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ASPECTS OF THE DEVELOPMENT OF SELF-REGULATION OF THE FUTURE TEACHER'S PERSONALITY

The problem of improving the professional training of future teachers in the modern education system is related to the formation of the ability to self-regulate. Self-regulation is the ability of a person to set conscious goals, plan educational activities, control their actions, evaluate results, and manage their emotions. In this regard, the identification of psychological and pedagogical aspects of self-regulation of future teachers becomes an urgent problem from a scientific and practical point of view. The goal of this research is to determine the structural dimensions of self-regulation in prospective teachers and to examine how these dimensions are manifested in their educational activities. The article contains a theoretical analysis, a survey and considers the main components of self-regulation, such as goal setting, planning, self-control, result assessment and emotional regulation. The main idea of the study is to substantiate the self-regulation of future teachers as the most important psychological and pedagogical prerequisite for professional development. The scientific significance of the work is characterized by an emphasis on the psychological and pedagogical aspects of the ability of future teachers to self-regulate, as well as clarifying its structure and content. The practical significance of the research lies in the fact that students' self-regulation style is determined empirically and refined by its components. The study analyzed the students' self-regulation style based on six components (goal setting, planning, self-control, activity correction, result assessment, emotional regulation), and each component was given a detailed scientific description.

In addition, the research materials are recommended for use in teaching aids for improving the professional training of future teachers, in designing the content of trainings, in organizing educational and cognitive activities of students during pedagogical practice.

Keywords: self-regulation, aspect, planning, modeling, programming, evaluation of results, independence.

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Болашақ педагог тұлғасының өзін-өзі реттеуін дамыту аспектілері

Қазіргі білім беру жүйесінде болашақ педагогтардың кәсіби даярлығын арттыру мәселесі өзін-өзі реттеу қабілетінің қалыптасуымен байланысты. Өзін-өзі реттеу тұлғаның саналы мақсат қоя алуы, оқу әрекетін жоспарлауы, өз іс-әрекетін бақылауы, нәтижелерді бағалауы және эмоциясын басқаруы. Осыған байланысты болашақ педагогтардың өзін-өзі реттеуінің психологиялық-педагогикалық аспектілерін анықтау ғылыми және практикалық тұрғыдан өзекті мәселе болып отыр. Зерттеудің мақсаты – болашақ педагогтардың өзін-өзі реттеуінің құрылымдық компоненттерін айқындау және олардың оқу іс-әрекетіндегі көрінісін талдау. Мақалада теориялық талдау жасалып, сауалнама жүргізіліп, өзін-өзі реттеудің мақсат қою, жоспарлау, өзіндік бақылау, нәтижені бағалау және эмоциялық реттеу сияқты негізгі құрамдас бөліктері қарастырылды. Зерттеудің жетекші идеясы болашақ педагогтардың өзін-өзі реттеуін кәсіби қалыптасудың маңызды психологиялық-педагогикалық алғышарты ретінде негіздеу болып табылады. Жұмыстың ғылыми маңыздылығы болашақ педагогтардың өзін-өзі реттеу қабілетінің психологиялық және педагогикалық аспектілеріне тоқталып, сондай-ақ оның құрылымы мен мазмұнын нақтылауымен сипатталады. Зерттеудің практикалық маңыздылығы студенттердің өзін-өзі реттеу стилі эмпирикалық тұрғыда анықталып және оны компоненттер бойынша нақтыланды. Зерттеу барысында студенттердің өзін-өзі реттеу стилі алты компонент (мақсат қою, жоспарлау, өзіндік бақылау, әрекетті түзету, нәтижені бағалау, эмоциялық реттеу) негізінде талданып, әр компонентке ғылыми тұрғыда толық сипаттама берілді.

Сонымен қатар зерттеу материалдары болашақ педагогтардың кәсіби даярлығын арттыруға арналған оқу-әдістемелік құралдарда, тренингтердің мазмұнын жобалауда, педагогикалық практика барысында студенттердің оқу-танымдық әрекетін ұйымдастыруда қолдануға ұсынылады.

Түйін сөздер: өзін-өзі реттеу, аспект, жоспарлау, модельдеу, бағдарламалау, бағалау, дербестік.

