

# A Preconsideration for Geography Education of Population in Japan and Slovakia

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## Abstract

The purpose of this study is to clarify differences between Japan and Slovakia in the context of geography education, especially in population learning as a part of compulsory education. The source materials of consideration are derived from the white paper of education, web pages of news report, educational standards, school textbooks, workbooks and observation in classroom. The consideration starts from the over all education system and problems on education, goes through sequence of geography education, and ends at significance of population learning. Population geography seems to have a low position on the Japanese education system. But population is the fundamental item of not only academic field of geography but also didactic context of geography education, with the function of connecting physical geography and socio-economic geography as shown in Slovak workbook contents.

**Key words:** school system, curriculum sequence, educational problems, population learning, educational standards, school textbook, workbook, reverse-concentric structure, sample study

## 1 . Introduction

Population geography is one of the fields of systematic geography and also can refer to many kinds of human character such as not only demographic attributes of sex and age but also the other socio-economic attributes of race, ethnicity, religious, occupation, academic background, inhabitation and so on. Population is the key item for research and education in not only academic field of geography but also didactic context of geography education as shown in the previous studies (Trewartha, 1953; Findlay and Graham, 1991; Ohzeki, 1998a, 1998b). Ohzeki (1998b) listed up the hypothetical minimum essentials of population learning in Japan. Such fundamentals in didactics of population geography can enhance its significance by the comparison with experiences of the other country. Especially in Slovakia, the centre of academy, Comenius University has established the department of demogeography, in which population studies are going on with the contribution to the Slovak population problems from the view of geography. It is expected that the academic advancement has some didactic background in the country.

The purpose of this study is to clarify differences between Japan and Slovakia in the context of geography education, especially in population learning as a part of compulsory education. The source materials of consideration are derived from the white paper of education, web pages of news report, educational standards, school textbooks, workbooks and observation in classroom. The consideration starts from the over all education system and problems on education, goes through sequence of geography education, and ends at significance of population learning.

## 2 . Education system in Japan and Slovakia

### School system in Japan

Japanese primary and secondary education is organized principally in 6-3-3 format, that is, 6 years of elementary school, 3 years of lower secondary school, and 3 years of upper secondary school as shown in fig. 1. Generally, the lower and upper secondary schools are called as junior and senior high schools respectively in Japan. In this paper, we use the latter expression of junior and senior high schools for Japanese primary and secondary education.

Japanese compulsory education goes through the 9 years of elementary school and junior high school from age 6 to 15. In April 2003, April is the starting month of school year in Japan, 97.3 percent of all junior high school graduates continued their study in senior high school and the like. Therefore we can say that the study of senior high school has a character of compulsory education nowadays in Japan.

### Curriculum standard and textbook in Japan

Education from elementary school to senior high school is based on the different three kinds of public contexts. The first is the laws from the Constitution of Japan to the kinds of ministerial ordinance for education. The second is the standard of curriculum announced publicly by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), which functions as the most important guidelines for school teacher. And the third is the school textbook authorized by MEXT and used by teachers and students in their classroom.

Japanese curriculum standard is published as the Courses of Study (COS), which is prescribed by MEXT on the basis of recommendations from the Curriculum Council. With the revision interval of 10 years, MEXT asks some teachers, scholars and other famous experts to be the member of the council. In 1998 the last council made a recommendation and newly revised COS was published in the same year, preparing for the application at the school year of 2002 in elementary and junior high schools and 2003 in senior high school.

The descriptions of COS are divided mainly into the three parts of purposes, contents and treatments. For example, in the Geographic Field of Social Studies in Junior High School, the purposes stress student's interest, regional characteristics, broad view of things, and geographic perspectives and thinking as follows:

#### *1. Purposes*

- 1-1. Students make growth of interest in geographic phenomena concerning Japan and the world, consider and understand regional characteristics of Japan from the broad view of things, make basis of geographic perspectives and thinking ...*

(Source: Ministry of Education, Science, Sports and Culture, 1999b)

Based on the contents, we can see the fundamental composition of the geography education. The first part 2-1 tells us importance of geographic knowledge, that is, name and location of 47 prefectures in Japan and important countries in the world. The second part 2-2 is prepared for learning methods of area research on different spatial scales of local area, prefecture and country. Student learns direct or indirect method of collecting data and how to analyze and express the data. And in the third component 2-3, learned geographic knowledge and method of area research are applied to the context of recognizing Japan from the broad view of things, in other words "What is Japan?"

