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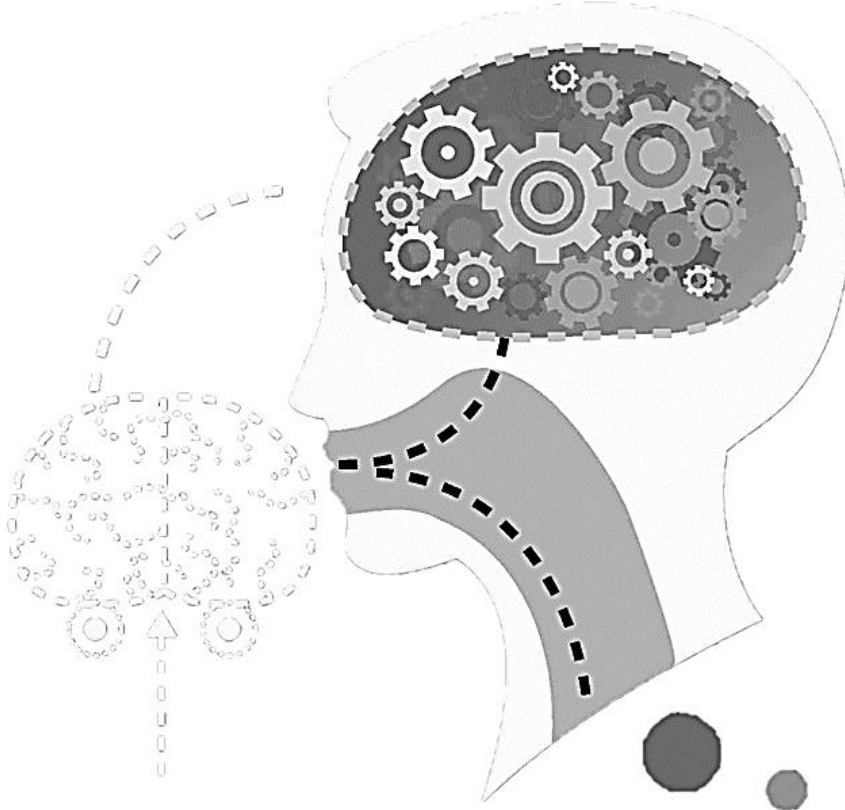
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The Management of Innovation Processes in Higher Education Institutions of Ukraine on the Way to the Formation and Development of the European Knowledge Market

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Abstract: *Ukraine as an independent state with a European vector of development and an orientation towards European values, despite the war and the economic difficulties caused by it, continues to move towards the implementation of European educational standards, cooperation within various educational projects, and the development of modern educational programs for the needs of the European market. At the same time, in addition to the awareness of the need for a single economic space, there are certain urgent issues that need improvement, namely: the management of innovation processes in higher education institutions.*

Objective of the article is a sociological study of the style of management of innovative processes of higher education institutions of Ukraine in the context of the actualization of social and innovative resources.

The research was conducted in two stages. At the first stage, a questionnaire was organized and conducted among 1,200 scientific and pedagogical workers of higher education institutions in Kyiv, Kharkiv, Lviv, Odesa, and Dnipro. At the second stage, in order to obtain more detailed information and a deeper understanding of the research problem, the collection and analysis of expert opinions was carried out by the method of semi-structured interviews, 20 rectors of state-owned higher education institutions acted as experts.

So, the concept of the style of management of the innovation process is formed at the intersection of interests in the context of the situational approach to management and social innovation. Activities related to the improvement of management styles in the context of the implementation of social innovative resources will be productive if program-oriented management methods are used to ensure the sustainability of innovative management styles.

Keywords: *Social and innovative resources, sustainability of innovative management styles, effectiveness of pedagogical activity, innovative potential of educational institutions, innovative development programs.*

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Introduction

In the modern economic world, human capital makes up the largest part of the accumulated national resources. The presence of human capital is an indicator of the material welfare of the country and society as a whole. Increasing the role and value of human capital is steadily growing and this is directly related to the improvement of educational standards and the provision of a stable management component of national education. After all, with the provision of a high level of educational services, the professional capabilities of a person are significantly increased and their individual incomes increase. Also, it should be noted that with the acquisition of certain experience, accumulation of knowledge, the income level also increases.

Therefore, there is a gradual transition to a new type of economy - the economy of knowledge, which is regulated by economic laws, but the scope of its application is education, which has its own characteristics.

At the beginning of the 21st century, this process is still in progress, although it has passed the formation phase. The peculiarity of this process in European countries is the effort to integrate all national educational programs for the mobility of the European economic system, which should ensure its stability. External challenges such as endless waves of migrants provoking migration crises, hostilities in Eastern Europe that have been ongoing since 2014 and have gradually turned into full-scale war, dependence on energy carriers and attempts to move towards renewable energy sources have only led to greater unity in the need to strengthen a single knowledge market - a European knowledge market based on European values, namely: freedom, equal opportunities and broad state social support. Over the last decade, the liberal direction of development has especially strengthened and confirmed its ability to respond flexibly to modern challenges, without a significant blow to the progress of civilization. At the same time, in addition to the awareness of the need for a single economic space, there are certain contradictions that need to be reconciled, namely: the unification of management approaches in the educational management system and the development of a single methodology for evaluating the quality of educational services.

Ukraine, as an independent state with a European vector of development and an orientation towards European values, despite the war and the economic difficulties caused by it, continues to move towards the implementation of European educational standards, cooperation within

various educational projects, and the development of modern educational programs for the needs of the European market.

At the same time, along this path, the independent Ukrainian state has passed certain stages, has its own characteristics, but preserves its national identity in the field of education, which allows it to remain competitive in the European arena of educational services.

Therefore, the objective of the article is to study the style of management of innovative processes of higher education institutions of Ukraine in the context of actualization of social and innovative resources.

Literature review

A large volume of works is devoted to the issues of the knowledge economy and related problems, among them - statistical materials, reports on the implementation of innovative solutions in educational programs, program documents of various countries (which emphasize the need for effective use of funds and resources and a close connection between the labor market and educational programs). In addition, there are monographic works, co-authored articles in the scientific circle that prove certain program theses in practice, or question their effectiveness and capacity. Among the great variety of materials we have chosen: firstly, program documents of the EU and Ukraine, since Ukrainian society is integrated into the European educational space, and secondly, articles by authors of various countries, from the experience of the USA and Ireland to the experience of individual EU countries, outlining certain aspects of the information society as the next phase of human development.

