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## BASICS OF SELF-ORGANIZATIONAL CULTURE FORMATION IN FUTURE SOCIAL TEACHERS

### *Abstract*

Modern society’s requirements for university graduates include not only the ability to work in their professional field, but also the readiness for continuous learning, innovation and active work. That’s why, in the pedagogical process of a university, it is becoming increasingly important to manage the process of developing students’ self-organization skills. To cultivate an individual’s ability to self-organize, it is essential to view education as a fundamental function of culture—a driving force behind the emergence of new cultural forms and the extended reproduction and transmission of cultural values. This study aims to promote the holistic development of future professionals by fostering their capacity for self-governance, self-regulation, and the adoption of a culturally appropriate way of life. Our analysis demonstrates that the culture of self-organization, nurtured within the educational process, plays a crucial role in professional success, creative self-development, and personal growth.

*Keywords:* culture of self-organization, students, approach, formation, features.

**Introduction.** Self-organization is a systemic concept that integrates in its structure the whole variety of self-processes, self-analysis, self-diagnosis, self-design, self-control, self-assessment, self-disclosure, self-actualization, self-regulation, self-determination, self-education, etc. Given the increasing demand for

a project-based lifestyle and the wealth of information and communication available, it is not surprising that self-organization has become a significant focus in psychology and pedagogy. In today’s society, individuals are constantly engaged in various projects, both big and small, in their professional, personal, and everyday

lives. In order to be successful, one must be able to identify their needs and effectively set goals and objectives to achieve them. A self-organizing individual is able to tackle tasks efficiently, problem-solve effectively, demonstrate initiative and creativity, and take responsibility for the outcomes of their projects. They are adaptable and willing to adjust their approach if things don't go as planned.

A distinctive feature of any self-organization is its purposeful, but at the same time native, spontaneous character. The processes of self-organization are closely autonomous. The most important feature is the ability to accumulate and use previous experience, which undoubtedly acts as a continuous process. For a personality, this is a very important value moment of self-building of a living thing, the process of birth, self-production, undergoing directed irreversible changes, destruction and death of semantic formations, in which the regulatory component can determine the possibility of purposeful and conscious control of ongoing processes. The processes of self-organization on the way to the structure of the elements can also arise spontaneously, causing to the emergence of new relationships between elements and emergent formations. In the educational process of modern universities, the role of students has changed considerably. They move from passive subjects to active participants in their educational and professional activities. Therefore, the educational approach emphasizes the activation of self-directed and creative students in their studies and future careers. However, the achievement of this change requires traditional scientific and methodological support for specialist training. As a result, the demand for more active and dynamic forms of teaching, learning and evaluation is increasing. In order to effectively implement these methods, it is essential that students develop the abilities for self-organizing their educational and professional activities. Basically, modern universities strive to give students autonomy by transforming their role from passive recipients to active participants in the education process.

**Materials and Methods.** The understanding of self-organisation began to be studied by

researchers in the middle of the 20th century, acting as the basis for controlling arbitrary processes of a system. W. Ross Ashby first defined and introduced the term "self-organising system" into the scientific language in 1947. Self-organisation occurs when a system composed of many interacting elements spontaneously forms patterns or structures without external guidance or control. This phenomenon is often associated with the emergence of complexity, where the collective behaviour of a system's components gives rise to new properties that cannot be attributed to any individual part of the system (Ashby, 1947).

Within the framework of cybernetics, the concept of self-organisation was first studied by foreign scientists (Wiener, 1961; Ashby, 1966, etc.), and then by representatives of the scientific community of the Soviet Union (Lerner, 1967; Yudin, 1970; Pushkin, 1974, etc.).

Based on the thoughts of the German theoretical physicist H.Haken, systems can be defined as self-organising, provided that they can acquire any spatial, temporal or functional structure without being subjected to external specific influence (Haken, 2006). In this sense, if we conceive of man as a unified biological system without external influence, which can independently organise and control internal processes, then this confirms the above-mentioned scientists' thoughts that man is capable of independently organising his activities consciously, giving them an arbitrary character.

