

Dental Education in Japan

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The Japanese Education Curriculum requires that Japanese children enter elementary school at age 6. The elementary school curriculum is six years long, after which elementary school graduates enter a three-year junior high or middle school. Upon completion of junior high school, Japanese schoolchildren enter a three-year senior high school. This three-step progression composes the so-called 6-3-3 system of general education in Japan. The Liberal Arts College or University curriculum is four-years long while Medical or Dental School is six.

History of the Dental Education System in Japan

Japan's first dental school, the predecessor to the first Japanese dental college (also the predecessor to Tokyo Dental College), was founded in 1890. In 1929, with the foundation of the Tokyo Medical and Dental School (also the predecessor to Tokyo Medical and Dental University), the total prewar number of schools teaching dentistry reached nine. During this period, labelled Dental/Medical Schools, these schools offered a four-year program which included instruction in various liberal arts courses as well as specialized dental ones (Figure 1).

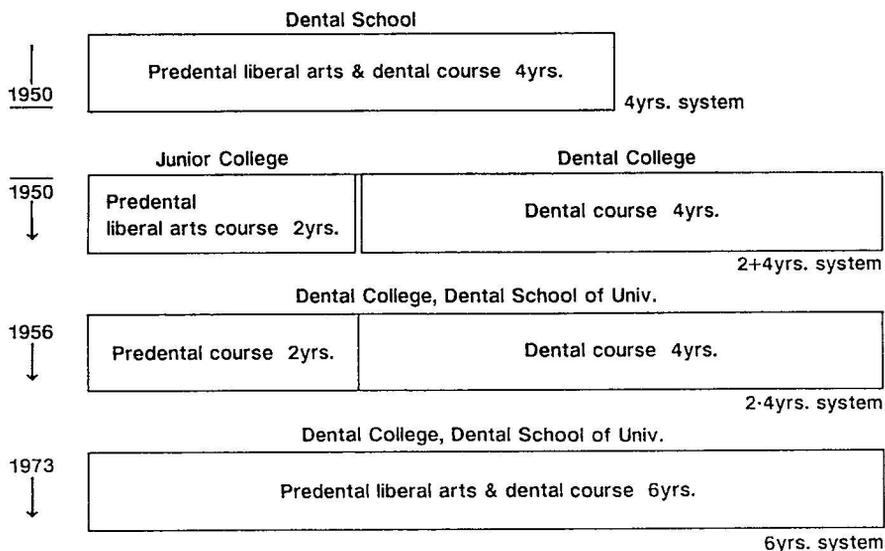


Figure 1: History of Educational System of Dentistry in Japan

After World War II in 1945, the Japanese Education System was completely revised according to American guidelines. Following the 6-3-3 secondary education system, completion of a two-year liberal arts junior college program followed by a four-year specialized dental school became the standard dental education system in Japan. The liberal arts education system of this time was identical to America's. That is, this system no longer guaranteed automatic progression into the specialized dental curriculum upon a student's initial entrance into the previous six-year program as before. Instead, it stipulated that entrance to dental school could only occur upon completion of the two-year liberal arts junior college, after which the student would again formally take an entrance exam to enter the dental program. This became the so-called 2+4 dental education system (Figure 1).

Moreover, between 1946—49 the so-called Dental School came to be known as Dental College.

