

Students' alienation from learning: can metacognitive regulation and awareness of the meaning of learning help to overcome it?

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Abstract

Introduction. The alienation of students from learning and its consequences are an urgent problem for universities. The study of external and internal factors affecting the state of alienation, including metacognitive and meaning, will be helpful for the creation of prevention and correction programs and reduce the percentage of low academic performance, skipping classes, and deductions. This study is aimed to establish the interrelationships of alienation, metacognitive regulation of activity and the subjectively assessed meaning of learning. **Methods.** The study involved 209 students aged 17 to 24 years. We used: A test questionnaire "Subjective alienation of educational work", a questionnaire "Metacognitive involvement in activity", and an author's questionnaire to study alienation from education among students of higher educational institutions and its semantic aspects. **Results.** The analysis showed the presence of negative correlations of the general level of metacognitive regulation of activity with the general indicator of alienation (-0.467, significance at 0.01) and with all scales of the methodology "Subjective alienation of educational work". The level of subjective feeling of fullness of learning with meaning was negatively associated with the general indicator of alienation (-0.564, significance at the level of 0.01) and with all scales of the methodology "Subjective alienation of educational work", and positively associated with the general level of metacognitive regulation of activity (0.471, significance at the level of 0.01). **Discussion.** The results obtained complement the studies that indicate a significant role of meaning loss, feelings of meaninglessness, the fullness of meaning, and the life meaning of learning in assessing the level of alienation from learning.

The relationships between the level of alienation and the level of metacognitive regulation of activity can serve as a starting point for studying how the management of cognition processes and the student's involvement in the learning process are connected. The practical application of the results indicates the importance of increasing the adaptability of students and the importance of specialized training of students to manage their educational activities to reduce the state of alienation and involve them in the educational process.

Keywords

alienation, alienation from learning, metacognitive regulation, meaning loss, life meaning of learning, metacognitive awareness, meaning fullness, psychology of meaning, education, higher educational institutions

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Introduction

Routinely, the topic of a student's alienation from the learning process appears constantly, but mostly in a practical way: the student does not complete tasks, does not come to classes or does not actively participate in them. Discussion, pronouncing, prevention of the depressive position of the student with teachers or administrative staff is very limited. There are several reasons of this: the feeling of alienation has a cumulative effect and is not so noticeable even to the student himself. According to V. N. Kosyrev, «a student, really staying at the university, makes a psychological escape from it» (Kosyrev, 2011, p. 222).

When studying the problem of alienation from learning, such important questions arise: what factors contribute to the emergence and accumulation of the state of alienation? And conversely, what can help a student to reduce it and return to the educational process? In this study, the emphasis is on studying the interrelationships of the severity of alienation from learning, the level of metacognitive regulation. We have also considered the meaning aspects of the student's involvement in the educational process.

Ideas about alienation from learning

The A. N. Leontiev's theory of consciousness of learning reflects the relationship between the category of meaning and the state of alienation. This theory is the ancestor of modern

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Russian semantic didactics, which was further developed within the framework of new didactics (Abakumova, Ermakov, Fomenko, 2014). The central concept of the theory of the consciousness of the learning is the concept of "the meaning of activity". It depends on its presence or absence whether the acquired knowledge and the learning process itself will be integrated into the habitual life of a person or he will be alienated from them (Leontiev, 2007). The personal meaning of educational activity, when realized, has a strong influence on the formation of internal motivation for learning (Ryan, Deci, 2000).

Alienation is associated with the subjective experience of the absence of the meaning of activity – the meaning loss (Osin, 2007). The meaning loss can manifest itself in two forms. The first of them is not the absence of meaning, but rather its lack, the lack of personal resources necessary to achieve the results of activities and problem solving. The second form of meaning loss manifests itself in ambiguity of the activity meaning. In this case, the subject does not understand why he carries out this activity. Education in modern realities under the tyranny of public censure, raising standards and increasing demands on the lives of young people (Phan, Nguyen, Nguyen & Nguyen, 2021) is a continuous process. In this situation, alienation is formed among students, which is associated with such phenomena as powerlessness, anomie, meaning loss, distrust of people, loss of contact with oneself, lack of interest and enthusiasm about work, study and other spheres of life, social isolation, a sense of non-involvement in culture, critical attitude towards society, nihilism (Osin, 2015). At the same time, E. N. Osin himself considers the category of alienation as "a description of the ontological foundations of a life situation, which is subjectively experienced as a meaning loss" (Osin, 2015, p. 81).