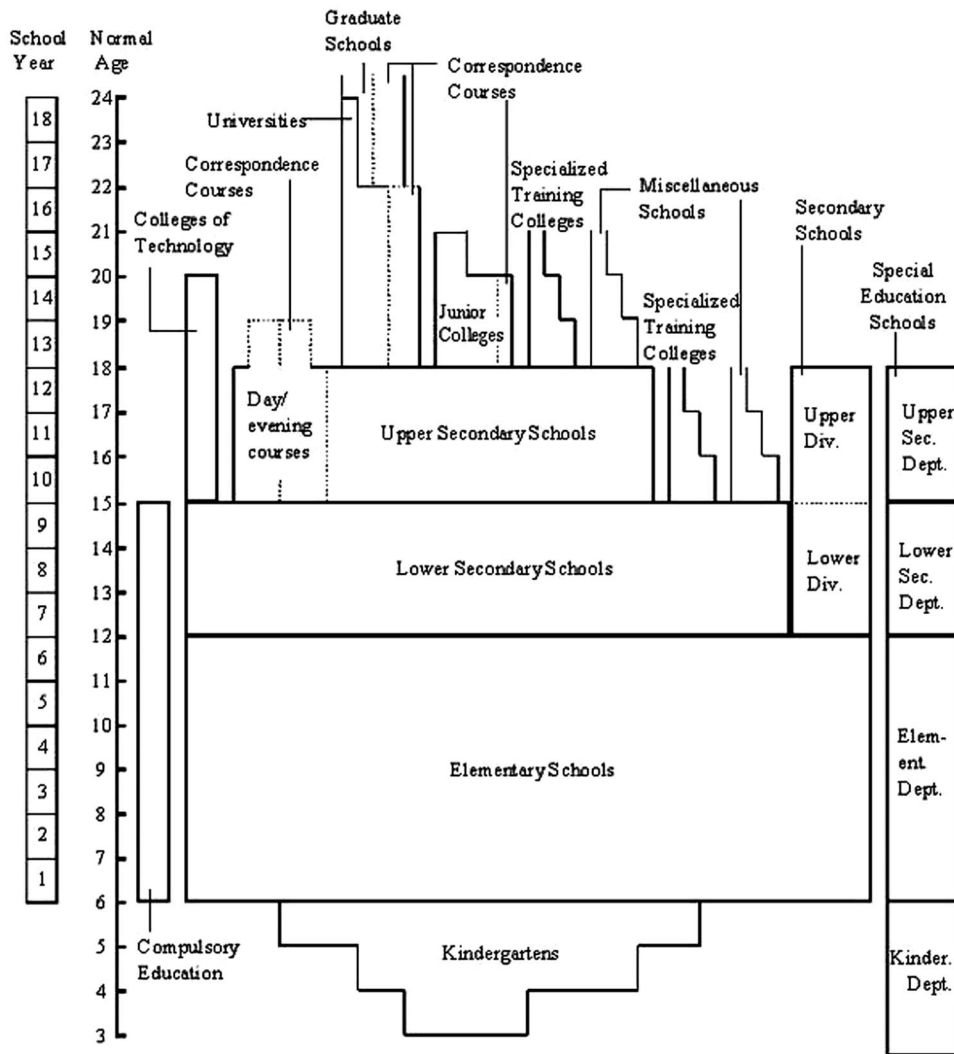


Fig.1 School system in Japan  
( Source: Statistical Research and Training Institute, 2003 )

2. Contents

2-1. Regional composition of Japan and the world

2-2. Research on area with different spatial scales

2-2-1. Local area 2-2-2. Prefecture 2-2-3. Country in the world

2-3. Japan in comparison with the world

2-3-1. Multilateral understanding of Japan

2-3-1-a. Natural environment 2-3-1-b. Population 2-3-1-c. Resources and industries

2-3-1-d. Lifestyle and culture 2-3-1-e. Connection among areas

2-3-2. Japan in the relation of various characteristics

(Source: Ministry of Education, Science, Sports and Culture, 1999b)

Teacher must teach these contents under the restriction of treatments of the contents. For example, teaching order of the contents 2-1, 2-2 and 2-3, using computer or communication network, relating to the historical and civic fields of social studies, picking up the occupied northern territory problem, and so on.

Under the curriculum standard of COS, Japanese school textbook is published by several private publishing companies. For example, there are 7 different textbooks for the Geographic Field of Social Studies in Junior High School, which municipalities in the same adoption area choose one out of the 7

textbooks. At first, private publisher makes unauthorized book and bring it to MEXT for taking the quality of public education. Then MEXT organizes the Textbook Authorization and Research Council, which consists of teachers, scholars and other famous experts, and based on the recommendation of the council the minister decide whether the book is acceptable for public education or not. The publishers can apply to this authorization in the interval of 3 years and also can modify a part of textbook every year under the permission of MEXT. It means that statistics and information in the textbook continue to be updated with the same bone structure. This authorization system makes textbook more fresh and creative in the competitive environment, and in compensation for administrative control we can give brand new textbook to our children free of charge.

### School system in Slovakia

After the East European Revolution in 1989, Slovakia experienced a wide range of political, social and economic transformation, which have affected also to the educational contents, organization and management all over the nation. Nowadays school system in Slovakia includes 3 years of kindergarten, 10 years of compulsory education, noncompulsory secondary education, and higher education of university and the like as shown in fig. 2. There includes results of the transformation as the Ministry of Education listed as follows:

