

Investigating the Spatial Planning Components in Social Science Books Geographic Chapters of the Fourth and Fifth Grades

Akram Karamali^{1*}, Fatemeh Qorban^{2,3}, Masumeh Zohorian⁴

¹Instructor at Payam Nur University, Tehran, Iran, ²Department of Expert in the Education, Shahid Rajai University, Tehran, Iran, ³M. A of Educational Research, Islamic Azad university of Rodehen, Tehran, Iran, ⁴M. A of Educational Planning, Islamic Azad University of Rodehen, Tehran, Iran. *Email: karamali7755@gmail.com

ABSTRACT

The present paper is driven from a study with the same title which has been conducted during the 2013-2014 academic year. This study aimed in investigating the content of the geographic chapters of social sciences' books in fourth and fifth grades, based on their compliance with components of natural resources, managerial strategies, cultural factors and social justice. The statistical population of the study were the total number of 5700 elementary schools' teachers of fourth and fifth grades in Tehran during 2013-2014 academic year. However, regarding the large statistical population, the sample size was determined using Krejcie and Morgan Table and 360 teachers were chosen from the study population and among all of the school districts of Tehran (north, south, east, west and center) through the multistage random cluster sampling method. The required data collected through a questionnaire which was developed by the researchers and confirmed by experts and professors with high validity and contain 24 subcomponents. Moreover, the reliability of the questionnaire was highly reported using Cronbach's alpha coefficients of 0.896. The analytical results indicated that from the fourth and fifth grades teachers, spatial planning components have not been properly and thoroughly considered in the Geography Books. Among the studied components, more attention has been toward the natural resources and less attention toward social justice. They also believed that components such as natural resources, managerial factors, cultural factors and social justice have been neglected in Geography books.

Keywords: Spatial Planning, Components Social Sciences School Books

JEL Classifications: I2, A2, A3

1. INTRODUCTION

The current technological progress requires a new approach in educational design to adjust the technological ongoing progress, meanwhile, the traditional educational methods are no longer efficient and more influential strategies are required to meet individuals' needs and objectives in the most convenient way. These methods should help students to flourish their potentials on the utmost level and increase their knowledge and information to face the shortages of the transitional society and find a solution for a better and different future (Jamshidi and Qurchian, 2006).

The spatial planning is driven from the increasing awareness of the existent problems and seeking the solutions while preparing the groundwork for sustainable development in long term and considering the requirements of the growth and development. The spatial planning relying on spatial and geography can provide a

precise and exact methodology through analysis (the analytical studies of problems, limitations and capabilities), recognizing the general situation (recognition of the cross-sectional issues, economical studies of structures and the current mechanisms) and vision (basic assumptions and options, spatial planning land and long-term images) (Jamshidi and Qurchian, 2006).

Spatial planning is the independent variable in the present study and contains several definitions such as achieving the most favorable distribution of the population through the best distribution of economic and social activities in an area (Andalib, 2001). Logistics consists of economics, geography and sociology sciences and includes organizational and systematic actions in environmental, social, national and local economic contexts based on the main orientation of the country's long-term development and through a general view toward the national development and considered reflections, facilities, capabilities, restrictions

and obstacles and combining these two processes in economic sectors and inter-regional coordination (Tofiq, 2005). Logistics can be also considered as “the efficient spatial organization in order to achieve comprehensive national objectives;” according to the last definition, the spatial components include population density, economic and social activities and environment (Jamshidi and Qurchian, 2006). Spatial planning is about the utilization and exploitation methods used by people and their activities in various and distinct environment while contains proper spaces for regional situations (Richard, 2010).

The planning experiences and national development programs before and after the Islamic Revolution of Iran have indicated the neglect and lack of perception of spatial dimensions and results which have led to lack of regional balance and social and economic inequalities in the country, so that most of the country's regions cannot reach their true potentials and benefit from national development. These confusions and disorders root in the planning system and the traditional planning lack the necessary instruments to deal with these problems (Andalib, 2001).

Lack of a comprehensive view toward education and neglecting the demographics in educational planning have caused problems such as:

1. The gap between supply and demand in educational system.
2. Educational products' lack of efficiency.
3. Great different between the educational materials' content and the reality of the society and individuals.
4. Increasing educational inequalities (Jamshidi and Qurchian, 2006).

The current evidences are revealing numerous shortcomings and inconsistencies in relation to the content of textbooks, such as geographical books in elementary schools with students' demands and needs (Farnoudian, 2007).

