# APPLICATION OF INNOVATIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS: PSYCHOLOGICAL AND PEDAGOGICAL ASPECT

# APLICAÇÃO DE TECNOLOGIAS INOVADORAS NO PROCESSO EDUCACIONAL: ASPECTO PSICOLÓGICO E PEDAGÓGICO

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Abstract: The article determines that, in the preservation of cultural heritage, lifestyle, an important role is played by the subjects' high assessment of the probability of achieving the result they need through the implementation of traditional models, ways of interaction. If dissatisfaction with the results of interaction is great, but there are no necessary conditions for a phased resolution of contradictions, for changing, developing interpersonal relations within the framework of the existing system, interaction becomes more difficult. It has been determined that the presence of effective models that show the possibility of meeting the requirements for the psyche of a variety of individuals from the side of activity, activating an extended search for mutually acceptable ways to success, depends on the development of the personality and its social relations, the success of interaction between people, socially psychological climate in the team.

**Keywords:** Higher education. Education system. Interpersonal relationships. Communications. Cultural. Ethnic stereotypes

Resumo: O artigo determina que, na preservação do patrimônio cultural, estilo de vida, um papel importante é desempenhado pela alta avaliação dos sujeitos sobre a probabilidade de alcançar o resultado que eles precisam por meio da implementação de modelos tradicionais, formas de interação. Se a insatisfação com os resultados da interação é grande, mas não há condições necessárias para uma resolução faseada de contradições, para mudar, desenvolver relações interpessoais no quadro do sistema existente, a interação torna-se mais difícil. Modelos eficazes que mostram a possibilidade de atender às exigências do psiquismo de uma variedade de indivíduos do lado da atividade, ativando uma busca ampliada por caminhos mutuamente aceitáveis

para o sucesso, depende do desenvolvimento da personalidade e de suas relações sociais, do sucesso de interação entre as pessoas, clima psicológico social na equipe.

**Palavras-chave:** Educação superior. Sistema educacional. Relações interpessoais. Comunicação. Cultura. Estereótipos étnicos.

### 1. Introduction

Interpersonal relationships - appearing during the interaction of people in the process of communication and joint activities, concrete, objectively experienced, in varying degrees of perceived relationships, interdependence between them.

In simple, stereotypical situations, "patterns" fixed in mental reflection, models regulate behavior and activity, predetermine and anticipate the ways and results of interaction.

With fundamental changes in the social system, economic relations, the process of personality formation is disrupted, the stability of the socio-psychological properties of groups of people is tested, their relations and conditions change. However, the "general" also in these cases acts through the "special", and the "special" manifests itself in the "individual". When the subjects realize and successfully resolve or remove the contradictions of interaction, new norms, personal samples, models are created and, if successful, they are disseminated and consolidated in culture.

In the cultural-historical aspect, a logic is "built" in which the determinants are the actual and future tasks of realizing the possibilities of building interaction, resolving its contradictions at levels from interpersonal to general cultural. Changing along with the social system, these tasks and their solutions are successively reflected in secular and estate culture, education (personal model), ideals, professional (including sports) ethics. On these levels, along with the state structure, the meaning and significance of interaction is successively replaced.

A common characteristic feature of the struggle between the new and the old in morality is, apparently, the movement from denial and confrontation to borrowing and compromise.

The principle of "social relay race", that is, the ability to act according to direct samples (models).

This meant the following: if in front of your eyes a person performs some behavior that does not require special training, then you are able to repeat this behavior. This form of behavior reproduction was originally called normative structures, then normative systems, in the 80s of the 20th century the term "social relay race" appeared.

The ideal of a perfect person, "jun-tzu" was given by the Chinese philosopher Confucius, who also contrasted it with a commoner, or "low man" - "xiao zhen". According to the detailed image of a noble husband (personal model), constructed by the philosopher as a model, a perfect man "jun-tzu" must have two major virtues: humanity and a sense of duty. For Confucius (551-479 BC), the measure of all virtues, the measure of sociality and culture is humanity, humanity, the obligatory components of which are courtesy, generosity, diligence and kindness.

Compliance with the prevailing cultural norm, "jun-tzu", allowed a person not only to resolve contradictions, avoiding insults, but also to change social status (move to a different social group), achieve financial well-being.

A "personal model" is defined as a person, real or imagined, that induces or is capable of inducing imitation. A personal model for a particular individual or group will be the image of a person who should serve or actually serves for this individual or this group as an "object of claims".

