Social Capital of Territorial Educational Complexes: Development Features and Problems (Using the Example of Moscow)

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Abstract
In modern Russian conditions of the education system modernization, special attention must be paid to the social capital of educational organizations, since it largely determines the quality of educational activity. The article analyzes the personnel management system in the framework of the territorial educational complexes of the Southern Administrative District of Moscow. The relationship was found between the satisfaction of teachers with their work and such factors as the complexity and intensity of work, the ability of management to manage effectively, and communication between the administration and the teaching staff. Based on the study, key barriers were identified that did not allow educational complexes to develop social capital: a high level of tension among the teaching staff of educational institutions; a high level and variety of tasks that teachers need to solve; difficulties with planning activities within the educational complex and related to communication between teaching staff and governing bodies; insufficient level of managerial competence development among the employees of educational complexes. The authors conclude that in order to overcome the identified barriers, it is necessary to carry out comprehensive diagnostics of the educational complex management system state regularly, conduct the monitoring of indicators reflecting the level of employee motivation and the effectiveness of their managerial activities on the basis of educational complexes. It is necessary to maintain the socio-psychological security of the educational environment and apply an integrated approach to interaction system development between all participants of the educational process.

Keywords: territorial educational complex, teachers, managerial competencies, education quality, monitoring, educational service.
1. Introduction

Creation of a strategy and implementation of education informatization policy through the introduction of innovative management models and the organization of the educational process using mechanisms for integrating information and communication technologies into the practice of modern pedagogy is currently one of the priorities of UNESCO activities in the field of education (Dendev, 2013).

The principles underlying strategic management are reflected successfully in the practice of modern educational complex management.

Territorial educational complexes should be considered as organizational systems from the point of view of management. The key management principle is changing in a new educational organization, which should be reduced to a balance of interest provision, as the correspondence between the amount of investment and the expected result.

Territorial educational complexes, combining the institutes of general, school and further education, represent an innovative management model in the field of general education. By changing the design scale from the level of a school educational institution to a certain territory, it becomes possible to respond to a diversified request for population educational services through the integration of educational organizations with the institutions of other areas (Kirillov, 2013).

The goal of combining schools into a territorial educational complex (TEC) is to create a single educational space to meet family needs, guided by the principles of education continuity and succession at all levels of education, implementing the programs of pre-school, general and additional education for children from 1.5 to 18 years. The main tools that determine the result of the education system transition to appropriate technological footprints are the following ones: reorganization of educational institutions (organizations) and resource management, as well as a transparent procedure for state (regional) obligation financing in education (Kasprzhak, 2015).

Despite this, there is currently a high differentiation in the rate of strategic development of the Russian regional education systems. This is largely due to the lack of willingness and ability of managers to introduce new ideas into educational practice (Rakhmattulaev, 2015).

According to many experts, the formation of educational complexes as the result of various educational organization combination is usually accompanied by managerial level reduction; the conflicts between subjects of educational activity; decreased team manageability (Gainutdinov, 2014).

The process of territorial educational complex development as a new structure requires management personnel to implement new technologies and mechanisms, to possess new competencies of strategic thinking. However, real practice shows that not all representatives of educational management and teachers are ready for innovative management models.

Besides, over the years, despite the ongoing reforms in the educational sphere, the assessments of the school system remain average. Thus, according to the VTsIOM studies of 2019 “School education: tasks, priorities, needs”, about half of the respondents consider that the situation in the field of school education has worsened over the past 5-10 years (51 %), only 17 % of respondents accept educational reforms positively. At the same time, it is worth noting that among the key parameters of an educational institution functioning and development, the majority of respondents assess the goodwill and attention of teachers to children (85 %), the qualifications of teachers (78 %) and the staffing of the educational institution (67 %) rather positively (VTsIOM, 2019). Accordingly, despite the general negative perception of educational reforms, the respondents’ attitude towards teachers remains positive.

Thus, “it is necessary to implement the strategy of adaptation to the unknown, to initiate positive changes in the nearest society within the educational complexes” (Khaikin, 2014). Under the conditions of effective management, they are able not only to guarantee the real availability of quality education, but also to reduce the severity of social contradictions that unite different strata of society. Accordingly, the development of TEC as a newly formed large organization of the education system needs to improve management mechanisms. The quality of education system management is directly related to the level of professional competence of leaders, because the change of the educational paradigm formulates fundamentally new requirements for them.

