

Styles of Self-Regulation of Learning Activities of University Students

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ABSTRACT

The relevance of the study is largely due to changes in the country's education system in recent years, in particular - the transition to a two-tier system of education - undergraduate and graduate - the purpose of which is to improve learning efficiency. One feature of this system is to strengthen the role of independent educational activity of students enrolled in this program. In this regard, the growing interest to the organization by students of their time, the ability to self-set goals, analyze solutions the way to reach them, which, in turn, determine the success of the training activities. That is, the level of self-regulation is having a major impact on the success of the training. The article aims to study the style features of self-regulation of students. The leading approach to the study of this problem is the subject-activity approach, allowing to reveal representations of the functional structure of the system of self-conscious arbitrary human activity. The article defines the styles and levels of self-regulation activities of the students; identified formed skills of the group of students with a high level of self-regulation; revealed the relationship between styles of self-regulation and the level of subjective control and volitional qualities of students. Article may be useful in the work of teachers, psychologists to optimize learning processes and the development of self-regulation of a personality.

KEYWORDS

Self-regulation, self-regulation activity indicators, volitional qualities, style features of self-regulation of students.

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Introduction

In modern conditions the role of self-educational activity of students strengthens. Students' interest to the organization of their time, their own ability to set goals, analyze the solution path to reach them increases, which, in turn, determine the success of the training activities. That is the level of self-regulation having a major impact on the success of the training. This statement

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is confirmed by the results of studies in which it is pointed out that student's work was effective, its level of self-regulation should be sufficiently high (Paul, Pintrich and De Groot, 2000; Kolesnikova, 2012). Correlation of academic achievement and self-regulation was found by V.N. Neverov (2012). Also in the course of the study by V.N. Neverov (2012) it was found that there are specific differences in the level of development of self-regulation components among students of different specialties, namely belonging to the "people - people" type and the "man - a sign system." It was also found that the complex of personality traits that affects the overall level of self-regulation is different in specialties studied.

An important condition in ensuring the effectiveness of educational activity of students is the ability to set goals. In the structure of goal-setting of students a special place occupies the ability to take the learning objectives and actively aware of them, evaluate them and within themselves experience them emotionally as their own. A.V. Zobkov (2014) notes that students have poorly developed organizational skills - they find it difficult to organize their own work, to distribute educational tasks, carry out independent work systematically, take the initiative in carrying out educational tasks. As practice shows, the students differ significantly in terms of modeling of conditions, in the nature of choosing their preferred program of action, as the same objective can be achieved in different ways. An independent element of self-regulation is the assessment of learning outcomes. This link on the resulting information is compared with the success criteria. In order students deliberately carry out a sequence of actions, it is necessary to equip them with information on the criteria for success. To provide students with information about results, as a rule, is not difficult. However, even if such information is available, in actual practice only a part of the students improve their learning outcomes. In another part of students the results can be even worse. This is due to the fact that sometimes subjective criteria exactly match given ones, but sometimes it is necessary to formulate them by the student as they depend on the individual characteristics (Levshin, 2008). Important components of self-control of the person activity are emotions, will, locus of control, etc. (Zlokazov, 2005; Ilyin, 2009).

In addition, the effectiveness of the training is affected by formed in each student's individual style of self-activity. According to V.I. Morosanova (2007) it is impossible to ignore the diversity of individual differences in the nomination process and the adoption of the subject purpose of the activity, so it is now quite a lot of attention paid to the study of the style features of self-regulation. The phenomenon of self-style is manifested in how a person plans and programs to achieve goals in life, takes into account the significant external and internal conditions, evaluate results and adjust their activities to achieve a subjectively acceptable results, including the extent to which self-organization is developed and aware.

Currently, the domestic science points to the importance of self-regulation in the professional activity. This problem is studied in the works of V. Barkova and G.I. Korchagina (2013). They consider components of the system of a successful self-regulation of professional activity and note that "professional work can only be successful if there is an adequate level of self-regulation mechanisms: motivation, information, program, reflective with the focus on professional reliability and reflective with the focus on professional self-worth."

This study confirms the importance of self-regulation in the development of the profession, the initial stage of which is the acquisition of knowledge in the educational activity.

It should be noted that the development of self-regulation, formation of optimum style is an important task. The mastery of the profession depends largely on the degree of perfection of self-regulation process. Ability to organize learning process that allows to generate the optimal style of self-regulation that enhances the effectiveness of student learning is an important pedagogical and psychological problem. All the above listed determines the relevance of the study of the characteristics and styles of self-regulation of students.

