

UDC 911.3.30 (477.51)

Olena Ryabokon, PhD Student
e-mail: Lena-Konotop@mail.ru
Mykola Gogol Nizhyn State University

COMPONENT STRUCTURE OF THE EDUCATIONAL COMPLEX OF CHERNIGIV REGION

In the article the component structure of the educational complex is defined, its main structural units are analyzed. Established what factors influence the placement of heterogeneous schools in Chernihiv region. The dynamic of the educational establishments of the region and inter-regional differences of their distribution are defined.

Now, research educational complex deals with many scientists. Actually geographers study conducted diverse educational complex at different levels, namely national, regional. Also, studies of functional components and complex relationships that are formed as a result of functional and components. Scientists are trying to make every effort to improve the operation of the educational sector and develop appropriate programs that also contribute to the improvement of the educational complex whole.

After analyzing the component structure of the educational complex of Chernihiv region we can make the following conclusions: Firstly: the heterogeneous distribution of educational institutions in the territory of Chernihiv region is affected by a number of demographic, settlement and socio-economic factors. Secondly, for the full existence of the educational complex all its structural components must operate in full force. Each component becomes important. So when the reforms in the education sector take place, it should be taken into account that a change of one structural component will lead to the changes of other structural components of the educational complex. Thirdly, only coordinated work of state and local government of educational complex will function properly.

Keywords: component structure, educational complex, component of the educational institutions, service component, component of the industry science.

Олена Рябоконт. КОМПОНЕНТНА СТРУКТУРА ОСВІТЬОГО КОМПЛЕКСУ ЧЕРНІГІВСЬКОЇ ОБЛАСТІ

У статті визначено компонентну структуру освітнього комплексу Чернігівської області, детально проаналізовано його основні структурні одиниці: компонент навчальних закладів, компонент галузевої науки, компонент спеціалізованого виробництва та компонент обслуговування. Встановлено, що нерівномірний розподіл навчальних закладів на території області залежить від низки демографічних, розселенських і соціально-економічних чинників. Визначено динаміку освітніх закладів області та міжрайонні відмінності їх поширення.

Ключові слова: компонентна структура, освітній комплекс, компонент закладів освіти, компонент обслуговування, компонент галузевої науки.

Елена Рябоконт. КОМПОНЕНТНАЯ СТРУКТУРА ОБРАЗОВАТЕЛЬНОГО КОМПЛЕКСА ЧЕРНИГОВСКОЙ ОБЛАСТИ

В статье определена компонентная структура образовательного комплекса Черниговской области, детально проанализированы его основные структурные единицы: компонент учебных заведений, компонент отраслевой науки, компонент специализированного производства и компонент обслуживания. Установлено, что неравномерное распределение учебных заведений на территории области зависит от ряда демографических, расселенческих и социально-экономических факторов. Определена динамика образовательных учреждений области и межрайонные различия их распространения.

Ключевые слова: компонентная структура, образовательный комплекс, компонент учебных заведений, компонент обслуживания, компонент отраслевой науки.

Introduction. Nowadays satisfying the demand of population for educational services of good quality is all-round to full development of society. The educational complex is a complicated hierarchical system consisting of certain structural components and complex relationships between them. That is why it is very important to study the structure of the educational complex. It is also important to highlight how the operation of each component of educational complex influences on its work.

Scientific background. Specialists from different fields work at investigations of the educational complex. Actually scientists started to work at geographical researches of the educational complex only since 60s XX century. The research on territorial structure of an educational complex involved T. Melnychenko, O. Kornus, and N. Flint. Actually P. Virchenko, K. Niemets, G. Kuleshova work at the researches of the component structure. Research results are presented in monograph concerning the structure of the educational complex in Kharkiv region [6].

The main purpose of the article is to describe the component structure of the educational complex of Chernihiv and to identify area-based differences in the expansion of the educational establishments.

Key research findings. The structure of the educational sector in the region is a combination of certain constituent units, vertical and horizontal connections between them, which totality ensure its existence and functioning as a whole. [4]

Each complex has its educational, industrial and management structure. The main structural elements of the component structure of the educational complex of Chernihiv are: the component of educational institution; the component of industry science; the component of specialized manufacturing and the component of service [1].

