

# Transgressiveness, Innovation, and Readiness of the Modern Teacher for Change

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**Keywords:** Higher Education, Transgressiveness, Innovativeness, Readiness of a Modern Teacher for Innovative Activities, Relocated University.

**Abstract:** The article substantiates the social relevance of the phenomena of transgressiveness and innovation in all spheres of modern society, including higher education. Their essence and objective mutual determination are considered, and attention is focused on the scientific position that one of the aspects of transgressiveness of higher education is the innovativeness of the teacher, the indicator of which is his readiness for innovative activity in the conditions of transgressiveness of society. The essence of the teacher's readiness for innovative activity was considered through the analysis of its semantic components, and its structure was developed, which includes innovative-personal orientation, innovative awareness, content-innovative activity, and reflection of innovativeness. The logic and diagnostic tools of the experimental research were disclosed, the purpose of which was to determine the level of readiness of higher school teachers for innovative pedagogical activities, to compare the results obtained in relocated and non-relocated universities, as well as to identify correlations between the real level of its formation and age, length of service, availability academic degree and scientific title. However, the anonymity of the survey made it impossible to reveal all aspects of the representativeness of the study sample. A quantitative and qualitative analysis of the results of the experimental work, which are visualized, is presented. The results of the component analysis of the components of teachers' readiness for innovative activity and their statistical processing made it possible to formulate several conclusions. Among the teachers of Borys Grinchenko Kyiv University and Mykhailo Drahomanov Ukrainian State University, innovative awareness is dominant in the structure of readiness, content-innovative professional activity is in the last place, and the second and third place, respectively, is occupied by the reflection of innovativeness and innovative-personal orientation. The results of the representatives of the relocated State institution Taras Shevchenko Luhansk National University are somewhat different: there is a certain similarity of indicators for the components of innovative awareness and content-innovative professional activity. However, innovative, and personal orientation takes the second place, instead, the reflection of innovativeness is in the third place. The logic of such distribution of components is determined by the main objective factors related to the situation of repeated relocation of the institution (2014, 2022); the loss of the material and technical base, developed didactic and methodical support, and other resources of the innovative educational environment; personnel dispersion.

## 1 INTRODUCTION

In a rapidly changing world, education ceases to be a fixed phenomenon in the context of content, technology, resources, tools, etc. This is, as a rule, a complex,

ambiguous, unstable process that must consider new challenges and trends. A teacher at a higher school in these conditions is constantly in the process of permanent changes, searching for new professional orientations, development and self-development, and improvement. To characterize such a situation, the term transgressiveness is the aptest, as it characterizes the phenomenon of crossing an impassable border, first, the border between the possible and the impossible. The literal understanding of this term means "going

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beyond". One of the aspects of transgressiveness in the context of changes and the search for something new is innovativeness as a phenomenon of modern education, which proves its quality and effectiveness.

A basic indicator of a teacher's innovativeness is readiness for innovative activity, which actualizes the need and expediency of empirically determining the level of his/her ability to go "beyond the limits of the possible", that is, to move from traditions to innovations in higher education, to modernizing the design of higher education based on axiologising and meaningful transformation of the best experience, as well as the definition of problems, barriers, prospects of innovative growth of a modern university teacher.

Let's consider the basic phenomena of the presented research, which are transgressiveness and innovativeness. The problem of transgressiveness is devoted to the study of foreign scientists Lotz-Sisitka et al. (2015), who connect this phenomenon with the following key trends in modern higher education: reflective social learning based on the theory of abilities; phenomenology of critical thinking; sociocultural and cultural-historical theory of activity, as well as taking into account social initiatives of the information society. Saarnivaara et al. (2012), who associate transgressive learning with mentoring and supervision, express a slightly different point of view. In the domestic scientific space, transgressive issues are raised in the study of Aleksandrov (2018), who focuses on "breaking and going beyond the limits" of the traditional understanding of higher education. The personal context of transgressiveness is presented in the research of Fomenko (2014), who considers transgressiveness as a series of conscious acts that cause forward movement, the desire to expand one's world, create new material and symbolic values, develop science, technology, art, and organizational activity.