Materials and Methods

Empirical research methods

Quantitative methods of collecting information: questionnaire "Style of self-regulation of behavior" by V.I. Morosanova and R.R. Sagieva (2004); questionnaire "Maturity of skills of self-regulation of activity" by A.K. Osnitsky, N.V. Bayakova and S.V. Istomina (2012), "The questionnaire of diagnosis of volitional qualities of personality" by M.V. Chumakov (2004), a questionnaire "The level of subjective control" by George Rotter in adaptation of E.F. Bazhin, E.A. Golyunkina & A.M. Etkind (2001). Mathematical methods of processing statistics (Pearson correlation coefficient, nonparametric U - Mann-Whitney).

Base studies and sample description

To achieve its goals and objectives the empirical study was conducted on the self-control of educational activity, which was conducted during the 2014-2015. This study involved 93 students from the Vyatka State Humanitarian University, Vyatka State Agricultural Academy, the Ural State Law University, St. Petersburg State Electrotechnical University (70, 97% - girls, 29.03% - boys). The sample included students from 1 to 4 courses: 26.89% - representatives of the first year, 16.1% - from the second year, 30.11% - from the third year and 26.89 - the fourth-year students. The average age of the sample - 20 years, standard deviation - 2.

Subject-activity approach in the study of self-regulation

Our study is based on the works of the domestic psychologists in which the person appears as the subject of his arbitrary activity. Subject-activity approach directs research on the study of human integrity. The basis of this approach is formed on the ideas of S.L. Rubinstein, K.A. Abulkhanova- Slavskaya (2005), A.V. Bruschlinsky (2003), O.A. Konopkin (2008), A.K. Osnitsky, N.V. Bayakova and S.V. Istomina (2012).

V.I. Morosanova (2007) and others. In the context of the subject-active approach to the study of the psyche the particular importance in the formation of human subjectivity is attached to the processes of self-regulation. In the terms of disclosure of personal aspects of self-regulation of students we turn to the concept of V.I. Morosanova, who proved the effect of personal characteristics on the activity through individual methods of self-regulation of activity.

Results

Consider the first the results obtained using a questionnaire "Style of self-regulation of behavior." When interpreting the results for consideration of the styles of self-regulation the following scales were used: planning, modeling, programming, evaluation of results, as well as flexibility and independence. To assess the general level of self-regulation of activity the indicator «overall level of self-activity» was analyzed.

Most of the participants - 66 people from the sample - have an average level of self-regulation (this is 70.97% of the sample), 14 subjects (15.05%) have a high level of self-regulation and 13 people (13.98%) included in the group with low levels of self-control . Later in the article we will examine the differences in the styles of self-regulation of learning activities, the level of subjective control and development of volitional qualities between the groups with high and low overall level of self-regulation. Schematically, the percentage of self-regulation styles in the sample of students is presented in Figure 1.

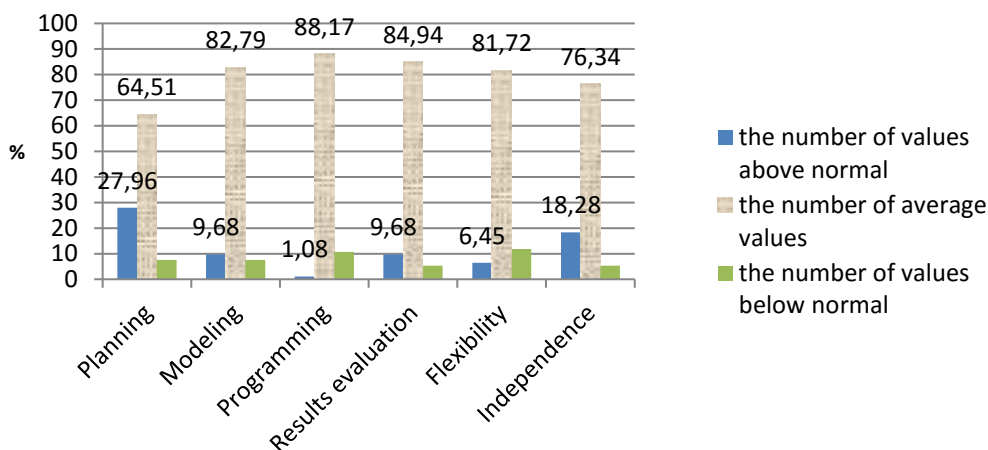


Figure 1.The ratio of self-regulation students' styles (%)

