

SELF-EFFICACY IN SELF-REGULATED STUDENT LEARNING


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ABSTRACT

The manuscript presented here reports the theoretical aspects of the concepts and empirical research of self-efficacy of students in self-regulated learning, which is considered as a person's individual belief and ability to perform a particular task, the ability to manage and determine individual behaviour, and it affects individual feelings, thoughts, motivation, and behaviour. The purpose of self-efficacy is to identify and realise such components of learning as content, meaning, proper methods, problems and ways of solving them, and results of educational activities. We consider self-efficacy in self-regulated learning as an essential factor in the self-realisation of student youth because, thanks to it, students make sense of information, formulate results, determine work goals, and edit their own educational plans. In this case, self-efficacy acts not only as the result of self-regulated learning activity but also as the initial link of the educational process.

With the use of the Generalised Self-Efficacy Scale (GSES) by R. Schwarzer and M. Jerusalem, the quantitative characteristics of self-efficacy levels of students of the first and fourth years were determined. The levels of student self-regulation were evaluated with the use of the questionnaire "Styles of self-regulation". The results of the correlation between self-efficacy and self-regulated learning were also presented. Based on the theoretical analysis of scientific literature and the results of empirical research, it was concluded that self-efficacy and self-regulation of educational activities significantly affect students' academic performance. There is a positive correlation between the evaluated variables of self-efficacy and self-regulated learning. It was also concluded that students with high self-efficacy are better prepared to choose complex tasks that require theoretical knowledge and analytical activity, unlike students with low self-efficacy and the ability for self-regulated learning.

Keywords: self-efficacy, learning, self-regulated learning, students



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INTRODUCTION

Modern requirements for higher education are characterised by a continuous change in requirements for priorities and values. In recent years, there has been an increase in scientific interest in studying the phenomenon of “self-efficacy” in educational activities. This is because the ability to reach success is a fundamental skill that must be mastered by students studying in higher education institutions. It is worth noting that self-efficacy plays a crucial role in learning activities. The purpose of self-efficacy is to identify and realise such components of learning as content, meaning, proper methods, problems and ways of solving them, as well as the results of educational activities. It helps students make sense of information, formulate results, determine work goals, and edit their educational plans. In this case, self-efficacy acts not only as the result of educational activity but also as the initial link of the educational process.

Personal self-efficacy in self-regulated learning can improve the adaptive capabilities of the subject of educational activity and those basic personal qualities that determine success in learning. An important role in this process is played by self-efficacy as a process and as a factor in the success of such activities. There is a need to investigate the correlation of personal and cognitive qualities that, in interaction with the regulatory ability and the ability to reflect, ensure the success of students’ learning.

It is worth noting that, in general, there is a lack of theoretical and empirical research on the phenomenon of self-efficacy, in particular, regarding the youth of student age; issues of influence of various factors on the phenomenon of self-efficacy are insufficiently studied, and there is a lack of scientific research that would reveal the age-related determinants of this phenomenon. This determined our interest in the theoretical study and empirical research of the phenomenon of self-efficacy and its peculiarities among students. This is what motivated us to theoretically analyse and empirically estimate the relationships between self-efficacy and self-regulated learning, as well as their correlation with the success of students’ learning activities.

LITERATURE REVIEW

The analysis of the psychological and pedagogical literature on the individual’s self-efficacy problem proved a rather general and insufficiently structured level of its development, which in general cannot be considered sufficient for understanding the specifics of the studied phenomenon.

The concept of self-efficacy was first introduced in the late 70s of the last century. This concept was a part of Albert Bandura’s socio-cognitive theory, according to which a person’s psychological functioning could be described in terms of the continuous interaction of three groups of factors, particularly behavioural, cognitive and environmental factors. According to the approach developed by the author, a person was, to a certain extent, free from the control of external forces (reinforcements). At the same time, they could not be considered free beings who could do whatever they wanted. The scientist paid considerable attention to the interaction of behavioural reactions and the factors related to the environment, which was a dynamic process in which cognitive and personal components organising and regulating human activity played a central role. Bandura not only introduced this concept into scientific circulation but also revealed its essence and role in the personal growth of every person (Bandura, 1993).

Self-efficacy cannot be considered identical to our expectations regarding the results or consequences of our actions. It will be more accurate to say that self-efficacy is a person’s confidence that they can perform some specific actions. At the same time, outcome assumptions refer to what they think about the possible consequences of their actions.

