

THE TEMPORAL DIMENSION OF PROFESSORS' HUMAN CAPITAL

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Abstract

This article examines one of the poorly-known characteristics of professors – temporal dimension of their human capital. A group of professors from Yekaterinburg – one of the largest Russian educational center – is an object of investigation. The study of the social group demonstrates the great importance of social time in forming and developing of its human capital. The purpose of the paper is to show temporal contradictions between the necessity of professors' human capital' development and temporal conditions for their realization which are there at the universities. Research tasks include: 1. to study temporal aspects of professors' behavior; 2. to explore ways of professors' time usage; 3. to define professor's understanding of time's role in their human capital's development; 4. to examine the effect of demographic factors, age structure and its dynamics on professors' human capital's quality.

The empirical base of the paper is specific temporal characteristics' of professors' activities investigation, organized by means of in-depth semi-formalized interview, the study of time budgets, analysis of demographic (age) indicators. The main results of the study demonstrate professors' human capital's quality's direct dependence on time resources, temporal behavioral strategies, temporal organization of educational process.

Key words: university professors, human capital, temporal dimension, age structure

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Introduction

The search for new resources for improving the quality of human capital in different professional groups reveals a great potential of social time. The temporal dimension of human capital of such an important professional group as university professors is a promising new research area that is almost unexplored. They are actively involved in the human capital reproduction in other social groups – youth, groups of different professions and statuses.

Therefore, the development and preservation of university professors' human capital is a key issue for both university management and the state.

Social time in the structure of university professors' human capital has the following functions:

1. *Integrates* this social group by consolidating its representatives' present human capital and the capital of different generations of university professors.

2. *Structures* the different activities related to the development of new competencies.

3. *Creates the orientation* for human capital development towards the new or the traditional (human capital either acquires new qualities or reproduces its old parameters).

4. *Sets the speed for the development and renewal* of the intellectual and professional elements of the university professors' human capital.

5. *Determines the age structure* of the community by regulating the quality of the human capital age characteristics.

We believe that the time university faculty members have at their disposal plays a crucial role in their professional activities (compared to other professional groups). University professors' work has always been distinguished by temporal self-organization, flexible working hours, and a combination of processes with different temporal characteristics. Scientific research requires temporal freedom and a considerable amount of time. Educational activities require synchronizing the professors' time with the time of other participants of education, clear temporal organization of classes and tutorials. Intense work during the academic year is compensated for by a fairly long paid annual vacation which is not only the time for psycho-physiological relaxation. Faculty members continue working on their professional tasks (conducting research, writing articles, books, textbooks, etc.).

An important condition for the development of professors' human capital is having enough time for creativity, self-education, relaxation, self-realization, personal development (physical, spiritual, etc.). All this substantiates the claim that time is a basic characteristic of the profession of university professors, which means it is a resource for the development of the various elements of their human capital.

The problem is that the resource of time is not always considered by the professors and university management as an essential condition for the high quality of the faculty human capital. The aim of the article is to identify contradictions between the professors' temporal needs and the temporal conditions of their work created by the university. Russian universities often lack optimal conditions and sufficient temporal resources for the professors' human

capital development. This is one of the major reasons for the decline of the university faculty human capital quality which also negatively affects the universities' competitiveness.

The specific objectives of the authors' research are: 1. to examine the temporal aspects of the professors' behaviour; 2. to study ways in which professors use their time; 3. to identify the professors' understanding of the role of time in the development of their human capital; 4. to study the influence of demographic factors, age structure and its dynamics on the quality of the professors' human capital.

Some aspects of the problem have been studied by representatives of different sciences – sociology, labor economics, management theory, demography. The connection between an individual's and social groups' time and human capital was by G. Becker, A. Giddens, P. Sztompka (Becker, 1965; Giddens, 1990; Sztompka, 1993). The issue of the new role of time in the life of different professional groups was addressed by Z. Bauman, A. Bolotova, J. Urry (Bauman, 2007; Bolotova, 2000; Urry, 2007). The authors of this article have researched the temporal behaviour strategies of different educational groups (Ambarova, Zborovsky, 2015). A separate group of works is the study of social and economic conditions of the professional activity of university professors (Meléndez-Ferrer, 2006; Pop, Tantau, Pelau, 2011; Escobar, Francisco, López Velásquez, Angélica, 2013), the specifics of Russian university professors' behaviour and human capital (Kurbatova, Kagan, Aparina, 2015).