All this actualizes the search for new mechanisms to improve the activities of educational complexes, taking into account the needs of not only direct consumers of educational services, but also the educational process participants.
2. Analysis of recent publications on the problem

The studies on the development of the educational system and its assessment are of interest not only to domestic, but also to foreign scientists.

The processes of modeling and designing the educational process, the role of pedagogical technologies in it are the subject of consideration in the works by V.K. Dyachenko, V.A. Ermolenko, G.K. Selevko, A.P. Tryapitsina et al. Evaluation of innovative educational program implementation results is presented in the studies by Yu.F. Gortyshov and G.L. Degtyareva.

The works by Gromyko Yu.V., G.U. Matushansky, R.R. Garifullina, and R.F. Bakeeva are devoted to the study of educational complex organization possibilities in the education system, and the formation of innovative educational clusters. The assessment of reforming education possibilities based on the use of the cluster approach was carried out in the works by L. Grudtsyna, A. Lapatkina and others. The problems of educational complex development at the regional level are reflected in the works by M.V. Gruzdev, and A.V. Zolotareva.

The works by Yasvin V.A. and Morgacheva E.M. are devoted to the study of organizational and cultural risks in the unification of educational organizations and their role in the managerial activities of the educational organization leaders. The analysis of the best systems of school education is presented in the works by M. Barber, M. Murshed, in which they noted that regardless of the particular socio-cultural development of different countries, it is possible to achieve serious qualitative changes in school systems during a fairly short period.

Special attention should be paid to the works devoted to the issues of interaction between the subjects of the educational process. Similar topics are revealed in the writings by E.V. Bondarevskaya, V.A. Sukhomlinsky, and N.E. Shchurkova. Many studies show that professional relations of teachers represent an important factor in teaching quality improvement. So, the study by E.N. Cusco, using the case study of two educational complexes as an example of the network analysis method use, demonstrates the features of professional and personal interactions between teachers within individual units of the territorial educational complex, the role of heads of school methodological associations and the administration (Cusco, 2017).

According to many foreign researchers, there is a steady positive correlation between the density of interactions and the educational results of school. The pedagogical community as school development agent, as well as in the context of a teacher’s involvement in new educational practices, is considered in the work by Sławomir Krzychała. Social justice of teacher education is the focus of research by Katie A. Danielson and Sarah Schneider Kavanagh. The works by Mike Metz, Mary Hauser, Brad Fogo, Megan Westwood Taylor, Sarah Schneider Kavanagh, Janet Carlson are devoted to revealing the role of practice-oriented teacher education (POTE). Teacher performance assessment systems are analyzed by Sy Doan, Jonathan D. Schweig, and Kata Mihaly.

A number of studies are aimed at studying the role of school administration in the educational process. In particular, special attention is paid to school management, teacher training in Mumbai and Delhi in the works by Vidya K. Subramanian. The works by Terrance L. Green are devoted to the analysis of the principal activities in the southeastern United States.

However, despite the wide variety of studies on the problems of education development, the issues of educational complex development as innovative models of education and the role of the social capital among educational activity participants remain insufficiently studied.

3. Materials and Methods

The empirical basis of the study was the results of the sociological study conducted by the authors during 2018 in the educational complexes of the Southern Administrative District of Moscow. The educational space of the Southern Administrative District of Moscow is represented by 5 educational complexes. The purpose of the expert survey was to assess the personnel management system, the characteristics of social capital development in the framework of educational complexes. The respondents were the employees of educational complexes in the Southern Administrative District of Moscow (N = 122). A systematic probabilistic sample was used. The basis of the sample was the list of employees of the territorial educational complexes of the Southern Administrative District of Moscow (in alphabetical order). The respondents were selected based on the list of the general population at intervals (K = 11). Alphabetic lists ensure that all units of the general population fit into the sample equally. Research tools are represented by a questionnaire.
The results of the study were analyzed by analyzing the dependence of educational complex employee satisfaction level on such factors as complexity and intensity of work, labor planning, leadership ability, sociability, work organization and others. The authors used the counting method for the Pearson criterion $\chi^2$.

