Chapter 4
Current Status and Issues in Senior High School Geography Education

Toshio Asakawa

Abstract Patterns of enrollment and learning content in senior high school geography education have changed since the new postwar system was launched. Not all senior high school students are necessarily currently studying geography. In the new elective subject entitled Geography A, they study geographic characteristics, problems of the contemporary world, and geographic issues in the living environment. In Geography B, students study a variety of maps and learn geographic skills, systematic geographic topics, and descriptive geography in the contemporary world.

Keywords Geography education • Learning content • Pattern of enrollment • Senior high school

4.1 Changes in the Pattern of Enrollment and Learning Content

Unlike at the elementary and junior high school levels, not all senior high school students are necessarily studying geography. The pattern of geography-related subject enrollment within the senior high school curriculum has changed three times since the post-war education system was launched in April, 1948. During the first 15-year period, "Human Geography" was established as a geography-related subject; it was an elective subject together with History- and Civics-related courses. For a 20-year period beginning in 1963, Human Geography was divided into two subjects, entitled Geography A and Geography B, and it was compulsory for students to enroll in one or the other. In the early implementation of these two courses, they were different insofar as the number of instruction hours. However, from 1973 onward, as described below, the learning content also differed. From 1982 to the present, having unified systematic geography and descriptive geography into a single subject simply called "Geography," the existing courses Geography A and

T. Asakawa (✉)
Saitama Prefectural Urawa Daiichi Girls' Senior High School,
3-8-45 Kishicho, Urawa, Saitama 330-0064, Japan
e-mail: asakawa-sanputei@ac.wakwak.com

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Table 4.1 Changes in enrollment and learning content patterns

Year	Pattern of enrollment	Subjects	Learning content
1948	Elective subject	Human geography	Systematic geography
1963	Elective subject	Geography A	Systematic geography (four units)
		Geography B	Systematic geography (three units)
1973	Compulsory subject	Geography A	Systematic geography
		Geography B	Regional geography
1982	Elective subject	Geography	Systematic geography
1992	Elective subject	Geography A	Topical methods
		Geography B	Systematic geography
2003	Elective subject	Geography A	Methodological abilities
		Geography B	Case studies

and Geography B, whose organizing principles vary regarding learning methods and learning content, have become elective subjects. In particular, since the category of Social Studies, which had continued since the beginning of the new senior high school system, was divided in 1992 into Geography and History and the Civics categories. Within the Geography and History category, only World History-related subjects have been mandatory; Geography-related subjects have become optional, students choosing between Geography and Japanese-history related subjects.

More or less in parallel with alterations in the pattern of enrollment, course learning content has also changed. A brief outline of these changes is described in Table 4.1, following up on the work of Nishiwaki (2009).

Learning content of the first geography-related subject introduced under the new post-war senior high school system, Human Geography, focused on answering the question, "How do human beings live on the earth's surface and build cities and villages?" (Ministry of Education, Science and Culture 1951). Learning systematic geography was emphasized, which revolved around productive activities. Efforts were made to clarify the systematic geography learning content by arranging it into topics such as "farming and herding" and "settlements". Content related to maps and outdoor field surveys was added to this Human Geography subject, and geographic skills were also emphasized. In the next stage, the learning content of Geography A and Geography B also focused on Human Geography, protection of the natural environment, and Japan's land area. There was little difference between teaching content of the two subjects; they only differed in the number of instruction hours, with Geography A being three credit units and Geography B four credit units. In the 1973 version of the educational curriculum, however, the teaching content in Geography A and Geography B classes differed. The content of Geography A focused on the existing systematic geography, that of Geography B centered around world regional descriptive geography, studying world regions through such topics as "characteristics of the natural environment," "inhabitants and population," and "the current state and trends in industry and the economy" (Ministry of Education, Science and Culture 1970).