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Аспекты развития саморегуляции личности будущего педагога

В современной системе образования проблема повышения профессиональной подготовки будущих педагогов тесно связана с формированием у них способности к саморегуляции. Саморегуляция представляет собой умение личности осознанно ставить цели, планировать учебную деятельность, контролировать собственные действия, оценивать результаты и управлять своими эмоциями. В соответствии с приведенными выше положениями определение психолого-педагогических аспектов саморегуляции будущих педагогов является актуальной проблемой как в научном, так и в практическом плане. Цель исследования – выявить структурные компоненты саморегуляции будущих педагогов и проанализировать особенности их проявления в учебной деятельности. В статье проведен теоретический анализ, организовано анкетирование, рассмотрены основные компоненты саморегуляции, такие как целеполагание, планирование, самоконтроль, оценка результатов и эмоциональная регуляция. Основная идея исследования заключается в направленности саморегуляции будущих педагогов как важной психолого-педагогической предпосылки их профессионального становления. Научная значимость работы определяется выявлением психолого-педагогических аспектов способности к саморегуляции у будущих педагогов, а также уточнением ее структуры и содержания. Практическая значимость исследования заключается в эмпирическом определении стиля саморегуляции студентов и его характеристика по компонентам. В ходе исследования стиль саморегуляции студентов был проанализирован на основе шести компонентов, каждому из которых дана научно обоснованная характеристика.

Кроме того, материалы исследования могут быть использованы при разработке учебно-методических пособий, направленных на повышение профессиональной подготовки будущих педагогов, при проектировании содержания тренингов, а также в ходе педагогической практики для эффективной организации учебно-познавательной деятельности студентов.

Ключевые слова: саморегуляция, аспект, планирование, моделирование, программирование, оценка, самостоятельность.

Introduction

Today's future specialist should not only master subject knowledge, but also become a person who is able to consciously plan their activities and effectively manage emotions, behavior, time and learning activities. At each age stage, the problems and achievements of personality formation are different, and at the student stage, the qualities of behavior, norms of the digital environment, and life principles are formed. They strive for independence, understanding professional responsibility as a specialist. Therefore, first-year students who have entered a new educational institution need special attention to themselves. Because these are future teachers who just left the school yesterday, are not used to the requirements of the new university, have the same school positions in themselves, have not formed views on future professional activities, have not defined professional goals. For them, adaptation to the

digital educational environment is a complex process.

Therefore, at the present stage, one of the most important tasks of each educational institution is the formation of activity and independence of students, as well as increasing the effectiveness of their educational activities. The basis of independence is a system of self-regulation, because the student is able not only to acquire knowledge in the chosen specialty, but also to consciously set educational goals and motivate to implement them only when he has a deep understanding of the importance of his profession. The problem of developing self-regulation skills as the main psychological mechanism that ensures the future professional development of students is becoming increasingly relevant. Because although some students have motivation to study, we often see those who show consistently low academic performance. Most often, these are students who do not have a complex of general educational and ac-

tivity qualities, skills and abilities, that is, the ability to work independently, organize their labor, monitor the results of educational activities and correctly evaluate them is not sufficiently developed.

Literature review

The formation and development of self-regulation skills is carried out in connection with psychological and pedagogical research, which includes questions of student responsibility for their actions, decision-making, motivation and independence.

In this regard, it is important for us to rely on the works of foreign and domestic scientists aimed at revealing the essence, structure and mechanisms of the concept of self-regulation.

In this direction, in connection with the problem of self-regulation in foreign scientific literature, T.G.Volkova explains in her textbook: self-regulation is the ability of a person to consciously control his mental states, behavior, to achieve his goals, to maintain internal balance.

T. G.Volkova's workshop presents aspects of psychological self-regulation:

1. Awareness and goal setting-defining psychological goals and maintaining them;
2. Control of mental states-manage emotions, attention and motivation;
3. Self-correction-analysis of the results obtained and change behavior strategies;
4. Mobilizing willpower – using internal resources to overcome difficulties;
5. Adaptation – change the behavior journey depending on the situation.

The listed components are considered as structural elements of self-regulation (Volkova, 2014).

The dictionary of psychology by A.V.Petrovsky and M.G.Yaroshevsky says: self-regulation (from latin re-gulare-ordering, normalization) is the expedient functioning of living systems of various levels and complexity. Mental self-regulation is one of the levels of regulation of the activity of these systems, reflecting the features of the means of mental representation and modeling of reality that implement it, including the subject's reflection (Petrovskogo, Yaroshevskogo, Psikhologiya, 1990).

At the same time, in foreign literature, the problem of self-regulation is considered by G.S.Nikiforov, Y.I.Filimonenko and A.K.Polshin as a purposeful mental process aimed at consciously changing a person's mental state, processes, and character, that is, filling internal resources in accordance with life circumstances. Self-regulation is the internal activity of a person, mental states, the abil-

ity to act effectively, emphasizing that it is closely related to will, consciousness, and reflection. According to G.S.Nikiforov and his colleagues, self-regulation is an internal mental process carried out purposefully, aimed at conscious management and change of mental states (Nikiforov, Filimonenko, Polshin, 1986).