There are different terms to designate a model that plays an important role in the formation of personality. J. Mead speaks about the significance of the image of the "generalized other", R. Burns - "significant other". In scientific, artistic, religious literature, the concepts of "ideal", "standard", "basic and model personality" (A. Kardinera, according to J. Honigman, 2001), "model of a cultured person", "normative personality", "normative-value model of personality", " model personality", "perfect person", "example", "significant other", etc. (Kim, 2017).

It is necessary to distinguish between the concepts of a model (sample, standard) and an ideal. The concept of an ideal does not create an image of a specific goal in any practical sphere of life and indicates a direction towards the goal rather than creates an image of the goal itself, and therefore guides a person rather as a sense of the right direction, and not a clear image of the result. "After all, it's time, finally, to understand, gentlemen, that a common ideal can just as little lay claim to existence as common spectacles or common boots, sewn to one measure and one last" (Kovbatiuk & Shevchuk, 2020).

Thus, in the preservation of cultural heritage, lifestyle, an important role is played by the subjects' high assessment of the probability of achieving the result they need through the implementation of traditional models, methods of interaction. If dissatisfaction with the results of interaction is great, but there are no necessary conditions for a phased resolution of contradictions, for changing, developing interpersonal relations within the framework of the existing system, interaction becomes more difficult. A more or less (under appropriate conditions) conflict begins, accompanied by the destruction of existing structures, the process of transition to a different (new) system interactions. At the same time, the foundations of an "understanding" attitude to interaction on a generalized basis can be laid, as a readiness to recognize situations, requiring the search for a mutually acceptable way of their resolution.

#### 2. Literature review

As a branch of pedagogy, pedagogical innovation is a young science. Research on innovations was started in the middle of the 20th century. and focused on theoretical substantiation, analysis of various aspects of innovative processes in the education and training system, developed practical recommendations for mastering, implementing, ensuring the optimal mode of functioning of innovative projects and programs. Research in this scientific field is carried out by L. Vashchenko, L. Danylenko, I. Dychkivska, V. Kozakov, V. Palamarchuk, O. Popova, O. Savchenko. The interest in innovations of the world pedagogical community is manifested in the creation of information services (the Center for the Study of Innovations in Education under the auspices of UNESCO, the Asian Center for Pedagogical Innovations for the Development of Education), the initiation of programs for the implementation of pedagogical innovations, holding international conferences, activities of organizations summarizing pedagogical innovations in different countries of the world. In particular, the International Bureau of Education (France, Paris) publishes periodicals such as "Pedagogical Innovations", "Information and Innovation in Education" (Koris, Mato-Diaz & Hernández-Nanclares, 2021).

The Law of Ukraine "On Higher Education" stipulates that the purpose of higher education is the comprehensive development of a person as an individual and the highest value of society, the development of his talents, mental and physical abilities, the education of high moral qualities, the formation of citizens capable of conscious social choice,

enrichment on this basis of the intellectual, creative, cultural potential of the people, raising the educational level of the people, providing the national economy with qualified specialists (Stoicheva, 2022).

The Aim of this article is to research the content of the concept of "innovation" in the modern educational process of higher education institutions.

### 3. Materials and methods

Research methods: theoretical: study and analysis of pedagogical, psychological, philosophical, sociological literature on the problem of research, legislative and regulatory documents; systematization, classification, terminological analysis, pedagogical modeling, retrospective analysis, generalization of existing pedagogical experience; empirical: pedagogical experiment; diagnostic methods (testing, conversation, observation, questioning, self-assessment, self-analysis, mutual assessment), professional activity motivation methodology, pedagogical interpretation of the research results.

### 4. Results

Analysis and generalization of the socio-historical experience in the development and consolidation of interaction models allows to identify the main criteria for greater stability and less conflict in models of interpersonal relations:

- 1) performance;
- 2) balance in relation to the rights and obligations of the participants in the interaction. The infringement of the rights of one of the parties fixed in the models reduces the reliability of the model, serves as a potential source of contradictions and conflicts;
- 3) compliance with the capabilities of acting subjects and the requirements of the interaction situation. The inconsistency of their capabilities with the requirements of the situation of interaction is often not recognized by the acting subjects.

This is facilitated by the mechanisms of psychological defenses, for example, identification with an idol who has qualities that are valuable for relationships and joint activities. As a result of the operation of this mechanism, unequal relations are formed in the group.