1. *implementation of a new, modern concept of contents and organisation of work at primary and secondary schools and universities, so that now it complies with the European standards,*
2. *elimination of a one-sided ideological bias in education and training,*
3. *diversification of the old, rigid system of uniform schools and creation of opportunities for the establishment of alternative, church and private schools,*
4. *more distinct differentiation of the education in primary schools and grammar schools,*
5. *elimination of narrow educational specialisation at specialised secondary and vocational schools,*
6. *updating of study plans, publishing of new curricula for primary and secondary schools and of the new study plans for universities; reduction in number of special areas taught at specialised secondary and vocational schools, implementation of rules and of the educational system at universities, so that they correspond to the system used in developed democratic countries,*
7. *democratisation and decentralisation of the system of school management and administration, application of the self-administration principle where schools become independent legal entities, finding of final solution for the management of vocational schools,*
8. *successful expansion of the compulsory school attendance period to 10 years and expansion of the primary school attendance period to 9 years,*
9. *distinctive quantitative development of grammar schools and universities,*
10. *introduction of new educational and training programs for Roma children,*
11. *modification and implementation of new qualification requirements for professional and pedagogic qualification of teachers, facilitation of their further education,*
12. *publication of new working order for teachers,*
13. *implementation of the new concept of education and training for disabled pupils,*
14. *preparation of the Bill on Funding of the School System,*
15. *establishment of the independent State School Inspection,*
16. *strengthening of the international relations and co-operation of schools and school facilities,*
17. *preparation for implementation of the new Concept of Education and Training, which would comprise the National Programme for Education and Training and the Concept of University Education for the*

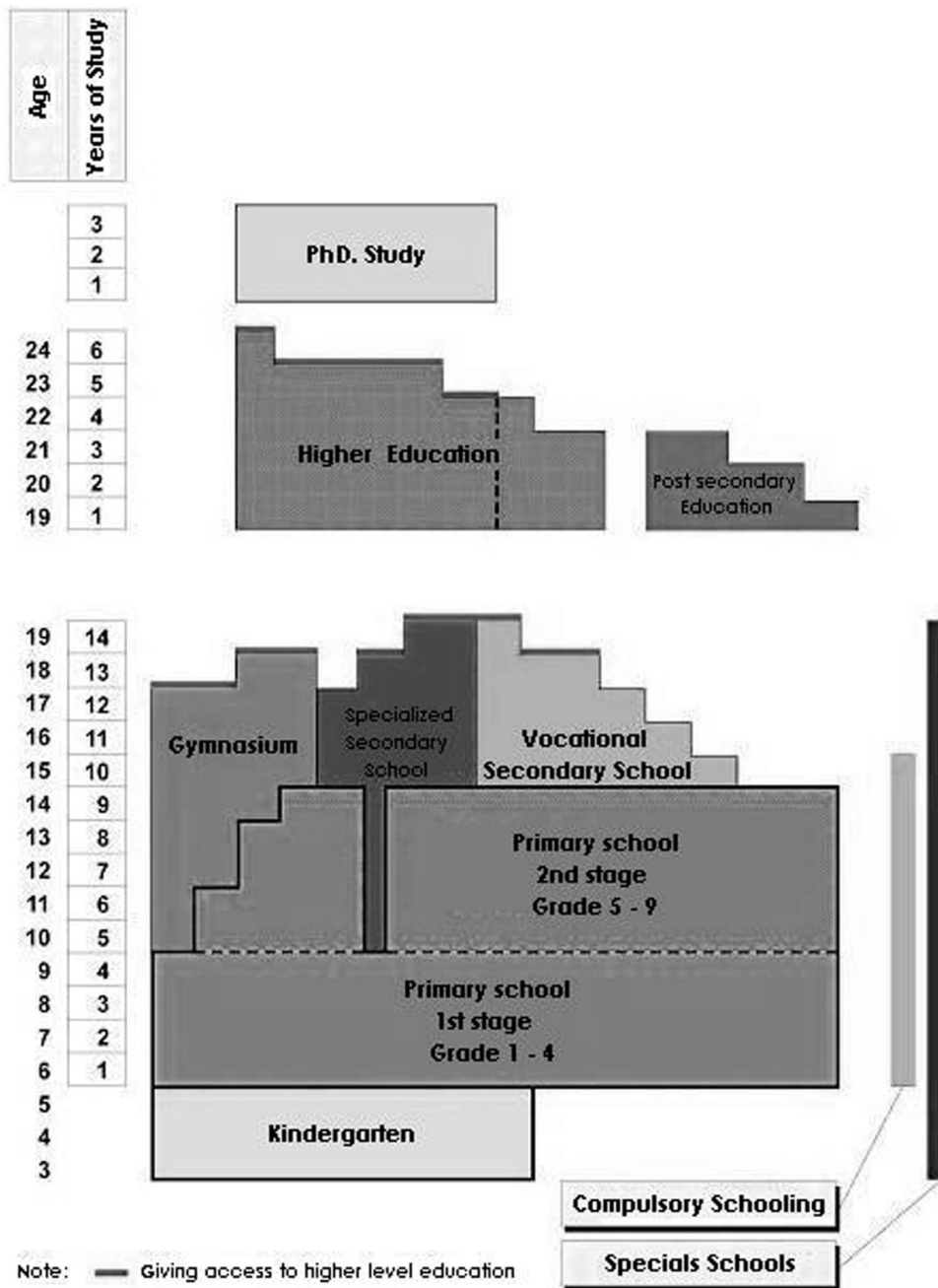


Fig.2 School system in Slovakia  
 ( Source: Ministry of Education of the SR, 2002 )

21<sup>st</sup> Century,

18. *preparation for the approval of new school acts (for regional school system, universities and for further education).*  
 (Source: Ministry of Education of the SR, 2002)

As noted in the above 9, the number of grammar schools has significantly risen from 128 in 1989 to 220 in 2002. Grammar schools offer general education for future studies at university or the like of higher educational institute. But in terms of the number of students, the share of grammar schools is 32.8% of 93,287 to the total secondary schools in 2002 (98,478 of specialised secondary schools and 93,034 of vocational secondary schools). Therefore the Slovak level of education depends on contents of primary schools, which offer compulsory general education, rather than those of grammar schools.