On the basis of these results one can say that for the participants in the sample as a whole it is characteristic to plan immediately before the activity, which includes the self-set goals, their holding, attention to detail, the conditions of implementation of activities. Compiled plans are realistic, sustainable, they are hierarchical, effective. Also on the grounds that the sample sufficiently pronounced the style of "independence" one can judge on the developed regulatory autonomy, independence from external conditions when performing activities. Subjects with this style of self-regulation organize their own activity, plan activities and behavior, organize work to achieve advanced objectives, monitor the progress of its implementation, analyze and evaluate the intermediate and final results of operations.

Almost there are no respondents in the group with a developed style "programming", while at the same time there is a high number of people with a low level of expression of this style. As a consequence of the weak expression of this style - the absence of a person's needs to think of ways of actions and behavior to implement the intentions of detail and deploy action plans. Students from underdeveloped style programming are likely to act impulsively, by trials

and errors. And they cannot develop their own programs of action and monitor the implementation of plans. As a result, the outcomes do not always correspond to the objectives set by earlier.

The greatest number of low values was obtained in the style "flexibility". Students with a level of expression of flexibility are of rigid behavior, they are difficult to get used to changing conditions, new environment, lifestyle. As a rule, they feel timidly, and even at a high formation of regulatory processes are not able to adequately respond to the situation, quickly and timely plan their activities, behavior, develop a program of action, highlight important conditions, to assess the discrepancy of the obtained results for the purpose of activities and make adjustments.

Besides self-regulation styles, in the study also the ability of self-regulation was studied by the procedure "Diagnosis of self-regulation skills formation of activity". Students were offered a questionnaire, comprising two forms, each of which consists of 22 claims triads. Form 1 - "negative" - contains a group of statements in the negative form. Form 2 - "positive" - contains the same allegations, but in the affirmative form. In processing the results of the answers to the first form were compared with answers from the second form. In this case the coincidence of a negative response in the form 1 with a positive response in the form of 2 was considered that the respondent confirms the ability (or especially) of self-regulation; the coincidence of a positive response in the Form 1 with a negative response in the Form 2 test denies the existence of skills and matching of negative and positive responses in both forms mean the so-called "error of reflection", indicating the inability to clearly establish at the presence or absence of self-regulation skills.

In the analysis by this method, it was found that the average number of self-regulation skills in the sample is 12.72 (it is 13.7% of all self-diagnosed skills), the average deviation is 5.36. Accordingly, the number of above-average abilities and high number of self-regulation skills included 17 (18.28%) people, i.e., those subjects whose number of self-regulation skills is above the average for the group (see. Fig. 4). Among these are 4 subjects (4.3%), who have all abilities of self-regulation using the method. Fewer skills than the average level of the group have 15 subjects (16.1%) of the entire sample of students. The lowest number of self-regulation skills, expressed in one subject, in this group - 1 out of 21 diagnosed skills. This number of skills has 1 person (1.08%) of all 93 students. This unique ability is the awareness or the perceived controllability of action.

The most common is the ability of practicality, stability in the regulation of action. It occurs in up to 70 students (75.27%). Such skills as criticality in deeds and actions (73.12%), correction of the results and methods of action (72.04%) are also frequently encountered. Less often found in the actions of the ability to care (33.33%), confidence in the actions (43.01%) and the practical feasibility of the intentions (48.39%).

Let us consider the relationship between the level and the style of self-regulation of learning activities to the level of subjective control and the level of volitional qualities.

Volitional qualities were studied using the "Questionnaire of volitional qualities." These correlation coefficients of Pearson presented in Table 1.