Considering the outlined scientific positions, we consider transgressiveness in two dimensions. On the one hand, it is an essential feature of a turbulent society, related to its innovativeness; on the other hand, it is a phenomenon at the personal level, which involves the ability of a modern university teacher to go beyond established educational canons and implement a movement "beyond" traditions based on innovation. The phenomenon of innovativeness became the subject of discussions at the World Summit on Innovations in Education Research, which outlined the strategic directions of reforms in education until 2030. Among them, the priorities are the following: the intensive implementation of online technologies, changing the status of the teacher from a lecturer to a facilitator, which motivates and inspires the student; to a mentor who directs him to search for information.

Herodotou et al. (2019), Kukulska-Hulme et al. (2021), who emphasize the orientation of innovative pedagogy for the future and for building the future, are devoted to the problem of innovativeness in education; Konst and Kairisto-Mertanen (2018), whose research is aimed at the implementation of innovative pedagogy in the practice of higher education, as a kind of response to the challenges of the future; Ferrari et al. (2009), who investigate the role of educators in promoting creativity and innovation in the educational process; Santos et al. (2019), Walder (2014), and Lotz-Sisitka et al. (2015), who comprehensively investigate pedagogical innovations and the success of their implementation in higher education, etc. The practical implementation of these scientific ideas is carried out by various educational institutions and universities. Thus, since 2012, the Institute of Educational Technology at The Open University (UK) has been publishing on its open resources every year a report based on the results of a study of the latest pedagogical technologies that were popular in the world during the year under review (<http://www.open.ac.uk/blogs/innovating/>), which it labels as already influencing educational practice or offer opportunities for the future. Such a list is also compiled for 2022 (Kukulska-Hulme et al., 2022).

For researchers of innovations in the domestic field of education, a thorough monographic study edited by Kremen (2008) will be useful. Among the works of Ukrainian scientists, we also consider it necessary to pay attention to Zhelanova's research on the parameters of innovativeness of modern higher education (Zhelanova, 2022); Khoruzha (2021), whose subject of scientific research is the socio-psychological aspects of the transition of pedagogical knowledge into innovation; Bratko and Kozyr (2020), who present a holistic vision of pedagogical innovation as a subject and object of study in higher education and others; Kozak (2021) regarding innovative activities of preschool teachers; Nezhyva and Palamar (2020), about innovative educational technologies for training future primary school teachers; Leontieva (2022), regarding modernization risks of innovative development of higher education in Ukraine.

The aspect of pedagogical innovation is pointed out by Khoruzha (2021), according to which it affects different segments of education, namely: didactic, educational, and managerial, and their components, and the criteria for identifying their innovativeness are:

- relativity (comparison of existing practices with innovation);
- rarity (recognition of the uniqueness, and originality of the innovation);
- productivity (certifies the effectiveness of the in-

novation);

- obviousness (unquestionable, clear novelty);
- efficiency (achieving effectiveness with the lowest costs);
- value (reflects the humanistic orientation of the innovation).

There is a scientific opinion on the innovative dimensions of modern higher education, among which the conceptual-innovative (correspondence to the ideas of polyparadigmatic and interdisciplinary methodology of modern education), technological-innovative (related to the implementation of a technological approach to modern higher education in the format of innovative educational technologies), communicative-innovative dimension (related to the new format of relations between teachers and students based on educational partnership) (Zhelanova, 2022). In our research, such a broad interpretation of the phenomenon of innovativeness in educational activity is narrowed down to the professional and personal aspects and actualized through the prism of readiness for innovative activity.

We understand innovativeness as a certain capacity of the subject of innovative activity to apply innovation in one or another field of activity, which is based on his/her readiness for innovative activity (innovativeness) and a complex of knowledge and skills (innovative competence), which will ensure the success of his/her professional activity on the basis innovativeness. In our opinion, the innovative activity of the teacher involves updating the content and technologies of modern higher education based on the innovative orientation of the subjects of the educational process, which lead to a departure from traditional inefficient models of professional activity in the conditions of transgressiveness of modern society.