Geographical science is naturally represented through descriptive or spatial terms which are not creating the geographical skills and thinking by themselves (Jamshidi and Qurchian, 2006). Many studies in this regard have mentioned the challenges in terms of managerial and cultural components regarding spatial planning (Zamani, 2010; Tabibian, 2009; Verdinejad and Arimiashiani, 2008; Taqavi, 1992). Tabibian (2009) indicated the dispersed and unstable situation of spatial planning in Iran and mentioned that its institutional organization is only restricted to the spatial planning organization as a subset of the plan and budget organization which suffers from lack of managerial efficiency and expert and committed human resources which is not practically meeting the spatial planning requirements of the country. Zamani (2010) in another study concluded that spatial planning based on logistics and considering the regional division of labor have not been considered and the possibilities, opportunities, capabilities are neglected and caused restrictions and obstacles without taking the political, social, economic and cultural aspects of regional needs into account. The clear consequence of this situation is the unequal distribution of opportunities, facilities, resources and exacerbating the regional developmental inequalities and ultimately the inequalities in the sustainable development. The 10-year census

data and official statistics show the centralization of the economic areas, sanitary facilities, cultural and political organizations in metropolis without considering the spatial characteristics and features (Zamani, 2010).

In fact, the spatial planning does not exist in Iran yet and the cultural - social development is not an exception. Studying the cultural facilities and current infrastructures all over the country clearly prove this inequality and reveal the necessity of taking actions in harmonizing the developmental levels which will eventually result in restructuring the country and improving the social justice (Verdinejad and Arimiashiani, 2008).

Rural migrants consisting 80% of the resident in suburb neighborhoods, the conflicts between suburb culture and urban culture have led to ongoing social damages and developing false jobs. Moreover, the current capacity of cities cannot respond to the increasing population of the target society and the results are reduction of social welfare, per capita urban amenities, education, health and etc. (Taqavi, 1992).

Other studies such as (Hansen, 2001), (Kommers and Mackie, 2010) and (Ayatollahi, 2011) are mentioning the lack of attention to managerial components, natural resources and justice. Hansen (2001) mentioned respecting the social justice in distribution of economic development in different regions; he suggested that this would result in full welfare and development of potential capacities of the society.

Kommers and Mackie (2010) proposed that having discipline in managing the natural resources such as land, water, soil, plants and wildlife can significantly influence the present and future quality of life. Natural resource management involves identifying the proper method of exploiting them and neglecting it will lead to the life quality reduction. Ayatollahi (2011) has also stated that human geography and other features of different regions need more consideration and studying. Thus, in order to avoid shortcomings and problems in curriculum development and particularly selecting and organizing content of the textbooks, more researches and studies are required (Farnoudian, 2007).

The logistics and spatial planning have been proposed in order to balance between the school books' contents and students' requirements. In fact, spatial planning is a comprehensive map of capabilities, potentials and opportunities that can be presented curriculum designers to students according to their rational and age. With the help of spatial planning data base, the general abilities of the society can be perceived; through using strategic and long-term planning documents such as Iran 1404, the Marco strategies and orientations can be understood and utilized as a directing map to design the curriculum (Jamshidi and Qurchian, 2006).

The spatial planning would prevent natural resources' destruction and assist the authorities with their optimal preservation. Enhancing the natural resources will lead to increasing the net income and GDP, resolving the economic crisis, creating job opportunities and eliminating poverty (Hassanpour, 2009).

Establishing a comprehensive spatial planning pattern would cause the consecutive and organized human resources' activities. Another result would be the efficient management in order to achieve social justice, life quality enhancement and preserving the national identity. However, the successful implementation of spatial planning depends on the geographical recognition of the context and environment (Sorourm, 2005). Natural resources management can eliminate the damages caused by neglecting them and provide welfare, job opportunities and vitality (Seyyed, 2009).

The spatial planning process consists of three phases:

- a. Organizing the studies
 - First step: Developing the detailed description studies' services.
 - Second step: Establishing and equipping the organization.
 - Third step: Collecting and summarizing the implemented comprehensive designs' studies.
- b. Examining the current situation and feasibility studies
 - First step: Recognizing and analyzing the current spatial structure of the country and identifying the influential factors on its formation.
 - Second step: Studying the regional roles in dividing the national economic activities.
 - Third step: Studying and examining the affecting regulations in regional development.
 - Fourth step: Inferring the strengths and weaknesses and the current trends in the country's spatial structure and population distribution.
 - Fifth step: Identifying the critical areas or in danger areas regarding the natural environment and human crisis.
 - Sixth step: Studying the spatial distribution of development capabilities (natural, human, physical and financial resources) in the country.