The term "alienation" can be revealed through the category of attitude: "By alienation of educational work, we understand a student's attitude to learning in which the products of their activity, they, as well as teachers, administration, other students and social groups as carriers of norms, attitudes and values of the educational activity are represented in his mind by varying degrees of opposition to them, which is expressed in the corresponding experiences of the subject (a sense of isolation, loneliness, rejection) and manifests itself in behaviour contrary to the concepts of closeness, identity, involvement, etc." (Kosyrev, 2011, p. 223).

One of the alienation models, considered by B. Barnhardt and P. Ginns, contains three groups of alienation manifestations: powerlessness, meaninglessness, and self-alienation (Barnhardt, Ginns, 2014). Meaninglessness (Türk, 2014), the perception of the learning process as meaningless, eventually removes the student from the decision-making process in various spheres of life. Powerlessness as one of the manifestations of alienation manifests itself in a sense of inability to influence one's choice, loss of control and, subsequently, avoidance of difficult situations (Rovai & Wighting, 2005), including situations of social interaction.

Alienation can be interpreted as a process in which an individual refuses social interaction and gradually withdraws into them, isolating themselves from other people

(Guseva, 2013). Alienation can be considered as a result of alienation, a state of isolation, asociality, conformity, contrasting oneself with others with bitterness and despair. The category of opposition allows us to define alienation as "a state or experience of isolation from a group or activity to which a person should belong or in which he should be involved" (Mann, 2001). S. Mann sees the root of the alienation of educational work in formalism, inequality of teachers and students, in the perception of higher education by society – it, in her opinion, has become a "default requirement" and does not represent any value as a process. The result of the challenges of the new educational environment, inequality in the relationship between teacher and student, and formal approaches applied to the assessment of academic performance (Osin, 2017) is alienation, which is designed to serve as a protective mechanism that allows the student to preserve his identity and, at the same time, not solve the problem of finding the meaning of what is happening (Mann, 2001).

Academic alienation refers to emotional or cognitive separation from various aspects of the educational context, such as the learning process, the university atmosphere, teachers, other students and, in a word, from the desired academic state of the student (Hemmati, Pirniya, 2017).

T. Y. Zelenina (2014) identifies the following reasons for the development of students' alienation from education:

- Need to study an irrelevant information;
- Non-compliance of educational standards and real life;
- Insufficient amount of knowledge;
- The predominance of theory over practice;
- The need to assimilate a large amount of unnecessary information.

Studies of metacognitive regulation under the context of higher education

Metacognitive regulation allows for voluntary or involuntary regulation of intellectual activity based on several abilities of the subject (planning, information and time management, and choice of main ideas) (Samoilichenko, Rozhkova, Tokmakova, 2016; Stephanou & Mpiontini, 2017). The use of metastrategies during the digest of the material – "techniques by which the transformation of knowledge and strategic control of cognitive activity is carried out" (Verbitsky, Kofejnikova, 2017, p. 2), forms the student's awareness of themselves as a subject of learning. Assessment of metacognitive skills can be used to predict the success of educational activities (Guseva, Sylka, Denisova, 2022).

E. I. Perikova, V. M. Byzova note that "the analysis of metacognition in foreign studies is devoted to two types of mental activity: metacognitive knowledge (knowledge about one's own cognitive processes) and metacognitive regulation (the ability to control one's cognitive processes), which are often studied within the framework of the generalizing phenomenon of metacognitive involvement (awareness)" (Perikova, Byzova, 2022).

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Metacognition is also the ability to use this knowledge to self-regulate one's own learning (Kisac & Budak, 2014; Abdelrahman, 2020).

The importance of metacognition and metacognitive regulation is emphasized by their relation to indicators of abilities, achievements and competencies. Students with high metacognitive skills may achieve greater academic success than students with undisciplined skills (Händel, Artelt & Weinert, 2013). Metacognitive regulation provides conscious regulation through planning, monitoring and implementation of metacognitive knowledge in the learning process (Hartman, 2001).