Primary school comprises 9 grades divided into two levels of the 1<sup>st</sup> level (1<sup>st</sup>-4<sup>th</sup> grade) and the 2<sup>nd</sup> level (5<sup>th</sup>-

9<sup>th</sup> grade), in which students start their study in the 1<sup>st</sup> grade after reaching age of 6. Primary school education goes through general curricula and study plan, of which the former has 3 basic alternatives and school can choose one after discussions with the pedagogic council, parents of children and with the school board. The latter study plan, school can also choose one out of 7 alternatives, makes primary education differential for student's interests or skills of foreign languages, mathematics and natural sciences, sports, arts, music, technical education and so on. As noted in the above list of 8, 10 years of compulsory education in Slovakia means that graduates from primary school must apply to one of 3 kinds of secondary schools.

#### Problems on education in Slovakia and Japan

The Ministry of Education of the SR listed up 8 problems on education in 2002, of which 3 problems must be paid attention from the point of the current situation in Slovakia as follows:

- 1. the school system has not been allocated sufficient amount of funds to secure the required level of material and technical conditions for its development and operation, the percentage of GDP assigned to the school system has declined, resulting in indebtedness of schools and their falling behind as far as the purchase of necessary equipment, in particular of the latest information technology is concerned,*
  - 2. the remuneration of teachers has remained low and is lower than the average remuneration in other sectors, resulting in the outflow of qualified teachers to other sectors and in the worsening of the qualification structure of teachers and of the level of expertise within the educational process,*
  - 3. scientific and pedagogic research and creative utilisation of the foreign know-how and experience has not been sufficiently developed in order to find solutions for fundamental current and strategic objectives of the school system.*
- (Source: Ministry of Education of the SR, 2002)

Problems of 1 and 2 are kinds of political priority in Slovakia and the resulting budget allocation for education. Though the percentage of expenditures for education in the total expenditures of the Slovak Republic has risen from 10.96 in 1990 to 15.34 in 2000, the percentage of expenditures for education in the GDP has fallen from 5.10 to 4.17 in the same period. It means that instead of the government's efforts there are difficulties of improving educational conditions especially on the school facilities, management and teacher's salary as reported as follows:

*A protest rally of teachers has been held in major Slovak towns across the country. The main reason for their protest is the critical situation in the education sector. Several schools in the capital have already been temporarily closed for the non-payment of electricity or gas bills.*

(Source: <http://www.slovensko.com/news/486>, Wed. 28 May 2003, 18:31)

*Up to 1,000 teachers from almost all kindergartens, elementary schools, high schools and universities in the Slovak capital gathered on Wednesday afternoon outside the Cabinet Office protesting against the planned cancellation of tariffs and their low salaries. The protesters have adopted a memorandum claiming their readiness to enter a nationwide indefinite strike. Educators want the government to allocate enough money for the education sector to secure the proper functioning of schools and a growth in real wages. Salaries in the sector are the lowest among neighbouring countries and are not enough to cover basic needs. The protesters believe that salaries of teachers are incomparably lower than their role in society.*

(Source: <http://www.slovensko.com/news/491>, Fri. 30 May 2003, 08:08)

Average wage in the economic branch of education is SKK 11,984 per person in 2003, as compared to the

total average of SKK 14,365. The increase rate of the former wage is 9.6 % in the same year, though being over the case of 6.3 % of the latter national average, which means only a slight improvement of teacher's living standard under the circumstance of inflation rate 8.5 %.

As noted in the above problem 1, the Slovak government recognizes the need for preparing information equipments including computer and the Internet related facilities. In the year of 2004, it is announced by the Minister of Education that SKK 450 million will be spent on introducing of information technologies into regional schools, including SKK 150 million for preparing the Internet connection in primary and secondary schools and SKK 200 million for investing into teacher training. So far 1,500 schools out of the total 3,666 are connected to the Internet under the educational project and it is expected that the additional 1,400 schools obtain computer by the end of 2004. This project of Infovek launched in 1999 is going to prepare the younger generation for life in the information society of the 21<sup>st</sup> century in order to increase its competitiveness on the global labor market, mainly with their contemporaries in the European Union.

The problem 3 demonstrates the need for communication with the foreign experiences in the educational and pedagogic contexts. Japanese education system contains the same kind of problems as the Slovak in part, but more attentions have been paid to the argument of whether more studies in school are needed for children or not. Under the comprehensive five-day school system from 2002, the Courses of Study (COS) are revised and implemented for reducing school hours and with emphasizing the so-called "Zest for Living" in Japan. Education for the Zest for Living fosters the abilities to acquire the basics of education, such as reading, writing and arithmetic, to learn and think by oneself, and to develop problem-solving skills. Sample studies are introduced for obtaining ability to apply the way of learning to the other phenomenon. However the entrance exams to senior high school and university still remain in putting emphasis on the volume of acquired knowledge. Many Japanese parents increase the tendency of sending their children to the private cram school.

Also in Japan, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) recognizes the importance of learning the information technologies (IT) and fostering information literacy among children. MEXT provides assistance for preparing IT equipments of computer, the Internet and intra-school LAN and making teachers trained up. It is expected that all school classes in Japan can use computer and the Internet by the fiscal year of 2005.