The component of educational institution includes such institutions that provide: pre-school, primary general, basic secondary, complete secondary, extra-curricular, vocational, basic higher education, higher education and scientific training [1].

The first step towards getting education by a person

is pre-school education. It is exactly in the kindergartens the person starts to get acquainted with the necessary knowledge that will become the foundation for gaining further knowledge. The main indicators of the organization of pre-school education are: preschool network, the number of places, number of children, coverage of children in preschool education and the number of teaching staff [6].

In early 2015\16 434 preschool educational institutions and 3 educational and rehabilitation centers operated in Chernihiv region. In 2011 based on existing pre-schools 80 new kindergartens and 76 additional groups were opened.

Indicator of preschool education coverage of children in the age from 3 to 6 years is 93.9% (2015\2016). A positive example of increasing coverage of children in preschool education is opening private children's groups. In 2015 a license to provide educational services in sphere of preschool education was received by private groups "Intelligence" (licensed amount 100 children),

"Indigo" (licensed amount 100 children) and "Mandarinka" (licensed amount 80 children). In 2016 there were opened two typical groups in reconstructed apartments of the preschool educational establishment "Vinochok" of Baturin City Council in Bakhmach area and Kropyvianskyi EC of Nizhyn area [7].

Unfortunately educational establishments in the territory of Chernihiv are situated irregularly. It results that the administrative districts of the region are provided with educational institutions differently, and this affects their accessibility to the public. The main role in formation the network of educational institutions plays the settlement and the demographic factors. Reduction of child population, devastation of rural settlements, the growth of small villages cause reduction of the number of educational institutions. This is especially true about the kindergartens and secondary schools. During the 1990-2015 years the number of pre-schools in the region decreased markedly – from 763 to 434 units (43.2%) (Table 1).

Table 1

The dynamics of preschool educational establishments of Chernihiv region

Years	Number of establishments, units	Places, units	Numbers of children, people	Coverage of children in percent according to the number of children of certain age
1990	763	51887	56310	57
1995	550	45412	34667	44
2000	520	22681	21851	39
2005	461	22530	22649	50
2010	414	24278	26115	54
2015	435	26804	31107	65

Calculated according to the data of the Central Statistical Office in Chernihiv region [2]

During this time period the dynamics of the number of preschools was mixed. Reduction of the network of the kindergartens lasted from 1990 to 2010. Starting with 2015 some positive improvements are observed – the number of preschools began to increase gradually. Generally this tendency of reduction of the kindergartens in Chernihiv is caused by two factors, economic and demographic. The economic crisis of the 90th century was the reason of the birth rate reduction, and therefore the number of preschool children. Also the rate of unemployment significantly increased, which caused a decrease of household incomes. Due to lack of money, many parents were not able to lead children to kindergartens and they were forced to leave them at home. Now the network of preschool institutions is slowly recovering, but with the current birth rate it is unlikely to achieve the rate of 1990.

Proportionately to the reduction of the number of schools there were decreasing places in them. For the 1990-2016 the number of places in kindergartens fell more than twice. Percentage of coverage of children in pre-schools of Chernihiv region is 59% (2016). Unfortunately there are great differences between the level of coverage of children in kindergartens in towns and villages. In urban areas it is 70%, while in rural areas only 27%.

Socio-economic and demographic preconditions identified internally-regional differences in the dynamics

of the network of preschool educational institutions. As expected, the most heavily has shortened the number of kindergartens in the settlements of areas that feature the most difficult demographic situation and rapidly reducing the number of children of preschool age. If the average number of regional pre-schools decreased by 43.2%, than in Horodnia region it decreased by 58.6%, in Novgorod-Seversky - by 69.4%, in Koryukovka - by 70.4%.