The study aims to check the relationship between the severity of alienation of university students from learning, the level of metacognitive regulation and recognition of the meaning of learning.

Research hypotheses:

- the level of alienation is probably negatively correlated with the level of metacognitive regulation
- the level of alienation is probably negatively correlated with the subjective level of awareness of the meaning of learning.

Methods

The object of the study was students of higher educational institutions in the number of 209 people the age range was 17–24 years. The respondents are 143 undergraduate students (68.4%) and 66 specialists (31.6%). The tuition profile of respondents is mainly psychological and psychological-pedagogical.

The study was conducted from December 12, 2022, to April 3, 2023, and responses were collected using Google Forms. Respondents took part in the survey voluntarily.

The questionnaire consisting of 16 questions was developed to study various aspects of the alienation from education among students of higher educational institutions. It consists of 3 types of questions: open-ended, multiple-choice questions and scale questions. The questions concerned the extent to which students see the meaning for themselves in attending specialized and non-core subjects, which factors, in their opinion, affect the development of a state of alienation from educational activities (Appendix 1).

The Subjective Alienation of Educational Activity inventory by V. N. Kosyrev was applied to examine the level of alienation from the educational process. The Metacognitive Awareness Inventory authored by Schraw and Dennison, adapted by V. N. Karpov and I. M. Skityaeva (Karpov, Skityaeva, 2005), was used to study the level of development of metacognitive processes. Spearman's correlation coefficient was used to process the data obtained.

Results

Table 1 presents the results of the analysis of respondents' responses to the questionnaire Subjective Alienation of Educational Work.

Table 1

Average values and standard deviations according to the Subjective Alienation of Educational Work questionnaire results in the sample group

Scale	Average score	Standard deviation	Level
Alienation (general level)	143,6	38,5	Pseudo-alienation
Alienation areas			
Educational activity	34,3	10,2	Low
University life	41,2	12	Average
Personal relations	31,2	11,6	Low
Self-relation	36,8	10,3	Average
Types of alienation			
Weakness	34,3	9,9	Low
Powerlessness	31,7	11,2	Low
Nihilism	40,2	11,2	Average
Adventurism	37,2	10,7	Average

There is a primarily low level of alienation by the general indicator and other scales. The scales "university life", "self-attitude", "nihilism", and "adventurism" showed average levels.

The average results of the Metacognitive Awareness Inventory were $225 \pm 39,26$ for the sample.

Hypothesis 1 has been confirmed. The correlation analysis results showed the presence of statistically significant negative correlations of the general level of metacognitive regulation of activity with all scales of the Subjective Alienation of Educational Work questionnaire. Detailed data are given in Table 2.

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Таблица 2

Correlation coefficients between academic alienation aspects and metacognitive regulation level

Subjective Alienation of Educational Work questionnaire scales	General level of metacognitive regulation
Alienation (general level)	-0,467**
Educational activity	-0,397**
University life	-0,369**
Personal relations	-0,426**
Self-relation	-0,433**
Weakness	-0,425**
Powerlessness	-0,520**
Nihilism	-0,411**
Adventurism	-0,288**

Note: **- correlation is significant at the level 0,01 (2-sided).

The results obtained using this methodology indicate that the more actively students manage and control their cognitive processes, the lower their subjective alienation from academic work.

The question "What do you think most influences the development of alienation from the educational process?" was aimed at studying the students' attitudes towards alienation. The statistics of the responses are presented in Table 3.

Table 3

Distribution of respondents' responses about factors influencing the development of alienation

Answer option	The number and percentage of students who chose this option
Misunderstanding of the essence of a tuition type	52 (24,9 %)
The predominance of theory over practice	117 (56 %)
Insufficient knowledge	51 (24,4 %)
The need to assimilate a large amount of unnecessary information	123 (58,9 %)
Need to study an irrelevant information	90 (43,1 %)

Answer option	The number and percentage of students who chose this option
The need for additional learning to master the profession	51 (24,4 %)
Non-compliance of educational standards and real life	112 (53,6 %)

In addition, respondents could give their answers. Among the factors proposed by students and influencing the development of a sense of alienation, it is worth noting the following: "Only the formal attitude of teachers to the learning process, [they] do not see us as personalities, they present material just to check the box, and not because they want to give us something interesting and valuable", "modular system, incompetence of teachers, non-compliance with expectations", "teacher/teachers".