Among the analyzed materials, the final report of the Department of Further and Higher Education, Research, Innovation and Science on innovation and reform of the Irish higher education system stands out (Department of Further and Higher Education, Research, Innovation and Science, 2022). This report analyzes the latest statistical data on the costs of obtaining higher education, indicators of coverage of higher education, identified the existing problems of funding the system and proposed ways to eliminate them. The government of Ireland refused to attract student loans as a means of obtaining higher education, at the same time, considering the higher education system in terms of economic indicators, the report ignored the issue of the quality of educational services, the involvement of employers in the educational process, and the issue of certification of employees of the higher education institution.

In the article by American researchers Nitsan Chorev and Amanda Ball, a large amount of material is analyzed on the comparison of the

flexibility of the educational systems of the Northern and Southern states of America, which represent territories of different levels of development, but the South has recently shown high rates of economic growth (Chorev&Ball, 2022). The uniqueness of the article lies in the proof of the thesis that the understanding of economic growth is inseparable from innovative development (the tendency to conflate upgrading with innovation) is incorrect. Confirming their opinion, the authors focused their attention on analyzing the innovativeness of the knowledge economy, considering all its aspects. The statement regarding the denial of the innovativeness of economic development as the next step in industrial development seems interesting.

Norwegian researchers - Peter Maassen and Bjørn Stensaker, in a study dedicated to the role of the university as a key institution in the modernization of the modern economy, analyzed in detail goals set for higher education (reforms, innovations) and emphasized the need to preserve the identity of the higher education system in the process of its modernization (Maassen& Stensaker, 2011). The authors point to the inextricable connection of the three components of the system - education, research and innovation, which ensures the sustainability of the educational system and the knowledge economy in general.

Also among the general works, the work of Becla Agnieszka, in which the author analyzed in detail the functioning of the information society and knowledge-based economy, emphasizing the leading role of KNOWLEDGE (Becla, 2012). In accordance with the analytical aspects, a number of tasks arise for educational institutions - modernization of approaches to assimilation, updating and search for knowledge in the conditions of the information society.

Having studied the publications in Scopus journals, which focus on the problems of innovativeness of education, namely: Journal of Innovation & Knowledge, Learning Organization, Teaching and Teacher Education, Learning and Individual Differences, Sociology of Education, Educational Management Administration & Leadership, we draw the following conclusions: the vast majority of publications in one way or another touches on the issue of Covid-19, which has caused violent changes in educational processes, each author interprets the innovativeness of processes in education in his own way, endowing this concept with internal educational processes or, on the contrary, taking this concept beyond the boundaries of the teacher's activity, to the organizational structure, issues of quality and forms of distance education, leadership in education and the role of the teacher in educational processes are traditionally raised.

Among the works of Ukrainian authors, the scientific and methodical development of the scientists of the Poltava Regional Institute of Postgraduate Pedagogical Education named after Ostrogradskyi, in which the need for innovation as a basis for changes in educational practice is proven (Syrotenko, 2005). In addition, the manual presents the latest pedagogical ideas and analyzed the experience of not only European countries, but also the USA, Japan, and Finland in this matter. Despite the publication time, which is still in 2005, this manual is still useful and relevant, as some ideas are still not implemented, and some ideas are controversial for the Ukrainian educational environment and are actively discussed.

If the Poltava handbook is devoted to the problems of innovative changes in the general education school, then the monographic study of several authors from Zhytomyr is devoted to the problems of introducing innovations into the educational practice of higher education (Sauch, 2011). Also, the monograph analyzes general innovative trends in the context of European integration and globalizing world processes in the field of higher, particularly pedagogical, education in the directions of updated theoretical paradigms, presents the scientific and practical achievements of Zhytomyr Philosophical and Scientific and Pedagogical Schools of the Polissky region.

Therefore, the considered materials are versatile and touch on problematic educational issues. All of them in one way or another consider the concept of innovativeness as a key concept in modern education, but the issue of management of innovation processes, management of the innovation environment in educational institutions has not been considered by modern researchers.

Methodology

In order to obtain reliable and valid results and improve the evidence base, the research used quantitative and qualitative approaches (data collection techniques, analysis methods, etc.). The main attention was paid to the integration of these approaches according to the types of data collection procedures (questionnaire survey, expert interview), according to the type of data analysis (statistical and thematic).

The basis of the research strategy was defined as a component type of design, which involves the simultaneous, but separate from each other, use of quantitative (questionnaire survey) and qualitative (expert survey) data collection methods, which had the same status.

As of October 1, 2021, there are 996 institutions of higher education in Ukraine, but only 450 of them are universities, institutes and academies.

Of these 450 institutions, more than half, namely 257 institutions, are in state ownership, the rest is divided between private and communal ownership. The largest number of state institutions of higher education are in such cities as: Kyiv, Kharkiv, Lviv, Odesa and Dnipro (National Agency for Quality Assurance of Higher Education, 2022, Article 10). As of the beginning of 2023, 135,216 teachers work in 439 state-owned higher education institutions (National Agency for Quality Assurance of Higher Education, 2022, Article 37).

At the first stage, a questionnaire was organized and conducted among scientific and pedagogical staff of higher education institutions in the cities of Kyiv, Kharkiv, Lviv, Odesa, and Dnipro, as the largest regional centers of Ukraine. The survey took place online using a Google Form questionnaire. The general population includes teachers of state-owned higher education institutions, whose number as of January 1, 2023 is 135,216 (National Agency for Quality Assurance of Higher Education, 2022, Article 37). The sample consisted of 1,200 teachers.

Sampling is multi-stage, districted, nested, and quota. According to the quota distribution, the following were interviewed: 94% of scientific and pedagogical workers with an academic degree, 6% with a higher education; 60% - with more than 20 years of experience in an educational institution, 23% - from 15 to 20 years, 10% - 10-15 years, and 3% - 5-10 years and as many teachers with up to 3 years of experience. Most of the interviewees (92%) have a pedagogical education. By age: 55% of respondents are over 50 years old. Our correlation analysis (according to Pearson, H. criterion - Pearson criterion on the website of Novosibirsk State University (1900) <https://tvims.nsu.ru/chernova/ms/lec/node46.html>) showed that there is no strict dependence between the answers to the questions, work experience and the age of the interviewees. The error of the study is $\pm 2.2\%$, with a confidence level of 95%.

Primary information was processed using SPSS 26 (statistical package for social sciences).