(the number of unaccepted, rejected and leaders exceeds 50% of the group), since, in an effort to unite with the leader, less attractive members of the group reduce the likelihood of receiving mutual support in response. The task of bringing the capabilities of the acting subjects of the model of interpersonal interaction in line with the requirements of the situation can be solved by "embedding" psychological categories into the activity of joint training based on their own psychodiagnostic data and modeling interpersonal relationships (Silva, Arruda, Zwierewicz, Stefenon, Ferreira, Klaar & Yamaguchi, 2020).

In other words, we need a long-term (dynamic) psychodiagnostics with a qualitative interpretation, based on an assessment of the probability of obtaining mutual support, the need and possibility of establishing sustainable interpersonal relationships.

Modern models require complex skills, division of labor, psychological knowledge.

4) "built-in" in the model of ways, techniques to prevent the transformation of one's image in the perception of partner into a threatening or conflict-generating object ("relationship culture") (Pedersen, 2021). When contradictions are identified, the use of such methods prevents the appearance (manifestation) of negative emotions, helps to prevent actions perceived as causing moral or physical harm. This contributes to the solution of identified contradictions, prevents the transition of a pre-conflict situation into a conflict one, which determines the value of methods cultural relations and efforts to preserve them.

The word "education" contains its goal as an image of the expected result of activity, the image of a person with certain characteristics. Mismatch to some extent means deprivation of the right to stay in a given society, entails the contempt of others and ridicule. The term "personal model" is defined as "a model of a cultured person", "a set of idealized portraits of the "best" people of various eras and peoples written by their contemporaries", in which "it is determined by name what values a cultured person should learn, what norms of behavior to be guided by, what he must know and be able to do. There same: "It is the model (actually formulated or implied) that is the starting point for the development of curricula and educational programs". Model features reflect the social status of a person, his belonging to a particular social group (Stoicheva, 2022).

The rules of etiquette are an example of empirical concretization and consolidation of ways of cultural relations in socio-historical experience, techniques that help resolve contradictions that appear during interpersonal interaction.

Etiquette (from the French "etiquette") - the established order of conduct anywhere. In translation, it means a label, a label, as well as a ceremony, that is, the procedure for conducting a certain ceremony. This is a set of rules of conduct, courtesy, courtesy adopted in certain social circles and types of professional activities. Basic rules of etiquette in sports and games according to E. Post (1997):

- anticipate the reactions of other people, not cause inconvenience;
- demonstrate competence;
- express positive emotions and restrain negative ones, do not complain, do not gloat, do not be arrogant, show tolerance, endurance, concentration;
- in doubtful cases, give priority to the opponent (these points are highlighted by us).

The listed rules are intended for the so-called "general cases". The etiquette of sports and games has a number of sections related either to special cases of safety or the participation of a large number of people, primarily yachting, tennis, skiing, golf, running and card games (Gopaul & Pifer, 2016).

Etiquette as a result of cultural relationships between people in history appeared in antiquity. Modern etiquette has collected the customs and traditions of almost all peoples of the world, from ancient times to the present day. All these peoples have made their contributions to today's statutes, rules in accordance with their development, social system and the achievements of science and technology. In particular, very recently a new direction of etiquette has emerged, characteristic of the modern world - mobile etiquette. These are the rules for communicating on a mobile phone in public places, in a business environment and in private life.

Under such conditions, models may proliferate that allow for damage and actions "driven" by negative emotions, even requiring self-restoration of justice. Cultural means of preventing the emergence of negative emotions (for example, based on etiquette) may also be lost. The success of self-organization, self-realization in resolving contradictions that come to light during interaction depends on the possibility of taking into account the consequences of the implementation of available signs, including by identifying interaction

models and creating conditions for their self-correction (for example, by conducting psychodiagnostics based on psychological models) (Gopaul& Pifer,M, 2016).

To overcome the undesirable consequences of the "social relay race", a technology for creating a probabilistic psychological model (abbreviated as PPM) was analyzed and developed.

PPM are typical, interdependent, mathematically and logically interdependently functioning alternative factors (model components) of interpersonal interaction of students, presented in the form of tables with descriptions. The ratio of indicators in a particular component of the model shows how the interaction described by this component is most likely to be successful by the end of the school year (success in studies, status in the group, relationship with the trainer, etc.).