The next stage after pre-school is secondary education. According to the Constitution of Ukraine (Article 53) complete secondary education is compulsory for all citizens of the state [5]. As for pre-school education, the same is for secondary education – there are indicators that characterize its spatial organization: a network of GEI, the number of students, number of teachers, coverage of children of secondary education, graduation of students GEI [6].

Secondary education in Chernihiv region is received by children in 578 secondary educational establishments (I degree – 23, II degree – 202, III degree – 344 and 10 boarding schools), with a contingent of 90,470 students [7].

During the 1990-2016 the number of daily secondary schools has declined in Chernihiv region from 887 to 578 units (34.8%) (Table 2).

In recent years, the number of school-age children in Chernihiv region significantly decreased, class filling in rural schools is only 5-10 people. Under such condi-

tions it is impossible to provide teaching of good quality in all subjects, maintenance costs per student in ungraded schools is significantly higher than the average rates for the country. Reduction of the number of schools is approximately the same of decline in population area, which in the past 26 years decreased by 23.9%. Inter-district differences in a network of educational institutions are determined primarily by demographic and set-

tlement factors.

The most intense amount of school establishments declined in Novgorod-Seversky (41.2%), Kozelets (42.3) and Ripky (51.1%) regions. But in the cities of regional subordination (Chernihiv, Nizhyn), as well as in Varva area, the number of secondary schools unchanged or even increased.

Table 2

The dynamics of secondary schools in Chernihiv region, in cities of regional importance and districts

	2001/02	2009/10	2015/16
	<i>Number of establishments</i>		
Chernihiv region	837	686	578
Chernihiv city	45	42	38
Nizhyn town	18	20	19
Pryluky town	16	14	14
<i>districts</i>			
Bakhmach	34	34	32
Bobrovytsia	33	31	23
Borzna	40	34	28
Varva	16	15	15
Horodnia	38	31	24
Ichnia	38	29	25
Kozelets	57	45	37
Korop	34	26	21
Koriukovka	30	23	20
Kulykivka	17	15	14
Mena	34	30	21
Nizhyn	36	29	22
N.-Siverskyi	45	33	25
Nosovka	30	25	19
Pryluky	48	34	32
Ripky	43	28	16
Semenivka	28	19	17
Sosnytsia	29	22	21
Sribne	19	15	13
Talalaevsky	21	15	13
Chernihiv	58	53	50
Shchors	30	24	19

Calculated according to the data of the Central Statistical Office in Chernihiv region [2]

Dynamics of the contingent of students in Chernihiv region is characterized by its constant decrease. For the 1990-2016 the number of students has decreased almost by half - from 173.4 to 90.4 thousand people. The reason for this is the decline in the birth rate, especially during the 1995-2001 years. Borzna, Kulykivka, Nizhyn and Sosnytsia areas include the rapid reduction of the contingent of students among the districts of the region. In these areas the number of students has decreased by 42-46%. The rate of reduction in the number of students is significantly higher than the rate of decline in the number of schools, that leads to increasing of ungraded secondary schools. If in 1990 one school in Chernihiv region accounted for 195 students, then in 2016 it amounted to 143 persons.

A special concern is evoked in Nizhyn, Sosnytsia, Sribne areas where the average rate of school pupil con-

tingent is only 73-74 persons. According to the fact that the school of I-III degree has 11 classes, their average filling will be only about 7 people. With this number of students it is difficult to ensure the teaching of all subjects by experts of the profile. Everything mentioned above has led to that fact that Chernigov region has become a leader in Ukraine among ungraded schools - 52.2%. While in Ukraine, the share of schools with the number of students to 40 people is 27.6%, in Chernihiv region - 67% [3].

Taking into consideration the peculiarities of the demographic processes, increasing requirement for students with equal access to the education of good quality, reformation of educational institutions will continue in the future. It should be recognized as objective process, maximum efficiency of which is possible only if provided a thorough scientific analysis, ubiquitous evalua-

tion of assumptions and factors of educational complex in Chernihiv region.