As a biological system that follows its laws of development, each individual student represents a self-organising system capable of adapting to certain internal and external conditions. According to Zimnyaya, independent work is defined as objective and internally motivated and encompasses the deliberate actions of a subject performed in a structured manner, and self-correction is an important aspect of both the process and the result. Successful engagement in independent work requires a considerable degree of self-conscience, reflective capabilities, self-discipline and personal responsibility. These characteristics contribute to the effective execution of independent tasks and tasks

as individuals independently navigate their learning journey, take ownership of their academic pursuits and monitor and adapt their progress towards the objectives they desire (Zimnyaya, 1991).

An ability to adapt to changing circumstances and overcome complex challenges is crucial to professional success. The self-organisational culture equips students with the flexibility and resilience they need to thrive in a varied and dynamic environment. Beyond academic endeavours, self-organisation skills can be applied to various areas of life, and students can balance academic pursuits, personal commitments and extracurricular activities.

In the educational process of modern universities, the role of students has changed considerably. They move from passive subjects to active participants in their educational and professional activities. Therefore, the educational approach emphasises the activation of self-directed and creative students in their studies and future careers. However, the achievement of this change requires traditional scientific and methodological support for specialist training. As a result, the demand for more active and dynamic forms of teaching, learning and evaluation is increasing. In order to effectively implement these methods, it is essential that students develop the abilities for self-organising their educational and professional activities. Basically, modern universities strive to give students autonomy by transforming their role from passive recipients to active participants in the education process. This requires a shift to a more engaged and active teaching methodology in which students take over the learning journey. In order to excel in such an environment, students must develop self-organisation skills and manage their academic and professional careers effectively (Kotova, 2012).

Our researchers found that in order to develop these important skills and qualities in future teachers, it is crucial for higher education universities in Kazakhstan to incorporate innovative teaching methods, experiential learning opportunities, and technology in their curriculum. Additionally, they highlighted

the importance of collaboration between universities, schools, and businesses to provide students with real-world experiences and practical skills that will prepare them for the workforce.

Furthermore, Stukalenko, Naviy, and Menlibekova underscored the significance of continuous professional development for teachers in Kazakhstan, pronging that ongoing training and learning opportunities are essential for ensuring that teachers stay current with the latest research, methodologies, and technologies in the area of education. They also emphasized the importance of creating a supportive and collaborative learning environment for teachers, where they can share best practices, collaborate on projects, and receive mentorship from more experienced colleagues.

Overall, the findings of Stukalenko, Naviy, and Menlibekova suggest that investing in the education and professional development of teachers in Kazakhstan is essential for improving the quality of education in the country and preparing future generations for success in the global economy. Additionally, their research highlights the importance of creating a system that supports and values teachers, giving them the tools and resources they need to excel in their roles and contribute to the overall growth and development of Kazakhstan's education system.

The study by Yertargynkyzy, Akhmetova, Arinova, and Moldassan (2016) found that motivations for professional and educational pursuits are linked to self-development in these areas. They discovered a strong positive relationship between motivation levels and the ability to engage in self-improvement. Higher motivation levels were associated with increased capacity for professional and pedagogical growth, leading to the development of professional values among students.

The development of self-organization skills depends heavily on the nature of communication in the "teacher-student" dialogue. However, empirical evidence suggests that traditional methods of interaction between teachers and students still dominate the education process. Students rarely engage in the formation of

their educational path, and forms of interaction with teachers are usually frontal and without personalization. As a result, the necessity to establish a personality-oriented interaction between university teachers and students is clearly contradictory to the actual experience of such interactions.

The educational research has illuminated the different requirements students encounter when entering universities. These conditions include various aspects of educational activities, the interaction dynamics within student groups and relations with teachers. The transition from school to university requires a re-evaluation of the traditional teacher-student relationship, and certain “school” dynamics may not be suitable and effective in the university environment. This imbalance may hinder the development of healthy relationships between students and teachers and may even alter the overall structure of educational communication.