However, there are certain limitations to the study. The resulting sample does not provide an opportunity to cover the entire target audience, as the study was conducted only on the territory of one administrative district of Moscow. In accordance with this, the results can be defined as preliminary, and for further more detailed analysis it is necessary to carry out a comparative analysis of the features of the formation and results of the development of territorial educational complexes of all administrative districts of Moscow. A larger sample size will provide more diverse information on the subject.

The obtained scientific results were also based on general scientific research methods. The analysis of statistical data made it possible to assess the modern system of school education in Russia, and also to determine the attitude of the population towards the subjects of educational activity. The method of comparative analysis was used to compare the features of educational system development in different countries. The use of analogy, generalization and extrapolation method was conditioned by the need to formulate conclusions based on the results of the study and develop recommendations for the development of territorial educational complex model.

Besides, the information base was the results of the studies by the All-Russian Center for the Study of Public Opinion (VTSIOM) on the following topic: “School education: tasks, priorities, needs” (2019), and the Public Opinion Foundation (POF) on the topic “Teachers and School” (October, 2019).

4. Results

The reform on the organization of educational complexes was widespread in Moscow. Starting in 2011, conditions began to be created in the capital for the transition of the education system to a new level of innovative development. Thus, all educational organizations were transformed into territorial educational complexes.

As of January 1, 2018, the system of capital education includes 587 multidisciplinary schools that implement the programs of general and additional education, including 562 schools with preschool groups; 53 colleges; 2 higher education organizations; 27 educational organizations of additional education. The total contingent of students in the educational system of the city of Moscow exceeds 1 million 420 thousand people. The report on the results of the state program "Capital Education" in 2017 declared the results of the school reorganization process. Among more than 6,000 small educational institutions, 789 large polyprofile multilevel educational institutions were created.

It is interesting in this regard to analyze the ways the residents of Moscow evaluate modern education directly. According to the POF “Teachers and School” study conducted in October 2019, the majority of respondents rated the quality of education as average (38 %), while more than a third of respondents consider it poor (37 %). In addition, according to the residents of Moscow, the quality of modern education has been deteriorating recently (47 %), only 17 % said that the state of the education system would improve, while others say that no major changes take place. Muscovites are quite critical of a modern teacher work. Only about a third of the respondents (29 %) called it good (for comparison: 34 % according to Russians) and 31 % of respondents considered it as satisfactory. Nevertheless, the majority of Muscovites (40 %), whose relatives are currently studying at school, like the teachers in these educational institutions (Teachers and schools, POF). These answers confirm all-Russian tendency of a rather positive perception of a teacher.

Thus, in many respects the effectiveness of the educational organization depends on the teaching staff and, accordingly, the degree of teacher’s satisfaction with the conditions of his work.

The results of the study showed a high dependence of educational complex employee satisfaction degree on the complexity and intensity of work, the attitude to work and the presence of communications between the administration of the complex and the staff.

The authors used the counting method for the Pearson criterion $\chi^2$ (Table 1).
Table 1. Analysis of contingency tables using the chi-square test

<table>
<thead>
<tr>
<th>Factor trait</th>
<th>Resulting trait</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor difficulty</td>
<td>Yes</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>39</td>
</tr>
<tr>
<td>High labor intensity</td>
<td>Yes</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>34</td>
</tr>
<tr>
<td>Difficulties during the whole complex activity planning</td>
<td>Yes</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>47</td>
</tr>
<tr>
<td>Insufficient level of managerial competence development among complex administration</td>
<td>Yes</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>Difficulties in communication between the administration and the teaching staff</td>
<td>Yes</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>43</td>
</tr>
<tr>
<td>Difficulties in communication within the teaching staff Removed, since 10 is not allowed, 9 is possible</td>
<td>Yes</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Difficulties in communication between teachers and students</td>
<td>Yes</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
</tr>
<tr>
<td>Difficulties in labor organization</td>
<td>Yes</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>51</td>
</tr>
<tr>
<td>Responsible attitude to work</td>
<td>Yes</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>643</td>
</tr>
<tr>
<td></td>
<td></td>
<td>437</td>
</tr>
</tbody>
</table>

During the analysis of the data obtained, the following results were obtained. The value of χ² criterion makes 134.639. The critical value of χ² at the significance level of p = 0.01 makes 20.09. The relationship between factor and effective traits is statistically significant at the significance level of p < 0.01.

