. The philosophy of idealism was one of the responses to the theory of evolution. The basic idea was that the real nature of the universe was spiritual, not material. It led educators to think that it's important to respect the child's self and personality and necessary to provide the best conditions according to the child's development. They stressed the growth and development of human experience and focused on the children's development, a philosophy that influenced world of education at that time. It became important in educational programs to develop the children themselves and to pay special attention to their personalities. It was the beginning the "child-study" deeply emerged into the curriculum.

The educational method in the U.S. in the 19th century was moving to the object lesson approach of Johann Pestalozzi (1746-1829), which means experience is the sense learned by object learning and so object learning is necessary. He took the naturalist view that the aim of education is to let children free and form them at the same time, which attracted teachers at that time. This idea expanded and developed the curriculum in very important ways such as developing the teaching method. In the latter part of the 19th century, J.F. Herbert (1776-1841), who put an emphasis on instruction as a process, introduced a new method, five formal steps of teaching and learning. This influenced the beginning to the 20th Century. Another model for lesson design in the 1980s and early 1990s was the Hunter model which was similar to Herbert's and developed by Madeline Hunter. Their ideas and books influenced the school curriculum in the ways such as changing the subject of arithmetic or adopting the news paper article as teaching materials.

The turning point came when John Dewey (1859-1952) and Herbert Spencer (1820-1903) introduced their educational ideas. Spencer regarded education as the preparation for fulfilling human lives and insisted that the worth of an educational program lies in determining the importance of our lives in order. He put importance of science and science came to be introduced into all curriculums. Another important idea was Dewey's idea that schools cooperate with the community. He put importance on developing the children's experiences through their activities. The most influential thing, which Dewey did on the curriculum, is that he developed the psychological concept into a curriculum principle; the child's impulses are enormously important educational resources, and opportunities should

be given to children to develop through engagement in activities. It should be noted that the psychological concept of learner emerged into the curriculum and experience became the starting point of the curriculum.

In the early 1920s, Thorndike's finding on transfer had enormous effect on education: it encouraged a mechanistic approach to curriculum making and included modern and practical studies in the curriculum.

In the 1950s and 1960s, the emphasis during this period was on improving learning efficiency. Curriculum was focused on the development of effective learning made generalizable for transfer. The structure of the curriculum became a key. Bruner put importance on ways of learning within individual disciplines such as physics and mathematics. He insisted that these would transfer to other kinds of problems faced by the student. Dewey, on the other hand, was referring to interdisciplinary learning and applied knowledge for social problem solving as a task for which the school must prepare the rising generation. He held that knowledge must be made generalizable for transfer. To Dewey, the most important attitude is the desire to go on learning, which led to the idea of life-long-learning. His ideas on education greatly influenced on the principal method for curriculum construction thereafter.

In the second decade of the twentieth century, Franklin Bobbitt played an important role in the way of using the scientific management into the curriculum. Bobbitt's theme was that education must follow the example of industry and focus on the product. Bobbitt's theory was that "the curriculum that prepared the learner for these specific activities was the curriculum that prepared the learner for life"(D. Tanner & L. Tanner: 1995:75). His idea was very important because he introduced scientism in curriculum making. More importance was placed on student achievement in the curriculum making and the curriculum came to be considered from an input-output measures viewpoint.

The lasting influence of major theorists in Japan

As we have seen so far, curriculum in the United States was developed in accordance with both changing our way of life and way of thinking. A lot of studies and researches not only on curriculum itself but also on the content, method, or definition, have been introduced until now. In other words, technical development and new theories on learning or teaching methods made better curricular accomplishment. In the 20th century, increasing specialization of knowledge, curriculum theories was focused on the gathering of knowledge about children's development. Now in the beginning of the 21st century, as our technology has developed so rapidly and society becomes complicated, the curriculum also

becomes more specialized and complicated. But it is also true that we can see evidence of the lasting influence of major theorists from the past in the current curriculum. Next, I'd like to examine the lasting influence of major theorists who we have seen influenced education in Japan.

When we see the curriculum from elementary to university in Japan, we can find the lasting influence of major American theorists.

At the university level, universities that are in the midst of reformation, adopt the idea of transfer of learning of Thorndike and his successor Bobbitt who insisted that education should be turned to the need of business. The universities include much practical education into the curriculum, such as computer technology or linguistic subject for obtaining license such as TOEIC or TOEFL. Not a few universities adopt the internship program providing real working experience in companies to students or study abroad for linguistic study. It can be said that these programs originated from the Parker's idea.

At the junior high and high school levels, we have been adopting the 6-3-3-system in public school since the World War II. In 2000, a new public 6-6-system was adopted in some schools because the Educational Ministry regarded it important to make a coherent curriculum for middle-grade children. This seems to have been influenced by theorist such as Bruner, who developed the idea of transfer and held the necessity of a coherent curriculum, and others such as Ward, Burner and Dewey, who emphasized in their theories that individual development was a continuous process.