Taking into account that the work of each researcher is characterized by a certain subjectivity in considering the phenomenon of innovations in the educational sphere, it is worth highlighting the common points that scientists pay attention to. This is the thesis that innovative approaches increase the interest of education seekers, motivation and critical thinking, increase reflection, encourage the development of higher levels of thinking, deepen personal responsibility for learning, develop the ability to interact with peers and teachers, ensure satisfaction with the professional activity of teachers and systemic, often instant, feedback with learners.

Therefore, we believe that the main parameter that characterizes the properties, features, and certain states of a modern teacher in the context of transgressiveness and innovativeness is the innovative di-

mension of his/her activity, presented in four directions: axiological; content, and activity; communicative, and reflective.

The *purpose* of the article is to investigate the peculiarities of the readiness of a modern teacher of a higher school for innovative activities in the context of the transgressiveness of education.

## 2 THEORETICAL FUNDAMENTALS OF RESEARCH

The problem of readiness in the foreign scientific discourse is presented in different ways. For example, Manasia et al. (2020) substantiated and developed a conceptual model of teacher readiness with an emphasis on sustainable development education, considering it according to the following dimensions: professional knowledge and practice, professional interaction, and self-management realized through a psychological attitude to design, implementation, evaluation, and involvement of subjects of the educational process based on interactive learning and partnership.

Mohamed et al. (2017), studying the level of readiness of future teachers for pedagogical activity according to 11 indicators of the international framework of teacher competencies, associate the achievement of the state of readiness with four vectors of pedagogical education, which correlate with the competencies outlined in the framework, their implementation, integration, application, and modeling.

In the domestic scientific space, there is a systematic study of the phenomenon of readiness, in particular readiness for innovative activity (Dychkivska, 2017; Kozak, 2021). Thus, in the research of Dychkivska (2017) regarding the readiness of future teachers of special education for innovative pedagogical activities, the problem of the motivational and value attitude of the future specialist to innovative activities, the ability to creativity and reflection, the ability to respond promptly to the dynamics of socio-economic processes, to ensure the variability of the educational process on principles of innovation. The basis of the innovative activity of a teacher of a higher school consists of two important pedagogical aspects: the study, generalization, and dissemination of pedagogical experience and the production of new ideas based on the achievements of a psychological and pedagogical science and their implementation in practice.

Our interpretation of the definition “a teacher’s readiness for innovative activity” consists in interpret-

ing it as the professional and personal formation of a modern teacher, which consists of the following basic components:

1. Innovative and personal orientation.
2. Innovative awareness.
3. Content-innovative activity.
4. Reflection on innovativeness.

We consider it appropriate to consider in more detail the elements that make up each of the outlined components, on which the experimental part of our research will be based.

The innovative and personal orientation of the teacher is a set of motives, needs, values, and attitudes that reflect a stable value attitude to innovativeness; adaptability in conditions of social and personal uncertainty; the need to update the strategy of professional activity based on transgressiveness. We consider the orientation to innovation as a basic value of the development of higher education to be a sign of a teacher's innovative and personal orientation; awareness of the need to be adaptive in conditions of social and personal uncertainty; the need to change and update the strategy of one's professional activity.

Innovative awareness presupposes erudition regarding fundamental knowledge and achievements of modern science and trends in higher education and innovations, and general awareness of innovations in education.

Content-innovative activity – this component is related to the constant updating of the content of educational disciplines based on taking into account the innovative guidelines of strategic regulatory documents, educational standards, and the innovative potential of educational programs; implementation of innovative content in the educational process through an innovative format of relationships between subjects of the educational process (facilitation, mentoring, coaching, pedagogical partnership) and innovative research projects; renewal of didactic and methodical support of educational disciplines based on innovation; implementation of innovative learning technologies and/or alternative resources and IR tools within the open innovative educational environment.

Reflection of innovativeness is an awareness of one's innovative potential in professional activity, including a feeling of lack of knowledge regarding technological support for the implementation of pedagogical innovations; assessment of the innovativeness of one's professional activity and forecasting of its results and prospects; taking into account the level of student satisfaction with the quality of education in the context of its innovativeness; responsibility for

successes and failures in professional activity, including its innovative component.