Well, A.O.Prokhorov believes that: self – regulation is the ability of a person to direct his mental state in the necessary direction, adapting it from external factors to internal requirements. He believes that it is a complex system that regulates mental states as a whole. It includes: the ability of a person to set a goal, accept any situation and model it, choose the necessary tools for regulation, process information, make adjustments to the results.

He views the skill of self-regulation as a phenomenon aimed at flexible management of the mental state in any real life situations (everyday, normal and difficult) (Prokhorov, 2012).

Self-regulation is considered by V.I.Morosanova as an integral system of setting goals and managing personal behavior (Morosanova, 2002), which connects the concept of personal self-regulation style with subjective activity. Her activities included: the creative nature of the individual, the ability to change the world around, independence, self-regulation and self-organization (Morosanova, 1991).

The fact that mental phenomena and processes have a regulatory nature can be seen in the works of I.M.Sechenov and I.P.Pavlov. A significant contribution to the formulation of the most important aspects of the problem of mental self-regulation and their disclosure belongs to V.M.Bekhterev, as well as his students and followers-L.F.Lazursky, M.Ya.Basov, V.N.Myasishev. From the works of Ch.Sherrington, the idea of considering the regulation of behavior as an independent and own mental process is clearly manifested. He also contributed to the development of K.Bernard's principles on self-regulation.

According to M.Ya.Basov, the will is a special mental mechanism that regulates the individual's own mental functions. In the works of L.S.Vygotsky, the ideas of voluntary regulation of human activity and various mental processes were developed.

Now, from the point of view of S.L.Rubinstein, special ways to implement mental activity are consciousness and action (Rubinshtein, 1973).

In collaboration with the staff of his laboratory, L.G.Dika considered self-regulation not only as a separate activity of the individual, but also as a system that provides it. Through this approach, researchers were able to identify the main determi-

nants that form self-regulation and take into account the connections between different systems (Dika, 2003).

We can see from the conclusions of O.A.Konopkin that a person's mental self-regulation of his actions is the highest stage of regulation of biological systems and behavioral activity, which is carried out by reflecting and modeling reality, reflecting the specifics of mental means.

The problems of self-regulation are considered in the research of domestic scientists from a psychological and pedagogical point of view. It can be traced in the work of M.Zhumabayev «Pedagogy». He stressed that it is necessary to cultivate a responsible attitude and willpower to one's actions, and to develop it, paying special attention to the role of internal discipline and self-control (Zhumabaev, 2022).

In addition, in the textbook «Psychology» by Zh.Aimautov, we find reflections on the management of will, attention, feelings and behavior. Aimautov considered the person as an active subject and focused on his ability to consciously control his actions.

The personality is formulated in the works of S.M.Zhakupov on the conscious management of his actions, self-control and regulation of his actions, that is, it echoes the content of the components of self-regulation.

In the textbook «Psychology» by the outstanding scientist-psychologist of Kazakhstan K.B.Zharykbayev, issues of behavior education, development of willpower, management of feelings and emotions, moral formation of the personality are widely considered. He focused on the importance of self-control, the ability to act consciously, the development of responsibility and discipline (Zharykbaev, 2010).

In her works, H.T.Sheryazdanova studied the self-development and self-regulation of the personality from the point of view of pedagogical and psychological, paying attention to the fact that it is necessary for the personality to organize its activities, develop independence and self-control skills.

A.K.Mynbaeva, A.K.Bolat studied the emotions of students in their practice on the development of self-regulation skills. This study aims to enhance the cognitive-emotional regulation skills of children and adolescents (Mynbaeva, Bulat, 2021). The skills of self-regulation as a factor influencing the psychological health of the individual were considered by N.A.Karipzhanova, and G.T.Urazalieva studied the self-organization of students in a digital environment.

Based on the works of the scientists discussed above, we conclude that the skill of self-regulation is the ability of a person to consciously plan his actions and organize it correctly, manage emotions and behavior, and use his time effectively.

Thus, self-regulation is the ways in which a person organizes his activity. The higher the level of conscious self-regulation inherent in the personality, the less its difficulties in the digital environment, in the educational process, and the easier it is to adapt to new types of activity. The student will be able to exchange ideas with others, work in groups, build harmonious relationships.

Materials and methods

In our research, we developed the psychological and pedagogical features of self-regulation of future teachers in the laboratory «Psychology of self-regulation» of the Psychological Institute of the Russian Academy of Education, based on the collection of methods «Diagnosis of human self-regulation», developed under the leadership of V.I.Morosanova, based on the questionnaire «The style of self-regulation of behavior-SSRB-98», and compiled our questionnaire «Self-regulation style», consisting of six questions, aimed at identifying each component (Morosanova, Bondarenko, 2015).