Table 1. Relationships of styles of self-regulation of learning activities with willed qualities in students (Pearson's test)

Scales of volitional qualities	Styles of self-regulation						The overall level of self-regulation of activities
	Planning	Modeling	Programming	Results evaluation	Flexibility	Independence	
Responsibility	,462**	,287**	,344**	,471**	-0,02	-0,18	,514**
Initiative	0,09	,303**	,337**	,255*	,525**	0,08	,544**
Determination	0,05	,386**	0,16	0,10	,437**	0,07	,371**
Independence	-0,07	0,18	0,06	,259*	0,19	,318**	,259*
Stamina	0,01	0,12	0,06	0,13	,258*	-0,19	0,15
Perseverance	0,11	,262*	0,18	0,18	,393**	0,12	,425**
Energy	0,13	,278**	,205*	,277**	,449**	-0,14	,462**
Attentiveness	0,19	,372**	,221*	,356**	0,01	-,251	,383**
Sense of purpose	,497**	,209*	,341**	,234*	,234*	0,03	,621**
Overall level of volitional qualities	,273**	,412**	,342**	,398**	,441**	-0,04	,663**

Notes
 ** -significance level $p \leq 0,01$
 * -significance level $p \leq 0,05$

Thus, the relationship between the scales of "responsibility" and "sense of purpose" with the styles of self-regulation suggests that the responsibility and commitment as strong-willed qualities of the person are included in such self-regulation styles as planning, modeling, programming and evaluation of results. That is to say, responsible, obligatory, disciplined, carefully fulfilling their responsibilities students with conscious goals in life and perseverance in achieving them, as a rule, have a need in conscious planning of activities, they have developed conscious ideas of external and internal relevant conditions. Before they act, they think through the sequence of their actions, they are rational, thoughtful, and in the course of activities they adequately assess their

behavior and actions in accordance with the criteria previously formed. Moreover, all of the above steps are carried out individually, without help, and regardless of the views of others. In addition, the "sense of purpose" is also connected with the style of "flexibility", it says, that motivated people can easily evaluate the mismatch between goals and results and, as a consequence, rapidly change their behavior, act in accordance with the changed ways of achieving goals, quickly change program of actions.

Also the connections were found between "initiative" and the styles of self-regulation. That is enterprising, active students with high leadership tendencies have developed processes of "modeling", conscious "programming", "results evaluation" and regulatory "flexibility" of behavior. They take into account internal and external circumstances of the situation, act in accordance with plans drawn up, adequately evaluate the results obtained with the standards formed, and quickly rebuilt, change the direction of activity, if not the same, as well as fast, adaptive rebuilt in a changing environment.

Such volitional qualities as "determination" and "perseverance" also have relationships with such styles of self-regulation as "modeling" and "flexibility". This is an indication that the strong, fast, confident and without hesitation people, as well as persistent and able to overcome the obstacles to achieve the goal, can easily allocate significant conditions to achieve them, which is manifested in the relevant programs of the action plan activities, and the results accepted goals. Such students have the plasticity of regulatory processes, quickly assess the changes and easily rearrange their behavior, activity.

"Energy" (active) of a person and such volitional feature as "attentiveness" are associated with such styles of self-regulation as "modelling", "programming", "assessment" of the results. On this basis, we can say that students with a high capacity for work, active, active, having an arbitrary concentration and stability of attention, have developed simulation processes, think through their actions in every detail, taking into account changing circumstances.

Overall development of volitional qualities of the students is associated with all styles of self-regulation. This ultimately determines the success of the implementation of activities with regard to the objectives, plans, programs, behaviors, external and internal conditions of the implementation of activities and changes in the external circumstances in the course of implementation of the action. Thus, considering the relationship found, it can be said that the styles and the level of self-regulation are largely linked with the strong-willed qualities of the individual student.

Let us consider the relationship between the styles of self-regulation and the level of subjective control. To study the level of subjective control students were offered a questionnaire "The level of subjective control". Next, using the Pearson criterion the correlation between internality in each of the areas and styles and overall level of self-regulation was identified. The resulting correlation coefficients are presented in Table 2.

Table 2. Relationships of the styles of self-regulation of learning activities to the level of subjective control (Pearson's test)

Scales	Planning	Modeling	Programming	Results evaluation	Flexibility	Independence	The overall level of self-regulation of activities
Total internality	,078	,112	,225*	,011	,148	,013	,215*
Internality in the field of achievements	,124	,259*	,398**	,218*	,296**	,133	,434**
Internality in the field of failures	,000	,059	,139	-,052	,091	-,046	,054
Internality in family relations	,034	,042	,117	-,083	,039	-,035	,072
Internality in the field of industrial relations	,002	,045	,194	,012	,198	,012	,191
Internality in the field of interpersonal relations	-,022	,193	,221*	,050	,325**	,025	,184
Internality in health and disease	-,069	,089	,025	,124	-,145	-,102	-,114

Notes: ** - significance level $p \leq 0,01$; * - significance level $p \leq 0,05$

Analyzing the relationship, it should be noted that the presence of direct links indicates the following: the stronger the internality, the more pronounced this or that style, and higher self-regulation as a whole. Accordingly, by increasing the externality severity of the styles reduces and the level of self-regulation is lower.