### 3 RESEARCH RESULTS

To determine the level of readiness of higher school teachers for innovative pedagogical activity and to identify correlations of its level with age, work experience, the presence of a scientific degree, and academic title, a survey of scientific and pedagogical workers of higher education institutions of Ukraine was conducted.

The questionnaire consisted of twenty questions grouped into four blocks:

- I. Innovative and personal orientation of the individual (correlated with axiological, motivational, adaptive aspects of readiness for innovative activity)
- II. Innovative content of professional pedagogical activity (related to substantive content at the state-normative and corporate levels)
- III. Innovativeness in professional activity (the parameters of which are a new format of relations between the subjects of the educational process, the introduction of innovative educational tools)
- IV. Reflection and self-assessment (correlates with the reflective and analytical mechanisms of the individual).

167 respondents from three universities took part in the survey: Borys Grinchenko Kyiv University (hereinafter KUBG), Mykhailo Drahomanov Ukrainian State University (hereinafter UNU), and the relocated SI "Taras Shevchenko Luhansk National University" (hereinafter LNU). However, the anonymity of the survey made it impossible to reveal all aspects of the representativeness of the study sample.

The questionnaire was aimed not only at diagnosing the basic components of a teacher's readiness for innovative activity but also at comparing the readiness for such activity of relocated and non-relocated teachers of higher education institutions in Ukraine.

Note that we interpret the teacher's "readiness for innovative activity" as his professional and personal education, which includes: innovative and personal orientation (valuable attitude to innovativeness; adaptability in conditions of social and personal uncertainty; the need to update the strategy of professional activity); innovative awareness of fundamental knowledge, achievements and modern trends of higher education; content-innovative activity of the

teacher (taking into account the guidelines of strategic normative documents, educational standards and the potential of educational programs regarding the content support of innovative activity, as well as the practical context of innovation (subject-subject format of relationships, didactic-methodical support of educational disciplines on the basis of innovation, introduction of innovative learning technologies); reflection of the results of innovative activity (awareness of potential, evaluation of own achievements and satisfaction of students, forecasting prospects for the development of professional innovativeness). The obtained results of the conducted questionnaire for each component of the teacher's readiness for innovative activity, as well as the generalized result, are visualized in the diagrams below. Figure 1 graphically presents the obtained data regarding the study of the teacher's level of readiness for innovative activity according to the component "Innovative and personal orientation of the individual".

According to the conducted research, 60.00% of the teachers of KUBG, 50% of LNU, and 69.09% of UNU have a high level of innovative and personal orientation. The level above the average is observed in 29.39% of teachers of KUBG, 30.73% – of LNU, and 24.54% of UNU. The average level of innovative and personal orientation was found in 6.94% of teachers of KUBG, 13.66% – of LNU, and 5.45% of UNU. A low level was diagnosed in 2.04% of teachers of KUBG, 2.44% – of LNU, and 0.92% of UNU.

Thus, a high level of innovative and personal orientation prevails among teachers, they demonstrate a valuable attitude to innovativeness; modern trends in higher education; adaptability in conditions of social and personal uncertainty; declare the need to update the strategy of professional activity.

A high level of readiness of the teacher for innovative activity according to the component "Innovative awareness" is observed in 67.75% of teachers of KUBG, 55.12% – of LNU, and 77.28% of UNU. The level above the average was found in 28.57% of the teachers of KUBG, 32.20% – of LNU, and 17.28% of UNU. The average level of innovative awareness was found in 3.26% of teachers of the KUBG, 8.29% – of LNU, and 3.63% of the UNU. A low level was diagnosed only in representatives of LNU – 1.22%.

Therefore, the majority of teachers have a high level of readiness for innovative activity according to the "Innovative awareness" component, i.e. they demonstrate awareness and erudition regarding fundamental knowledge and achievements of modern science and trends in higher education and innovations; general awareness of innovations in education. The results of the teachers' survey are shown in figure 2.

ure 2.