The questionnaire was conducted for students of the specialty «Pedagogy and methods of primary education» in order to identify the psychological and pedagogical features of self-regulation skills. Because as a future teacher, it is important for students to be able to consciously self-regulate, organize their time, manage emotions, plan their actions and achieve their goals, and the skills of self-regulation affect the quality of professional training, academic success of students.

A total of thirty students took part in the questionnaire. It focused on identifying the main components of the student's self-regulation styles. It consisted of components: planning, modeling, programming, evaluation of results, flexibility, independence. We formulated the students in a simple and understandable way in terms of content, asking one question from each, in order to measure them on these six components. These components are described below:

1. «Planning» scale-reflects the totality of students' skills in the ability to set goals, consciously plan their actions and their ability to systematically implement them;

2. «Modeling» scale-shows a conscious response to external and internal factors, the ability to

anticipate their actions, model the results and consciously adapt to unforeseen situations;

3. «Programming» scale-reflects the ability of students to think and plan their actions in advance and clearly build a specific program to achieve their goal;

4. «Evaluation of results» scale – reflects the ability of students to evaluate themselves and consciously control, evaluate and correctly perceive the results of their activities;

5. «Flexibility» scale-students show flexibility in the ability to adapt themselves under the influence of external and internal conditions;

6. «Independence» scale – reflects the ability of students to independently organize their activities independently, set goals and achieve them in decision-making.

Thus, the harmonious development of the six components throughout the student will allow future teachers to effectively manage their actions, achieve goals and consciously adjust and fulfill professional tasks.

From these six components, six questions of the questionnaire were compiled. They are:

1. I plan my actions in advance and try to follow my plan;

2. in difficult situations, I can control myself and make decisions without getting emotional;

3. I quickly adapt to new requirements, tasks and easily accept changes;

4. I constantly evaluate the result of my actions and correct them if necessary;

5. I act actively, without fear of difficulties;

6. When interacting with others, I control my reactions and control myself.

Each questionnaire answer is evaluated on a 5 point Likert scale (1 – «absolutely disagree», 5 – «fully agree»). The accumulated points were calculated as a cumulative indicator characterizing the overall level of individual and self-regulatory style for each component.

Result and discussion

Students who participated in the research were instructed to establish an answer option that corresponds to a numerical scale of six questions in the questionnaire (Table 1). We developed the questionnaire questions using the «Google Forms» platform, and each student was sent an individual link. Students performed the questionnaire using their own mobile devices. This method made it possible to quickly collect data, that is, to save time and provide the convenience of responding participants.

The score was calculated in the following system: if you choose a rating scale of 1-2, the level of self – regulation is low, if you choose a rating scale of 3-4, then the average level, if you choose a rating scale of 5, then the high level.

Table 1

Criteria for evaluating the «Self-regulation style» questionnaire

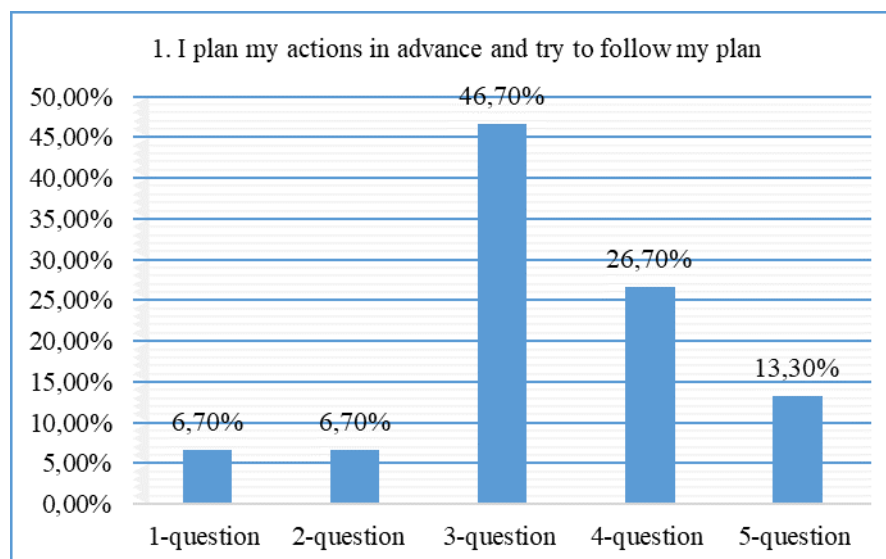
Six questions were assigned to six components (planning, modeling, programming, evaluation of results, flexibility, independence).