### 3 . Geograpy education in Slovakia

#### Teaching in the classroom

Photo 1 shows teaching geography in the primary school of Základá Škola Ľudovíta Štúra located in 6.5 km northwest from the center of Bratislava. There are 20 students of the 8<sup>th</sup> grade in the classroom after one month from the beginning of the school year. In Slovak primary schools, the average number of students per one classroom is 22.0 in 2001 as compared with 26.3 in 1989. In the same period, Japanese elementary and junior high schools have also experienced the decreases from 29.7 in 1990 to 26.9 in 2001 and from 35.2 in 1990 to 32.1 in 2001 respectively. The decreasing number of children makes possible to reduce the number of students per classrooms and students per teachers also. The municipal part of Dúbravka, where Základá Škola Ľudovíta Štúra is located in, experienced a large development of housing estate and the resulting population increase in the 1970s. After that the number of population has been stable or somewhat decreasing as shown typically in the suburban district of housing estate.

The classroom is decorated simply by collage of natural environment on the right wall and the national emblem of Slovakia on the front. Topographic map of the whole Slovakia is on the center of the blackbord, where teacher stands in front of them and face to face with her students in the traditional manner.



Photo 1 Teaching geography in classroom  
( Základá Skola Ľudovíta Štúra in Bratislava, October 2003 )



Photo 2 Learning geography with the workbook  
( Základá Skola Ľudovíta Štúra in Bratislava, October 2003 )

Geography in the 8<sup>th</sup> grade of primary school starts from location and natural environment of Slovakia, in which teacher picks up the content of water resources. The lesson goes through teacher's explanation, question and sometimes student comes to the front of the blackboard and answers the question. The quality of blackboard is not so good that teacher must use swabbing cloth with water for erasing. There is no equipments of television, video and computer of course in the classroom.

Photo 2 shows students of writing teacher's explanation on their notebooks with reference to the workbook of geography 8<sup>th</sup> grade (Zemepisný Zošit 8). Students have publicly authorized textbook also, but teacher never says to open it because the textbook (Zemepis 8) is revised in the older year of 1994 as compared to the newly revised educational standards of 2002. In Slovakia the school textbook is not provided to one person exclusively but used for 5 years passing from hand to hand through different



Table 1 Record of using the textbook

## Záznam o použití učebnice

Číslo	Meno žiaka	Školský rok	Stav učebnice	
			na začiatku škol. r.	na konci škol. r.
1.				
2.				
3.				
4.				
5.				

( Source: Lauko, V. a kol., 1999 )

students. Students are responsible to treat the textbook careful with their signature on the back cover as shown in table 1. There is a fundamental problem of only one textbook publisher with no competition and time lag to the standard revision.

## Sequence of geography education

Geography education starts from the 3<sup>rd</sup> grade of primary school in Slovakia as shown in table 2. But the subject of Vlastiveda contains not only geography but also history and literature in the 3<sup>rd</sup> and 4<sup>th</sup> grade. As an independent subject, geography in the Slovak name of Zemepis is implemented from the 5<sup>th</sup> grade to the last of primary school. After that, selected students can continue to study geography in the grammar school

Table 2 Sequence of geography education in Slovakia

grade of school class	number of lessons per week		
	primary school		grammar school
	1 <sup>st</sup> level	2 <sup>nd</sup> level	
1 <sup>st</sup>			
2 <sup>nd</sup>			
3 <sup>rd</sup>	1		
4 <sup>th</sup>	2		
5 <sup>th</sup>		2	
6 <sup>th</sup>		2	
7 <sup>th</sup>		2	
8 <sup>th</sup>		2	
9 <sup>th</sup>		1	
I			2
II			2
III			
IV			1
total	3	9	5
	12		

(Source: Ministry of Education of the SR, 2002)

subject of Geografia. Therefore, the process of geography education in Slovakia is divided into the 3 steps of Vlastiveda, Zemepis and Geografia, of which we can choose Zemepis as the most important from the view of independent geography and compulsory education subject.

Table 3 shows contents of geography workbook“ Zemepisný Zošit ” in Slovakia. In the 5<sup>th</sup> grade, students learn earth as an undivided entity mainly from the point of physical geography or earth science, for example, with the learning items of earth as a globe, continent-ocean ratio, earth in the universe, seasons, wax and wane of the moon, tide, type of landform, latitude, longitude, time difference, map scales, map symbols, ecosystem, plate-tectonics, cycle of landform, equator, precipitation, general circulation of the atmosphere, hydrologic cycle, glacier, soils, vegetation, natural landscape, animals, population density, race, settlements, and regional geography of Africa. In the 6<sup>th</sup> and 7<sup>th</sup> grades, students continue to learn regional geography of the other continents from Europe to Antarctica respectively. The 8<sup>th</sup> grade is systematic geography and regional geography of Slovakia. And the last 9<sup>th</sup> grade provides students with the world wide consideration again, but in the more sophisticated and intimate description of map, population, settlements, economy, ecology and regions of the world.