Analysis of the research results shown in figure 3 allows us to conclude the level of the teacher's readiness for innovative activity according to the component "Substantive and innovative professional activity". Thus, a high level was found in 42.86% of teachers of KUBG, 30.73% – of LNU, and 44.55% of UNU. The level of readiness of the teacher for innovative activity according to the component "Substantive and innovative professional activity" is above average found in 33.47% of the teachers of KUBG, 36.34% – of LNU, and 29.09% of UNU. The average level was diagnosed in 13.88% of the teachers of KUBG, 20.73% – of LNU, and 16.36% of UNU. A low level was diagnosed in 4.08% of the teachers of KUBG, 4.88% – of LNU, and 4.54% of teachers of UNU.

The results obtained under this component indicate that among teachers there are specialists who apply innovativeness in their practical activities: constant updating of the content of educational disciplines based on taking into account the innovative guidelines of strategic regulatory documents, educational standards, the innovative potential of educational programs; innovative research projects; renewal of didactic and methodical support of educational disciplines based on innovation; implementation of innovative learning technologies and/or alternative resources and IR tools within the open innovative educational environment.

Figure 4 graphically presents the results of studying the level of readiness of the teacher for innovative activity according to the component "Reflection of innovativeness".

According to the conducted research, 60.82% of the teachers of KUBG, 44.39% of LNU and 73.64% of UNU have a high level of reflection and self-esteem. The level above the average is observed in 33.47% of teachers of KUBG, 40.24% – of LNU, and 19.10% of UNU. The average level of reflection and self-assessment was found in 4.08% of the teachers of KUBG, 13.90% – of LNU, and 6.36% of UNU. A low level was diagnosed only in representatives of the KUBG – 0.41%.

That is, a high level of reflection and self-assessment prevails among teachers, they demonstrate awareness of their innovative potential in professional activity; adequate evaluation of the innovativeness of their professional activity, forecasting of its results and prospects; responsibility for successes and failures in professional activity, including its innovative component.

The analysis of the generalized results allows us to conclude the structure of the teacher's readiness for

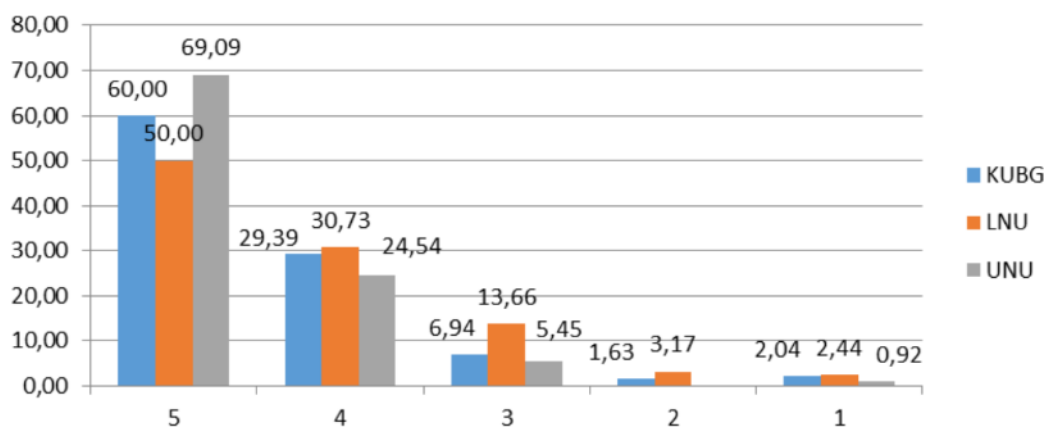


Figure 1: The results of the study of the level of the teacher’s readiness for innovative activity according to the component “Innovative and personal orientation of the individual”.