Many different points of view exist about the spatial planning in Iran and around the world, some major one are as the following:

- a. John fridman: Space and environment are created from cross-functional relationships and their types depend on the nature of these fundamental relations.
- b. Scetiran consulting engineers group: Space is about the common perspectives in all of the decisions and constructive projects.
- c. Webster's dictionary: A boundless three-dimensional extent in which objects and events occur and have relative position and direction.

Kueiwang (2009) in a study entitled "natural resources and urban management strategies" concluded that analyzing the implementing methods of natural and urban resources is only possible by management sciences. According to the general view, the impact of the air quality on progress is estimated about 1366/0 which is more important than other factors. Another view is regarding the water consumption and also about the importance of preserving the regions and buildings' structures. The ecological theories of spatial planning have the main implication in these

issues. Another important view is creating green spaces and vegetation.

The spatial planning's principles are as the following:

1. Promoting social justice and regional balance.
2. Environmental protection and restoration of natural resources.
3. Maintaining the Islamic and Iranian identity, and preserving the cultural heritages.
4. Balance between different regions of the country.
5. Eliminating poverty, especially in rural areas.
6. National unity and identity.
7. Enhancing the rural and farmers' quality of life and eliminating poverty (Imam Khomeini Relief Committee, 2006).

The relation between the spatial planning and geography has been differently expressed. Accordingly, geography can be the expression of the settlement type, population distribution and activities in the region; on the other side, spatial planning is the adjustment among the mentioned elements (Fouladi, 2002. p. 32).

There is an interwoven relation between "geography" and "spatial planning." In fact, geography is the most logistics science and spatial planning the most geographical planning. What geography explains and as science is described as a set of arts and techniques in spatial planning. on the other word, "geography" explains and "spatial planning" expounds the geographical changes and geographical designs (Sorourm, 2005. p. 37).

According to geographers, spatial planning is exploiting the land and recourse from the applied geographical sciences and planning; studying the spatial planning can provide a new arrangements of natural and human recourses' organizations. The rational and balanced seasonal organization is vital to any human community and this magnify the importance of logistics techniques in spatial planning (Khanifar, 2010).

Therefore, regarding the above discussions and the importance of spatial planning and its adjustment with students' material content, especially geography books of the fourth and fifth grades have been studied in the present study.

2. RESEARCH QUESTIONS

Main research question: According to teachers, to what extend the spatial planning components have been considered in fourth and fifth grades geography section of Social Sciences school books?

2.1. Subsidiary Questions

1. According to teachers, to what extend the natural resources have been considered in fourth and fifth grades geography section of Social Sciences school books?
2. According to teachers, to what extend the managerial strategies have been considered in fourth and fifth grades geography section of Social Sciences school books?
3. According to teachers, to what extend the cultural factors have been considered in fourth and fifth grades geography section of Social Sciences school books?

4. According to teachers, to what extend the Social Sciences school books of the fourth and fifth grades have been developed based on social justice criteria?

3. METHODOLOGY

As the teachers' point of views all of the twenty-two educational districts of Tehran have been the focus of this study, thus, the research method is descriptive survey.

3.1. Statistical Population and Sampling

The statistical population of the study were the total number of 5700 elementary schools' teachers of fourth and fifth grades in Tehran during 2013-2014 academic year. However, regarding the large statistical population, the sample size was determined using Krejcie and Morgan Table and 360 teachers were chosen from the study population and among all of the school districts of Tehran (north, south, east, west and center) through the multistage random cluster sampling method. To do so, five districts were randomly selected (districts 10, 4, 15, 2), and then fifteen schools from each selected district and five teachers from each randomly selected school.

3.2. Instrumentation

The required data collected through a questionnaire which was developed by the researchers and confirmed by experts and professors with high validity and contain 24 subcomponents and Likert style from 1 to 5.

4. RESULTS

According to teachers, to what extend the spatial planning components have been considered in fourth and fifth grades geography section of Social Sciences school books?

One-sample t-test has been conducted to answer the research question and the results are as following.

Regarding the indicated results in Table 1 and the significance level of $P < 0.05$, it can be concluded that the test is significant. That is, there is a significant relation between the estimated mean and the statistical population mean of the fourth and fifth grade school teachers' responses about considering the spatial planning components in the geography section of social sciences school books is different from the statistical population mean.

Table 1: One-sample t-test

Spatial planning	t	df	Significant level	Mean difference	Confidence interval	Mean
					Low	High
	-15/160	374	0/000	-11/346	-12/727	-9/966
P<0.000						48/653

Table 2: One-sample t-test

Natural resources	t	df	Significant level	Mean difference	Confidence interval	Mean
					Low	High
	-5/491	374	0/000	-1/249	-1/696	-801
P<0.000						16/250

Regarding the estimated mean (48/653) of the spatial components consideration in school books' content, which is lower than the statistical population mean (60) it is concluded that the spatial components have not been properly considered and contained in social sciences school books.