We examine the structure of self-organizational culture of university students as a unity of interconnected and interrelated components: knowledge and needs, abilities, skills, competencies, personal qualities, values, abilities.

In a more detailed description, we propose with the knowledge component, namely, ideological and subject-specific knowledge about the culture of self-organization, with students’ ideas about themselves as a subject of the culture of self-organization. The most important activity component, containing skills and abilities, is responsible for mastering the skills of a culture of self-organization, conclude the ability to use the means of goal setting, planning, and organizing one’s activities in students’ activities. The active competence component of the culture of self-organization orients students towards cooperation, for a conscious desire for professional and personal growth, towards self-knowledge and self-improvement. A set of personality qualities represents a motivational component, reflects the motivation to form a culture of self-organization, and allows one to strive for professional success. The value component is presented by the adoption of the values of self-organizational culture, the

connection of personal and professional values and meanings. The reflective component is responsible for reflective skills, possibility to evaluate and analyze oneself and the results of one’s activities.

Every component performs its own function: knowledge – cognitive, activity, competence – activity-operational, motivational – upbringing, value – value-oriented, reflexive – reflexive – empathy.

We use The Self-Organization Activities Questionnaire developed Bond and Feather (Bond M. J., Feather N.T., 2018) which was translated and extended by Mandrikova E.Y. (Mandrikova E.Y.,2010). It was the basis. The main objective of the questionnaire was to determine the extent to which tactical planning and strategic goal-setting skills developed, reflecting the level of self-organisation and self-regulatory activity as a whole.

Questionnaire text:

1. It takes me a while to get going in the morning.
2. I make daily plans for my activities.
3. Unexpected events frustrate me and disrupt my routine.
4. I typically create a daily schedule and strive to stick to it.
5. I struggle to follow through and complete tasks.
6. I have difficulty stopping or abandoning a task, even if it becomes challenging.
7. I am determined to achieve my goals and will do whatever it takes.
8. I plan ahead for the next day.
9. I prioritize the present moment over past or future experiences.
10. I tend to start multiple tasks simultaneously and struggle to finish any of them.
11. I adhere to specific principles in organizing my daily activities.
12. I focus on living in the present moment.
13. I prioritize completing one task before moving on to the next.
14. I am driven by setting and achieving goals.
15. I occasionally procrastinate instead of being productive.
16. I find satisfaction in keeping a diary to track my experiences.

- 17. Unfinished tasks sometimes keep me up at night.
- 18. I have clear objectives to work towards.
- 19. I find pleasure in utilizing tools for time management.
- 20. My life is dedicated to attaining specific outcomes.
- 21. I struggle with keeping my affairs in order.
- 22. I enjoy writing evaluations of my work.
- 23. I have no ambitions.
- 24. Unfinished business often consumes my thoughts.
- 25. I have a clear purpose in life.

The study was conducted at Abai Kazakh National Pedagogical University with a total of 150 students, divided into 75 students from the 1st year and 75 students from the 2nd year. The

questionnaire used in the study consisted of six components that assessed the students' level of self-organization in various aspects including planning, purposefulness, persistence, fixation, self-organization, and present orientation.

In the survey, a link to the Google form was sent out an electronic questionnaire to the respondents. The questionnaire was made in two languages.

Table 1 presents a summary of the survey results. Following a survey of first- and second-year students, a two-sample T-test assuming equal variance was applied to test the null hypothesis that students in pedagogical universities can develop a culture of self-organization through educational and professional activities.

Table 1. *T-Test: Two-Sample Assuming Equal Variances*

	Group 1	Group 2
Mean	113,1733338	112,29
Variance	292,4425227	339,3935146
Observations	75	75
Pooled Variance	314,9180179	
Hypothesised Mean Difference	0	
df	150	
t Stat	0,3082699008	
P(T<=t) one-tail	0,3791554117	
t Critical one-tail	1,635214448	
P(T<=t) two-tail	0,6583108235	
t Critical two-tail	1,986122468	

**Results and Discussion.** Modeling in education involves creating a system that replicates certain aspects and functions of the object being studied. This system includes elements such as educational goals, content, and instructional methods. It allows for a comprehensive understanding and analysis of pedagogical practices and curriculum design.