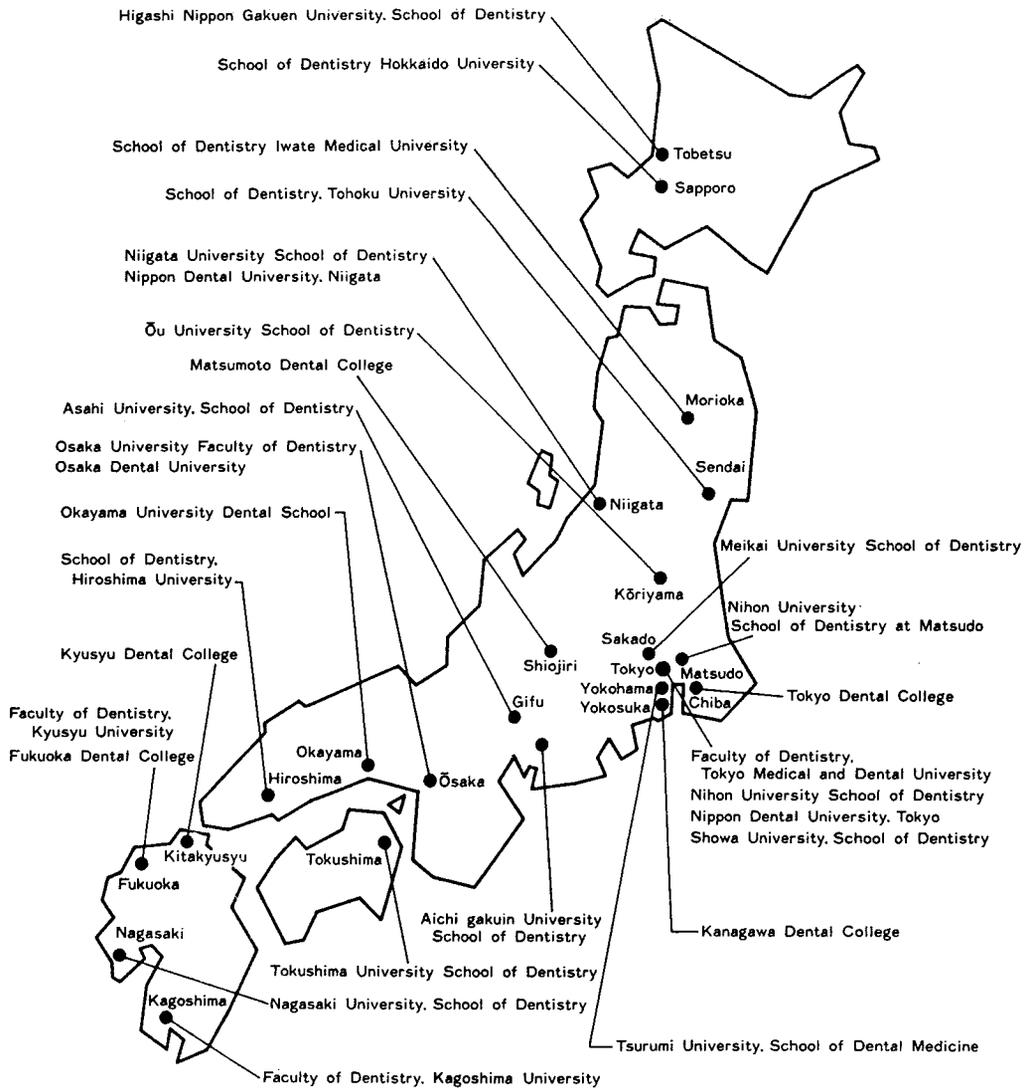


Figure 2: Location of Dental School in Japan

Subsequently, as domestic demand for medical care increased, dentists became highly concentrated in urban areas, leaving many rural areas with no dental care whatsoever. In order to eliminate this problem, dental colleges were restructured into the present situation (Figure 2).

This revised system, however, caused an increase in the number of students who could not enter the dental program upon completion of the liberal arts curriculum. Because of this, private schools began to face financial difficulties. As a result, in 1954 the law regarding the dental education system was amended. Students who intended to enter medical or dental schools were separated from general liberal arts curriculum students. In addition, both a premedical and pre-dental course were established. All students who completed these courses automatically continued on to the specialized dental and medical courses. This is the present 2-4 dental education system (Figure 1).

The drawback to this system was, however, that even though students entered a dental college for the sole purpose of becoming dentists, for the first two years they were taught subjects which had no relation to dentistry by teachers who knew nothing of dentistry. Also, with general liberal arts courses being electives, students were given the impression that they were courses which really didn't have to be mastered. For this reason, the students at a large number of colleges began to feel that their dentistry-related courses were also dull and uninspiring like the liberal arts ones. Even though they entered dental school having passed the rigorous entrance exam and full of a burning desire to become dentists, students soon lost both the ability to manage time effectively as well as the desire to learn.

In order to eliminate this problem, a 1973 amendment was introduced. This amendment led to a switch from the 2-4 program to a continuous six-year dental education program; this involved a discontinuation of the division between liberal arts and specialized dental courses (Figure 1). The 1973 amendment enabled students to be taught a small amount of dentistry-related material immediately following entrance into dental college. While at the same time, students were forced to be conscious of their societal mission to devoting a lifetime of service to offering medical care. The main goal of this amendment was to make students recognize that not only the dentistry-related courses but also the liberal arts ones were important to their futures' as dentists. This amended system is something that a few colleges have been practicing since quite a while back. It is also the current six-year dental education system.