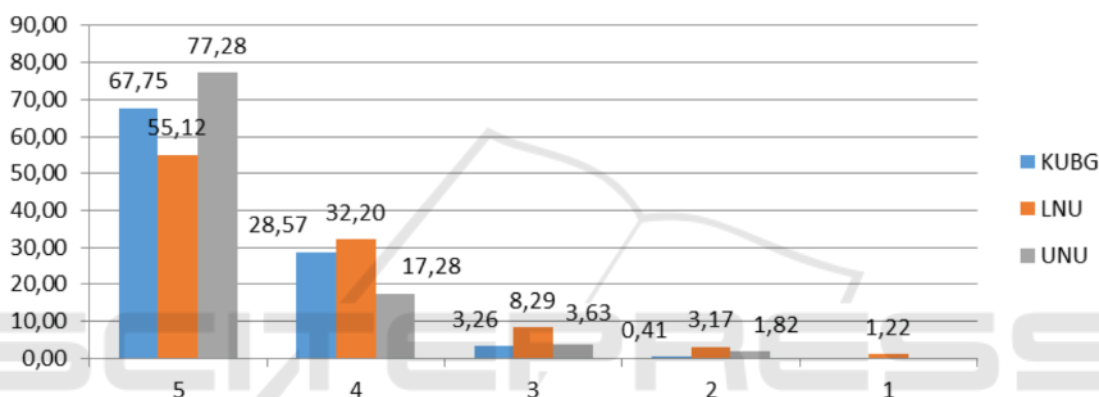


Figure 2: Results of the study of the level of readiness of the teacher for innovative activities according to the component “Innovative awareness”.

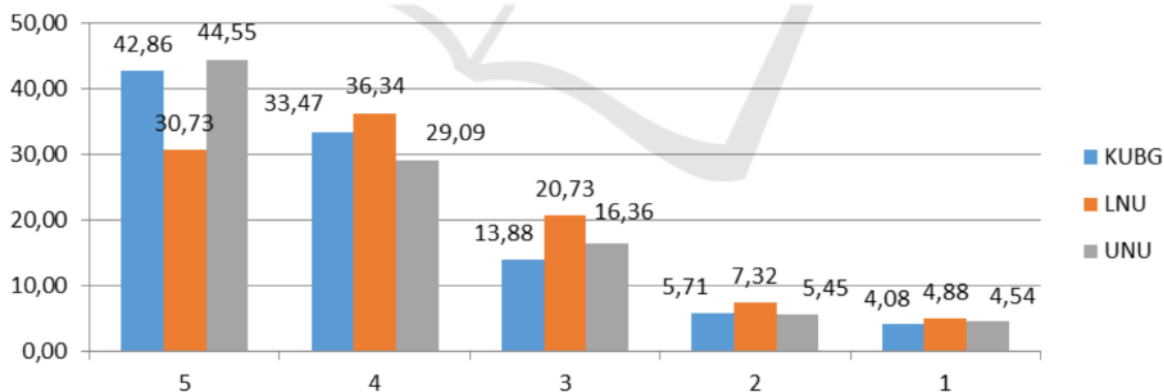


Figure 3: Results of the study of the level of readiness of the teacher for innovative activity according to the component “Content-innovative professional activity”.

innovative activity. Thus, among the teachers of Boris Grinchenko Kyiv University and Mykhailo Drahomanov Ukrainian State University, the first place is innovative awareness, the second place is a reflection of innovativeness, the third place is innovative-personal orientation, and the fourth place is a content-innovative professional activity. For representatives

of the Taras Shevchenko Luhansk National University, the results are slightly different, so the innovative and personal orientation is in second place, and the reflection of innovativeness is in third place.

Therefore, it is obvious that teachers of Boris Grinchenko Kyiv University and Mykhailo Drahomanov Ukrainian State University have a higher