## 5. Discussion

Conducting psychodiagnostics based on a probabilistic psychological model (abbreviated as PPM) allows you to:

- to identify the contradictions of interaction;
- to detect discrepancies between the specified requirements of the situation of interaction and human capabilities (in terms of competence, stability of interaction motives, and other personal, interpersonal, cognitive, activity parameters of interaction);
- give recommendations on the acquisition of an arsenal (reserve) of knowledge, means, resources of the psyche, their implementation to resolve typical contradictions acceptable to surrounding, cultural means;
- to establish cause-and-effect relationships between psychological categories, to involve these categories in the formation of a structured normative models;
  - update the probabilistic plan of interaction;
- to reveal the meaning and significance for the interaction of the received specific psychodiagnostic indicator, to create psychological conditions for the functioning of the mechanism of self-realization of the personality, the dynamics of semantic systems (Liu, Liang, Onuma & Rithkerd, 2022).

At the ascertaining stage, in the psychological conditions of modeling situations of interaction, inclusion in a significant situation of communication and activity, active

participation in the performance of tasks of various types (analytical, projective, constructive, evaluative), psychodiagnostic data were obtained in the group.

With the help of the factorial analysis of the received data of the group by the method of principal components, a probabilistic psychological model of the interaction of students specializing in martial arts was created. PPM are typical, interdependent, mathematically and logically interdependently functioning factors of interpersonal interaction of students, presented in the form of tables with descriptions.

The data obtained are interpreted as the formation of group cohesion, relationships similar to a "support group" (necessary to reduce anxiety self-fulfilling personality. The role of PPM consists in influencing the motivational-need sphere and consists, on the one hand, in increasing the activity of the individual (an extended search for mutually acceptable ways to success), on the other hand, in increasing confidence in the achievability of the goals of interaction (Liu, Che & Zhu, 2022).

We also studied the "arsenal" of characteristics of personalities (constructs generated by students) in repertory grids. In the group, this arsenal was less rich in positive criteria and differed in the accentuation of negative, offensive characteristics in comparison with the other group. Students specializing in martial arts, where education is one of the requirements, conditions for sports improvement, a guarantee of safety for others in the experience of martial art, showed less categoricalness, there was no offensive language in other people's ratings. Many shortcomings of interaction partners after conducting dynamic psychodiagnostics based on PPM begin to be assessed as significant for relationships and the success of joint activities, cease to irritate our subjects. Also, in our opinion, to reduce the categoricalness of judgments influence is the increase in the value of partners for interaction and the assessment of the likelihood of establishing stable interpersonal relationships and obtaining mutual support.

Psychodiagnostics using the method of repertory grids and sociometry based on a specially created probabilistic psychological model allows:

- update the probabilistic plan of interaction;
- to establish causal relationships between the categories learned independently and in the process of studying psychology, to involve these categories in the formation of a structured normative model of interpersonal interaction;
- promote the establishment of friendly relations, increase the likelihood of obtaining mutual support; enhance group cohesion other person, rationalize, systematize

relationships with people and the characteristics used to assess the subjects of their contact group when refusing to extreme judgments.

## 6. Conclusions

Thus, the development of personality and its social relations, the success of people's interaction, the socio-psychological climate in the team, the level of motivation, the formation of group interests and the feeling of "we", the ability to consider and sort out options (probabilistic thinking), therefore - the productivity of thinking, the development of group cohesion. Along with these phenomena, the paths to effective personal and individually oriented forms of education, the conduct of civilized forms of business, the optimal management of the team in the assimilation of innovations, including the training of specialists in sports universities, are opening up.

#### References

European Parliament. (2022). Russia's war against Ukraine: Ukrainian students in the EU.https://ukraine.europarl.europa.eu/cmsdata/250612/0134\_Briefing\_Ukrainian\_students.pdf.

Gopaul, B., & Pifer, M. (2016). The Conditions of Movement: A Discussion of Academic Mobility between Two Early Career Scholars. *Higher Education Quarterly*, 70(3), 225–245. Available at: https://doi.org/10.1111/hequ.12092IIE.

Center for Academic Mobility Research and Impact. (2018). A World on the Move. Trends in Global Student Mobility. Available at: https://www.iie.org/Research-and-Insights/Publications/A-World-on-the-MoveKercher,J. (2021).