Before considering the model for the formation of a culture of self-organization among university students, we note that the concept of “formation” in the explanatory dictionary is understood as giving something a certain form, completeness. In educational

practice, formation means “the use of techniques and methods (methods, means) of influencing the student’s personality for creating in him a system of certain values and attitudes, competencies and skills, a way of thinking and memory”, “conscious management of the process of development of a person or individual aspects of personality, qualities and properties of character and bringing them to the concrete form (level, image, idea).

During the development of a model for fostering a culture of self-organization among university students, we considered the following principles.

Student self-organization culture is defined as the ability to govern oneself, organize educational activities effectively, and value these skills as important personal attributes.

The cultivation of student self-organization culture is grounded in knowledge, active involvement, motivation, and reflection.

The process of instilling a culture of self-organization in students is influenced by their attitudes towards self-improvement and individual organization. The stronger the value placed on self-organization, the more successful the development of these skills.

The teacher's role in creating a model for fostering a culture of self-organization among students is crucial. They must actively design strategies, encourage problem-solving, reflect on values, and provide opportunities for students to cultivate this culture.

The formation of a culture of self-organization among university students is ensured through a cultural approach, which establishes the values and principles necessary for this process. This culture is fostered through both academic and extracurricular activities, in both group and individual settings. The model used for cultivating this culture involves strategic planning by instructors, as well as a theoretical understanding of self-organization culture, its components, and the scientific principles guiding the process. The principles of cooperation, dialogue, humanization, reflection, and artistic creativity are key to shaping a self-organizing culture among students, ultimately guiding the actions of the teacher in this endeavor.

The main role of a university teacher in the formation of self-organizational culture of students are: 1) the formation of students' understanding about the culture of student self-organization; 2) the formation of students' value attitude to the self-organizational culture; 3) development of students' reflective skills; 4) the formation of students' personal experience in the rational organization of educational and cognitive activities and self-government.

Taken together, the principles and directions of the teacher's activity make the content of the process of forming a culture of self-organization

of students, pedagogical conditions, means and methods of its formation.

The content-technological structure of the model includes the content, forms of organization of the process of forming of self-organizational culture of students, pedagogical conditions that are significant for such formation, means and methods.

The result-evaluative block of the model structure contains indicators of the formation of the student's self-organizational culture, the levels of its formation, diagnostic methods.

The key indicators of the formation of the student's self-organizational culture are: 1) understanding about the student's self-organization culture; 2) value- motivational-attitude to the student's self-organization culture; 3) educational and professional motives; 4) reproductive skills; 5) rational organization of pedagogical activities. Diagnostic methods are: a survey, pedagogical observation, analysis and interpretation of the products of artistic and creative activity of students. The levels through which the formation of a culture of self-organization of students passes, we designated as low, medium and high.

Thus, in the model of the process of forming a culture of self-organization of students in the process of studying at a university, in our opinion, there are sufficient meaningful opportunities for realizing our goal. Similarly, the procedural aspect – specific technologies, means, methods and forms of education, also determines the productivity of the implementation of the content of the pedagogical process.

The model structure of the formation of self-organizational culture of university students make us clear to study the process of formation in more detail, to predict and implement its content, pedagogical conditions, areas of activity of the teacher, forms, methods and means of such formation. The results obtained in the course of the experimental work indicate that the students of the experimental group experienced positive changes in all the indicators we have identified.

The amount of students with a low level of formation of self-organizational culture decreased by 22.00%; the number of students with a predominance of the average level

of formation increased by 14.33%; with a predominance of a high level increased by 6.65%. In the experiment group, the reverse dynamics is observed: the number of students with a low level of formation of the culture of self-organization of the student's personality increased by 6.69%; the number of students with a predominance of the average level of formation decreased by 6.65%; the number of students with a high level has not changed.