There are three principal characters in the sequence of geography education in Zemepis. The first is reverse-concentric structure of spatial scales, shrinking from earth as a whole through continents or regions of the world to the home country of Slovakia. The second is emphasis of physical geography including some

Table 3 Contents of geography workbook“ Zemepisný Zošit ” in Slovakia

grade of school class	contents of workbook	
5 <sup>th</sup>	Planet earth Overview of the earth Landscape Lithosphere covering the earth Atmosphere Hydrosphere	Soils Type of region Human on the earth Africa Geographic training - geographic walking journey -
6 <sup>th</sup>	Oceans in the world Europe Central Europe Western Europe Northern Europe	Southern Europe Southeastern Europe Eastern Europe Geographic walking journey
7 <sup>th</sup>	Asia South-west Asia South and south-east Asia East and central Asia America North America	Central America South America Australia Oceania Antarctica Natural environment (NE)
8 <sup>th</sup>	Location Nature Population and residence Economy Districts in Slovakia	Western districts Northern districts of central Slovakia Southern districts of central Slovakia Eastern districts
9 <sup>th</sup>	The world on map Changes of the world	Regional composition - regions of the world -

(Source: Tolmá Ľ i L., Tolmá Ľ iová T., Lauko V. and Nogová M., 2002; Tolmá Ľ i L., Tolmá Ľ iová T. and Pifková T., 2002; Tolmá Ľ i L., Nogová M. and Tolmá Ľ iová T., 2002; Tolmá Ľ i L., Lauko V. and Tolmá Ľ iová T., 2002; Tolmá Ľ i L. and Tolmá Ľ iová T., 2002)

elements of earth science, astronomy, geology and ecology. And as the third character, Zemepis takes a style of cyclopedic explanation especially in the regional geography. These characteristics make impression of the subject traditional and familiar, and also make it possible to answer the question of what is the fundamentals of geography.

Population learning in Slovakia

Based on the contents of geography workbook “ Zemepisný Zošit ” in table 3, we can find out the word of population “ Obyvateľstvo ” only in the 8<sup>th</sup> grade. Fig. 3 exhibits facing pages of population learning in the 8<sup>th</sup> grade workbook. There three kinds of figures are prepared for learning, in which students make a graph of population increase in Slovakia on the left page with somewhat strange positioning of coordinate axes. And on the right page, two base maps are ready for coloring of population density and Slovak Districts respectively. Additionally key words for learning are listed up in the bottom, such as population number, population distribution, ethnicity structure, sex structure, religious structure, and so on.

On the level of subcontents in Zemepisný Zošit, the word of population is detected in the all other grades. For example, the 5<sup>th</sup> and 9<sup>th</sup> grades contain population learning in the gloval scale under the contents of “ Human on the earth ” and “ Changes of the world ” respectively. From the last part of 5<sup>th</sup> grade to the 7<sup>th</sup> grade, population is key attribute and subcontent of regional geography in Africa, Europe, Asia, America and Australia. In addition, we can find out population learning even before the entrance of Zemepis. Fig. 4 shows the earliest opportunity of learning population in the school textbook of the 3<sup>rd</sup> grade. The facing pages contain two photos of birth and death, from which pupils learn demographic phenomena as two important events for human life-cycle and local community.

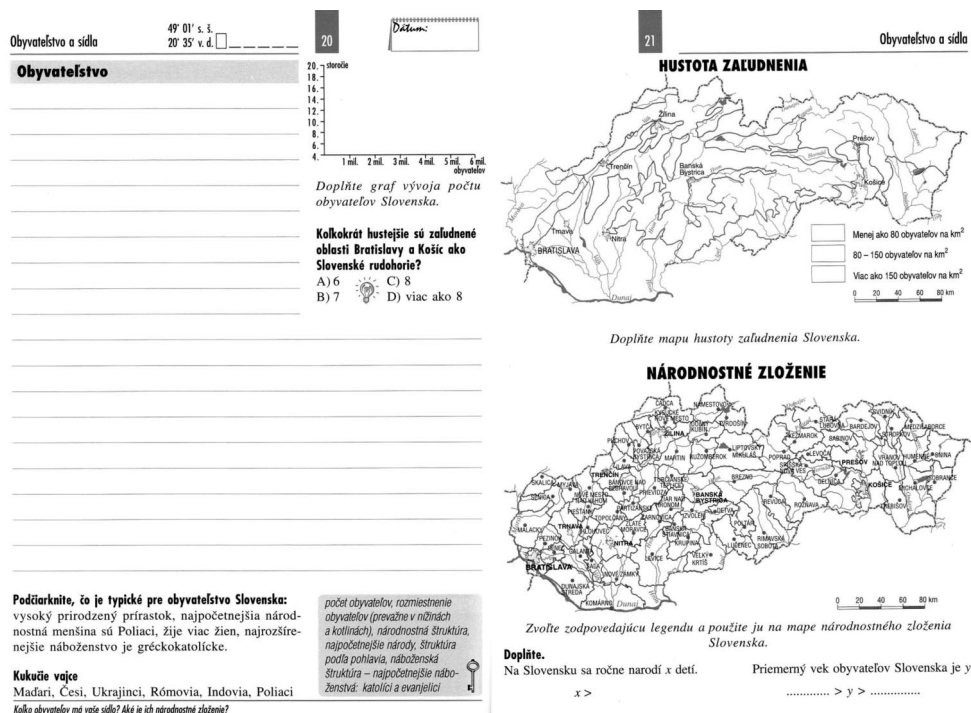


Fig. 3 Population learning in the workbook (Source: Tolmáči L., Lauko V. and Tolmáciová T., 2002)