Matsumoto Dental College's Education System

Matsumoto Dental College was founded in 1972. The contents of Matsumoto Dental College's education system at the time of its foundation are clearly illustrated by Table 1. However, in 1976 these contents were modified and it became possible, more or less, for each college to establish its own individual education system (Table 2). Since MDC offers instruction in dentistry only, its education system has followed this continuous six-year program from the beginning. In order to give first and second year students the impression of truly having entered a dental college, MDC adopted a system which, by means of presentations using Figure 3, incorporated an element of dentistry-related study into the liberal arts courses and, conversely, incorporated an element of liberal arts study into the dentistry-related courses.

After a number of years with this system, however, students really concentrated on their dentistry-related courses but began to neglect their liberal arts ones. Therefore, we discontinued the inclusion of dentistry-related study into the first-year curriculum. We have utilized this revised curriculum up to the present.

Table 1 : Requirements for Dental School Graduation
(Stipulated by Japan Ministry of Education)

Predental liberal arts course			
1. More than 36 units			
2. 1 unit (lecture) : 1 hour×15 times			
1 unit (laboratory) : 1 hour×30 times			
Cultural science	12 units		
Natural science	12 units		
Social science	12 units		
Foreign languages	16 units (English, German etc.)		
Health Hygiene	} 4 units		
Physical training			
Predental basic subjects		8 units	
Dental course			
1. More than 30 weeks per year.			
2. More than 35 hours per week.			
3. More than 4200 hours in a four-year span.			
4. Up to additional 600 hours is permitted per four-year span.			
Oral Anatomy	9%	Oral Physiology	4%
Oral Biochemistry	3%	Oral Pathology	5%
Oral Bacteriology	3%	Dental Pharmacology	3%
Dental Technology	3%	Oral Hygiene	3%
Operative Dentistry	6%	Prothodontics	12%
Oral Surgery	4%	Orthodontics	2.5%
Dental Radiology	2%	Pedodontics	1.5%
Internal Medicine	2.5%	Surgery	2.5%
Correlated Medicine	2%	Special Subject	3.5%
Dental Clinic	28.5%		

Since about 10 years ago, similar to the dental students' case mentioned above, not only the medical and dental schools' but also the four-year liberal arts colleges' curriculum has been strongly criticized for its superficial treatment of liberal arts courses. As a result, it became apparent that a fundamental change was necessary. In 1988 a Review Committee responsible for evaluating college education was formed and in July of 1991, college education was reformed as described below :

- 1 . The "liberal arts course" distinction was to be abolished.
- 2 . Curriculum formation was to be left to each college to perform individually.
- 3 . Syllabus-making was required.
- 4 . Self-evaluation and self-judgement were to be left to the instructor.

Therefore, according to these guidelines, we at MDC are now in the process of examining how to restructure our own education system. So far we have discussed the merits of dividing the six-year term into 1.5 years of liberal arts education and 4.5 years of specialized dentistry. Within this 4.5 year period, 28—30% of the class time would be spent on the basic dental sciences and 70—72% would be spent on clinical dentistry. We're also giving careful consideration to the idea of incorporating dentistry into the liberal arts courses as well as incorporating clinical dentistry into the basic dental sciences.

To accompany future medical progress and social developments, we feel that it will be necessary to consider whether or not to abolish or combine currently existing courses, whether to introduce new courses or whether other appropriate measures should be taken with regards to the

Table 2: Requirements for Dental School Graduation (1976)
(Stipulated by Japan Ministry of Education)

Predental liberal arts course	
Cultural science	} 36 units
Natural science	
Social science	
Possible to substitute foreign language or predental basic subject up to 12 units.	
Foreign languages	16 units
Health hygiene	} 4 units
Physical training	
Predental basic subjects	8 units
Dental course	
1. More than 4200 hours in a four-year span.	
2. Up to additional 600 hours is permitted per four-year span.	
Basic dental science	} 25~35%
Dental technology	
Oral anatomy, Oral pathology, Oral bacteriology, Oral physiology, Dental pharmacology, Oral biochemistry, Dental technology etc.	
Clinical dental science	} 63~73%
Social dental science	
(Including 25~40% of dental clinical practice and clinical lectures)	
Oral surgery, Periodontology, Dental anesthesiology, Endodontics, Operative dentistry, Prosthodontics, Dental radiology, Oral diagnosis, Orthodontics, Pedodontics, Oral Hygiene (Preventive dentistry)	
Dental sociology, History of Dentistry etc.	
Additional subjects as required : 2~5%	