At the same time, self-efficacy is not a global concept, that is, one that determines the system of value attitudes of an individual towards themselves. It varies from situation to situation depending on the skills required for different activities. It depends on the presence or absence of other people; on what we think of the abilities of these other people, especially if we consider them more skilled than ourselves; on our tendency to fail rather than succeed, and on our physical state, especially when we feel tired, anxious, apathetic, or depressed (Graziano & Raulin, 2000).

Self-efficacy is a product of a complex process of self-belief, which occurs based on the cognitive processing of various sources of information about one’s own effectiveness, the main ones being direct experience, mediated experience, public opinion, physical and emotional state (Chen, 2002).

German psychologists M. Jerusalem and R. Schwarzer clarified and expanded the concept, significant-

ly contributing to the development of self-efficacy research methodology (Schwarzer & Jerusalem, 1995).

For a better understanding of the phenomenon of self-efficacy, let us consider its main components. First, it is a cognitive component, the one that reflects individuals' perception of their own effectiveness. It affects decision-making and manifests itself in a variety of general abilities, including academic achievement. In the process of interaction with others and various activities, each person constantly forms ideas about themselves that are changed, enriched and clarified from time to time.

Secondly, the emotional component is expressed in the individual's attitude to their effectiveness. Within the emotional component, low self-efficacy is associated with depression, anxiety, and feelings of helplessness. Such individuals often have low self-esteem and pessimistic thoughts about their own achievements. Conversely, high self-efficacy is accompanied by confidence in oneself and one's abilities, more or less adequate self-esteem, and developed self-respect.

Third, is the behavioural component. According to A. Bandura, self-efficacy is the primary (central) determinant of human behaviour, which is reflected in people's judgments about their abilities to organise and perform all those actions necessary to achieve the predetermined types of activity results. Therefore, even though certain actions will lead to self-satisfaction and respect from others, a person may not perform these actions if they are not sure they will be able to perform them well enough. Therefore, the theory of self-efficacy can be considered as a motivational theory, in which the source of understanding motivation is not the value (attractiveness) of a successful result and not the expectation of success, but the belief in one's ability to be successful in a certain type of activity (Bandura, 1993).

Self-efficacy can increase or decrease motivation to take active actions, especially in difficult situations. People with high self-efficacy prefer tasks that are more challenging; they set goals that are more difficult for themselves and work harder towards fulfilling them. A. Bandura did not single out individual types of self-efficacy, although he repeatedly pointed to its situation-specific nature. The modern researcher of this issue, D. Shaposhnyk, as a criterion for distinguishing different types of self-efficacy, singled out those psychological features of the subject that will be productively implemented by him in certain types of activity and, in relation to which his self-awareness in general is actualised, and self-efficacy is formed in particular. Based on some previous studies, the scientists distinguished operational, communicational and personal self-efficacy in the professional sphere of a psychologist (Shaposhnyk, 2011).

Operational self-efficacy in the professional sphere is a persons' perception that they have the necessary knowledge, abilities, and skills, effectively possess professional technologies, and the confidence that they will be able to use them productively in their activities. *Communicative self-efficacy* in the professional sphere is a person's perception that they have such communicative potential and experience that allows them to be competent in professional communication, combined with the confidence that they will be able to implement them effectively in situations of interaction with other people, using the means of communication adequate for these situations. *Personal self-efficacy* in the professional sphere is a combination of a person's ideas about the presence of professionally important qualities and the confidence that in situations of professional activity, they will be able to actualise and skilfully use a complex set of these qualities as their professional tool, which ensures the successful performance of the set tasks. The scientist noted that personal self-efficacy cannot be considered one of many professionally important qualities; on the contrary, it is one of the most significant integrative psychological characteristics. Therefore, it is inappropriate to attribute it neither to mental processes nor to mental qualities in their traditional sense. Personal self-efficacy is interpreted as a professionally valuable "meta-strength". Thus, it cannot exist before a person develops a set of professionally important qualities that will potentially contribute to a successful activity. First, these qualities must be developed so that later personal self-efficacy appears as an idea about them and the confidence that they can be successfully used at work. Among students, it begins to form only as they perform educational and professional activities and pass all stages of university training, provided that they gradually accumulate their own professional experience, primarily by including it in the system of practices (Balashov, 2018).