Based on the study, those factors were identified that influence the formation of the social capital of an educational organization and do not allow an educational complex to develop at higher rates.

Firstly, this is a high level of tension among the teaching staff of educational institutions. This is largely due to the fact that when you combine various schools into educational complexes, management does not always take into account the peculiarities of the organizational culture of these educational organizations. This fact is reflected in many foreign studies. Thus, the study of more than two hundred organizations in which the processes of mergers or acquisitions took place showed that the underestimation of differences in the organizational cultures of the merged institutions by managers turned out to be one of the key managerial errors that caused the unfortunate consequences (Yasvin, 2017). In this regard, it is necessary to involve the pedagogical community in new educational practices, to form an orientation pattern (Sławomir Krzychała, 2019).

Secondly, there is a high level and variety of tasks that teachers need to solve. This is mainly due to the fact that in modern conditions of the education system dynamic development, the regular update of educational programs, as well as new methods and innovative technology introduction in the educational process, not all teachers are ready for such changes caused by the high rates of capital education development.

Thirdly, there are the difficulties with planning activities within the educational complex. This problem was largely caused by the fact that after the combination of individual educational institutions into a single educational complex, the new leadership in the development of strategic plans, as a rule, did not always take into account the features of their development, organizational culture and growth points.

Fourth, the difficulties associated with communication between teaching staff and governing bodies. Similar difficulties are also caused mainly by the active processes of school combination into the educational complex and the emergence of a certain disunity between its leadership and the teaching staff.
Fifth, the insufficient level of managerial competence development among the employees of educational complexes. This indicates that not all employees of the complex have the necessary skills and competencies for the implementation of management activities.

The study demonstrated that such aspects as sociability, responsible attitude to work and the general degree of work quality among the employees of educational complexes are expressed at a high level.

Besides, the internal climate and the degree of trust between students and teachers, schoolchildren themselves and their parents have a significant impact on the development of the educational institution and the growth of its effectiveness indicators. All these factors form a single picture of the educational institution socio-psychological security.

After the study, they found that interaction both within the teaching staff and with students does not pose serious difficulties for the respondents.

The study showed that most of the surveyed employees characterize the educational environment positively, feel protected inside it, which allows them to develop favorable and comfortable relations not only with students, but also with colleagues.

5. Discussion

The results of the study allow us to note that the complexity and intensity of work, the diversity and wide range of tasks that teachers face, leads to the formation of a high level of tension in a team. A similar situation is probably conditioned by the fact that not all employees of the educational complex have adapted to innovations and changes taking place in their educational organizations. To reduce psychological barriers and create a comfortable working environment, it is necessary to conduct relevant trainings and events to increase the level of motivation for innovative technology application. Separately, it is worth noting the role of practice-oriented professional development programs for teachers, which allow them to build adaptive learning abilities (Sarah Schneider Kavanagh et al., 2019), as well as the need to prepare teachers for project-based learning (Pam Grossman et al., 2019), which will improve the quality of education in general.

Also, the results of the study demonstrate the difficulties with planning activities within the educational complex and the lack of constructive communication between the administrations of the TEC and the teaching staff. In many respects, this may be due to the fact that not all employees of the educational complex occupying administrative positions have managerial skills and competencies. Excessive management bureaucracy reduces the rate of the management system adaptation to the transformation of environmental conditions for the implementation of educational policy (Rogach et al., 2017). The presence of strategic thinking is currently one of the most important qualities of a modern manager. Accordingly, the need for advanced training of educational complex heads will allow them to master the competencies of a modern educational manager who can manage in the face of uncertainty, have strategic thinking and own innovative methods and technologies (Litakova, Medvedeva, 2017).

Effective human resource management in educational organizations can be promoted by educational marketing, which is currently not fully developed (Vetrova et al., 2019). Moreover, only the integrated development of human, material and information resources stimulates the synergistic effect of educational services and ensures the achievement of the educational organization mission (Gorghiu et al., 2019). To help teachers improve the quality of teaching, it is necessary to create conditions that allow them to recognize the shortcomings of their work and gain knowledge about proven best practices, and interest teachers in their work improvement (Barber, Murched, 2008). All this can be done by a monitoring system development. Modern teacher performance appraisal systems use a variety of performance indicators to build performance ratings (Sy Doan et al., 2019). Studies show that the introduction of a system for monitoring the quality of processes and activity results is one of the urgent tasks of educational complexes and the achievement of their management systems at a higher level (Seryshev, 2017). At the same time, the assessment should provide valuable information for management, provide feedback and support a dynamic learning feature (Elmore, 2019).