№	Questions	Rating (1-5) (1-doesn't quite match, 5-fully matches)
1	I plan my actions in advance and try to follow my plan	1.....5
2	In difficult situations, I can control myself and make decisions without getting emotional	1.....5
3	I quickly adapt to new requirements, tasks and easily accept changes	1.....5
4	I constantly evaluate the result of my actions and correct them if necessary.	1.....5
5	I actively act, without fear of difficulties	1.....5
6	When interacting with others, I control my reactions and control myself	1.....5

On the first question: the indicators of students who plan their activities in advance and try to perform according to the plan are shown as follows. The low level was indicated by 4 students, which

was 13.3%, the average level was indicated by 22 students, which was 73.4%, and the high level was indicated by 4 students, which was 13.3% (Figure 1).

Figure 1
Planning scale

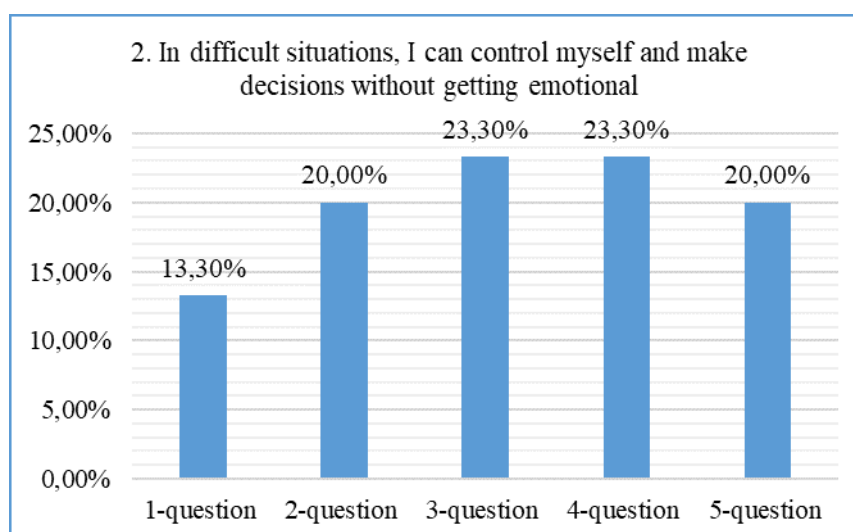


Thus, 4 students who show a low on the planning scale, that is, 13.3%, do not set goals, their plans are often subject to changes and they think little about their future and their actions are often impulsive. The 22 students, who showed an average level of 73.4%, have irregular activity planning skills, their plans are not specified, although they are set to the goals they set for themselves, and they vary depending on external circumstances. And 4 students with a high score of 13.3% consciously plan all their ac-

tivities and can consistently achieve their goals and show results. That is, those in this category are able to interact harmoniously with other students and behave more freely in the group.

On the second question: 10 students showed a low level of students who can control themselves and make decisions without getting emotional in difficult situations, they were 33.3%, 14 students showed an average level, they were 46.6%, and 5 students identified a high level, they were 13.3% (Figure 2).

Figure 2
Modeling scale

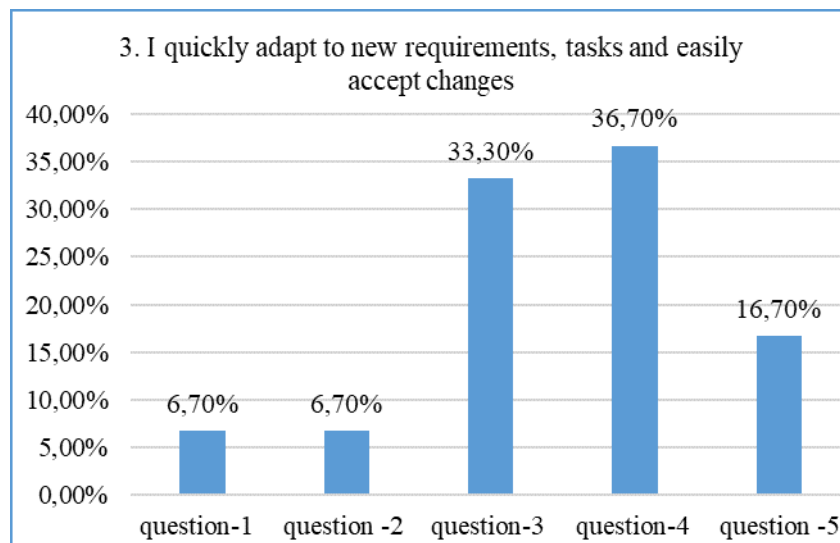


The 10 students who showed a low 33.3% on the simulation scale are those who often face difficulties in reacting to different life situations and make a lot of mistakes in responding. 14 students who showed an average level of 46.6% have developed modeling skills to some extent, but sometimes the ability to predict and adjust plans is unstable, dependent on external factors, while 5 students who showed a high level of 13.3% are able to con-

sciously perceive and respond to various situations and determine the most important conditions for achieving the goal.