At the second stage, in order to obtain more detailed information and a deeper understanding of the research problem, expert opinions were collected and analyzed using a semi-structured interview. 20 rectors of state-owned higher education institutions acted as experts.

At the end of each stage, a complementary approach was applied to the analysis and interpretation of the obtained data, a comparison method for formulating and clarifying conclusions, which made it possible to achieve a high degree of reliability and validity of the results.

Analysis of the obtained results

The purpose of the sociological research was to diagnose the management style of innovative processes of higher education institutions. Achieving the goal required the determination of individual and group characteristics of the teaching staff, the quality of the organizational environment, personal and professional qualities of the manager, and conditions for implementing innovative activities. When conducting a social diagnosis, it was taken into account that an educational institution is a complex interweaving of many social relations and social actions and the need to link specific data with the entire set of problems.

The style of management of innovative processes in an educational institution is determined not only by the personal orientation of the manager, but also by a number of other circumstances: the external situation and the social and innovative resources of the educational institution. Thus, the diagnosis of the style of management of innovative processes of an educational institution is related to the determination of the following indicators: the level of goal-oriented maturity (innovation) of subordinates (human resource), quality characteristics of relations between team members (organizational resource) and relations between subordinates and the manager (management resource).

The task of diagnosing the style of management of innovative processes of an educational institution can be solved without studying external sociocultural factors that influence this process. They create a positive or negative environment for innovation development. It should be taken into account that at present, managers are turning to innovativeness in the activity of a teacher during the period of exacerbation of the contradiction between the growing needs for quality education and insufficient attention to the education system on the part of the state.

It is significant that the teachers themselves feel the decline in the prestige of the teaching profession. In their opinion, neither the state, nor society, nor even the family value the teacher's work highly. But although the prestige of the teacher is not high, it is compensated by the self-esteem of professional activity. The prestige of the profession in the minds of teachers is higher than in the society (table 1).

Table 1. Distribution of answers to the question "In your opinion, what is the assessment of the prestige of the profession of a teacher in a general secondary education institution?", in %

| | High | Not very high | Indifferently |
|---------------------------------|------|---------------|---------------|
| From the state's perspective | 6,0 | 82,0 | 12,0 |
| From society's point of view | 1,2 | 74,2 | 24,6 |
| From the family's point of view | 19,5 | 69,0 | 12,0 |
| In your opinion | 74,1 | 24,3 | 0,6 |

As the presented data show, teachers are aware that the prestige of the teaching profession is extremely low in the estimations of the state and society and that even the closest people - the family - rate their profession much lower than they themselves. For the teacher himself, the "prestige" (attractiveness) of the teaching profession is related to the possibility of self-realization and self-actualization; participation in joint creative activities with children; a dignified own life and the lives of loved ones; an opportunity to culturally develop and expand one's personal and professional horizons; public recognition. It is obvious that only with a favorable combination of external and internal conditions of the teacher's activity, the development of the innovative potential of the educational institution can be successfully carried out, since, if the need for self-realization increases, in the innovative activity of the teaching staff members, then, accordingly, necessary conditions for managing innovative processes are formed (Lai & Cheung, 2015, Article 684).

The institution of higher education should purposefully prepare students for professional life, work in society, that is, to form a creative personality capable of innovations and ready to take responsibility for their implementation in life (Department of Further and Higher Education, Research, Innovation and Science, 2022). But the teachers themselves believe that the educational institution prepares students for modern life only partially, it is about the partial formation of soft skills (Fig. 1).



Figure 1. Distribution of answers to the question "Does the educational institution prepare students for life in modern socio-economic conditions?"

At the same time, as the results of the survey show, teachers are not inclined to blame themselves for this situation (table 2). In the first place, they put the general crisis of the educational system.

Table 2. Distribution of answers to the question "In your opinion, what are the reasons for the existing deficiencies in the work of the general secondary education institution?", in %

| Disadvantages of the educational institution | % of choice |
|--|-------------|
| 1) general crisis of the educational system | 74,2 |
| 2) inadequate financing | 69,2 |
| 3) low salary of teachers | 61,5 |
| 4) low level of logistical equipment | 35,6 |
| 5) lack of active assistance from parents | 35,6 |
| 6) lack of innovative educational technologies | 25,4 |
| 7) inconsistency of the activity of the educational institution with the modern requirements | 20,2 |
| 8) inadequate organization of the learning process 14.4 | 14,4 |
| 9) low qualifications of the director of the educational institution | 2,4 |
| 10) low qualification of the teachers of the educational institution | 2,4 |

Note: the question required no more than three answer options.

Today, as a few years and even decades ago, the most pressing problem of the system is insufficient funding, low teachers' salary, and low logistical equipment of the institution (European Commission/EACEA/Eurydice, 2020). But solving this range of issues is beyond the competence of the educational institution administration. It is capable of solving only those related to the quality of the educational process in the educational institution (Sauch, 2011). Among these issues, the following are brought to the fore: inadequate organization of the educational process, inconsistency of the educational institution's activities with modern requirements, and lack of innovative educational technologies.

The success of an educational institution in solving these problems is largely determined by the readiness and ability of the teaching staff members to engage in creative, and searching activities that meet the teacher's own internal needs for self-realization and self-improvement. A necessary element of readiness and ability is a high level of reflexivity of teachers (Maassen & Stensaker, 2011, p. 761). However, as it follows from the data, a large part of the teachers is not self-critical enough. And this, in turn, creates additional barriers when managing innovative processes.

The situational approach to the management style of the innovation process assumes a connection between the management style and the state of human resources of the educational institution's innovative potential. Based on this, it is expedient to determine the essence of the phenomenon of innovativeness of the pedagogical team. The innovativeness of the teaching staff of the educational institution is determined by the target orientations prevailing among the teachers within the limits of the life strategy they have adopted (Bell et al., 2018, p. 685).

In our opinion, it is the predominance of a strategy focused on free creativity and the development of one's own spiritual and physical forces, and self-improvement, which is achieved by changing the life world, the desire for a creative state, the tendency to constantly search, the absence of clear and strictly established rules while observing generally accepted norms and limitations are the basis of innovative activity.