The questions, beginning with the words "How do you think it makes sense for you..." were aimed at determining the level of personal significance of various aspects of the educational process. In this case, we aimed to obtain data on the life meaning of the components of the educational process. The percentage distribution of respondents' responses is shown in Table 4.

Table 4
Distribution of answers concerning the meaning of aspects of the educational process

The percentage of answer options (on a scale from 1 – meaningless to 5 – makes a lot of sense)					
	1	2	3	4	5
How do you think it makes sense for you to study specialized disciplines in your major?	1,9%	3,3%	8,1%	20,6%	66%
How do you think it makes sense for you to study non-core disciplines?	12%	22,5%	35,4%	23,4%	6,7%
How do you think it makes sense for you to perform practical tasks (reports, practical and laboratory work) in core disciplines?	1,4%	4,3%	14,4%	31,6%	48,3%
How do you think it makes sense for you to perform practical tasks (reports, practical and laboratory work) in non-core disciplines?	17,7%	24,4%	31,6%	18,2%	8,1%
How do you think it makes sense for you to attend lectures on core disciplines?	2,4%	3,8%	11%	23,4%	59,3%

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How do you think it makes sense for you to attend lectures in non-core disciplines?					
13,4%	22,5%	19,6%	29,2%	15,3%	
If you have a task to write a term paper or a thesis, evaluate how much does it makes sense to you					
4,8%	8,1%	17,2%	32,1%	37,8%	

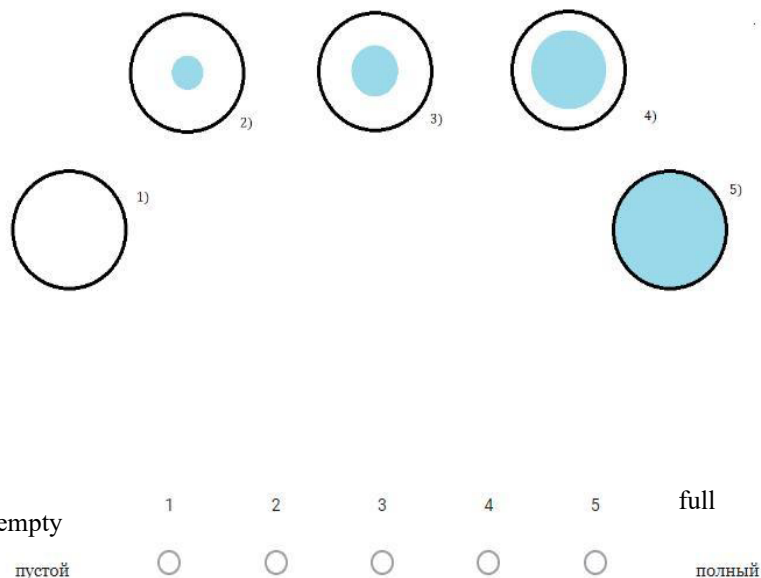
The results show that in all questions about specialized subjects, the answer "5 – makes a lot of sense" takes the first place among other answer options, while in all questions about non-core subjects, it is opposite - only a small part of students see a lot of meaning in these subjects.

Next, the meaning construct "full – empty" was defined in relation to studying at the university. It was done using an image of 5 circles with varying degrees of color saturation (Fig. 1).

Figure 1

A question aimed at identifying the level of the meaning construct "full – empty" in relation to learning

9. Please, rate, how much the tuition is full of meaning for you



The results were distributed as follows: the figure under No. 1 was chosen by 0.5% of respondents, under No. 2 – 4.8%, under № 3 – 23.4%, under № 4 – 43.1%, under № 5 – 28.2%. This means that most students have a meaning construct "full of meaning" in relation to studying at the university.

To determine the relationship between the expression of the meaning construct "completeness of meaning" with learning, indicators of alienation and the level of metacognitive regulation of activity, a correlation analysis was carried out according to Spearman's coefficient. The results are presented in Table 5.