At the elementary school level, the Educational Ministry has pronounced that its educational policy was devised to foster the children's intellectual ability instead of just delivering knowledge. It would be sure that the policy was influenced by Dewey's idea: Dewey developed the idea of Ward, and insisted, "intellectual ability is the outcome of opportunity, not of native capacity. The curriculum should link the individual with the environment—real world—and not depend on either memory or empty tradition" (D. Tanner & L. Tanner: 1995:100). Also, the current idea of multiculturalism or democratic education came from Dewey's ideas which learning together develops individual ability and interests, and foster sociality at the same time. Another example is that almost all elementary schools have field trip programs in their curriculum, which stemmed from Parker's Quincy System.

As in the teaching method, we also see the lasting influence. Drills, which were from Lancaster's mechanical view, are still popular in many schools in the case of teaching arithmetic, English spelling or how to write Kanji. Also, many teachers from the elementary to university levels use lesson plans, which Herbert started as five steps of teaching and learning.

Thus it is apparent that many theories still alive in the current curriculum in even Japan though discussion or studies on the past educational theories are still continuing.

[II] Evaluating Curriculum Improvement

In this section, I'd like to discuss about the important factors when we evaluate curriculum improvement in the future referring to the case of Japanese university. First, expectations and demand that may lead to curriculum changes in the future in Japanese university are examined and what is the most important thing in evaluating curriculum improvement is discussed.

Expectations and demand that may lead to curriculum changes in the future in Japanese university

In response to considerable changes in the Japanese society and economy, Japanese university needs to strive for implementing curriculum change with broader view. When thinking of the future curriculum in Japanese universities, it is important to identify expectations and demands of the future society. The demands and expectations that many lead to curriculum change in the future would be as follows:

Note: in order to respond to the expectations or demands, what should be strengthened in education is shown in < >.

1. Demand for improving the fundamental ability of the students: there is a serious problem of the decline in scholastic ability of students who can't keep up with university level education.< *Basic knowledge/ability*>
2. Expanding demand for education coping with the high technological age: Training programs for promising talents in the field of information technology is inevitable. < *A wide knowledge*>
3. Student expectation that vocational education will enable them to get a good job after graduation: Training program for future job is necessary.< *Vocational skill*>
4. Demand to promote life-long learning: More adult citizens of a wide age range will be admitted. The Japanese Government initiated the strategy to enhance the life long learning function in higher educational institutions in 1997 to response to the aging society with declining birth rate.< *Enrichment for the students*>
5. Expectation to promote internship programs in which students work professionally in their major-related area for future career purpose: Cooperative training between

university and industry is expected.< *Vocational skill*>

6. Promotion of student exchange: Under the 100,00 Foreign students Plan, Japan has comprehensively taken various measures since 1983. The Conference on Student Exchange Policy, consisting of knowledgeable people from different areas, is discussing the student exchange policy to be taken hereafter based on the recent situation of accepting foreign student.< *A wide knowledge*>

The most important thing in evaluating curriculum improvement

As in the above, there are several urgent demands — social and socio-political demand, or expectations — societal expectation and student expectation, which may lead to curriculum change. In response to these, appropriate curriculum changes should be made. At this point, it is important to see whether the change was developed aggregately or not. This is because, even if the curriculum is revised many times, the ideal education never can be realized if it lacks important factors such as raising knowledge and ability level.

In order to raise knowledge/ability level, training the teaching staff is very important. The program of in-service teacher education, which provides the needed expertise and improves teaching methods, should be planned. At the same time, student-evaluating system should be adopted in order to improve teaching methods, and faculty development should be developed to respond to the diverse needs of learning.

In addition to good instruction, good student's motivation is a necessary factor in accomplishing the curriculum change. If essential constituents (good teaching/good student motivation) are lacking, the educational ideal cannot be realized by compensating for the deficient element by providing them with good facilities or good equipment. Student motivation is also an important factor, which influences achievement.

In Japan, according to a survey of the Ministry of Education the ratio of students who go on to college and university was 46.2% in 1996. But there are serious problems of students who lack motivation to learn at the college or university level. They go to college or university not because they want to study, but rather because everybody does, or because they want to get a good job. In those case, the knowledge/ability level is lower again. If we don't have academic-oriented students, the ideal education can never be realized. Curriculum development should be estimated totally from the knowledge and ability levels.

The most important thing in evaluating curriculum improvement is how much effort to bestow on keeping up the knowledge/ability levels with responding to shifting socio-political demands. Therefore, along with the curricular development, it is important for a

university to improve and maintain the level of university education and research standard. To achieve this, improvement of teaching methods and plans for enriching the quality of education and raising student motivation are essential.

Especially in education, rich input doesn't always produce rich outcome. Large investments do not always produce a large profit. D. Tanner and L. Tanner are right when they say "Efforts to improve the curriculum and educational conditions must be matched by corresponding efforts to improve the knowledge/ability levels of administrators, teachers, and parents" (D. Tanner & L. Tanner: 1995: 583). Until the balance between the socio-political demands and the instruction that draws out the potential ability of the student comes in concert, the educational ideal will never be realized.

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