When diagnosing the style of management of innovative processes of an educational institution, it is important to take into account the level of goal-oriented maturity, which reflects the degree of readiness of members of the teaching staff to make efforts to achieve high results in educational activities, in its development and self-development of the staff. It is the level of goal-oriented maturity that determines the ability of the teaching staff members to set goals in the process of pedagogical activity that correspond to the tasks of innovative development of the educational institution

(Gorozidis & Papaioannou, 2016, p. 51). In this regard, in our opinion, first of all, it is necessary to analyze the information about the target orientations implemented by teachers in the process of professional activity (table 3).

Table 3. Distribution of answers to the question "Tell me, please, what opportunities does your professional activity give you?" depending on age, in %

| Answer options | | Total (% / rank) | | Teachers age groups | | | | | | | |
|---|------|------------------|---|---------------------|---|-------------|----|-------------|---|-------------|---|
| | | | | 23-29 years | | 30-39 years | | 40-49 years | | 50-65 years | |
| 1. Do your favorite thing | (SR) | 71,2 | 1 | 68,2 | 2 | 72,1 | 1 | 70,0 | 1 | 77,9 | 1 |
| 2. To see the results of one's activity | (SR) | 61,3 | 2 | 50,0 | 5 | 70,2 | 2 | 64,0 | 2 | 60,4 | 2 |
| 3. To apply one's abilities, to realize oneself | (SR) | 52,1 | 3 | 70,1 | 1 | 60,5 | 3 | 44,2 | 4 | 30,4 | 6 |
| 4. To improve one's knowledge and skills | (SR) | 51,2 | 4 | 63,2 | 3 | 45,1 | 4 | 59,2 | 3 | 41,5 | 5 |
| 5. To be useful to society | (LS) | 41,2 | 5 | 31,4 | 7 | 39,1 | 7 | 42,2 | 5 | 58,2 | 3 |
| 6. To have interesting time | (LS) | 38,2 | 6 | 48,2 | 6 | 43,9 | 5 | 29,1 | 7 | 46,2 | 4 |
| 7. Deserve authority | (LS) | 31,2 | 7 | 56,4 | 4 | 17,4 | 10 | 22,1 | 9 | 27,3 | 7 |

| | | | | | | | | | | | |
|----------------------------------|------|------|----|------|----|------|----|------|----|------|----|
| 8. To advance professionally | (LS) | 26,1 | 8 | 19,1 | 8 | 41,2 | 6 | 33,2 | 6 | 18,4 | 10 |
| 9. Make good money | (WB) | 22,4 | 9 | 11,2 | 10 | 22,4 | 9 | 31,2 | 8 | 27,2 | 8 |
| 10. To achieve a high position | (WB) | 17,6 | 10 | 18,1 | 9 | 24,4 | 8 | 17,1 | 10 | 12,1 | 12 |
| 11. To have a clean and easy job | (WB) | 9,4 | 11 | 9,9 | 11 | 5,4 | 11 | 7,2 | 11 | 15,1 | 11 |
| 12. To live peacefully | (WB) | 6,2 | 12 | 5,9 | 12 | - | | - | | 19,5 | 9 |

Note: 1) the question required no more than three answer options.

2) the second column indicates the types of life orientations, where:

(WB) is for a strategy of life well-being,

(LS) is for a strategy for life success,

(SR) is for a strategy of personal self-realization.

From the table, we can draw conclusions that it is most important for teachers to do what they love, to see the results of their work, to improve their knowledge and skills, to apply their abilities, and to realize themselves. All four priority positions characterizing target orientations are components of the strategy of personal self-realization, which is based on creative activity and sets an innovative character to professional activity (Frank et al., 2011, p. 142).

In order to clarify the share of teachers who are positively disposed to innovations, the question "Do you think that some of your ideas could significantly improve pedagogical activity?" was asked within the framework of our research. The results of the responses to it were distributed as follows: 20% believe that they could significantly improve their teaching activities, 40% believe that they would be able to do it sooner, 20% - they would not be able to do it sooner, 5% answered that it would not have been possible to improve pedagogical activity and 15% could not answer this question. In our research, to the question "When you dare to take on a certain business, do you always think that you will successfully complete it?" 1/3 of the respondents answered in the affirmative. At the same time,

teachers aged 23-29 years old and 50-65 years old predominate among those who believe that they are not able to complete the work they have started. This is natural, since a young teacher has a lot of energy, but he does not yet have the appropriate experience, and a teacher of pre-retirement age is obviously "tired" of innovative activities.

Thus, 60% of the teaching staff of educational institutions have a target orientation for implementing innovative, transformative activities. At the same time, as shown by the distribution of answers to the question "Do you feel the need to engage in something that is completely new for you within the framework of your pedagogical activity?", the main incentive that prompts you to engage in innovation is the content of educational innovation for half of the respondents. 17% express their desire to take up a new business, depending on stimulation from the management. In educational institutions, only 12% of teachers were found who are unconditionally ready to engage in a business that is completely new to them, unrelated to their previous experience, within the framework of their pedagogical activity (table 4).

Table 4. Distribution of answers to the question "Do you feel the need to engage in a business that is completely new to you within the framework of your pedagogical activity?" depending on age, in %

| Answer options | Age of respondents | | | | |
|---|--------------------|-------------|-------------|-------------|-------------|
| | all | 23-29 years | 30-39 years | 40-49 years | 50-65 years |
| 1. Yes, definitely | 12,3 | 10,5 | 16,2 | 13,2 | 10,7 |
| 2. Depends on its content | 50,2 | 46,2 | 54,2 | 52,3 | 48,4 |
| 3. Depends on the load of current affairs | 5,8 | 3,2 | 5,6 | 7,2 | 6,2 |
| 4. Depends on health | 4,1 | 3,2 | 1,8 | 3,2 | 6,0 |
| 5. Depends on incentives from management | 16,9 | 23,8 | 16,0 | 13,8 | 16,0 |
| 6. If the management instructs, you will have to work | 1,7 | 4,5 | 0,9 | 1,4 | 1,2 |
| 7. Subject to management approval | 3,2 | 3,5 | 2,1 | 2,5 | 4,3 |
| 8. The new does not appeal to me | 5,7 | 5,1 | 3,2 | 6,4 | 7,2 |

It should be noted that the younger generation of teachers are inclined to take up a business that is completely new for them, not related to the previous one in any way, most often if there is appropriate stimulation from the leadership. And teachers of middle age and mature age are most often oriented towards the process itself.

According to teachers, they are mostly able to carry out innovative activities in the educational institution at the level of partial independent improvement of educational technologies, methods of teaching and upbringing (52% of respondents). 28% of teachers are at a higher level - the level of designing and putting into practice educational innovations, and 20% of teachers are at a lower level - at the level of adapting new ideas to new conditions.