1 Methods

The object of the study were university professors in Yekaterinburg, one of the leading educational centers of Russia. There are more than 20 state and private universities of different types specializing in various areas, offering degree courses in economic, technical, natural, social sciences and humanities. Yekaterinburg universities present a model of higher education in Russia. Therefore the results of the study can be to a certain extent extrapolated to all universities of Russia.

The empirical basis for the article is the study of the professors' work temporal characteristics using semi-formal in-depth interviews, time budgets examination, and the analysis of demographic (age) indicators.

The in-depth semi-formal interviews were the principal method the authors applied in their research. Target quota sampling was used, which reflects the ratio of age groups and academic job titles and positions: assistants – 6, associate professors – 12, professors – 7, researches – 5 (30 interviews in total). The number of the interviews seems sufficient to us,

since each new interview did not supply any new information relating to the problem. We used the rule according to which sampling in qualitative research should stop when each new case does not bring any additional information.

The interview was carried out in six stages. The first and the second stages were aimed at identifying the meaning and value of the time resource for professors. Metaphors, popular expressions, idioms, sayings and aphorisms about time were used in these stages. In the third stage questions regarding temporal behaviour were asked to study time management skills, ways and habits of using time. In the fourth stage of the interviews, the specifics of the professors' activity temporal organization in the conditions of nonlinear, flexible time were revealed. These data allowed evaluating the opportunities and risks for the development of human capital that professors are faced with.

At the fifth stage of the interview social emotions (fears and hopes), associated with the perception and experience of time, were studied. The sixth stage was devoted to the temporal aspects of communication in a professional environment.

The study attempts to make secondary analysis of the data of sociological research into the problem conducted in Russian research centers: Higher School of Economics (Moscow), Institute of Sociology of the Russian Academy of Sciences, as well as by individual researches. Statistical analysis of data on the demographic structure of Russian university professors was also carried out.

1 Results and discussion

1. Professors' understanding of the role of time in developing their human capital.

The study showed that the efficient use of time for developing the professors' human capital is determined by their understanding of the time phenomenon and their attitude to it. The improvement of the professors' professional knowledge, skills, and competencies, the preservation of their professional health and longevity is a strategic objective that requires long-term vision and setting goals for professional development. Consequently, the «philosophy of time» provides the ideological basis for developing the temporal perspective of human capital.

The study demonstrated that time resources hold a prominent place in the professors' value orientations system. They recognize the high priority of time in comparison with other resources for success in life and development. Below is one of the interview transcripts:

G.E., 36 years old: *«I think time is a resource that is used either wisely and purposefully, or in a purposeless way. I really like the way that Stephen Covey approaches this concept – he*

refers to the time matrix developed by Eisenhower and other American politicians. The key thing is to devise very thorough and accurate plans and to organize your time accordingly. Yes, time is a resource which must be handled very carefully, very thoughtfully, and then it will work for us».

We have identified that lack of time is common for all professors and all of them feel uncomfortable about this. However, forward-minded professors try not to make this situation fatal or dead-end. They seek to rationalize it and use this lack of time as a means to improve their work. One of the informants said:

K.O., 42 years old: «In a situation of lack of time I feel nervous, and when I understand that I am not able to do something in time, I apologize. A more relaxed attitude would help. I am virtually never idle, and if I am, I switch over to something, find something else to do – read books I have downloaded and kept for years, check my email. In a situation of extremely heavy workload I feel stressed and need to take a break, but I understand that if I let myself relax a little more, things will accumulate like a snowball. But when the situation changes from "running non-stop" into a quiet life, I feel left out and worthless».

Some professors tried to interpret the «time pressure» as a kind of test that helps develop their social and psychological resistance and working efficiency:

L.M., 39 years old: «In a situation of lack of time there is sometimes fear and a feeling of being thrown into water for the first time to learn to swim. It is not interesting or scary, but you have to mobilize yourself. It spurs you, gives you a rush of adrenaline».