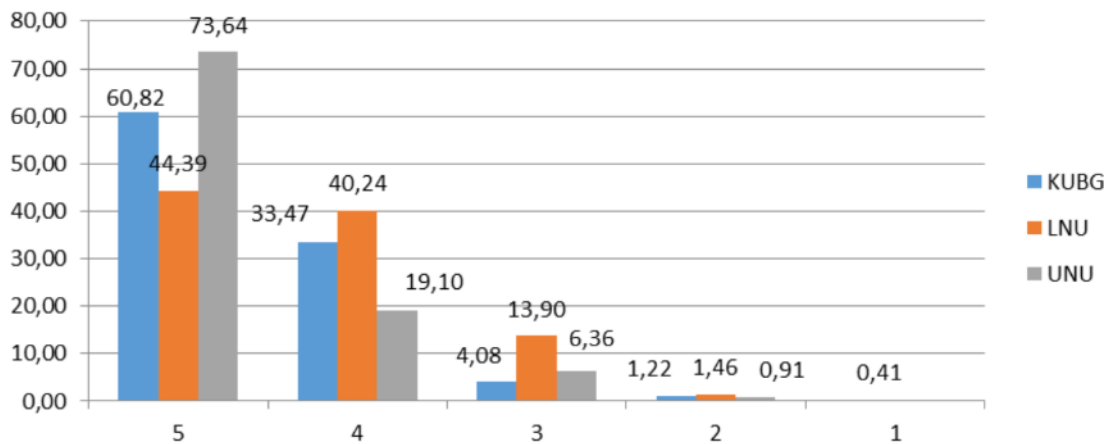


Figure 4: Results of the study of the level of readiness of the teacher for innovative activity according to the component “Reflection of innovativeness”.

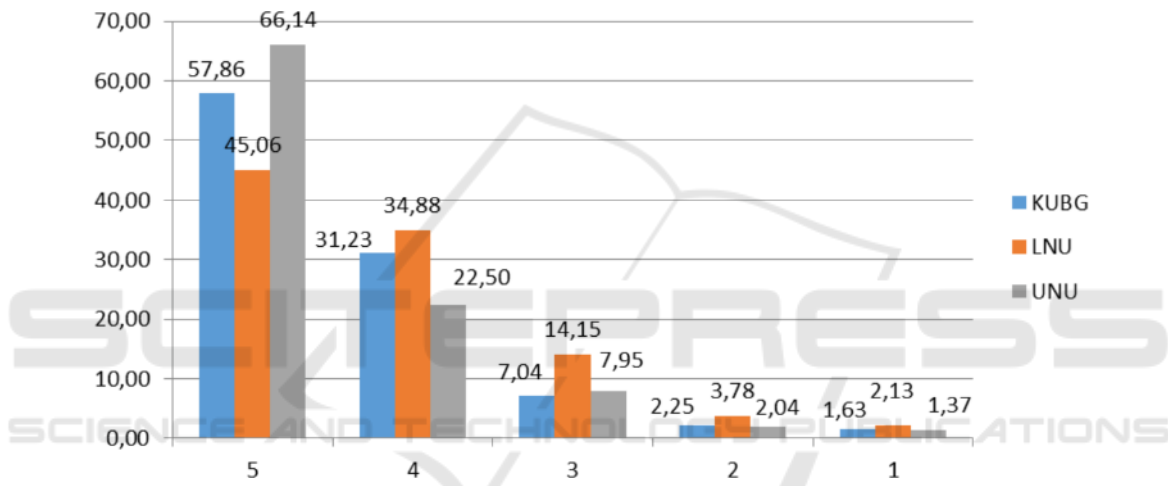


Figure 5: The results of the study of the teacher's readiness for innovative activities.

level of readiness for innovative activities than teachers of SI “Taras Shevchenko Luhansk National University” in all basic components.

In our opinion, the main objective factors of the decrease in the level of teacher readiness for innovative activity among teachers of the SI “Taras Shevchenko Luhansk National University” are the situation of repeated relocation of the institution (2014, 2022); loss of the material and technical base, developed didactic and methodical support and other resources of the innovative and educational environment; personnel dispersion.

To confirm the results obtained with the help of qualitative analysis and to determine the difference between the indicators of teacher readiness for innovative activity of the respondents of Borys Grinchenko Kyiv University, Mykhailo Drahomanov Ukrainian State University and SI “Taras Shevchenko Luhansk National University”, non-parametric Mann-Whitney U test was used (table 1).

The analysis of the results presented in the table allows us to conclude that there is a statistically significant difference in the level of teacher readiness for innovative activity between the groups of teachers of KUBG/UNU and LNU on the component “Reflection of innovativeness” at a significance level of  $p=0.0001$ ; “Content-innovative professional activity” at the level of significance  $p=0.001$ ; “Innovative awareness” and “Innovative and personal orientation of the individual” at the level of significance  $p=0.005$ .