Therefore, for the most part, teachers are ready to increase the effectiveness of pedagogical activity in the form of both the inclusion of new ideas in the spheres of education, education and student development, and their generation. At the same time in order to master and implement new technologies of learning, education and student development, they need to see that results of these activities are useful to students (table 5).

Table 5. Distribution of answers to the question "In order to master and implement new learning and education technologies, you need..."

| Answer options | % of choice |
|---|--------------------|
| 1. To see that the results of this activity are useful for students | 64 |
| 2. To have more free time | 46 |
| 3. To be interested in new methods | 22 |
| 4. To have the right to choose methods and programs freely | 31 |
| 5. To receive an additional material reward for this | 2 |

Note: the question required no more than three answer options.

Therefore, a pedagogical worker often wants to find himself in such a situation where innovations are expected from him. However, managers, obeying the requirements of a highly formalized, bureaucratic management system, often do not focus on creating favorable conditions for innovative activity, but seek to provide it with administrative orders directly or indirectly, which does not contribute to the promotion of real innovations (Syrotenko, 2005).

Our research showed that almost half of the respondents are satisfied with the organization of their working day, but at the same time they do not always have time to develop something new as part of pedagogical activities (table 6).

Table 6. Distribution of answers to the question "In the conditions of increased requirements for innovativeness of your pedagogical activity, are you satisfied with the organization of your working day?" depending on age, %

| Answer options | Respondents age | | | | |
|---|-----------------|-------------|-------------|-------------|-------------|
| | all | 23-29 years | 30-39 years | 40-49 years | 50-65 years |
| 1. Yes, I know how to organize my working day in such a way that there is still time for the development of new things in the framework of pedagogical activities | 27,7 | 30,2 | 28,2 | 29,5 | 25,8 |
| 2. In general, my working day runs smoothly, but there is not enough time to develop something new within the framework of teaching activities | 47,8 | 36,6 | 49,2 | 50,2 | 50,2 |
| 3. Sometimes I feel a lack of time to prepare for lessons, and I rarely engage in the development of something new as part of pedagogical activities | 22,2 | 25,3 | 20,6 | 18,2 | 23 |
| 4. I constantly do not have enough time either to prepare for classes or to develop something new as part of pedagogical activities | 2,3 | 7,9 | 2 | 2,1 | 1 |

The smallest number of people satisfied with their own ability to organize their working day was found among young educators. It is they who experience a lack of time to prepare for lessons to a greater extent, or even complain about a constant lack of time to prepare for lessons. Typical difficulties are: inability to choose priority types of activities, disorganization, workload of household and household chores, inability to manage time.

The conditions of pedagogical activity are transformed into means of its innovative implementation when they contribute to the achievement of the pedagogical effect; create favorable incentives for actualizing the creative potential of the individual and the teacher; become a support for the achievement of pedagogical goals with the help of the introduction of new educational technologies (Ketelaar et al., 2012, p. 278). In this regard, the distribution of answers to the question "Do you think that the conditions of your pedagogical activity can be changed in order to improve innovation?" is interesting. 80% of respondents answered positively to this question, about

15% of respondents answered "rather yes", 2.5% of people answered this question "rather no" and "no". But to another question: "Do you think that in order to increase innovativeness, you can take an active part in changing the conditions of your pedagogical activity?", only 62% answered positively, 25% found it difficult to answer, and the remaining 13% answered this question negatively.

Thus, despite the fact that the majority of teachers have worked for a significant part of their pedagogical life within the framework of a traditional educational institution, they perceive innovative processes in an educational institution as a necessary condition for their professional activity. At the same time, during the interview with rectors of educational institutions, the latter noted that teachers feel fully ready to master innovations both in the content of education and in its technologies. Respondents consider support from management, colleagues, friends, and students to be the factors that support innovation.

This circumstance additionally confirms the thesis that the development of innovation processes in educational institutions is largely determined by the ability of managers to organize innovation implementation activities (Miller, 2020, p. 89). Meanwhile, in the positions of the latter, teachers do not always see real support for innovation.

The role of the manager in supporting innovative ideas is now negligible. Undoubtedly, the human-oriented management style expands the manager's ability to influence the innovative activities of the pedagogical team (Lytras et al., 2022). In the conditions of an educational institution, when the members of the teaching staff have a high level of goal-oriented maturity, the use of such a leadership style enables the manager to stimulate the personal interest of the performers in innovative activities of the educational institution. A self-governing teaching staff reduces the need for close, strict supervision (Álvarez, etc. 2020, p. 15).

But in these conditions, there is room for building up organizational and management resources through two-way communication to support the work of teachers in the classroom, which is possible when a general consolidating idea for the innovative development of an educational institution appears in the form of a corresponding project (European Commission/EACEA/Eurydice, 2020a). In such a case, the manager and subordinates participate in the decision-making process through two-way communication and assistance (support, encouragement, etc.). The manager must "wake up" subordinates' feelings of involvement in the performance of this task, for which it is necessary to increase the motivation of the assigned task, giving them the opportunity to participate in decision-making,

providing them with assistance and not imposing instructions. For this, it is necessary that the leadership style moves to a new level - the level of innovative development of the educational institution instead of solving the private tasks of the educational process and administrative and economic activities (Becla, 2012, Article 128).

Today, there are a number of changes in the management of educational institutions, which increase possibilities of using management resources. Without exception, all the rectors interviewed testify to the expansion of their powers related to this or that group of specific changes. Among the significant changes, rectors highlight the modification of the nature of the educational institution's interaction with the external environment, the need to form goals for the innovative development of their educational institution. This situation explains the need for the formation of relations between the manager and subordinates, which have a favorable effect on innovation processes.

Also, based on the empirical data of the answers to the questionnaires, it can be assumed that the people-oriented style of management prevails in educational institutions, which generally corresponds to the specificity of pedagogical activity - collective and creative activity. However, when implementing such a management style, the degree of maturity of the team is not fully taken into account, which is manifested in the certainty of the motivational position: the internal (enthusiasm for creative work) and external (salary, fear of punishment); motivation of teachers are practically equal.

Educational institutions are characterized by an insignificant distance of power, which allows for the active participation of employees of different ranks in decision-making with functional mobility of roles and positions when implementing the management style of innovative processes, and self-governing teams are characterized by the coexistence of flows of different directions: not only from top to bottom, but also from bottom to top horizontally and diagonally (Stevens, 2004, p. 392). At the same time, the survey data show that a comprehensive exchange of ideas and information is encouraged as a way to increase the effectiveness of the organizational system as a whole, or as a way to most fully satisfy needs of the members of the organization.