Also there are 70 extracurricular institutions in Chernihiv where students have the opportunity to receive additional educational knowledge: 29 student houses, 10 young technician's stations, 5 centers for children and youth tourism and excursions, 24 sports schools, regional station of young naturalists, Chernihiv Small Academy of Sciences for Youth (2015\16), where in 2651 groups and sections over 40 thousand students develop their skills, representing 44.3% of children of school age. At each school in the region for the providing the extracurricular education different groups and sections work [7].

Regarding vocational education, there are 20 state vocational schools, including 3 higher vocational schools, 1 vocational education center, 12 professional lyceums, 2 vocational schools and 2 schools with facilities penitentiary in the region. Number of students in vocational schools for 2015\16 was 6162.

The network of higher educational establishments in Chernihiv in 2015\16 consists of 24 educational institutions of various forms of ownership (including 21-II accreditation levels, and 3 with III-VI accreditation level), namely: 3 universities, one institute, one academy, four schools, four technical schools and 10 colleges. Services of retraining and postgraduate education are provided by Chernihiv Regional Ushynsky Institute of Postgraduate Education. In Chernihiv region there is one private school (Pryluky financial and legal college) and 10 structural subdivisions of higher educational establishments. In 2015\16 in higher educational establishments in the region there studied more than 24 thousand students, 18.8 thousand people of which enrolled in full-time education. Among them 7.7 thousand people - students of technical schools, schools and colleges, and 11 100 - students of universities, institutes and academies. Higher educational establishments of the region have licenses for educational activity on specialties and specializations according to the educational qualification of junior specialist, bachelor, undergraduate and master [7].

The component of industry science is also important. Thanks to it, new methods and technologies are created that help the improvement of the process of education. It consists of: scientific, methodological, methodical, research institutions and design institutes. The component of industry science of the educational complex in Chernihiv region includes teaching rooms, located in the district education departments and the regional Department of Education, Department of Pedagogy and Psychology at the higher educational establishments in which various techniques are developed that help the improvement of the educational process.

Thanks to *the component of specialized production*, necessary instruments, devices, and materials are made, which are used in schools. This component of the educational complex includes companies and institutions of logistics, production of equipment and educational instruments, publishing, printing [1].

The State Register of publishers, manufacturers and distributors of publishing products of Chernihiv region includes 59 subjects of publishing of Chernihiv region.

In the region 258 objects are retailers of books, among them - 28 bookstores and 230 other facilities. PE "Terra" works at manufacturing the wide range of instrumentation and automation [7].

The component of service. In each regional educational establishment there are school canteens, health centers and libraries. Each institution that provides vocational or higher education has hostels for nonresident students. Together canteens, medical facilities, libraries and dormitories ensure the full functioning of all educational institutions, and the educational complex as a whole [1].

In Chernihiv region there are a significant number of libraries, namely: 3 regional libraries in Chernihiv, 22 central district libraries, 4 city libraries (Nizhyn Central Gogol City Library and its 5 subsidiaries, Novgorod-Siversky, Pryluky Central and its 5 branches, central Chernihiv Central Kotsyubynskyi Library and its 14 branches) and 17 specialized libraries. Each district library has its subsidiaries, collectively in the region the number of them is 664.

There are hostels providing housing for students from other cities. In vocational schools function 21 dormitories, in higher educational establishments there are 32 hostels [7].

Each educational establishment has cafeteria, providing students with healthy and food of good quality. The organization of feeding students is realized on the basis of the decree of the Cabinet of Ministers of Ukraine "On Approval of nutrition standards in schools and children's institutions of rehabilitation and recreation" of 22 November 2004 Number 159.

In secondary schools it was created a system of service within the institution (medical stations, staffed by nurses, depending on the number of students) for their lack the medical care is carried out by hospitals, medical assistant station in the sphere of service sector of which is school. Annually the medical examinations of school children in hospitals only in the presence of parents or persons substituting them are carried out. Also medical services for children are provided by district clinics and hospitals, the regional children's clinic and hospital and medical laboratories and diagnostic centers [7]. Small rural schools in the territory of Chernihiv faced the problems of health care as there are a lot of them in the region.