International Student Mobility in the wake of COVID-19. The GlobalWindowonHigherEducation.Availableat:https://www.universityworldnews.com/post.php?story=20211122121828241

Kim,T. (2017). Academic mobility, transnational identity capital and stratification under conditions of academic capitalism. *Higher Education*, 73, 981–997. <a href="https://doi.org/10.1007/s10734-017-0118-0">https://doi.org/10.1007/s10734-017-0118-0</a>

Koris,R., Mato-Diaz,F.J.,& Hernández-Nanclares,N. (2021). From real to virtual mobility: Erasmus students' transition to online learning amid the COVID-19 crisis. *European Educational Research Journal*, 6 <a href="https://doi.org/10.1177/14749041211021247">https://doi.org/10.1177/14749041211021247</a>

Kovbatiuk, M., & Shevchuk, V. (2020). Academic Mobility of Students under the Conditions of Development of Educational Integration. Herald UNU International *Economic Relations and World Economy*, 30DOI: <a href="https://doi.org/10.32782/2413-9971/2020-30-17">https://doi.org/10.32782/2413-9971/2020-30-17</a>

Liu, D., Che, S., & Zhu, W. (2022). Visualizing the Knowledge Domain of Academic Mobility Research from 2010 to 2020: A Bibliometric Analysis Using Cite Space. SAGEOpen. Available at: https://journals.sagepub.com/doi/10.1177/21582440211068510

Liu,S., Liang,W., Onuma,M., & Rithkerd,T. (2022). A study of the academic challenges faced by the Western students in Chinese universities. *International JournalofEducational Development*,90. Availableat: https://doi.org/10.1016/j.ijedudev.2022.1025

Ministry of Education and Science of Ukraine (2021) Foreign students in Ukraine. Ukrainian State Center of International Education. Available at: <a href="https://studyinukraine.gov.ua/zhittya-v-ukraini/inozemni-studenti-v-ukraini/">https://studyinukraine.gov.ua/zhittya-v-ukraini/inozemni-studenti-v-ukraini/</a>

National Office Erasmus (2021). Overview of New Opportunities within EU-Funded Programme Erasmus+ 2021–2027. <a href="https://erasmusplus.org.ua/wp-content/uploads/2022/08/ukraine-under-erasmus\_december\_1\_1\_2021.pdf">https://erasmusplus.org.ua/wp-content/uploads/2022/08/ukraine-under-erasmus\_december\_1\_1\_2021.pdf</a>

National Office Erasmus+UA (2021) Participation of Ukrainian organizations in the EU-Funded Programme Erasmus+ 2014–2020. <a href="https://erasmusplus.org.ua/wp-content/uploads/2019/10/Ukraine%20under%20Erasmus">https://erasmusplus.org.ua/wp-content/uploads/2019/10/Ukraine%20under%20Erasmus June 17 2021.pdf</a>

Pedersen, T.D. (2021). Mobilising international student Mobility: Exploring policy enactments in teacher education in Norway. *European Journal of Education Research*, Development and Policy, 56(2), 292–306. Available at: <a href="https://doi.org/10.1111/ejed.12451">https://doi.org/10.1111/ejed.12451</a>

Savitska,V.,& Livitska,N. (2022). Academic Mobility of Students in the Conditions of Digitalization of Higher Education. Adam Marszałek Publishing House [Wydawnictwo Adam Marszałek]. https://www.academia.edu/75746088/ACADEMIC\_MOBILITY\_OF\_STUDENTS\_IN\_THE\_CONDITIONS\_OF\_DIGITALIZATION\_OF\_HIGHER\_EDUCATION

Shvydun, L. (2021). Educational mobility in the conditions of the pandemic. Multiversum *Philisophical almanac*, 1(173), 155–173. DOI: <a href="https://doi.org/10.35423/2078-8142.2021.1.1.11">https://doi.org/10.35423/2078-8142.2021.1.1.11</a>

Silva,M., Arruda,M., Zwierewicz,M., Stefenon,S., Ferreira,F., Klaar,A., & Yamaguchi,C. (2020). The Mobility of Professors in Performing Distance Education *Activities. International Journal for Innovation Education and Research*, 8(4), 514–526. <a href="https://www.academia.edu/es/45194773/The Mobility of Professors in Performing Distance Education Activities">https://www.academia.edu/es/45194773/The Mobility of Professors in Performing Distance Education Activities</a>

Stoicheva, M. (2022). Academic Cooperation and Mobility: in the Context of the COVID-19 Pandemic. "Az-buki" Newspaper, 94(3), 25–33. https://doi.org/10.53656/ped2022-3s.02