In an educational institution, there is always a need to determine the main orientations of the rector's work in the context of management of innovative processes. Therefore, in the course of the study, an attempt was made to determine the perceptions of teachers about the priority directions of activity of the rector of the educational institution (Table 7).

Table 7. Distribution of answers to the question "In your opinion, what should be the priority areas of activity of the rector of the educational institution?", in %

| Answer options | % of choice |
|---|--------------------|
| 1. Organization of optimal conditions for teachers' work | 69,2 |
| 2. Formation of the educational institution's development strategy | 69,2 |
| 3. Administrative and economic activity | 33,6 |
| 4. Creating conditions for the individual development of each student | 29,5 |
| 5. Others | 34,9 |

As the results of the survey, the respondents identified two main priorities: organization of optimal conditions for the work of teachers and formation of development strategy of the educational institution. This generally corresponds to the content of the human-oriented style of management of innovative processes of educational institutions, which involves the active use of methods and techniques for creating and maintaining working conditions of teachers, which stimulate their creative activity, and contribute to the creation of favorable conditions in the organization of students' work (Sharma et al., 2022).

The application of a human-oriented style of management of innovative processes requires the recognition of of subject interaction importance with the teacher, the need to maximize his experience (Chorev & Ball, 2022, p. 177). The manager's rigid attitude towards reproduction in his work is replaced by the approbation of various ways of intensifying the teacher's research and creative activity. A manager who uses this style consciously bases his activity on managing individuals and groups on the idea of a person as a subject of innovative activity, which allows forming subordinates' systems of knowledge, skills, and relationships according to individual tasks and requirements that are put forward (Steiner et al., 2014, Article 69).

Any manager can be characterized by certain professional and personal qualities that reveal his readiness for management activities of an educational institution of an innovative type. Respondents identified professional qualities that, according to teachers, should be inherent in a modern manager who effectively manages innovation processes (an innovative type manager) (Table 8).

Table 8. Ranking according to a five-point system of professional and personal qualities of a modern manager, necessary for managing the innovative development of a higher education institution

| Answer options | Points |
|--|---------------|
| 1. Professional competence | 4,88 |
| 2. Ability to solve professional problems | 4,73 |
| 3. Ability to manage people | 4,73 |
| 4. Ability to defend the interests of the entire team | 4,68 |
| 5. Endurance | 4,68 |
| 6. Politeness and tact | 4,63 |
| 7. Ability to work with people | 4,63 |
| 8. Ability to distribute work | 4,60 |
| 9. Delight in work | 4,60 |
| 10. Ability to plan work | 4,59 |
| 11. Demanding on oneself | 4,48 |
| 12. Ability to create a working atmosphere | 4,45 |
| 13. Ability to capture people | 4,45 |
| 14. Ability to control the work | 4,43 |
| 15. Working capacity | 4,43 |
| 16. Ability to understand others | 4,40 |
| 17. Purposefulness | 4,38 |
| 18. Obligation and loyalty to one's word | 4,35 |
| 19. Energy and activity | 4,35 |
| 20. Benevolence | 4,33 |
| 21. Tolerance towards others and ability to forgive small human weaknesses | 4,33 |
| 22. Productivity and diligence | 4,30 |
| 23. Ability to work with literature and reference books | 4,25 |
| 24. Demandingness of others | 4,25 |
| 25. Flexibility of mind and intelligence | 4,23 |
| 26. Foresight | 4,15 |
| 27. Criticality of mind | 3,93 |
| 28. Original thinking | 3,88 |
| 29. Modesty | 3,50 |

A peculiarity of the manifestation of professional and personal qualities is the embeddedness of management style in management situation: the subject, using a certain style, changes the situation, and it shapes it. The

styles of his activity necessarily undergo changes and receive adjustments with the changing situation.

Of course, there are different levels of manifestation of innovative process management styles, each of which differs in the scope of tasks to be solved and technologies used in this process (Busemeyer et al., 2018, p. 46). In this context, it is entirely possible to talk about the level of innovation of the management style used by the manager. We believe that it is possible to distinguish the following levels:

- Reproductive level, which involves the mechanical borrowing of external innovative experience, which is distributed only within the framework of the existing organizational structure while relying on existing qualities of the pedagogical team. The manager only repeats developed schemes of action, based on recommendations taken from advanced training courses or training manuals. His activity is aimed at obtaining an already known result by known means.

- Adaptive level, which is characterized by the ability to adapt new ideas to new conditions, that is, in this case, borrowing is of particular importance, they are filled with new content and, if possible, new goals. In this case, hiring a manager does not act as a mechanical imitation, but rather as a creative act, which allows you to use the already tested experience to analyze and evaluate the situation in the educational institution.

- Local modeling, which is characterized by the solution of private tasks with the help of partially independent innovation design. In this case, the decisions made cause certain difficulties, because here the manager should find a new solution to the problem, he should abandon the usual, but already outdated approach to the problem and develop a creative solution. A manager's success depends on his personal initiative and ability to make a breakthrough into the unknown. In this case, the manager shows a fairly high level of integration of professional knowledge, the ability to systematize and improve educational technologies, mastery of technologies elements of search activity (project method, technology of learning as research, etc.).

- System-modeling, which is characterized by a typical solution of systemic and organizational tasks (integrated independent design of educational innovations). A leader working at this level has a structured system of knowledge, skills, values and motives that determine his ability to organize a team to design innovations and implement them in the educational process. It is this level of implementation of the management style that can contribute to the creation of author's educational programs and technologies, didactic, educational, methodical, and pedagogical systems

subordinated to the common idea of development of the educational institution.

In the course of the study, we attempted to determine which level is most typical for heads of Ukrainian educational institutions. In particular, respondents were asked the question: "Describe the level of innovation of the head of your educational institution", as an answer to which detailed descriptions of levels of innovation were offered (Fig. 2).