The most important change in the experiment group is the decrease in the level of students' understanding about the culture of student self-organization, as well as the value-motivational attitude towards it. This indicates the need to broadcast in the pedagogical process of the university the value of the culture of self-organization of the individual, the implementation of purposeful work on its formation. Otherwise, over time, the level of students' knowledge about the culture of self-organization of the individual and the value attitude towards it decreases. The results of the experiment convince us of the expediency of introducing the model developed by us for the formation of a culture of self-organization of university students, which involves special work to develop such a culture throughout the entire period of study at the university.

We designed the process of forming a culture of self-organization using a descriptive model. The use of a descriptive model allowed us to solve several problems:

- study of an object (scientific research) – to most fully and accurately reflect the properties of the object;

- control – most accurately reflect the properties of an object in the operating range of changes in its parameters;

- forecasting – build a model that can most accurately predict the behavior of an object in the future;

- training – reflect the studied properties of the object in the model. The construction of a descriptive model occurs according to the following scheme: observation, coding, recording.

The descriptive model of self-organizational culture formation of students focuses on

the implementation of the strategy for the development of the educational process at university and includes a set of its components: target, theoretical and methodological, scientific and pedagogical, practice-oriented, technological, methodological, effective.

The basic principles of operation of such a model should be:

- purposefulness, consistency and consistency of the educational process, focused not so much on one-time actions (which under certain conditions cannot lose their significance), but on cyclical and long-term programs;

- reliance on positive models of student behavior and their formation directly in the student environment;

- setting up direct personal contact between students and teachers,

- close connection between extracurricular work and the educational process.

The study revealed that in order to substantiate the process of forming self-organizational culture among students, it is necessary to take into account internal and external factors.

We include the following as internal factors: awareness of the personal importance of a culture of self-organization; focus on mastering the values of general culture and the culture of self-organization; a person's understanding of a generalized rule and updating of knowledge.

To external factors: understanding the essence of the culture of self-organization as a certain set of personal qualities, actions and operations of its components and methods of performing actions; organization of practical activities, participation in projects and events to develop a culture of self-organization; reflection on the level of development of the culture of self-organization; accounting and evaluation of the progress and results of activities.

Let us consider the substantive nature of the generic concept of our study "self-organizational culture of students", based on the criteria for determining the structure.

The main criterion for assessing the culture of self-organization of students is practical meaning. Zaenutdinova (2000) notes this criterion in her study and emphasizes that a practical manifestation of the self-organizational

culture of students is human self-regulation, which includes a mechanism for managing one’s own physiological states (psychological states), behavior or actions – Zohar, A., & Ben-Ari, G. (2022). The next criterion is the form of presentation of the structure of students’ self-organization culture. Analysis of the structural components in models related to the culture of

self-organization of students (V. Graf’s model of organizing life time, N.M. Peisakhov’s system of self-government ) and the structure of educational self-organization by Ustinova (2000) made it possible to identify the most important components of this process: goal setting, situation analysis, planning or control, correction.

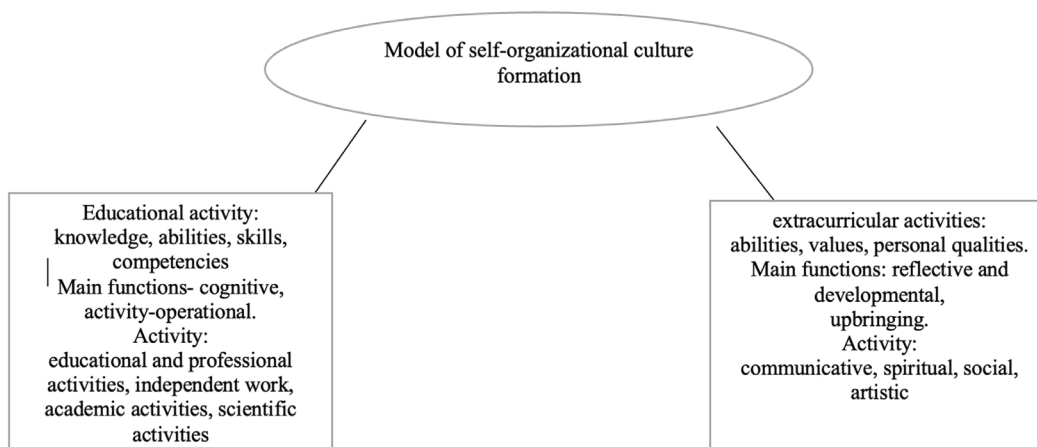


Figure 1: The model of self-organizational culture

We consider it appropriate to point these components along with personal qualities, that is, with the qualities of the subject that allow him to initiate the mechanism of organizing himself and his activities.