As can be seen from Table 2, the largest number of connections of self-regulation is observed with the style "internality in the field of achievements." This suggests that a high level of subjective control over emotionally positive events and situations is correlated with students' ability to highlight important conditions for achieving the goals, which is manifested in accordance of the results received. Also, the ability to see in itself the cause of all the successes and positive developments is connected to the person's need to think through his actions and behavior in order to achieve the objectives, with the actions in accordance with the detailed and deployed, independently developed and adapted to changing conditions of the program. It turns out that the internals in the field of achievements, as a rule, think through ways to achieve the goals, make up the program and evaluate their actions with the implementation of an activity. The same externalities' features are developed considerably weaker.

Relationships of the level of self-regulation with a total internality, or the level of subjective control over any significant situations and internality in achievements show the following: the more developed self-regulation of student activity, the more they tend to believe that the most important events, including the progress in their life are the result of their own actions, they can control them and, therefore, take responsibility for their lives as a whole. A low regulation, in turn, is accompanied by a low level of subjective control. Students with low self-control, as a rule, do not see the connection between their actions and significant events, which they view as a result of the actions of others or event.

A further step in the analysis was the most detailed examination of self-regulation of activity by comparing characteristics of students with different levels of development of self-regulation. To do this, two contrasting groups of subjects were identified: the first one included students with high level of self-control (14 people from the whole sample, i.e. 15.05%), the second - with low level (13 people - 13.98%). For comparison nonparametric U - Mann-Whitney criterion test was used. As a result, in these groups, there are differences in all styles of self-regulation, except "independence".

As for the strong-willed qualities, the differences are not found only in such characteristics as "stamina" and "attentiveness", while the remaining indicators of strong-willed qualities of the students are different ($p \leq 0,01$). Thus, students with high level of self-regulation are more responsible, active, determined, better control their emotions, carry the load and easier to cope with monotonous activities. They are more persistent in achieving the goal, do not depart from it, in spite of various difficulties, they are more active and energetic, purposeful.

Comparing the level of subjective control in contrasting groups there was also indicated the presence of significant differences on most scales (except for "internality in family relations", "internality in health and disease"). Thus, we can say that in the group of students with high self-regulation of activity internality is higher, both in general and in various fields.

Let us analyze the differences in the abilities of self-regulation between groups with high and low self-regulation identified by the procedure "Diagnosis of formation of skills of self-regulation." The average number of skills and standard deviations for these groups are presented in Table 3.

From the tabulated data one can see that in the group of students with high self-regulation skills the average number of skills in the sample (21 out of maximum skills) exceeds the number of skills in the sample with a low level of self-control. At the same time the average number of "reflection errors" in the sample with a high level of self-control is somewhat higher than in the group with low level. This indicates that on the one hand students with advanced regulatory processes have better developed specific skills of self-control, on the other hand - those with high levels of self-control can less able to accurately determine the severity or lack of specific skills of self-regulation.

Thus, in the group of students with high self-regulation skills are more pronounced than in the group with a low level of self-control. This is confirmed by comparing the results with the application of the criterion U - Mann-Whitney test ($r = 13,5$; $p \leq 0,01$).

Table 3. Average number of skills and self-regulation and "reflection errors" in the groups with low and high levels of self-control (method of "Diagnosis of skills of self-regulation of activity").

Group with a high level of self-regulation				Group with a low level of self-regulation			
Thenumberofskills		The number of "errors of reflection"		Thenumberofskills		The number of "errors of reflection"	
Average in the sample	Standard deviation	Average in the sample	Standard deviation	Average in the sample	Standard deviation	Average in the sample	Standard deviation
16,21 (77,2%)	4,44	3,57 (17%)	2,92	6,77 (32,24%)	5,0	5,38 (25,62%)	3,78

Most often in the sample of students with high self-regulation meets the ability to "correction of the results and methods of action." It is also more pronounced: "action programming", "goal-setting", "modeling", "provision of the regulation as a whole", "criticality to the deeds and actions," "responsibility for deeds and actions" and "practicality in the regulation of actions" (Figure 2.).