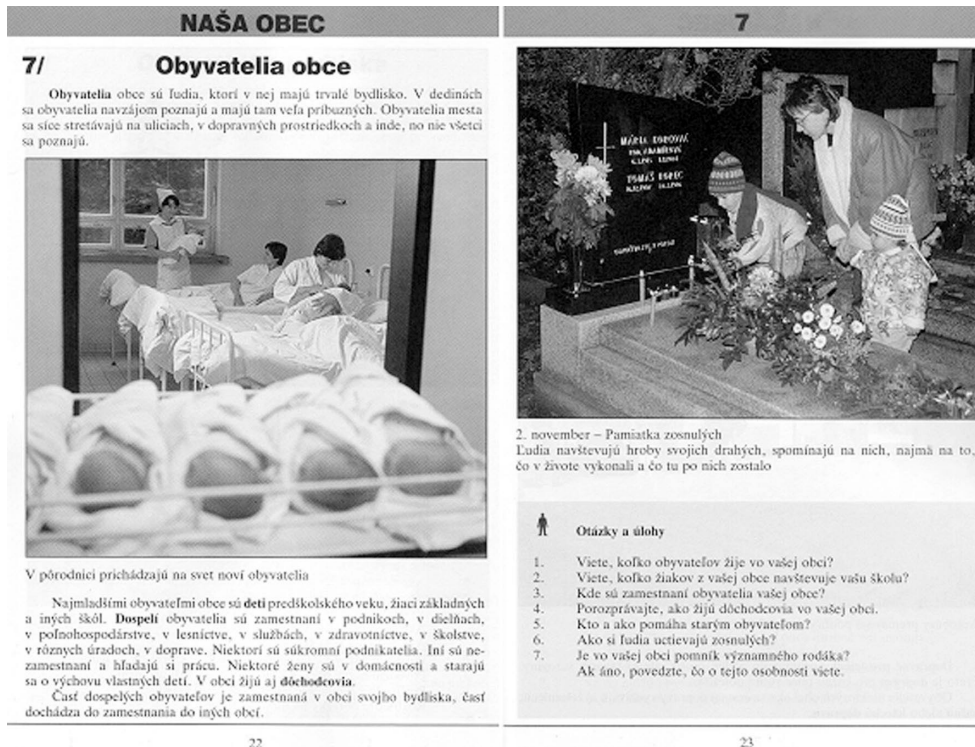


Fig. 4 Population learning in the textbook  
(Source: Stanko J., Stanková A. and Hušková J., 1993)

#### 4. Population learning in Japan

##### Sequence of population learning

Through the Japanese 6-3-3 school system, we have the subject name of geography only in the senior high school, that is, Geography A and Geography B. The subject of Geography A is designed for the implement of two lessons per week with the emphasis on activities, experiences, geographic skills and the global problems. On the other hand, Geography B is supposed to take four lessons per week, in which students apply two methods of systematic geography and regional geography to the current problems of the world. Both subjects are aimed at recognizing regional characteristics of the world and acquiring geographic perspectives and thinking. Naturally, the curriculums of junior high school and elementary school contain geographic field or element as the essential. Among these schools, there exists difference of spatial scale on which students do their learning activities, expanding from local area through Japan and to the whole world. This is a Japanese traditional learning system called Concentric Expansion Principle.

Table 4 shows sequence of population learning in Japan, based on the educational standards of COS (Courses of Study) and their public explanations. Population learning may start in elementary school, though it is suggested only by a word of population in sentence of the explanation. As contrasted to this, Geography A and B in senior high school include a lot of population phenomena with relation to the other global problems such as environment, energy and food. But these two subjects are selective for both student and teacher. So it is possible for the student to graduate senior high school without learning not only population geography but also the subject of geography. From the points of compulsory education, obligatory treatment of the standard item, and richness of the contents, we can say that junior high school is the most important stage of learning population in the Japanese school system.

Table 4 Sequence of population learning in Japan

	Elementary school	Junior high school	Senior high school
Spatial Scale	Prefecture	Japan	World
Standard and its explanation	Word in sentence of the explanation	Obligatory item of the standard	(A) Word in sentence of the standard (B) Selective item of the standard
Population phenomena	Population concentrating city	Size, density, age and distribution of population Aging and decreasing number of children Overpopulated and depopulated regions	(A) Problems of environment, resource and energy, population, food, residence and urbanization (B) Regional characteristic of population and food problems

(Source: Ministry of Education, Science, Sports and Culture, 1999a; 1999b; 1999c)

Population learning in the textbook

Table 5 shows contents of population learning in a Japanese junior high school textbook with the highest rate of adoption. These contents are divided into three parts of “ the world population distribution and its change ”, “ population composition in Japan and the world ”, and “ population distribution in Japan and its inequality ”.

In the first part of two pages, students learn population phenomena in the world scale, such as population distribution, population density, population explosion, birth rate, death rate, refugee, and one-child policy. Students consider these phenomena from the geographic perspectives, for example, “ What kind of region does have a lot of population? ”.

The second part has also two pages of population phenomena such as sex-age structure, aged society, decreasing number of children and foreign laborers, with the comparison between Japan and the world. Students recognize differences of population pyramid through countries and times, and dependence on foreign laborers in European countries as well as in Japan with the case of Japanese-descended Brazilian in Oizumi town. Also in this part, learning material is included for students themselves to make a thematic map of aging in Europe.