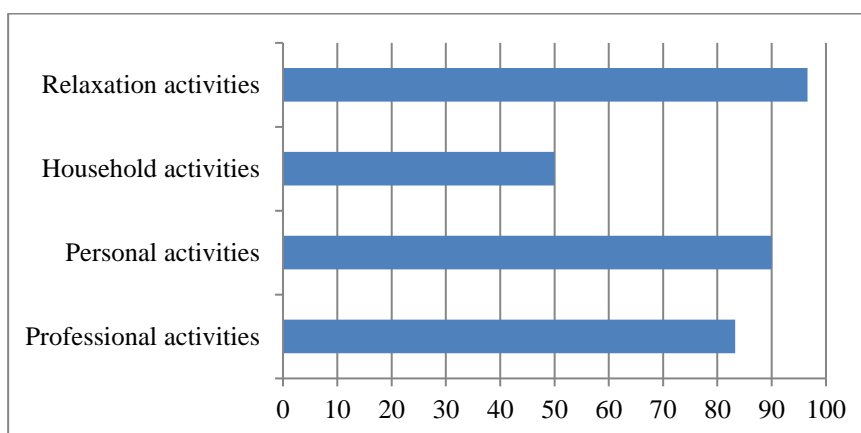
A small percentage of professors who show signs of distress («temporal shock»), perceive time as moving towards old age, and any changes in the environment are seen as degradation and crisis. Many of them are planning to leave their job at university as soon as they reach the retirement age; they feel old, both physically and professionally. But for Russian universities this situation is not typical: the age of 55–60 for the Russian professors is the time of Acme. This is the age when university professors in Russia reach the peak of their professional and personal development, when their human capital begins to bring the greatest return in the form of material and symbolic goods.

2. Professors' temporal behavior and the use of time for the development of their human capital.

Temporal behaviour is a system of actions associated with the distribution and use of time resources and life orientation towards a specific mode of time (past, present, future). Based on this theoretical thesis, we analyzed the professors' temporal behaviour.

The majority of the professors (96.4 % of the informants) lack time for core activities: professional (83.3 % of the respondents), personal (90 %), household (50 %), and relaxation (96.6 %) (see fig. 1). This creates a situation of «time pressure», which has a negative effect on their work results, the quality of their personal life, their psycho-physiological state, social well-being and their job satisfaction and life in general.

Fig. 1: Lack of time in main spheres of professors activities, % of respondents



Source: author's own work

Objective evaluation of the results of the university professors' work shows that they do not have time to carry out certain types of routine work in due time. The speed of mastering new standards of professional activity, new educational technologies, and new research methods is slowed down. Research results are not promptly reflected in course content. Innovations in educational and scientific practices are introduced slower than it is required for the modernization of Russian university education and for ensuring its competitiveness.

Most professors face a severe lack of time for self-education and working on dissertations. They understand that in order to preserve and develop their intellectual and professional capital they need to read special professional literature regularly, to keep track of new advances in science and education. However, more than half of them can only do this sporadically, not systematically, sometimes forgetting about this important component of their profession for months. Some do it overexerting their psycho-physiological efforts, sacrificing their sleep, spare time, family time and time for personal life. For many professors it is typical to keep working actively at the weekend and during the holidays.

Objective reasons for this situation are, first of all, a sharp increase in the proportion of the professors' classroom teaching load in their time budget. Russian professors' contact hours' has increased to 900 hours per year, and the total workload – up to 1400–1500 hours per year.

This situation is typical for all faculty members, from assistants to professors. This means that the management approach to the structuring of time budgets of various groups of professors is inflexible, which was mentioned by all informants in their interviews.

Another reason is inefficient organization of the professors' educational activities. Their timetable is often impractical, with long breaks between classes. Filling these breaks with other kinds of pedagogical and research work is impossible due to lack of institutional and technical facilities for creative work. Sometimes classes are spread over the whole working week. In the city with traffic jams and long commutes, such a schedule consumes a large amount of the professors' free time.