4.1. Subsidiary Research Question 1

According to teachers, to what extend the natural resources have been considered in fourth and fifth grades geography section of social sciences school books?

One-sample t-test has been conducted to answer the research question and the results are as following.

Regarding the indicated results in Table 2 and the significance level of $P < 0.05$, it can be concluded that the test is significant. That is, there is a significant relation between the estimated mean and the statistical population mean of the fourth and fifth grade school teachers' responses about considering the natural resources components in the geography section of social sciences school books is different from the statistical population mean. Regarding the estimated mean (16/250) of the spatial components consideration in school books' content, which is lower than the statistical population mean (17.50) it is concluded that the natural resources have not been properly considered and contained in social sciences school books.

4.2. Subsidiary Research Question 2

According to teachers, to what extend the managerial strategies have been considered in fourth and fifth grades geography section of Social Sciences school books?

One-sample t-test has been conducted to answer the research question and the results are as following.

Regarding the indicated results in Table 3 and the significance level of $P < 0.05$, it can be concluded that the test is significant. That is, there is a significant relation between the estimated mean and the statistical population mean of the fourth and fifth grade school teachers' responses about considering managerial strategies in the geography section of social sciences school books is different from the statistical population mean. Regarding the estimated mean (14/066) of the spatial components consideration in school books' content, which is lower than the statistical population mean (17.50) it is concluded that the managerial strategies have not been properly considered and contained in social sciences school books.

4.3. Subsidiary Research Question 3

According to teachers, to what extend the cultural components have been considered in fourth and fifth grades geography section of Social Sciences school books?

One-sample t-test has been conducted to answer the research question and the results are as following.

Regarding the indicated results in Table 4 and the significance level of $P < 0.05$, it can be concluded that the test is significant. That is, there is a significant relation between the estimated mean and the statistical population mean of the fourth and fifth grade school teachers' responses about considering cultural components in the geography section of social sciences school books is different from the statistical population mean. Regarding the estimated mean (9/474) of the spatial components consideration in school books' content, which is lower than the statistical population mean (12.50) it is concluded that the cultural components have not been properly considered and contained in social sciences school books.

4.4. Subsidiary Research Question 4

According to teachers, to what extend the Social Sciences school books of the fourth and fifth grades have been developed based on social justice criteria?

One-sample t-test has been conducted to answer the research question and the results are as following.

Regarding the indicated results in Table 5 and the significance level of $P < 0.05$, it can be concluded that the test is significant. That is, there is a significant relation between the estimated mean and the statistical population mean of the fourth and fifth grade school teachers' responses about considering social justice criteria in the social sciences school books' content is different from the statistical population mean. Regarding the estimated mean (8/861) of the spatial components consideration in school books' content, which is lower than the statistical population mean (12.50) it is concluded that the social justice criteria have not been properly considered and contained in social sciences school books.

Table 3: One-sample t-test

Managerial strategies	t	df	Significant level	Mean difference	Confidence interval		Mean
					Low	High	
	-14/463	374	0/000	-3/433	-3/900	-2/966	14/066
P<0.000							

Table 4: One-sample t-test

Cultural components	t	df	Significant level	Mean difference	Confidence interval		Mean
					Low	High	
	-17/555	374	0/000	-3/205	-3/364	-2/686	9/474
P<0.000							

Table 5: One-sample t-test

Social justice	t	df	Significant level	Mean difference	Confidence interval		Mean
					Low	High	
	-19/820	374	0/000	-3/638	-3/999	-3/277	8/861
P<0.000							

5. RESULTS AND DISCUSSIONS

According to the analytical results of the collected data, fourth and fifth grades teachers believe that the spatial planning components consideration in the geography section of the social sciences books' content is low and very low. This result consist with the results of Hataminejad et al (2010).

The results related to answer the first subsidiary question indicated that natural resources have not been properly considered in the geography section of the social sciences books' content. Accordingly, this result consistent with similar studies such as Ayatollahi (2011), Hansen (2001), Kommers and Mackie (2010).

The results related to answer the second subsidiary question indicated that according to teachers' responses, managerial strategies in the geography section of the social sciences books' content have been included in a very low or low extent. This result consistent with similar studies such as Tabibian (2009) and Kommers and Mackie (2010).

The teachers' responses to answer the third subsidiary question revealed that according to them, the cultural components have been neglected in large and very large extent. This result consistent with the results of other studies such as Verdinejad and Arimiashtiani (2008), Zamani (2010) and Taqavi (1992).