On the third question: the new requirement, the low level of students who can quickly adapt to tasks and easily accept changes, was indicated by 4 students, they – 13.3%, the average level was indicated by 21 students, they – 70% and the high level was indicated by 5 students, they – 16.7% (Figure 3).

Figure 3
Programming scale



4 students who showed a low 13.3% on the programming scale are not able to think correctly and purposefully formulate their actions. It is very difficult to act on your own and achieve success. Although the 21 students who showed an average level of 70% have programming skills, their conscious development of their plans turns out to be incomplete or unstable and sometimes acts dependent on external circumstances. And 5 students with a high score of 16.7% will be able to think and prepare their actions and ways of behavior in advance to achieve their goals. Acts steadily to achieve success.

On the fourth question: 6 students showed a low level of students who could constantly evaluate and correct the result of their actions if necessary, they were 20%, the average level was 15 students, they were 50% and the high level was 9 students, they were 30% (Figure 4).

6 students who showed a low 20% on the scale of evaluating the results do not notice the mistakes made by them, do not recognize them, cannot be critical of themselves. 15 students who show an average level of 50% will be able to evaluate the result of their actions, but the assessment will not be completely objective, and due to external factors, the results may sometimes be misjudged. And the self-esteem of 9 students with high indicators of 30% is real, there is perseverance, responsibility to achieve results and an adequate attitude to all situations.

On the fifth question: the low level of students who actively act without fear of difficulties was indicated by 6 students, they – 20%, the average level was indicated by 18 students, they – 60% and the high level was indicated by 6 students, they – 20% (Figure 5).

Figure 4
Evaluation of results scale

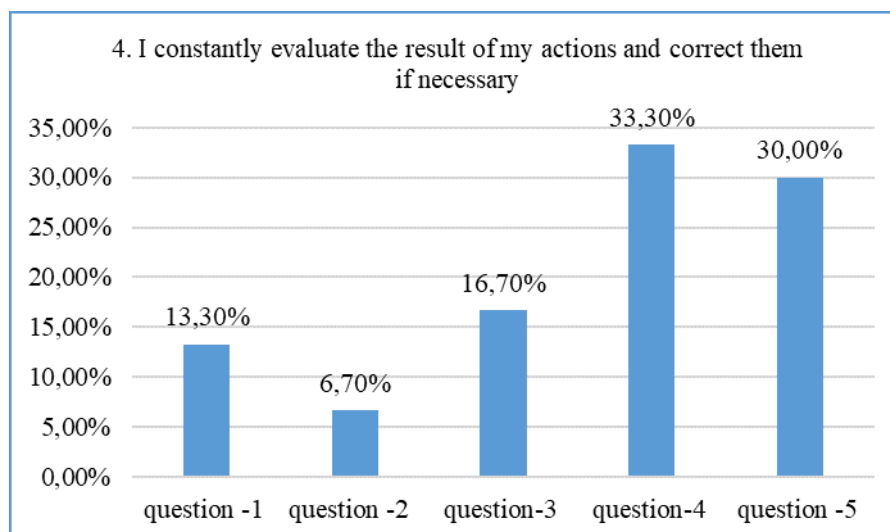
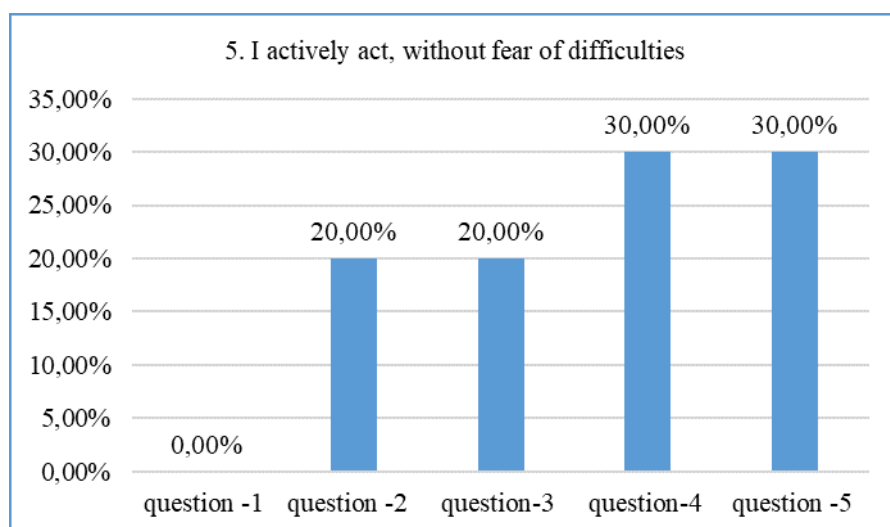