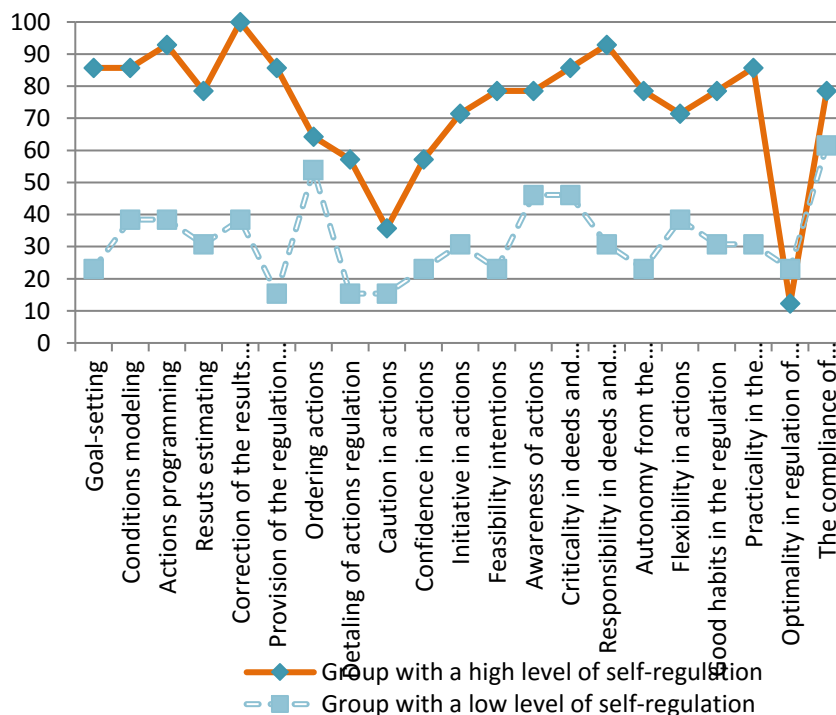


Figure 2. Severity of self-regulation skills in the groups with high and low self-regulation (Diagnosis of skills of self-regulation of activity"),%

Thus, in the group of students with a high level of self-regulation the severity of volitional qualities is higher than in the group of students with a low level of self-regulation. Also indicators of internality and severity of self-regulation skills predominate in the sample with formed self-regulation. It is important to note that people with high self-regulation can more accurately determine the severity of each individual skill of self-regulation activities.

Consider how different the level of self-regulation, the severity of styles and volitional qualities in the learning process at the university. Accordingly, the analysis will consider the differences between the groups, which included students of the first and fourth years. We assumed at the beginning of the research that graduate students have more developed regulatory processes and volitional qualities.

The differences only on the scale of "attentiveness" were found in volitional qualities ($r = 203,5$; $p \leq 0,05$). On this basis, we can say that the fourth year students are more capable of any concentration and can be long enough to hold the attention, if necessary, even if the activities are not very interesting for them. In terms of internality differences are not expressed except for "internality in failures" ($r = 202,5$; $\leq 0,05$). In the group of the fourth year students internality of failures is higher than the first-year students.

Turning to the hypotheses of this study, it can be noted that the statement that the styles and level of development of self-regulation of behavior and volitional qualities of personality of student are interconnected, can be considered fully proven. It is also partially supported the hypothesis about the relationship of the level and the styles of self-regulation with the level of subjective control. The suggestion about change of the styles and level of development of self-regulation, volitional qualities in students during training at the university is confirmed partially

Discussion

In recent years interest to the problem of psychic self-regulation has increased significantly. The study of self-regulation in terms of the subject-activity approach is currently being implemented by O. A. Konopkin (2008), G. S. Prygina (2009), O. A. Cherkashina (2010), V. N. Neverov (2012); Y. V. Barkova and G. I. Korchagina (2013); E. P. Ivutina and E. M. Vinogradova (2014) and others.

Thus, the problem of psychic self-regulation has been studied in theoretical terms well enough, but at the same time, its practical aspects are underrepresented with regard to the students.

The introduction of a specialized multi-level system of self-regulation of the learning activity in university can greatly enhance the effectiveness of training and have a positive impact on the quality and level of education.

Conclusion

The problems of self-regulation of the learning activity of students are essential in today's world. This is determined by the fact that the development of this ability has a huge impact on the implementation process, the success and

effectiveness of the training activities in general, which in turn is the key to mastering by students of their future profession, forming professional skills.