Finally, the results of the fourth question showed that teachers believe social justice components have been contained in social sciences books' materials in a low and very low extent. This result consistent with the results of the same study Verdinejad and Arimiashtiani (2008), Taqavi (1992) and Hansen (2001).

Regarding the above mentioned analytical results of the data and also the comparison with similar studies in this regard, the following suggestion are proposed:

1. According to the analytical result of the present study, the spatial planning components have been largely neglected in developing the fourth and fifth grades geographical sections

- of school books' content and educational material. Thus, it is recommended that the policy makers and curriculum designers to consider these very important components in designing and developing such educational materials.
2. According to the analytical result of the present study, the natural resources have been largely neglected in developing the fourth and fifth grades geographical sections of school books' content and educational material. Thus, it is recommended that the policy makers and curriculum designers to consider these very important items in designing and developing such educational materials, specially the geographical books.
 3. According to the analytical result of the present study, the managerial strategies have been largely neglected in developing the fourth and fifth grades geographical sections of school books' content and educational material. Thus, it is recommended that the policy makers and curriculum designers to consider them in designing and developing educational materials.
 4. According to the analytical result of the present study, the cultural components have been largely neglected in developing the fourth and fifth grades geographical sections of school books' content and educational material. Thus, it is recommended that the policy makers and curriculum designers to consider these very important factors in designing and developing such educational materials.
 5. According to the analytical result of the present study, the social justice criteria have been largely neglected in developing the fourth and fifth grades geographical sections of school books' content and educational material. Thus, it is recommended that the policy makers and curriculum designers to consider these very important criteria in designing and developing such educational materials.

REFERENCES

- Andalib, A. (2001), Basic Terms and Principles of Spatial Planning in Border Areas. Tehran: Karang.
- Ayatollahi, A. (2011), Spatial and Regional Planning in Kerman, Yazd and Kashan. Available from: <http://www.amayeshar.blogfa.com>.
- Farnoudian, F. (2007), The influential factors in developing the content and volume of social sciences school books' content in secondary school. *Quarterly Journal of Education*, 13(36), 112-115.
- Fouladi, M. (2002), Debates about spatial planning. *Journal of Technical and Executive Director's Message*, 7, 91.
- Hansen, N. (2001), *Regional Policies in a Changing World*. Westport, CT: Greenwood Press.
- Hassanpour, M.B. (2009), *Spatial Planning*. Riverside, CA: Biology Department of Rab Rashi Tabriz Institute.
- Hataminejad, H., Hosseini, M., Hosseini, A. (2010), Role of geography in spatial planning, *Journal of Geography Education*, 25 (1).
- Imam Khomeini Relief Committee. (2006), *Spatial Planning and Regional Balance in the Fourth Development Plan*. Driven. Available from: <http://www.lama Khomeini Relief foundation>.
- Jamshidi, A.S., Qurchian, N. (2006), From Spatial Planning to Curriculum Design. Tehran: Farashenakhti Andisheh.
- Khanifar, H. (2010), A review on the spatial planning concept and its functions in Iran. *Spatial Planning Journal*, 2(2), 50-53.
- Kommers, N., Mackie, P. (2010), *Management of Natural Resource Journalist Guide to Word Resources 2010*, World Resource Institute. p1-30.
- Kuei-Rang. (2009), Strategy Analysis of the Management of Natural Resources and the Urban Heat Island Effect Using a Fuzzy Analytic Hierarchy Process in the Mainly Kantry of Taiwan. Issue Date: 7-8. November. p529-533.
- Richard, H. (2010), *Spatial Planning*. London: Chapman.
- Seyyed, H.H. (2009), *Spatial Planning*. Natural Resources Committee in the Supreme Assembly of the Iranian Elite of Isfahan Province. The Free Encyclopedia.
- Sorourm, R. (2005), The Role of Functional Geography in Development and Constructive Plan (Comprehensive). Research and Translation Section of Zista Engineering Counselor Group.
- Tabibian, M. (2009), Planning and spatial planning in Iran. *Quarterly Journal Humans and the Environment*, 1(2), 20-28.
- Taqavi, N. (1992), *Rural - Urban Immigrations*. Tabriz: Sotudeh Publication.
- Tofiq, F. (2005), *Spatial Planning, Global Experience and Its Adjustment with Iran*. Tehran: Center of Urban Studies and Architecture of Iran.
- Verdinejad, F., Arimiashtiani, H.K. (2008), Land use planning, Urban management. *Spatial Planning*, 1(2), 6-10.
- Zamani, F. (2010), The importance of demography on spatial planning. *Quarterly of Population*, 69-70, 107-132.