According to H. Agustiani's theory, self-efficacy belongs to the phenomenon of self-attribution, namely to its evaluative component (in addition, the emotional-valuable component of self-attribution is also distinguished). The formation of self-efficacy, or "a sense of competence", according to the scientist, occurs at the intersubjective level of assessment in the form of social comparison operations or comparison with norms and standards developed in society. This subsystem is based on the assessment of one's own effectiveness in achieving the set goals, on the comparison of one's own achievements with social standards, successes and assessments of other people (Agustiani et al., 2016).

Scientists consider self-efficacy as a cognitive predictor of motivation to achievement. They emphasise the influence of self-efficacy on motivation to achieve and formulate a holistic generalising model of the process of motivation of activity, which consists of four main blocks: motivational, cognitive, emotional and behavioural. The cognitive block is a subsystem that includes such constructs as perceptions of personal responsibility for successes and failures, and belief in one's own abilities to perform certain activities and expectations (Pintrich & DeGroot, 1990).

Self-efficacy plays a vital role in student age because successful activities during this period depend not only on general intellectual development, abilities, interests and motives but also on the student's faith in themselves, their own efficiency and capacity (Balashov et al., 2016). The study of the influence of self-efficacy on learning motivation and the effectiveness of educational activities (academic achievements) proved that those who have a high sense of the effectiveness of their own educational activities would work harder and harder, participate more actively in educational activities, and show more perseverance when facing difficulties, than those who would have doubts about their abilities. Perceptions of self-efficacy affect the quality of performance of complex cognitive tasks. Students who are confident in their effectiveness when performing complex tasks that require special knowledge and the development of optimal strategies develop, and check strategies more analytically and also perform stressful memory tasks more successfully. Self-efficacy also contributes to the successful social functioning of an individual (Balashov, 2017).

During the period of study at a higher educational institution, high self-efficacy will contribute, in our opinion, to the disclosure of the student's creative and intellectual capabilities, the formation of their professional and worldview qualities, and will contribute to the formation of a positive self-concept (Pasichnyk et al., 2014).

According to A. Bandura's theory, the level of self-efficacy will determine how much effort a person will make and how long they will be able to resist obstacles, withstand hostile circumstances and unpleasant experiences. The higher the expectation of efficiency or mastery, the more active the effort becomes. People who consider themselves incapable of success are more inclined to mentally imagine unsuccessful scenarios and focus on the fact that everything will be wrong. Conversely, people who believe in their ability to solve a problem will persevere in achieving their goals despite obstacles and will not be prone to self-criticism. Such people mentally imagine successful scenarios that provide positive guidelines for effective behaviour, as well as consciously plan and rehearse successful solutions to various problems. The student's level of personal efficiency will significantly affect various areas of his activity. For example, this may be reflected in the fact that students with high self-efficacy would receive higher grades in their studies, set higher goals for themselves, consider more career options, be more successful and generally have better physical and mental health than those with low self-efficacy (Bandura, 1993).

However, excessively inflated (which has substantial discrepancies with reality) confidence in oneself and one's abilities is also harmful. According to R. Sternberg, people with excessively high self-confidence lose the ability to recognise the moment when it is necessary to admit their mistakes or do something for their own improvement. As a result, progress in such people is much slower than is objectively possible. As for low self-efficacy, it can lead to the fact that the students will not be able to effectively solve the tasks set before them because they will direct their own doubts towards the work (Sternberg, 1998).

As mentioned above, self-efficacy is largely related to the motivational sphere of the individual. The motivation for educational and professional activities is of great importance during the student period because it directly affects the quality of professional training and the formation of a professional's personality. The motives of educational activity include cognitive, professional, motives of creative achievement, broad social motives such as motives of personal prestige, motives of preserving and increasing status, motives of self-realisation, motives of self-affirmation, and material motives.

An essential motivational factor in the effectiveness of students' learning and professional activity is the motive of achieving success. To a greater extent, this motive would guide students with a high level of self-efficacy. The need for achievement could be experienced by the student as a desire for success, a focus on improving the results of any business he undertakes. It could also be reflected in inclusion in the achievement of distant goals, in obtaining unique, original results both in the product of activity and in ways of solving the problem. The need for achievements stimulates the individual's search for situations in which they could feel the satisfaction of achieving success. Since the educational situation (regular classes, tests, exams, etc.) contains many opportunities to achieve a higher level, it is quite likely that individuals with a high need for achievement will feel more satisfaction from learning, put more effort into the learning process, which will lead to more high results in learning (Pintrich & DeGroot, 1990).