The study determined the level and styles of self-regulation, self-regulation skills, the level of subjective control and development of volitional qualities of students. In the process of results analyzing of the study methods of quantitative data were used (Pearson correlation coefficient, nonparametric criterion of U - Mann-Whitney), as well as qualitative analysis of the results.

As a result, it has been revealed the relation of the style and levels of self-regulation of learning activity on the level of subjective control and development of volitional qualities in students, as well as differences have been studied according to the parameters of students of different courses.

Recommendations

Materials of the article may be used in the work of teachers, psychologists to optimize learning processes and the development of self-regulation. The results of empirical research may serve as a basis for the development of guidelines and training for the development of self-regulation, willpower, and other individual characteristics of the student's personality.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Abulkhanova-Slavskaya, K. A. (2005). Principle subject to the national psychology. *Psychology. Journal of Higher School of Economics*, 2(4), 3-21.
- Barkova, Y. V. & Korchagina, G. I. (2013). Psychological mechanisms of self-regulation of successful professional activity of a person. *Bulletin of the Vyatka State University of Humanities*, 3(1), 159-166.
- Bazhin, E. F., Golyukina, E. A. & Etkind, A. M. (2001). Diagnosis of Internal partial positions. Direct access: <http://vsetesti.ru/7/>
- Brushlinsky, A. V. (2003). The psychology of the subject. St. Petersburg, Publishing House: Aletheia, 242 p.
- Cherkashina, O. A. (2010). Formation of mechanisms of self-regulation of students in the educational activity. *Scientific notes of the Russian State Social University*, 3, 181-185.
- Chumakov, M. V. (2004). Questionnaire of diagnostic of volitional qualities of personality. Yaroslavl, Publ: SPC "Psycho.", 277 p.
- Ilyin, E. P. (2009). Psychology of will. St. Petersburg, Publishing house: Peter, 304 p.

- Ivutina E. P., Vinogradova EM (2014). The relationship of responsibility and self-regulation of behavior in adolescence. Psychology of the XXI century. *Proceedings of the International Conference of Young Scientists, 17-19 April 2014*, 166-168 pp. St. Petersburg, Russia, St. Petersburg University.
- Kolesnikova, E. I. (2012). Personal and valuable aspects of self-regulation of educational process at the university. *Bulletin of the Samara Humanitarian Academy. A series of "Psychology"*, 1(11), 9-26.
- Konopkin, O. A. (2008). Conscious self-regulation as a criterion of subjectivity. *Questions of Psychology*, 3, 22-34.
- Levshin, S. V. (2008). The student as the subject of deliberate self-regulation of learning activities. *Science. Innovation. Technology*, 1, 25-30.
- Morosanova, V. I. (2004). The questionnaire "Style and self-regulation of behavior. Moscow, Publishing House: Cogito center, 288 p.
- Morosanova, V. I. & Sagieva, R. R. (2007). Individual self-regulation and the nature of man. *Questions of Psychology*, 3, 59-68
- Neverov, V. N. (2012). Psychological structure of conscious self-regulation of students of different types of specialties. Direct access: <http://sisp.nkras.ru/e-ru/issues/2012/3/neverov.pdf>.
- Osnitsky, A. K., Byakova, N. V. & Istomina, S. V. (2012). The study of development of conscious self-regulation during the selection and development of the profession. *Psychological research* 2(22), 11.
- Paul R. Pintrich & De Groot E. V. (2000). Motivational and Self-Regulated Learning Components of Classroom Academic Performance. *Journal of pedagogical psychology*, 82(1), 33-40.
- Prygin, G. S. (2009). Independence Psychology: monograph. Naberezhnye Chelny: Publishing House of the Institute of Management, 287 p.
- Rean, A. A. (2001). Practical psycho diagnostics of personality. St. Petersburg, Publishing House: Peter, 304 p.
- Rubinstein, S. L. (2007) Being and consciousness. Moscow, Sofia, 344p.
- Zlokazov, K. V. (2005). Multidimensional functional analysis of self-identity: PhD Thesis. «Ural State Pedagogical University." Ekaterinburg, 214 p.
- Zobkov, A. V. (2014). Psycho-akmeological concept of integrative and dynamic self-regulation of activity of actors: Master's Thesis. Kostroma, 122 p.