The new subject entitled Geography, launched in 1982, was established in response to the shift in enrollment pattern caused by changing geography from a compulsory to elective subject. The learning content, which united systematic geography and world regional descriptive geography while maintaining a largely systematic geography structure, also incorporated local regional methods and topical learning methodology. From 1992 onward, along with establishment of the Geography and History discipline category, new versions of Geography A and Geography B were established. Not only did these two subjects differ according to hours of instruction, with A having two credit units and B four, the learning content and the organizing principles varied substantially. In Geography A, learning based on topical methods was emphasized, and the content was about understanding other cultures and considering local issues in a regional way. Conversely, in Geography B, both methods and content were carried over from the existing systematic geography content. Despite content differences, both subjects emphasized instruction based on case studies and concrete examples, rather than current factual knowledge that would soon become obsolete in a rapidly changing society. Emphasis was placed on student development of methodological abilities, pushed forward even more strongly by Geography A and Geography B from 2003 onward. The new Geography A, although emphasizing the development of methodological abilities, essentially repackaged the learning content of the old Geography A. In contrast, through use of case studies to acquire knowledge of systematic geography and regional descriptive geography, the content of Geography B took on the core of systematic geography and descriptive geography, which included issues of the contemporary world. While adopting the educational curriculum that has been gradually implemented each succeeding school year beginning in 2003, students study systematic geography and regional descriptive geography until these subjects are replaced by the new Geography A and Geography B described below.

4.2 Enrollment Trends of Recent Years and Expected Changes

Nearly 30 years have passed since geography-related subjects were compulsory. During that time, the National Curriculum Standards have been revised four times. The education curriculum has been restructured, and each time there has been a movement by many in geography education asking for a reexamination of subjects in which students enroll. The new education curriculum, put into effect in April, 2013, is based on the National Curriculum Standards that were revised in March, 2009. Despite these efforts, there have been no changes in the enrollment status of Geography and History courses. For the near future, we can expect the situation to continue as is, with World History-related subjects as required classes and Geography-related and Japanese History-related subjects as elective.

Geography-related subjects became optional in 1982. From the number of geography textbooks supplied and number of students taking geography exams at the National

Center preliminary university entrance examinations, geography-related subjects occupy a uniform position in the education curriculum, and it has played a consistent role in senior high school education (Asakawa 2006).

This trend has not changed in recent years. For example, the textbook supply rate (number of textbooks supplied divided by total number of students times 100) in 2012 is almost unchanged compared to 1997 (when the education curriculum initiated in 1992 was completed) or from 2006 (when the education curriculum initiated in 2003 was completed). Using the textbook supply ratio as a comparison to World History-related subjects that are required for all senior high school students and interpolating enrollment levels in Geography-related subjects in recent years, the figure comes to about one-half that of World History subjects. So, even considering that some students elect to take both Geography A and B, one can assume that roughly half of senior high school students are enrolled in any geography classes. The situation is even dire when we consider that among Geography-related subjects, the proportion of students taking Geography B (four credit units) has fallen. The number taking Geography A (two credit units), which is easier to combine into the overall education curriculum, has increased. Thus, one can conclude that the number of hours in which students are enrolled in geography subjects is declining (Table 4.2).

In thinking about the future of senior high school education, we foresee two changes in enrollment trends. One scenario is a potential decline in the number of students taking geography, compared with an increase of students taking Japanese history-related subjects. In turn, this will reduce the number of geography teachers needed.

As Niihori (2006) points out, we are in a period when large numbers of teachers responsible for senior high school geography education are retiring. Moreover, the number of newly hired teachers who have a specialization in geography is extremely small, and there is a serious shortage of geography subject teachers. Tables 4.3 and 4.4 show the decline in student enrolment in geography subjects and a small number of geography teachers hired, in Saitama Prefecture.

The other scenario is the potential increase in Geography-related course enrollment due to students choosing Geography and History, and Civics subjects in the National Center preliminary university entrance examinations (hereafter referred to as "National Center exams").