We have identified a correlation between the time budget for self-education and professors' motivation. Professors with strong motivation for self-realization set aside a sufficient amount of time for self-education and scientific research by reducing the proportion of their free time. They allocate 3 to 10 hours for scientific research in their daily time budget. The amount depends on their teaching load in the semester, their position and status, the degree of involvement in scientific work. Professional and intellectual capital of this group of professors ensures their competitiveness both at university and in the scientific community.

The ways in which professors use their time reflect their skills in temporal organization and work planning. The study demonstrates that the majority professors have the skills of time management, and are able to clearly and accurately plan their classroom and extracurricular work. They demonstrated different ways of planning, from traditional diaries to electronic gadgets. Below is a quote from one of the informants:

G.N., 42 years old: *«I plan meticulously. I have diary, various calendars, and electronic planners. I plan for a month, two or even three; I mark important events and dates in these calendars. I find time to look through them, usually automatically, on the fly. If there are reference points (for example, I need to do something by summer or autumn), there is neither time pressure, nor imbalance or inner tension».*

The frameworks that ensure accurate planning of the faculty members' time include their annual individual plans, timetables, and research plans that are part of grant agreements.

Mastery of time management skills as part of the teaching staff professional culture is an essential prerequisite for the development of their human capital. These skills enable individuals to regard personal and professional development activities as key elements of their life and include them in their planning. But for these prerequisites to take real effect certain managerial decisions are needed. They should be aimed at creating a «temporal balancer», that is, an optimum budget of time and the opportunity for the professors to use their temporal

resources independently. Temporal investment in university professors' human capital is needed which would enable rapid development of their professionalism. Almost all the informants pointed out a lack of freedom in managing their time. Their time resources are mainly wasted on routine work (writing different reports, paperwork related to the teaching process, entering various data and students' scores onto university online databases, etc.).

3. The influence of age structure and its dynamics on the quality of the professors' human capital.

The faculty age is an important temporal element of human capital. Studies of the global academic labor market show that over 40 % of the professors in Russia, Germany, Portugal and the USA are over 50 years old. In Yekaterinburg universities the age structure of the academic community is also changing. The current tendency is a shift to older age groups: the candidates' of science average age is 53, for doctors of science it is 60; the department heads' average age is 55, with only 12.7 % under 40.

The imbalanced faculty age distribution impedes the modernization of the scientific and educational sphere, and the development of their innovative activity. The Russian education needs to regulate the reproduction of the pedagogical human capital by attracting and retaining young researchers with great scientific potential. Hence, the universities' mechanisms for the development of human capital should be based on managing the age resource.

However, attracting and retaining young people in universities is a serious and intractable problem. Low salaries (an average of \$ 200 per month), poor living conditions, heavy teaching load, and uncertain professional prospects act as a deterrent to both prospective young professors and those already employed by universities.

Some universities (very few) with sufficient financial resources have special support programs for young scientists. They receive subsidies for housing, research, internships, etc. These measures are an attempt to establish institutional age management rules of scientific and pedagogical community. By themselves, they are not bad, but are non-systemic. They are not related to many issues of social policy for young professors, are often incidental and not fundamentally change the staffing situation in the Russian universities.

Conclusion

The research results reveal a direct correlation between the quality and prospects of university professors' human capital development and the way they use their time resources. The study showed that motivation for the professors' human capital development is based on their

understanding of the phenomenon of time and the attitude to it as an important resource. A contradiction was identified between the professors' desires and abilities to manage their time for professional and personal development and the objective working conditions. According to professors', the existing conditions hamper their human capital development. This leads to the conclusion that «temporal investment» in human capital is a key issue for university management. The solution to this problem is one of the essential preconditions for the transition to the non-linear model of higher education in Russia, based on the use of such new resource as social time. This model should mean a new stage in the development of Russian higher education, and university professors should be the basic social community in the process of forming the non-linear model. But to achieve this goal it is necessary to improve the quality of their human capital. It takes time - both literally and figuratively. To create this model, we need a long period of time. This, in turn, requires time to release professors from unnecessary routine work and leave released time for the scientific and pedagogical creativity.

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