Good practices in the development of a new educational system exist in such countries as the UK, USA, Germany. The main goal of this system is to formulate a detailed developed strategy aimed at specific goals and indicator implementation (Coveni, 2011).
Due to the fact that the management of educational institutions tends to become more complicated, there is a need for the development of inter-educational structural ties among individual institutions. Thus, new types of educational institutions require a specific approach to a management system organization within them. The financial independence of educational institutions increases, which entails the degree of responsibility increase for the results of their activities on the part of the apparatus for their management. Thus, in the management practice of the UK schools, the technology of planning, called Hyperion Planning, is actively used (Matushansky, 2014). The practice of this technology use was first implemented in 1995. The main objective of this system is to organize budget planning processes.

The new management model of the Balanced Scorecard is actively used in Chile, as the tool for the organization strategy management (Savzikhanova, 2013; Cancino, 2019). With its help, one can consider activity in several perspectives, i.e. monitor performance not only by financial indicators, but also by the quality of work with employees, the quality of communications, etc. Using such a model allows the Chilean government to receive and objectively evaluate information on the success of educational institutions, which greatly increases the implementation degree of set strategic goals and tasks.

Thus, an integrated approach is needed when they build a system of interaction between all participants in the educational process. New approaches to education management require modern teachers to meet high professional standards. Besides, in the conditions of educational complex development, a special role is played by maintaining the socio-psychological safety of the educational environment in relation to the four sides of the educational process (governing bodies, teachers, students and their parents).

To minimize the influence of these factors in each educational complex, it is necessary to pay special attention to the scientific and methodological support of educational system development in the context of new priorities of the Russian Federation educational policy. This can be done by organizing the relevant Centers. In particular, in the Southern Administrative District of Moscow there the Center for the Development of Educational Systems at the School No. 939, whose activities are aimed at the following goals: strategic design, consulting, examination and monitoring the development of educational systems; development of managerial competencies among managers, personnel reserve, employees and the management teams of educational organizations; accumulation of domestic and foreign educational, methodological and consulting resources, their systematization and concentration for the development and implementation of regional and municipal projects in the field of education; scientific and methodological support for the development and implementation of projects aimed at the development of educational systems, as well as educational organizations; scientific and methodological support for the development and implementation of financial and economic mechanisms to ensure innovative processes in the development of educational systems and their personnel potential (The official website of SBEE...).

Thus, the Center activities were integrated into the school educational practice, which allowed it to increase the effectiveness of its activities and the quality of educational complex management significantly.

6. Conclusion

At present, education, career and professional growth in Russia are priority life values (Kabanova, Vetrova, 2018). Thus, in modern Russian conditions, when they modernize the education system, special attention should be paid to the social capital of educational organizations, since it largely determines the quality of educational activity. The results of the study showed, that the satisfaction of teachers with their work depends primarily on such factors as complexity and intensity of work, the ability of management to manage effectively, communication between the administration and the teaching staff. Accordingly, the key barriers that prevent territorial educational complexes from social capital development are the following ones: a high level of tension among the teaching staff of educational institutions; a high level and variety of tasks that teachers need to solve; difficulties with planning activities within the educational complex and related to communication between teaching staff and governing bodies; insufficient level of managerial competence development among the employees of educational complexes.

To solve the problems identified, special attention should be paid to the comprehensive state diagnostics of the educational complex management system, monitoring indicators based on
educational complexes reflecting the level of employee motivation and the effectiveness of their managerial activities. Technologies for assessing the organizational culture and the state of the workforce will allow management to build strategies for the formation of common values for the educational complex.

Improving the effectiveness of educational complexes should be based on the development of a strategic management system that includes the strategic thinking of managers, the establishment of regular strategic management processes, and the implementation of a system to assess the implementation of strategic initiatives. Further training of employees of the educational complex in the field of strategic development, as well as the development of their managerial skills will allow for more effective implementation of the educational process and strategic planning.

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