Students with low self-efficacy would be primarily focused on avoiding failure. As a rule, a strong focus on avoiding failure is reflected in a low need to improve the achieved results, a preference for standard means, and a fear of creativity. Students with a predominant motive of avoiding failure could be characterised by increased anxiety and a non-constructive attitude towards learning (defensive attitudes towards educational activities are more often manifested). They would tend not to study for the satisfaction of academic achievement but rather to avoid the unpleasantness associated with failure (Schunk, 1991).

In the period of adolescence, the need for self-affirmation, which is reflected in a person's desire to influence other people, to be authoritative and convincing, acquires great importance. It can also be presented in the desire to prove the truth to others, to be a winner in sports, and to impose one's views, tastes and style on others. Realising the need for self-affirmation should be much easier for students who have self-confidence and their abilities, which in turn would lead to increased satisfaction in learning, facilitate its process and contribute to increased responsibility for learning (Zimmermann et al., 1992).

Self-esteem is of great importance for successful self-realisation, which will largely depend on a sense of one's own competence. Studies have found that the instability of self-images and thoughts about oneself is typical for adolescents with low self-esteem. They tend to distance themselves from others, playing different roles, in order to make a better impression. Young people with low self-esteem are too sensitive to anything that affects their self-esteem. They react more strongly than others do if they fail at something at work or if they find some fault in themselves. As a result, many of them are characterised by shyness, the tendency to mental isolation, and withdrawal from reality into the world of dreams. The lower the level of self-esteem of an individual, the more likely they are to suffer from loneliness. By definition, self-efficacy is a person's individual belief and ability to perform a certain task. In other words, it is the ability to manage and determine individual behaviour. Self-efficacy affects individual feelings, thoughts, motivation, and behaviour. That is, a person's inner faith affects their personal abilities and decisions. According to the conclusions made by scientists, self-efficacy affects the choice of activities, the level of student effort in learning, and the individual level of productivity (Young, 2005).

Students with a higher level of self-efficacy can better define their learning goals than those with a lower level of self-efficacy. Research has shown that self-efficacy can be used as a predictor of the use of self-regulated learning in learning strategy selection (Pintrich & Garcia, 1991). For example, the research shows that students with high self-efficacy are able to use self-regulatory strategies in a variety of ways to facilitate the learning process and increase its level of effectiveness compared to those with low self-efficacy. In addition, self-efficacy has been found to be positively correlated with student success and academic performance (Vanderstoep et al., 1996).

Self-regulated learning involves activities aimed at achieving learning goals, according to which students analyse, change and effectively manage their learning. B. Zimmerman (1994) emphasised that an individual who used self-regulation must use specific strategies in the learning process to achieve the set goals.

According to P. Winne, self-regulated learning includes two main stages, each of which has constructive and metacognitive aspects. The first stage consists of trying to understand the task, formulate goals and create an action plan to achieve the set goals. The students reflect on their knowledge, evaluate their own skills and motivation, identify potential difficulties, determine the means necessary to complete the task, as well as their own strategies, which are analysed and evaluated - and ultimately choose the most useful for the completion of the learning task (Winne, 2017).

Students, who use self-regulation in learning, apply strategies that are considered appropriate for achieving learning goals and monitor their effectiveness. Regarding the assessment of personal development, students who use self-regulation estimate personal success in achieving expected goals or outcomes. If they fail to achieve the intended learning goals, then both the goal and the learning strategy need to be revised. However, if the educational goals have been achieved, such students set a new goal and plan further educational activities more effectively. Studies have shown that students who do well academically are more capable of self-regulation than those who perform poorly academically (Wolters & Pintrich, 1998).

METHOD

The above determined the choice of the research goal, namely, to find out the relationship between self-efficacy and self-regulation in learning. The study includes the answers of 102 students of the first and fourth years of the National University of Ostroh Academy.

The empirical research of the level of student self-efficacy was conducted with the use of the Generalised

self-efficacy scale (GSES) by R. Schwarzer and M. Jerusalem (1995). Components of student self-regulated learning were measured with the use of the Questionnaire “Style of Self-Regulation of Behaviour” (Questionnaire..., 2014), and the levels of self-regulation were evaluated with the use of the questionnaire “Styles of self-regulation”.