Table 4.2 Textbook supply ratios for subjects in Geography and History

	World History subjects		Japanese History subjects		Geography subjects	
Year	World History A (%)	World History B (%)	Japanese History A (%)	Japanese History B (%)	Geography A (%)	Geography B (%)
2012	26.7	14.5	12.6	16.3	12.6	8.1
	41.2		28.9		20.7	
2010	26.0	15.1	12.1	16.2	13.1	7.5
	41.1		28.3		20.6	
2006	–	–	–	–	12.3	8.1
	39.6		27.1		20.4	
1997	–	–	–	–	11.5	9.4
	37.6		26.2		20.9	

Table 4.3 Status of subject offerings and enrollment in Japanese History and Geography in Saitama Prefecture

	Japanese History subjects		Geography subjects	
Year	Schools offering (%)	Student enrollment (%)	Schools offering (%)	Student enrollment (%)
2006	92.2 (177 schools)	75.1	83.4 (160 schools)	52.6
2009	95.0 (171 schools)	78.6	76.6 (138 schools)	49.7

Table 4.4 Number of Geography and History teachers hired in Saitama Prefecture

	Hiring Year					Total for the period
	2006	2007	2008	2009	2010	
World History	1	0	2	3	2	8
Japanese History	1	3	0	2	8	14
Geography	0	0	0	1	2	3
Yearly Total	2	3	2	6	12	25

Excludes those hired by special assistance schools

Table 4.5 Number of students taking exams in Geography and History and Civics in the National Center exams for University Admissions and choice ratios

	2011		2012	
Subject	Exam takers	Choice ratio (%)	Exam takers	Choice ratio (%)
World History B	88,303	16.7	91,139	17.3
Japanese History B	152,970	29.0	157,372	29.9
Geography B	113,769	21.6	132,528	25.2
Contemporary Society	177,843	33.7	105,570	20.1
Ethics	58,274	11.0	35,537	6.8
Politics and Economy	88,758	16.8	57,224	10.9
Ethics and Politics and Economy	–	–	49,601	9.4
Number of Main Exam Takers	527,405		526,311	

Choice ratio = exam takers per subject/main exam takers × 100

Students could choose to take one subject exam from each of two categories, Geography and History, and Civics. From 2012 onward, however, these two subject areas have been combined into one group. This new Geography–History–Civics subject gives students ten subjects from which to select two for the exam. Because of this change, top national and public universities limit students from taking exams for "A" subjects with two credits in Geography and History, and the subjects Contemporary Society, Politics and Economy, and Ethics in the Civics category. As a result, the choice ratios for Geography and History and Civics (number of students taking each subject exam divided by the total number taking the general exam times 100) showed a large decline in the Civics subjects in the 2012 National Center exams, compared with 2011 data. By contrast, the choice ratios showed a conspicuous increase in Geography B within the Geography and History category (Table 4.5).

Creating a curriculum that responds to students' desire to take Geography B instead of Contemporary Society or Politics and Economy is being considered. This is especially true for students at senior high school level who are applying to science-related universities, but who until now have been choosing to take exams in Contemporary Society or Politics and Economy within the National Center exams.

4.3 Learning Content of the New Geography A and Geography B

High school administrators are uncertain which of the two described scenarios may occur. They are required to respond to the new learning content stipulated in the officially published revised national curriculum of March 2009.

In the 2009 national curriculum (MEXT 2009), two new geography subjects were established, the new Geography A (two credits) and Geography B (four credits). With respect to learning content, the new Geography A is composed mainly of thematic subject methods, and the new Geography B primarily of systematic geography and descriptive regional geography methods. In the basic framework of their organizational content, there are no differences between the new and existing Geography A and B. However, some new characteristics and a number of differences are evident in specific learning content (Table 4.6). One of these, common to both the new Geography A and Geography B, is the goal of advancing student learning with maps. Particularly in Geography B, learning content related to maps and geographic skills is established from the very beginning under a separate heading "All kinds of maps and geographic skills," which is positioned as the basis for subsequent content. Another characteristic shared by Geography A and B is an emphasis on learning that explores geographic issues. At the end of the new Geography A course, students investigate geographic issues in the living environment using learning accumulated to that point, in the module called "Geographical issues of the living environment and field surveys." In "The contemporary world and Japan" at the end of the new Geography B, students investigate Japan's various geographic problems by applying knowledge learned.