Figure 5
Flexibility scale

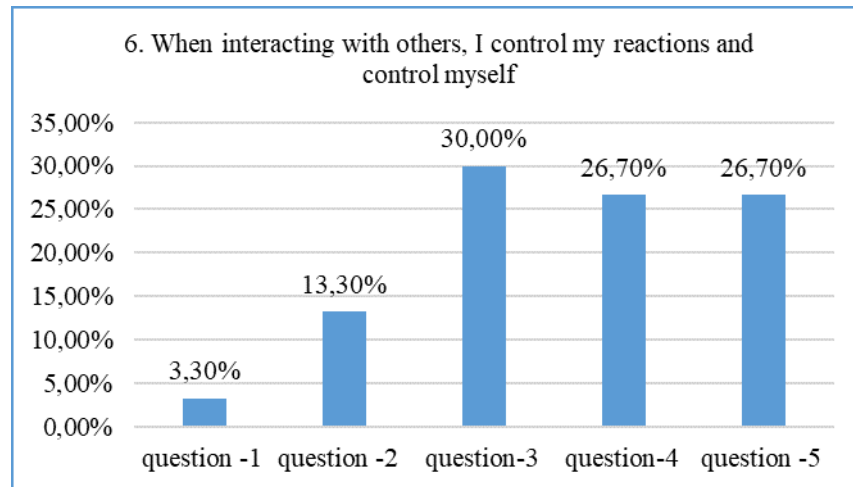


The 6 students who showed a low 20% on the flexibility scale find it difficult to adapt to the new environment, unable to accept unexpected events and react quickly and find it difficult to solve the problem that has arisen. There is little chance of creating new plans and setting goals. The 18 students who showed an average level of 60% are able to adapt their actions to life changes, but this flexibility turns out to be not constant and requires additional adjustments, sometimes allowing mistakes when adapting to surprises. And 6 students with a high score of 20% will be able to quickly think

over solutions, plans, actions for unforeseen situations and immediately move on to the case. In the absence of results, it is able to quickly think over important conditions and create a new program of action. New environment, able to quickly adapt to new changes.

On the sixth question: 5 students showed a low level of students who could control their reactions and behave when interacting with others, they- 16.6%, the average level was shown by 17 students, they – 56.7% and the high level was shown by 8 students, they – 26.7% (Figure 6).

Figure 6
Independence scale



5 students who showed a low 16.6% on the independence scale depend on the opinion and attitudes of the country. They are characterized by the inability to independently develop their programs and plans, the inability to make decisions, and the inability to take responsibility. 17 students who showed an average level of 56.7% are able to independently organize their activities, set a goal and, although they show a certain independence in achieving it, these abilities remain unsteady and sometimes dependent on external influences. And 8 students with a high score of 26.7% have the ability to choose specific steps to achieve their goals and organize their activities correctly. Not dependent on other people's opinions, able to analyze and evaluate their own results. Summing up the results of the questionnaire, we showed the results in Table 2.

Table 2
Questionnaire results

№	Scales	Low	Average	High
1	Planning scale	13.3%	73.4%	13.3%
2	Modeling scale	33.4%	46.6%	20%.
3	Programming scale	13.3 %.	70 %.	16.7 %.
4	Evaluation of results scale	20 %	50%.30	30 %
5	Flexibility scale	20%	60%	20%
6	Independence scale	16.6%	56.7%	26.7%.

According to the results of the research carried out, 26.7% on the independence scale and 30% of students on the evaluation of results scale have a higher level. It was found that some of the students in this pedagogical specialty have responsibility, independence and reflective ability, showing that the skills of self-control, reflection and independent decision-making are well developed. However, since these skills are not found in all students, pedagogical support is needed to systematically form and strengthen them.

On the next planning scale, 73.4% of students, 70% on the programming scale, 50% on the evaluation of results scale, 56.7% on the independence scale and 60% on the flexibility scale show that a number of important components of self-regulation skills are developed at the intermediate level. This means that while most students have sufficient skills in planning, programming, evaluation of results, flexibility, and independence, they still need to develop. This means that first-year students are in the process of adapting to the digital educational environment, and mechanisms for conscious management of their actions have not yet been steadily formed. Middle-level students need to learn how to make independent decisions, critically evaluate the results, and systematically plan educational activities. Because the profession of a teacher requires high responsibility, continuous self-improvement and adaptation to any changes.