Graziano and Raulin (2000) believed that correlational research should perform several important functions: 1) each result of a sequential relationship can be used to predict future events; 2) consistent or contradictory data are clarified during such research. Based on these descriptions, the data obtained in this study were analysed using statistical methods and correlation calculations. The empirical results received from the use of the two questionnaires were correlated with Pearson r-coefficient.

RESULTS

Based on the results of the conducted empirical research, we can analyse the peculiarities of the psychological categories of self-efficacy and self-regulation that were analysed, the presence or absence of a correlation between them and draw the necessary conclusions, correlating them with other experimental and theoretical studies in this field.

We will begin the analysis of the conducted empirical research with the consideration of the results to the self-efficacy levels of students of the first and fourth years obtained with the use of the Generalised self-efficacy scale (GSES) by R. Schwarzer and M. Jerusalem. Data on the results of this evaluation are presented in the table. 1.

*Table 1.
Quantitative characteristics of self-efficacy levels of students of the first and fourth years according to the Generalised self-efficacy scale (GSES) by R. Schwarzer and M. Jerusalem*

Self-Efficacy level	Students, %	
	1 st year	4 th year
High	9,8	3,0
Average	54,9	58,8
Low	35,3	38,2

As can be seen from table 1 and figure 1, the students of the first and fourth years possess an average level of self-efficacy. However, this indicator slightly prevails among senior students (the difference is 3.9%). 35.3% of the first-year students and 38.2% of the fourth year students have a low level of self-efficacy, which increases with the maturity of the students. A high level of self-efficacy was found in 9.8% of the freshers, and it decreased to 3.0% among the graduates. In general, these are good indicators that prove that a significant part of students can correctly assess their abilities and capabilities, believe in achieving their own goals and are ready to make the necessary efforts for this. However, a low level of self-efficacy is comparatively high among the freshers, and it increases with the years of studying. This is a rather alarming fact, as it proves the increase of the level of internal contradictions, inconsistencies, a feeling of insecurity and self-doubt, which certainly affects the general well-being and learning efficiency of such students.

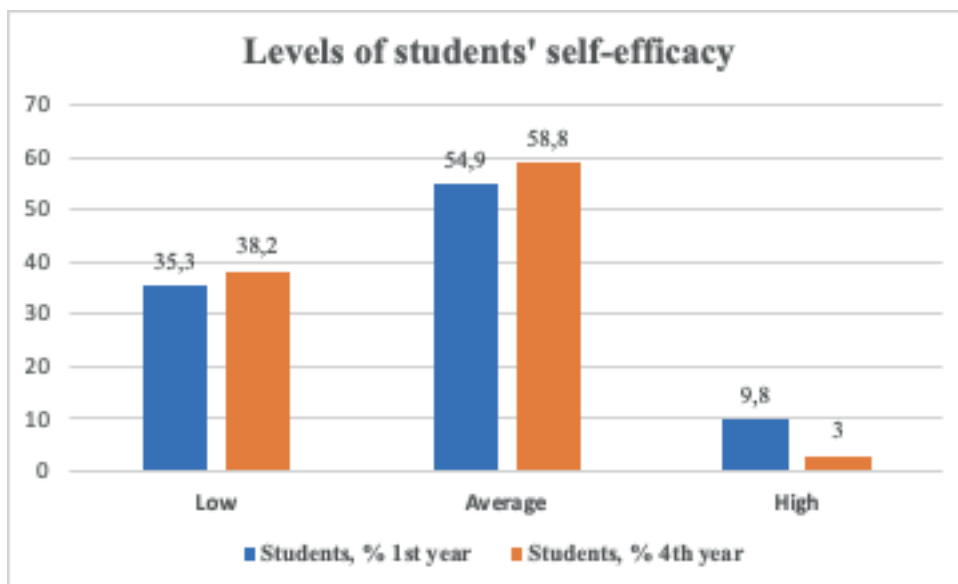


Figure 1. Levels of students' self-efficacy

Analysing the responses regarding the general self-efficacy scale filled out by the respondents - freshers, we noticed that most often, the respondents had difficulties with agreeing with such statements as: “it is quite easy for me to achieve my goals”, “in unexpected situations I always know how to behave” and “if when a problem arises, I usually find several options for solving it”. At the same time, there were statements that the majority of older students marked as “absolutely correct”, among which there are: “if I try hard enough, I will always find a solution to even a difficult problem”, “if I put in enough effort, I will be able to solve most problems”. Such students’ responses allowed us to conclude that they are largely afraid and made to doubt their own effectiveness by unexpected situations and the need to look for several options for solving the problem. This may result from insufficient life experience and the desire to avoid failures and unfamiliar situations. In addition, it may be related to an insufficient level of their self-belief, which forces them to adhere to the ways of behaviour they already know. At the same time, older students believe that their efforts and efforts will enable them to overcome obstacles and achieve their desired goals. This indicates the readiness of most graduate students for work, self-improvement and professional growth, which is very important during university studies and later professional activities.