To assess the statistical relationship between the constituent components of the teacher's level of readiness for innovative activity according to such indicators as age, seniority, scientific degree, and academic title, obtained as a result of the conducted empirical research, the Pearson correlation coefficient, which is a parametric statistical criterion, was used. The statistical analysis allowed us to reveal relationships between indicators at the significance level of 0.05 and 0.01 (at  $p<.01$  and  $p<.05$ ). The results are shown in

Table 1: Calculation of Mann-Whitney U test for comparing the results of the study of the level of teacher readiness for innovative activity among teachers of different higher education institutions.

Variables	Sum of ranks (KUBG/UNU)	Sum of ranks (LNU)	U	Level of significance
Innovative and personal orientation of the individual	3087.00	1963.00	882.00	.0015
Innovative awareness	3861.00	1215.00	806.00	.0013
Content-innovative professional activity	2798.00	2251.00	766.50	.001
Reflection of innovativeness	3074.00	1880.00	495.00	.0001

table 2.

Thus, we can conclude that there is a high level of statistical significance between the academic title and all components of the level of readiness of the teacher for innovative activities; scientific degree, and age with innovativeness in professional activity, reflection, and self-assessment. Statistically reliable relationships were found between seniority and all components of the teacher’s level of readiness for innovative activities; scientific degree and age with the innovative and personal orientation of the individual and innovative content of professional pedagogical activity.

#### 4 CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The phenomena of transgressiveness and innovativeness reflect the contradictory features of modern society, associated with its turbulence, uncertainty, instability, and psychological tension, and become challenges facing higher education today. The professional and personal indicator of the specified objective social phenomena is the readiness of a higher school teacher for innovative professional activity, the structure of which includes several components: innovative personal orientation, innovative awareness, content-innovative professional activity, and reflection of innovativeness. Quantitative and qualitative analysis of the results of the teachers’ survey, as well as their statistical processing, proved the similarity of indicators of the readiness of teachers of all three universities for the components of innovative awareness and content-innovative professional activity. However, the results of teachers of LNU differ according to the components of innovative-personal orientation and reflection of innovativeness (innovative-personal

orientation takes second place, and reflection of innovativeness is in third place). We believe that the logic of this distribution of components of readiness for innovative activity of LNU teachers is conditioned by the main objective factors related to the situation of repeated relocation of the institution (2014, 2022); the loss of the material and technical base, developed didactic and methodical support and other resources of the innovative educational environment; personnel dispersion. It was concluded that there is a high level of statistical significance between the academic title and all components of the teacher’s readiness for innovative activities; at the same time, a significant dependence was established between academic degree and age and content-innovative professional activity and reflection of innovativeness. Statistically reliable connections were found between seniority and all components of the teacher’s readiness for innovative activities; at the same time, academic degree and age correlate with the innovative and personal orientation of the individual and the innovative awareness of the teacher. Therefore, the readiness of the teachers of KUBG, UNU, and LNU for innovative professional activity was internalized only at the level of motivation and awareness but did not turn into a practical toolkit regarding the content and technological support of the innovative professional activity. That is, the problem of increasing the level of readiness of the teacher for innovative professional activity according to the component of content-innovative professional activity must be raised at the level of declaring innovative content at both the state (legislative) and institutional (corporate) levels in the format of regulatory documents and educational programs of innovative orientation, through the strengthening of their practical component, related to the provision of subjective activity of teachers regarding the implementation of skills, as a component of content-innovative professional activity.



Table 2: The results of the correlation analysis of the constituent components of the teacher's level of readiness for innovative activity by indicators.

Indexes	Level of significance			
	Age	Seniority	Scientific degree	Academic title
Innovative and personal orientation of the individual	.37*	.25*	.25*	.41**
Innovative awareness	.28*	.31*	.24*	.43**
Content-innovative professional activity	.47**	.27*	.53**	.51**
Reflection of innovativeness	.43**	.23*	.54**	.67**

\* –  $p \leq .01$ ; \*\* –  $p \leq .05$

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