The third and last part of population learning covers four pages of population distribution in Japan with two sample studies of overpopulated and depopulated areas. As shown in fig. 5, after learning overall characteristics of the distribution, students explore a metropolitan region of Osaka as a sample of overpopulated area. Through these three parts, students can learn many kinds of population phenomena with their different appearances of spatial scale, from the geographic perspective of multi-level regions; for example, we can find out over- populated area on the global scale as well as on local municipality level.

This kind of population learning was allocated at the 5<sup>th</sup> grade of elementary school in the former Japanese standards of COS. But the ministerial council for the current standards has pointed out and recommended that population learning tends to be abstract in the implementation and so it’s better to transfer the allocation from elementary school to junior high school. As a result, population learning is eliminated from the curriculum of elementary school and the pupils can not recognize importance of population in the consideration of regional characteristics.

The introduction of sample study has prevailed not only in junior high school but also in senior high school and even in elementary school. For example, elementary school teacher must select one category from the food producing industries of rice, vegetables, fruits, stock farm products and fishery products. It is expected for pupils themselves to apply the way of learning to the unselected industries. Teacher can not teach cyclopaedically the whole industries or the whole regions in Japanese geography education.

Table 5 Contents of population learning in the textbook

<p>3 Population in Japan and the World</p> <p>1. The world population distribution and its change</p> <p>The world population distribution and population explosion</p> <p>fig.: population density in the world, population change in the world</p> <p>photo: children in India</p> <p>Problems of population increase</p> <p>fig.: birth rate and death rate in some characteristic countries</p> <p>photo: the global city of New York, oasis in desert, refugees taking food support from foreign country, slogan of birth control in Shanghai</p> <p>2. Population composition in Japan and the world</p> <p>Population composition in Japan comparing with the world</p> <p>fig.: type of Mt. Fuji, type of hanging bell, type of pot, changes of population pyramid in Japan</p> <p>Aged society and decreasing number of children</p> <p>photo: festival held in Oizumi town</p> <p>3. Population distribution in Japan and its inequality</p> <p>Population concentrated area in Japan</p> <p>fig.: population distribution in Japan</p> <p>Overpopulated area in Japan</p> <p>fig.: population density in Osaka and its surrounding area</p> <p>table.: comparison among metropolises in the world</p> <p>photo: Senhoku Newtown in the suburbs</p> <p>Depopulated area in Japan</p> <p>fig.: Yoshida village located in the foot of the Chugoku Mountains with richness of reserved nature, percentages of depopulated area in Japan</p> <p>Efforts and ideas in depopulated area</p> <p>fig.: population decrease and aging in Yoshida village</p> <p>photo: educational stay in mountain village, settlement of Sugayatatara and " iron manufacturing of Tatara "</p>
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(Source: Tanabe H., 2003)



Fig. 5 Population learning in the textbook (Source: Tanabe H., 2003)

## 5. Concluding remarks population as a fundamental item of georgraphy education

The purpose of this study is to clarify differences between Japan and Slovakia in the context of geography education, especially in population learning as a part of compulsory education. The source materials of consideration are derived from the white paper of education, web pages of news report, educational standards, school textbooks, workbooks and observation in classroom. The consideration starts from the over all education system and problems on education, goes through sequence of geography education, and ends at significance of population learning. The results are summarized as follows;

- (1) The primary school in Slovakia comprises 9 grades divided into two levels of the 1<sup>st</sup> level (1<sup>st</sup> - 4<sup>th</sup> grade) and the 2<sup>nd</sup> level (5<sup>th</sup> - 9<sup>th</sup> grade), corresponding to the elementary and junior high schools in Japan respectively. The former level contains geographic elements of education as the subject of Social Studies in Japan and Vlastiveda (Geography, History and Literature) in Slovakia. Geography education starts substantially from the latter level of Geographic Field in Japan and Zemepis (Geography) in Slovakia, which occupy the most important part of geography education as a subject of compulsory general education.
- (2) There are many problems on education, of which preparing information equipments including computer and the Internet facilities is high on the list of priorities in both countries. But more attentions have to be paid to the lower salary of teacher in Slovakia and the knowledge-oriented examination in Japan.
- (3) Geography education in Zemepis is characterized by reverse-concentric structure of spatial scales, emphasis of physical geography, and cyclopedic explanation. As compared with to this, the Geographic Field in Japan emphasizes especially on student's interest, broad view of things, and geographic perspectives and thinking. It is also characteristic that the way of sample study is introduced even to the elementary school in Japan.
- (4) Population learning is detected in almost all grades of geography education in Slovakia, which occupies the important position as a component of regional geography. In Japan, population learning takes the style of systematic geography and has changed its allocation from elementary school to junior high school with less time of learning than in Slovakia.

Population geography seems to have a low position on the Japanese education system. But population is the fundamental item of not only academic field of geography but also didactic context of geography education, with the function of connecting physical geography and socio-economic geography as shown in Slovak workbook contents. As mentioned in the second chapter, Ministry of Education of the SR points out the need to develop scientific and pedagogic research and creative utilisation of the foreign know-how and experience. It's the case for not only Slovakia but also Japan.

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