All structural elements of the component structure educational complex are interconnected by vertical and horizontal connections. They interact with each other and if at least one component does not work anymore fully, it will affect on the functioning of the whole educational complex.

Conclusions and prospects of further research.

After analyzing the component structure of educational complex in Chernihiv region we can make the following conclusions:

Firstly: the heterogeneous distribution of educational institutions in the territory of Chernihiv region is affected by a number of demographic, settlement and socio-economic factors.

Secondly, for the full existence of the educational complex all its structural components must operate at one's full potential. Each component becomes important.

So when the reforms in the education sector take place, it should be taken into account that a change of one structural component will lead to the changes of other structural components of the educational complex.

Thirdly, only coordinated work of state and local government of educational complex will function properly.

Список використаних джерел:

1. Вірченко П.А. Просторова організація системи освіти регіону (на прикладі Харківської області). [Текст]: дис... канд. геогр. наук: 11.00.02 / Павло Анатолійович Вірченко; Харківський національний університет ім. В.Н. Каразіна. – Х., 2009. – 20 с.
2. Головне управління статистики в Чернігівській області. Статистичний щорічник «Чернігівщина – 2015» // За редакцією Ашихміної Д.І. – 2015. – 480 с.
3. Заліський А. Освітній округ – шлях до якісної освіти / А. Заліський // Сіверянський літопис. – 2013. – № 1(109). – С. 125-129.
4. Ільвів О.М. Структура освітнього комплексу регіону / О.М. Ільвів // Науковий вісник Чернівецького університету: збірник наукових праць. – Чернівці: Чернівецький національний університет, 2014. – Вип. 696: Географія. – С. 98-100.
5. Конституція України – К.: Преса України, 1997. – 22 с.
6. Немець К.А. Система освіти Харківської області: суспільно-географічний аспект: [монографія] / К.А. Немець, П.А. Вірченко, Г.О. Кулешова. – Харків: ХНУ імені В.Н. Каразіна, 2014. – 180 с.
7. Управління освіти і науки Чернігівської обласної державної адміністрації. Освіта Чернігівщини [Електронний ресурс]. – Режим доступу: <http://uon.cg.gov.ua/index.php.id.5044&tp.1&pg>.

References:

1. Virchenko, P.A. (2009). Prostorova organizatsiya systemi osvity regionu (na prykladi Kharkivskoi oblasti) [Spatial organization of education in the region (for example Kharkiv region)]. Kharkivskiyi natsionalnyi universytet im. V.N. Karazina, Kharkiv, 20.
2. Holovne upravlinnya statystyky v Chernihivskiyi oblasti. Statystychniy shchorichnyk «Chernihivshchyna – 2015» (2015). [Department of Statistics in Chernihiv region. Statistical Yearbook "Chernihiv – 2015"]. Za red. Ashikhmi-noi D.I., 480.
3. Zaliskiyi, A. (2013). Osvitniy okruh – shlyah do yakisnoi osvIti [Education District – the path to quality education]. Siveryanskyi litopys, 1 (109), 125-129.
4. Ilyiv, O.M. (2014). Struktura osvitnoho kompleksu regionu [The structure of the educational sector in the region]. *Naukovyi visnik Chernivetskoho universitetu: zbirnyk naukovykh prats*. Chernivtsi: Chernivetskyi natsionalnyi uni-versitet, Vyp. 696: Geografiya, 98-100.
5. Konstitutsiya Ukrainy (1997). [The Constitution of Ukraine]. K.: Presa Ukrainy, 22.
6. Niemets, K.A., Virchenko, P.A., Kulieshova, H.O. (2014). Systema osvity Kharkivskoi oblasti: suspilno-geografichnyi aspekt [Education system of Kharkiv region: the socio-geographical aspect]. Kharkiv, KhNU imeni V.N. Karazina, 180.
7. Upravlinnya osvity i nauky Chernigivskoi oblasnoi derzhavnoi administratsii. Osvita Chernihivshchyny [Chernihiv Education]. Available at: <http://uon.cg.gov.ua/index.php.id.5044&tp.1&pg>.

Надійшла до редколегії 01.10.2016 р.