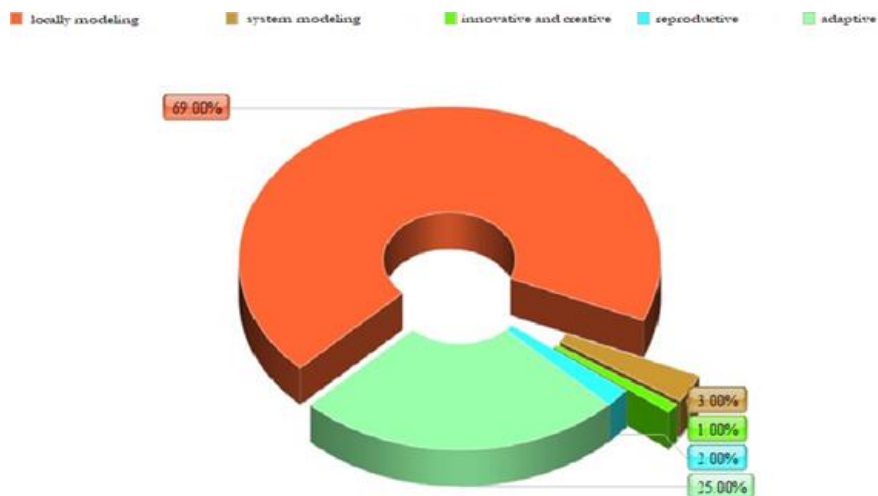


Figure 2. Characterization by respondents of the level of innovativeness of the management style of their educational institution

1/3 of the respondents recognized the level of innovativeness of managers in their educational institution as local modeling, since, in their opinion, actions of managers are aimed at partial independent design of innovations, and 1% noted that the management is characterized by personal borrowing of innovative experience, and 3% believe that their institution is characterized by integral independent design of innovations. Of course, these evaluations are subjective in nature, but still, based on them, it can be assumed that the majority of respondents believe that the level of innovativeness of the management of the heads of their educational institution is local and model.

The local modeling level of the people-oriented management style is characterized by the ability to create a certain mood in the team, conditions for teachers' self-realization, and bring a charge of creative energy to the educational process. In this case, the organizational and personal qualities of the manager, which allow to achieve high productivity of the work of the pedagogical team, are widely revealed. In this case, the educational process is

built from the personality of the student and the personality of the teacher, their uniqueness, individuality, and most importantly, creative abilities. However, the absence of a joint project that unites the innovative activity of the entire team does not allow giving the innovative potential of the educational institution the appropriateness of challenges of the time.

Conclusion

Summarizing results of the theoretical and methodological analysis of the management style of educational institutions, we can conclude that the concept of management style of innovation process is formed at the intersection of interests in the context of the situational approach to management and social innovation.

Through social innovation, we can think of the process of institutionalization and diffusion of educational innovation. The innovation process involves creation, development and dissemination of new technologies and methods, as well as new social practices used in educational institutions. In turn, management of innovation process in institutions is an activity for the formation of innovative potential.

The analyzed statistical indicators allow us to state the following.

Firstly, in modern Ukrainian educational institutions, a high level of innovativeness of teachers is common due to the nature of educational activities, a high level of motivation of the team and a friendly social and psychological climate. However, the lack of support for innovation initiatives from management, combined with a small power distance when leaders focus on partially independent innovation projects, determines the prevalence of local levels of people-oriented management in innovation processes. The main reasons for this are the lack of a concept of management of innovative activity, lack of external system support, low status of teachers, poor communication and imbalance of social and innovation resources. The spread of this style of management of innovation processes in educational institutions contributes to the integration of human, organizational and management resources, but complicates the practical implementation of innovations.

Secondly, management style is based on the right type of performer. Among the personal characteristics of managers who implement the management style of innovative activities in institutions, such qualities as professional abilities, the ability to solve professional problems, the ability to manage people, the ability to quickly change the current institution, self-management, the ability to teach subordinates new professional and educational skills, and creative approaches. The transition to a new level of

system modeling, which expresses the innovativeness of management styles, is inhibited by the lack of leadership qualities and a lack of understanding of the prospects of the institutions' activities in modern and dynamically changing conditions.

Activities related to the improvement of management styles in the context of social innovative resources implementation will be productive if program-oriented management methods are used to ensure the sustainability of innovative management styles. The development of programs for the innovative development of educational institutions should be based on a new management paradigm, characterized by recognition of the growing role of the teacher's personality.

In order to improve the style of management of the innovation process of educational institutions, the following tasks must be solved:

Firstly, educational institutions should move to the level of system modeling of a people-oriented management style, which involves the creation of projects integrating activities of teachers and students. Acquaintance with the practice of leadership in such a way as to harmonize the performance of individual teachers and to recognize each other as equal partners. Consolidate leadership positions by changing the leader's personal qualities.

Secondly, to improve the innovative method of managing processes in educational institutions, it is necessary to introduce situational management based on a new management paradigm, characterized by an increase in individual roles and delegation of powers. Representation of the institution's staff in the formation and implementation of the institution's development programs. In the programs of innovative development of institutions, it is necessary to foresee specific actions regarding the design of educational plans and the environment of institutions to motivate innovative potential and develop the personal and professional qualities of the manager.

The results of the study indicate that more attention should be paid to the development of innovative activities in higher education institutions when developing and implementing the strategy of Ukrainian innovation policy. As of today, at the national level, there is no scientifically based, unified methodical approach to the transformation of ordinary educational institutions into innovative ones. And if the development of innovative policy at the social level is based on the theory of free market and minimizes the state's participation in its functioning, then such an approach to educational institutions is not allowed due to its social significance.

Organizational reform of the education system is aimed at reducing economically inefficient institutions. We believe that modern education policy should focus on the innovative development of the education system,

and not on the reduction of educational network. Because the education system is a necessary part of ensuring the country's integrity.

The complexity of problems discussed above requires both further theoretical research and specific actions in the context of educational institutions' development programs.

In particular, today it is possible to give recommendations in the field of education system management to ensure the innovativeness of the education system:

- Increase salary of the staff of educational institutions to a level comparable to qualified employees of the real sector of economy, preserve the existing workforce and attract young workers who are ready for innovation.

- Introduction of incentives for teachers, lecturers and managers taking into account the efficiency of activity and the use of modern innovations in education.

- Support for educational institutions that create and implement programs of innovative development on a competitive basis.