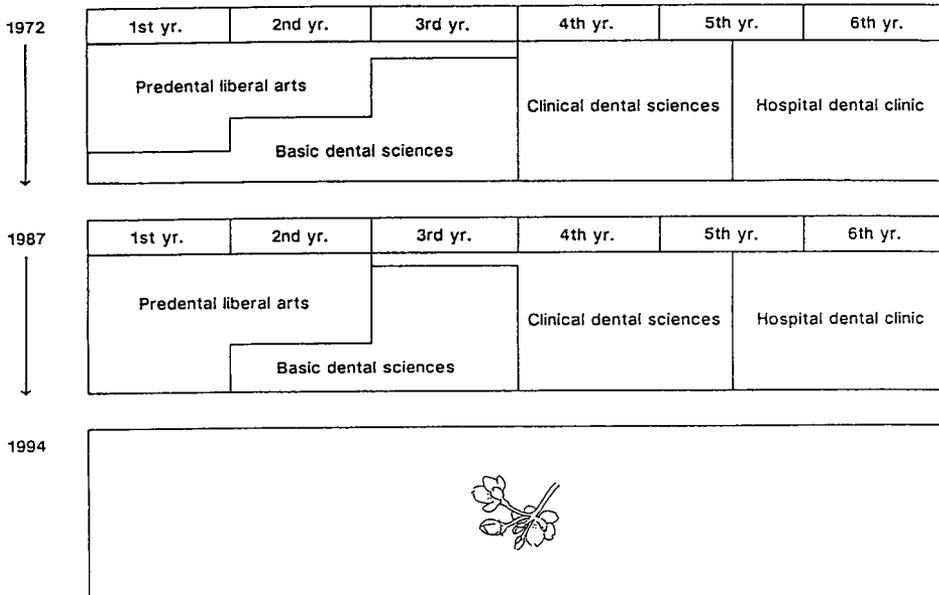


Figure 3: Educational System at MDC

humanities and social sciences (philosophy, ethics, literature, law, economics, social thought, psychology). At the present we are considering either a course election system or seminar program in hopes of raising students' academic ability, nurturing them into well-rounded individuals and helping them to develop composite-oriented powers of judgement. We would also like to structure the natural science courses such that the students can make a smooth transition into the following dental courses. For this reason, we will introduce special seminar-style lectures which best match and accommodate the students' academic abilities. As for foreign language courses—in addition to English Conversation, we would also like to add a Dental English Course in order to enable students to improve their English speaking ability. We are also considering the appropriate time distribution for German and would like to introduce French, Chinese and Russian as elective courses in the future.

We intend to provide a system of education which improves the students' levels of ability by recognizing and accommodating the need for a close relationship between the basic dental sciences, liberal arts and clinical dental courses. We must also be concerned with creating an education system which allows students to acquire enough knowledge to effectively treat oral hygiene and disease problems in the future. In order to ensure that the academic courses share a close association with the clinical ones, we hope to include immunology and applied basic dental sciences into our present curriculum. We would also like to offer a clinical dental course which teaches both the basics of clinical work as well as practical skills, and fosters in the students a high level of ability which corresponds to this high level course. Presently we feel that clinical practice should emphasize the entire human body. Looking down the road at future social conditions, we believe that elderly patient dental care (Geriatric Dentistry) should also become a major focus.

(I wish to express my thanks to Miss M. A. Waits for her kind assistance.)

Format for Fig. 1 obtained from Fusayama, T. (1975) Dentistry in the Human Society (Japanese) P. 71, Ishiyaku Publishers, Inc.

General information obtained from Fusayama, T. (1975) Dentistry in the Human society (Japanese) pp. 71~73, and Imada, K., Masaki, T. (1977) Nippon no Shikaigaku-shoshi (Japanese) pp. 3~34, Ishiyaku Publishers, Inc.

抄録：日本における歯学教育

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まず、我国における歯学教育について歴史的に展望し、歯科大学の前身である歯学院が1890年初めて出来て以来、第2次世界大戦後を経て現在に至るまでの変遷を述べた。

次いで、松本歯科大学の教育システムについて言及した。松本歯科大学は1972年の創立であり、その教育内容は当初より6年制の一貫教育であり、多少の改善を加えつつ現在に至っている。しかしながら、近年に至り我国の大学という大学の教養課程の形骸化が問題となり、1991年7月に抜本的な大学教育の改革がなされた。その要点は、①教養課程を制度上廃止する ②カリキュラムの編成が各大学の自主性にまかされた ③シラバスの作成 ④自己点検・自己評価などである。

そこで、本学でも1992年より、新たな教育改革に取り組むことになり検討を重ねてきたので、その概要につき述べた。