And on a number of scales, it turned out that 33.4% of students on the low level modeling scale, 20% on the evaluation of results and flexibility

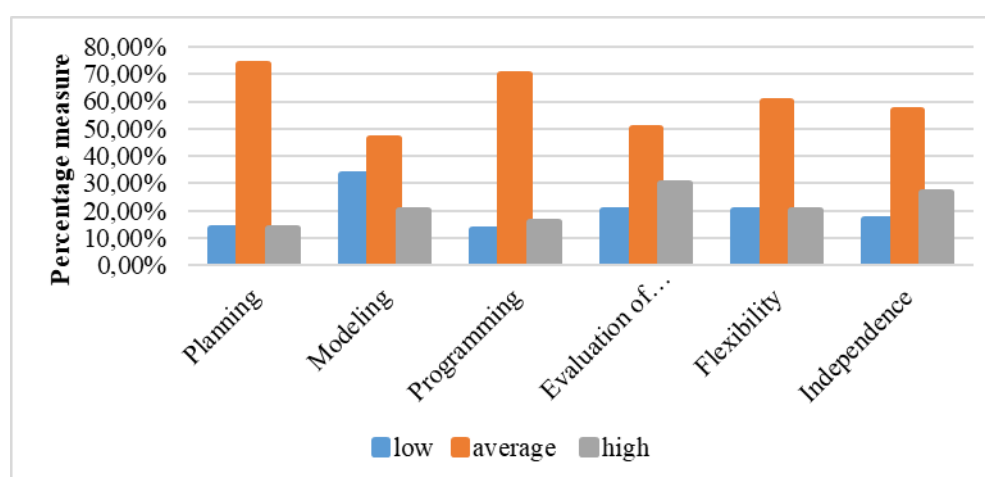
scales and 13.3% on planning and programming are at a low level. These indicators showed insufficient skills in predicting students' actions, analyzing learning situations, clearly defining their goals and systematizing ways to achieve them. At the same time, there is a need to develop the ability to properly organize educational activities, adapt to emerging situations and critically evaluate the

results of their actions. May be associated with the period of adaptation of first-year students to a new educational institution, the complication of the digital educational load and the increase in independent work.

We have presented low, medium and high level indicators in the form of histograms for each scale above (Figure 7).

Figure 7

Histogram of the result of the research of the self-regulation style



From the histogram of the result of the research of the self-regulation style, 73.4% of respondents showed an average level in the planning component, 70% in the programming component, and 60% in the flexibility component. It follows from this that the vast majority of students have adapted to the learning process, but have not yet formed a conscious management of actions.

30% of students showed a high level in the component of evaluation of results and 26.7% in the component of independence, which indicates a sufficient level of self-control skills and independent decision-making by future teachers. However, the subject showed up in only nine out of thirty students. Since these components play a crucial role for the future teacher, it becomes necessary for students to form them.

In addition, in the research group, 33.4% of respondents showed a low level in the modeling component, 30% – in the evaluation of results and in the independence component, which indicates insufficient skills in predicting their own actions, planning time, clarifying goals and determining ways to achieve them. For future teachers, it is important to purposefully develop the skills of adapting to any

situation, organizing educational activities, and critically evaluating their results.

In this regard, in the educational process, it is necessary to systematically introduce trainings, reflexive tasks, project work and types of independent work aimed at improving the professional competence of future teachers, forming their psychological health and improving the quality of educational achievements.

Conclusion

The conducted study was aimed at identifying aspects of the development of future teachers' self-regulation and analyzing its psychological and pedagogical content. The results of the study demonstrated that the development of self-regulation in future teachers is a multifaceted phenomenon and occurs through several interrelated aspects. These aspects play a significant role in the professional formation of the individual, in enhancing the level of readiness for pedagogical activity, and in the effective organization of the educational process.

Furthermore, the study identified the pedagogical aspects of self-regulation. These include skills

such as planning learning activities, organizing time effectively, assessing learning outcomes, and making adjustments when necessary. These skills enable future teachers to effectively organize their learning and cognitive activities, systematically improve their knowledge, and successfully fulfill professional responsibilities in the course of pedagogical practice.

The results also revealed that the structure of self-regulation involves the formation of several interrelated aspects. Specifically, the cognitive and metacognitive aspects are aimed at enabling future teachers to consciously master learning material, plan and monitor their learning activities. The motivational and goal-oriented aspect contributes to students' identification of professional goals, the development of intrinsic interest in learning activities, and the pursuit of professional growth. The emotional-volitional aspect is characterized by the ability to manage emotions, overcome difficulties, and demonstrate perseverance in achieving goals.

In addition, the behavioral-activity aspect involves students implementing self-regulation skills through concrete actions, such as planning, organizing, and evaluating learning outcomes. The reflexive aspect enables future teachers to analyze their actions, assess results, and determine directions for professional development. The digital aspect is of particular importance in the current educational context, facilitating students' effective organization of learning activities in digital educational environments, information selection, and monitoring of learning outcomes.

Overall, the study showed that the development of self-regulation in future teachers is one of the key conditions for forming their professional competencies. Therefore, in organizing the educational process at higher education institutions, it is necessary to systematically implement special methods, training sessions, and pedagogical support technologies aimed at developing students' self-regulation skills.

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