The key recommendation for the activity of the educational sector is its innovativeness. A large number of scientific articles and methodical developments are devoted to this problem, it is included in program and legislative documents, but no mechanism has been developed to stimulate and support innovative developments at the level of higher education institutions themselves. As a recommendation, it is proposed to introduce innovative development programs drawn up by the higher education institutions themselves with the involvement of European specialists into educational activities. Thus, specialists of a specific educational institution, involved in the creation and further implementation of such a program, are encouraged to search for modern educational solutions, familiarize themselves with and implement the latest educational developments, and test them, and are encouraged to search for the most effective teaching methods. Such a decision will contribute to the departure from Soviet ideals and totalitarian concepts, the search for one's own national development path, national self-identification and the presentation of Ukrainian experience on the world stage.

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References

- Álvarez, I., Natera, J. M., & Suarez, D. V. (2020). Science, technology and innovation policies looking backwards, forwards and beyond: Developmental challenges and opportunities for Ibero-America in the era of Covid-19. *Revista de Economía Mundial*, 56, 1-24. doi: [10.33776/rem.v0i56.4862](https://doi.org/10.33776/rem.v0i56.4862)
- Becla, A. (2012). Information society and knowledge-based economy – development level and the main barriers – some remarks. *Economics and Sociology*, 5(1), 125-132. <https://www.economics-sociology.eu/files/Agnieszka%20Becla%20V5N1.pdf>
- Bell, A., Chetty, R., Jaravel, X., Petkova, N., & Van Reenen, J. (2018). Who becomes an inventor in America? The importance of exposure to innovation. *The Quarterly Journal of Economics*, 134(2), 647-713. doi: [10.1093/qje/qjy028](https://doi.org/10.1093/qje/qjy028)
- Busemeyer, M., Garritzmann, J., Neimanns, E., & Nezi, R. (2018). Investing in education in Europe: Evidence from a new survey of public opinion. *Journal of European Social Policy*, 28(1), 34-54. doi: [10.1177/0958928717700562](https://doi.org/10.1177/0958928717700562)
- Chorev, N., & Ball, A. (2022). The knowledge-based economy and the Global South. *Annual Review of Sociology*, 48, 171-191. doi: [10.1146/annurev-soc-080321-071214](https://doi.org/10.1146/annurev-soc-080321-071214)
- Department of Further and Higher Education, Research, Innovation and Science (2022). Investing in knowledge and skills: Ireland's competitive advantage. A funding and reform framework for higher education. <https://assets.gov.ie/222798/56d15094-5221-42ba-935a-943970e044e5.pdf>
- European Commission/EACEA/Eurydice, (2020). The Structure of the European Education Systems 2020/21: Schematic diagrams. Eurydice facts and

- figures. Luxembourg: Publications Office of the European Union.
<https://data.europa.eu/doi/10.2797/39049>
- European Commission/EACEA/Eurydice. (2020). The European higher education area in 2020: Bologna process implementation report. Luxembourg: Publications Office of the European Union.
<https://data.europa.eu/doi/10.2797/756192>
- Frank, K., Zhao, Y., Penuel, W., Ellefson, N., & Porter, S. (2011). Focus, fiddle, and friends: Experiences that transform knowledge for the implementation of innovation. *Sociology of Education*, 84, 137-156. doi:
[10.1177/0038040711401812](https://doi.org/10.1177/0038040711401812)
- Gorozidis, G., & Papaioannou, A. (2016). Teachers' achievement goals and self-determination to engage in work tasks promoting educational innovations. *Learning and Individual Differences*, 49, 46-58. doi: [10.1016/j.lindif.2016.05.014](https://doi.org/10.1016/j.lindif.2016.05.014)
- Ketelaar, E., Beijaard, D., Boshuizen, H., & Brok, P. (2012). Teachers' positioning towards an educational innovation in the light of ownership, sense-making and agency. *Teaching and Teacher Education*, 28, 273-282. doi:
[10.1016/j.tate.2011.10.004](https://doi.org/10.1016/j.tate.2011.10.004)
- Lai, E., & Cheung, D. (2015). Enacting teacher leadership: The role of teachers in bringing about change. *Educational Management Administration & Leadership*, 43 (5), 673-692. doi: [10.1177/1741143214535742](https://doi.org/10.1177/1741143214535742)
- Lytras, M., Serban, A., Ruiz, M., Ntanos, S., & Sarirete, A. (2022). Translating knowledge into innovation capability: An exploratory study investigating the perceptions on distance learning in higher education during the COVID-19 pandemic - the case of Mexico. *Journal of Innovation & Knowledge*, 7(4). doi: [10.1016/j.jik.2022.100258](https://doi.org/10.1016/j.jik.2022.100258).
- Maassen, P., & Stensaker, B. (2011). The knowledge triangle, European higher education policy logics and policy implications. *Higher education*, 61, 757-769. doi: [10.1007/s10734-010-9360-4](https://doi.org/10.1007/s10734-010-9360-4)
- Miller, M. T. (2020). Do learning organizations learn? Higher education institutions and pandemic response strategies. *Learning Organization*, 28(1), 84-93. doi: [10.1108/TLO-09-2020-0159](https://doi.org/10.1108/TLO-09-2020-0159)
- National Agency for Quality Assurance of Higher Education (2022). Annual report of the National Agency for Quality Assurance of Higher Education for 2021. National Agency for Quality Assurance of Higher Education.
<https://naqa.gov.ua/wp-content/uploads/2022/02/%D0%97%D0%B2%D1%96%D1%82-2021.pdf>
- Sauch, P. (2011). Innovations in higher education: problems, experience, prospects. Zhytomyr. <https://core.ac.uk/download/12084927.pdf>
- Sharma, G.D., Kraus, S., Srivastava, M., Chopra, R., & Kallmuenzer, A. (2022). The changing role of innovation for crisis management in times of COVID-19:

An integrative literature review. *Journal of Innovation & Knowledge*, 7(4). doi:
[10.1016/j.jik.2022.100281](https://doi.org/10.1016/j.jik.2022.100281)

Steiner, M., Niederl, A., & Ploder, M. (2014). University systems in Europe: a multi-dimensional efficiency comparison. *China-USA Business Review*, 13(1), 60-71. doi: [10.17265/1537-1514/2014.01.006](https://doi.org/10.17265/1537-1514/2014.01.006)

Stevens, R. J. (2004). Why do educational innovations come and go? What do we know? What can we do? *Teaching and Teacher Education*, 20, 389-396. doi: [10.1016/j.tate.2004.02.011](https://doi.org/10.1016/j.tate.2004.02.011)

Syrotenko, G. O. (2005). Innovation as a basis for changes in educational practice. Informational and methodical collection. Poltava.
<http://pano.pl.ua/file/book/innovac%20surotenko%201.pdf>