Table 5

Correlation coefficients between indicators of alienation from the educational process and the level of metacognitive activity regulation

Scales of the "Subjective alienation from academic work" methodology	Level of subjective learning fulfilment with meaning
General alienation rate	-0,564**
Learning	-0,596**
University life	-0,573**
Interpersonal relationships	-0,333**
Self-attitude	-0,450**
Unawareness (vegetativity)	-0,545**
Helplessness	-0,504**
Nihilism	-0,524**
Venture	-0,394**
General level of metacognitive activity regulation	0,471**

Note: ** - correlation significance at the 0,01 level (2-tailed).

The analysis showed the presence of statistically significant negative relationships between subjective learning fulfilment with meaning and all scales of the "Subjective alienation from academic work" methodology. A statistically significant positive relationship was also found with the general level of metacognitive activity regulation. Therefore, Hypothesis 2 was confirmed.

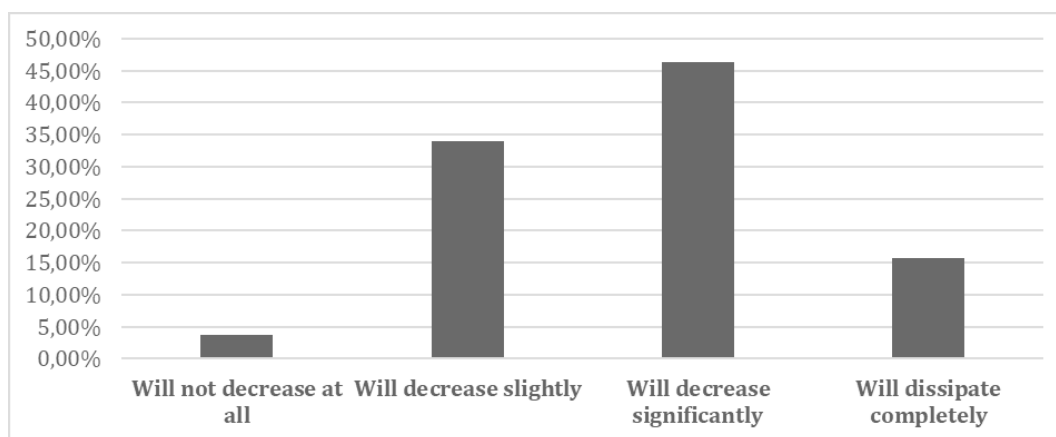
Changes in the meaning of attending classes, depending on the circumstances of hostility toward the teacher and receiving points for work in the classroom, were recorded by the following questionnaire questions. Question No. 11 was formulated as

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follows: «Imagine that there is a subject in your schedule for the upcoming semester, the study of which is meaningful and interesting to you. You come to your first lesson in this subject with enthusiasm, but you see repulsive behaviour or ineffective teaching style of the teacher toward students. Evaluate how much the importance of this subject will decrease for you» (Appendix 1). The respondents' answers are presented in Figure 2.

Figure 2

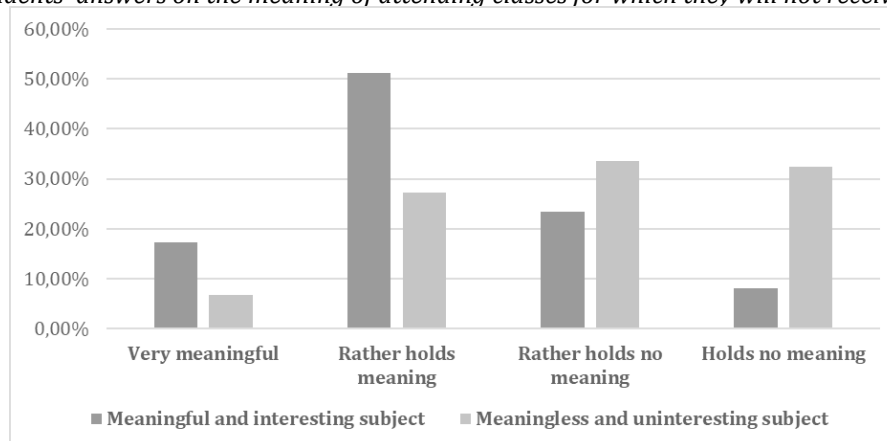
Respondents' answers on the importance decrease of an initially interesting subject for a student



The results obtained clearly show how two strong factors collide: the study of a significant and interesting subject and a negative attitude toward the teacher or their style of teaching. A more important factor is precisely the negative attitude toward the teacher, and not the significance of the subject. Therefore, it can be said that the perception of the teacher's image as repulsive or conducting ineffective classes can serve as one of the reasons for alienation from the educational process.