According to the target criterion, the need for planning and achieving set goals is formed through the exerted volitional efforts. From the point of view of T.N. Noskova and A.S. Kulikova, the target component is also responsible for positive motivation for the formation of students’ self-organization skills in the information environment. This aspect, as understood by the authors, is characterized by the acceptance and retention of goals, awareness of processes or actions. An individual with developed goal-setting independently puts forward goals, independently and consciously organizes his activities to achieve them, moreover, his goal is realistic (in detail) or sustainable. With the help of the reflexive criterion of the culture of self-organization of students, the need for forecasting, planning and analysis of the activities performed is formed based on reflexive actions, management with a clearly expressed position “itself”.

Self-government is an important element of management. A detailed analyzing component, which is associated with the ability to look into the future and determine the prospects for activity; it is aimed at assessing one’s own activities and making the necessary adjustments. It also allows you to develop abilities for self-knowledge, work on yourself and use them in professional development.

As a rule, within the framework of the personal criterion, personal qualities are improved to develop the skills of target and reflexive groups. The analysis carried out revealed important theoretical principles concerning the content and structure of students’ self-organization culture. They will be used later.

In our opinion, the culture of self-organization of a student’s personality is a type of personal culture with a high level of organization of oneself and one’s activities, which is formed in the process of self-development on the basis of the value attitude of future specialists to independence, on the basis of the desire for effectiveness in all types of activities, manifested in the formed skills and abilities planning, monitoring the results of one’s actions, which



provides the opportunity to recognize oneself as a subject of one's own life, capable of choosing rational and optimal ways to solve professional problems. Let us present the self-organizational culture of students in the form of a structural and content model.

Its essence lies in the student's awareness of his own role in the success of educational, cognitive and further professional activities, in the student's desire for self-organization (streamlining the goals and motives of self-development, skills of self-control and self-regulation of mental states, abilities for self-analysis and adequate self-esteem), as well as these actions themselves on personal self-organization, fixed in the student's mind as habitual and necessary.

Such an understanding of self-organizational culture of higher education students allows us to identify its component composition. The presented results of the experimental work also allow us to state that the educational process at the university needs time, organizational, material and technical resources for the formation of students' self-organizational culture in the process of studying at the university.

**Conclusion.** The main results of the study show that self-organization culture is a conscious effort by individuals to set goals, plan, organize their time, and engage in self-understanding, self-analysis, and self-correction during learning and beyond. Student's self-organization culture is a key aspect of their personality development, allowing them to effectively organize their

learning and cognitive activities. This culture consists of four interconnected components: cognitive, reflective, motivational, and activity-oriented, each serving distinct purposes. The research details that the development of a culturally self-organized personality in a pedagogical university student is a carefully planned process involving the teacher and students working together to create the necessary conditions for providing support and guidance in developing students' self-organization skills.

As a result of the theoretical analysis of the key concept of the study, we came to the following conclusions. The requirement of the modern rapidly changing professional environment from university graduates to be able to quickly respond has identified the problem of forming self-organizational culture among university students as relevant for the theory of vocational education. Independent substantive study of the culture of self-organization of university students in the theory of vocational education is still a new, little developed direction. The culture of self-organization of university students is based on their theoretical knowledge, practical skills, competencies, as well as specific personal qualities, values, abilities and is determined by the unity of its structural components. For a detailed representation of the culture of self-organization of university students, a model was developed that is based on a level depiction of the components of the self-organizational culture, their functions, distributed by type of educational and extracurricular activities.

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