In addition to these, new characteristics and differences are seen in each subject. In the new Geography A, the aim is to strengthen learning content that relates to everyday life and emphasizes the utility of geography. Specifically, together with existing content related to the contemporary world, content that deals with issues of the living environment as considered from a geographic perspective was newly added under a separate major heading, "Geographical consideration of various issues in the living environment". Within this initiative, learning about maps of the immediate surroundings ("Maps that are tied together with everyday life"), about disaster prevention in response to the wave of earthquake disasters ("The natural environment and disaster prevention"), and similar topics have been added. In the new Geography B, the goal is to provide learning content that emphasizes the contemporary world, in which regional descriptive geography is strengthened. Current descriptive geography learning focuses on two or three exemplary regions, depending

Table 4.6 Learning content stipulated by the National Curriculum Standards of 2009

Content of Geography A
1. Geographical consideration of characteristics and various problems of the contemporary world
a. The contemporary world seen in globes and maps
b. Diversity of the world's living patterns and cultures
c. Geographical consideration of global problems
2. Geographical consideration of various issues in the living environment
a. Maps linked to everyday life
b. Natural environment and disaster prevention
c. Problems in the living environment and local region survey
Content of Geography B
1. All kinds of maps and geographic skills
a. Geographic information and maps
b. Map use and field survey
2. Systematic geographic consideration of the contemporary world
a. Natural environment
b. Resources and industries
c. Populations, cities, rural settlements
d. Living pattern, cultures, ethnicity, and religions
3. Descriptive geography of the contemporary world
a. Regional divisions of the contemporary world
b. Various regions of the contemporary world
c. The contemporary World and Japan

Based on MEXT (2009)

on their scale, from among the regions of the world. The new Geography B approach diverges where content has been added to treat global regions of various scales, in a standardized way ("Various regions of the contemporary world"). Further, along with more robust learning content, there is significant change in the position of descriptive regional geography in the new Geography B. That is, until now, descriptive geography learning together with systematic geography learning has been positioned as a tool or method for considering issues of the contemporary world. The new Geography B—based on maps and geographic skills, systematic geographic method learning, and descriptive geography considering regional characteristics or problems of regions—has now been positioned as a learning "goal" or a "summing up" of student learning. Accompanying this change in positioning of descriptive geography learning, the treatment of learning content related to issues of the contemporary world is also changing in Geography B.

Until the latest curriculum revisions, learning contents were categorized separately. However, they are now grouped into categories of topics studied using systematic geography methods ("Systematic geographic consideration of the contemporary world") and those studied with descriptive geographic methods ("Descriptive consideration of the contemporary world"). In the systematic geography units, students learn about phenomena from a global perspective, so as to sufficiently understand regional characteristics and issues to think independently about problem solutions.

4.4 Issues for the Future

Three issues are highlighted from the examination of the current status of senior high school geography education.

The first is the response to learning that explores various geographic problems, which are emphasized in both the new Geography A and Geography B. Although it is difficult to maintain that learning incorporates local regional surveys or that exploratory activities have been adequately carried out through the present (National Education Policy Research Institute 2007), many teachers have been confused over how to embody and implement the new learning content. Several urgent needs remain: (1) To examine outcomes and problems in cases where the new learning content has already been tackled; (2) to share examples of practice through publications and the Internet; and (3) to develop and provide relevant teaching materials created through collaboration between researchers and educators in the schools.

The second issue is the development of teaching materials that continue to demonstrate to students the usefulness of geography. Students have reported the usefulness of geography subjects in comparison with other subjects within the Geography and History categories (National Education Policy Research Institute 2007). Students become aware of geography's value by learning about relevant topics such as disaster prevention; hence, these have been added to the content in the 2009 National Curriculum Standards. Another tactic has been to foster exploratory learning, bringing together disaster prevention researchers as an example, to collaborate with teachers in developing specific teaching materials in conformity with the content. These resources are available to the larger education community and create a strong argument for the utility of geography, in the hopes of increasing student enrollment. Foreseeable obstacles include a continuing decline in the number of teachers specializing in geography, coupled with finding teachers who can teach geography subjects. The number of qualified teachers with geography skills (e.g., map use, the natural environment, and conducting surveys) needs to increase in order to halt the decline in geography classes being offered. One challenge is that good training opportunities are not provided for teachers of Geography and History, so they tend to shy away from teaching geography subjects. Thus, geography teachers are a critical element of the solution to increase geography enrollment numbers in the future.

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