Questions No 12 and 13 were as follows: «Imagine that a teacher in a meaningful and interesting subject does not give points for participating in practical/seminar classes. Instead, you will receive points for completing other tasks in this subject. Evaluate how much it makes sense for you to prepare and participate in practical/seminar sessions in such a situation», and «Evaluate the same situation, only in the case of insignificant and uninteresting subjects for you personally». A comparison of the answers to these questions is shown in Fig. 3.

Figure 3
Respondents' answers on the meaning of attending classes for which they will not receive points



The results show that the factor of perceiving the lesson as meaningful and interesting is more significant than the reward factor implemented to give meaning to the preparation for it.

Discussion

The results of our study confirm that there is a relationship between the degree to which students define their learning as meaningful and the level of alienation from education. The data complement the notion that understanding the meaning of learning, the presence of meaning connections are key to ensuring the success of the learning process and reducing the level of alienation. Ezhov et al. in a recent study state that the students' professional alienation is associated with the orientations of a person's purpose-in-life identification (awareness of the purpose and meaning of one's vocation) in the educational process at the university (Ezhov et al, 2017). The experience of meaninglessness is a component of alienation from education: "the situation when the student is indifferent to the place in which they finds themselves, consists of such components as helplessness, isolation, meaninglessness" (Caglar, 2013, p. 185).

The decrease in the significance of the class due to repulsive teacher behaviour and ineffective teaching style is consistent with the opinion of Phan, Nguyen, Nguyen & Nguyen (2021). They emphasize the impact of a positive teacher attitude on the success of the educational process, which reflects the need to create a favourable educational environment.

Misunderstanding of the essence of a bachelor's/specialist's degree as a reason for alienation from learning, according to the study results, is significant for 24,9 % of students. Similar data were obtained by T. Yu. Zelenina, who found in her study that students (especially undergraduate students) have little idea of the nature of their chosen form of education (Zelenina, 2014). The perception of bachelor's degree as incomplete

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higher education, "undereducation", can negatively affect participation in the educational process.

In our questionnaire, we took as a basis the reasons for students' alienation from education identified by T. Yu. Zelenina. We found that such reasons as the prevalence of theory over practice, the need to assimilate a large amount of unnecessary information, and remoteness of educational standards from real-life experience are indeed significant for more than half of respondents.

The results of alienation from education in students can be quite multifaceted. First, the fact that the student may feel alienated is indicated by their behaviour. It may include violations of institution rules, truancy, ungraded homework assignments, low grades, and isolation from classes (Kumari & Kumar, 2017). The detachment of the student from the educational process, the violation of the sense of belonging and community both with the team and with teachers can provoke social isolation and feelings of loneliness, "withdrawing into oneself" (Rovai & Wighting, 2005). The authors noted (Osin, 2017) the relationship between individual indicators of alienation in adolescents and the frequency of alcohol and marijuana use and suicide attempts. The growing number of the "hidden unemployed" phenomenon, which means university graduates who do not work in their specialty, reflects unrealized intellectual resources (Ezhov et al., 2017). It can also be a consequence of alienation from education.

Osin (2015) identified the areas of work to reduce the alienation level:

- First of all, it is necessary to provide a safe and psychologically comfortable environment for teachers and students;
- Empathy and openness of teachers can also reduce the risk of education alienation education in students;
- It is important to let students feel their involvement not only in the learning process but also in the preceding organization of it, since this reduces the risk of experiencing helplessness, one of the forms of alienation (Osin, 2015).

Work with alienation from education should be carried out comprehensively, considering all manifestations of alienation in university life. The important areas for the prevention of alienation should be work on the impact on the adaptability of first-year students, the formation of their sense of belonging and ontological confidence, the establishment and support of teaching and perception methods aimed at understanding the meaning of their learning at the university (Voronaya & Pronenko, 2023).

A positive relationship between the level of metacognitive self-regulation and the subjective learning fulfilment with meaning confirms the data obtained in our pilot study. In this study, positive relationships were established between pronounce knowledge, procedural knowledge, conditional knowledge, planning, information management strategies, component control, error correction strategy, assessment and the level of learning fulfilment with meaning (Belikova, Pronenko, 2023), which is in line with the data of foreign researchers (Cotterall & Murray, 2009; Händel, Artelt & Weinert, 2013).

Conclusion

Alienation from the educational process has significant and relatively high negative relationships with the level of metacognitive regulation of activity and the level of subjective perception of the learning fulfilment with meaning. At the same time, there is a positive relationship between the level of metacognitive activity regulation and the level of subjective perception of the learning fulfilment with meaning.

Therefore, we can draw the following conclusions:

- Psychological and pedagogical students have a low level of alienation from education. More than half of students are willing to attend practical classes even without external reinforcement in the form of points, if the topics appear interesting to them;
- Students are sensitive to situations in which they encounter repulsive or ineffective teaching styles;
- The learning fulfilment with meaning is inversely related to the expression of alienation from education;
- An increase in the meaningfulness of learning can have a significant impact on the prevention or correction of the alienation state among university students;
- Metacognitive regulation, that is, the ability to manage one's own cognition, is inversely related to the expression of alienation from education. In order to reduce the level of alienation, it is reasonable to carry out special activities aimed at teaching metacognitive self-regulation.

Can metacognitive regulation and awareness of the educational meaning help overcome students' alienation from the academic process? According to our research, they may well have an impact on reducing the level of alienation.

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Appendix 1

Author's questionnaire for the study of alienation from education aspects

1. What do you think influences the development of a sense of alienation from the educational process the most? (You can choose multiple options)
 - Misunderstanding of the essence of a bachelor's/specialist's degree;
 - Predominance of theory over practice;
 - Lack of knowledge;
 - The need to assimilate a large amount of unnecessary information;
 - Teaching outdated knowledge;
 - The need to gain additional knowledge to master the profession;
 - Remoteness of educational standards from real-life experience.
2. In your opinion, how much does it make sense for you to study major subjects in your specialty?
3. In your opinion, how much does it make sense for you to study non-major subjects?
4. In your opinion, how much does it make sense for you to perform practical tasks (reports, practical, and laboratory work) in major subjects?
5. In your opinion, how much does it make sense for you to perform practical tasks (reports, practical, and laboratory work) in non-major subjects?
6. In your opinion, how much does it make sense for you to attend lectures in major subjects?
7. In your opinion, how much does it make sense for you to attend lectures in non-major subjects?
8. If you have a task to write a coursework or a thesis, evaluate how much it makes sense for you to complete it.
9. Briefly describe what part of the education is significant to you personally.
10. Evaluate how much your education holds meaning for you personally.
11. Imagine that there is a subject in your schedule for the upcoming semester, the

study of which is meaningful and interesting to you. You come to your first lesson in this subject with enthusiasm, but you see repulsive behaviour or ineffective teaching style of the teacher toward students. Evaluate how much the importance of this subject will decrease for you.

12. Imagine that a teacher in a meaningful and interesting subject does not give points for participating in practical/seminar classes. Instead, you will receive points for completing other tasks in this subject. Evaluate how much it makes sense for you to prepare and participate in practical/seminar sessions in such a situation.

13. Evaluate the same situation, only in the case of insignificant and uninteresting subjects for you personally.

14. What in student life keeps you from withdrawing?

15. What component of your learning activities prevents you from withdrawing?

16. If you answered "nothing" to the previous two questions, then why are you still studying? Give your answer in the format "In order to..."

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Evgeny Aleksandrovich Pronenko prepared the text, processed the data.

Margarita Evgenievna Belikova selected diagnostic methods, developed the questionnaire.

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Conflict of interest information

The authors have no conflicts of interest to declare.