Now let us consider how different levels of self-efficacy can affect students’ learning. A high level of self-efficacy in students can be expressed in the fact that they will put more effort into completing necessary tasks, will set goals that are more difficult for themselves and persistently move towards them, will be directed to success, which will lead to a good result and promote self-esteem.

Between both groups of students, there are those characterised by low self-efficacy. Students with low self-efficacy are more likely to focus excessively on their shortcomings and be overly critical of their competence. Low self-efficacy can also be expressed as the expectation of failure, which will lower motivation and prevent the student from showing their real potential. Students are not yet familiar with various aspects of their profession, and it is even more difficult for them to navigate in their chosen field.

The results of an empirical study of the correlation between self-efficacy and self-regulated learning are presented in Table 2.

Table 2. - Results of correlation between the styles of self-regulation and self-efficacy of students

Style of self-regulation	Self-efficacy
Planning	0,401*
Modelling	0.277**
Programming	0.016
Evaluation of results	0.262**
Independence	0.484*
Flexibility	0.442*
Reliability	0.155**

* $p < 0,5$, ** $p < 0,01$

It is easy to notice that the highest positive correlation coefficients are between self-efficacy and independence (0.484), flexibility (0.442) and planning (0.401). This proves that the higher the level of self-efficacy of respondents, the more effectively students use planning, independence and flexibility in their learning activities.

The coefficients of correlation between self-efficacy and modelling (0.277), evaluation of results (0.262) and reliability (0.155) of students confirm the existence of a positive interdependence between self-efficacy and these indicators. This, in turn, means that the higher the level of self-efficacy of the respondents, the higher use of modelling, evaluation of results and reliability is used at the student learning activities and vice versa.

No correlation has been confirmed between self-efficacy and programming (0.016). This result proves that there is no relation between self-efficacy and programming in the students' self-regulated learning, which proves this indicator of self-regulation to be the least important for the academic performance of our sample.

Overall, we can conclude that there is a positive correlation between the self-efficacy of students and most indicators of their self-regulation in learning activities.

DISCUSSION

Based on the statistical analysis of the data obtained in our empirical research of self-efficacy and self-regulation of students, we can state that there is a positive correlation between self-efficacy and such variables of self-regulated learning of students as independence, flexibility, planning, evaluation of results, modelling and reliability. Thus, the higher the respondents' score on one of the studied variables of self-regulation, the higher the respondents' score on self-efficacy, or vice versa.

Our results align with F. Pajares (1996) suggested that self-efficacy affects several aspects that determine students' learning motivation, such as activity selection, effort level, persistence, and emotional responses. According to the scientist, students would perform the tasks they understand and prefer to participate in such activities, which, according to the author, would not exceed their capabilities. Students with high self-efficacy would not give up when faced with problems but would maintain the effectiveness of their learning behaviour or try solving the problem in other ways and by other means.

D. Schunk (1991) stated that individuals with high task self-efficacy would work harder and longer when faced with obstacles, while individuals with low self-efficacy would tend to give up on the task. In the context of this study, the author argued that students with high self-efficacy continue to work hard to understand the material if they have problems, and this conclusion supports the results of our research. Unlike students with low self-efficacy, such students will try to reread the topic, find information from other sources, or consult with the teacher in the classroom. On the other hand, students with low self-efficacy would tend to give up and stop learning when they have difficulty understanding a subject because they are unsure of their abilities. When insecure about their ability to understand a subject, they will experience learning difficulties. That is, they would tend to believe that any effort they make will not help them learn the subject.

P. Winne (2017) stated that students with high self-efficacy are better prepared to choose complex tasks and try to achieve educational goals, unlike those with low self-efficacy. Thus, students with high self-efficacy would have a high level of self-regulation of learning activities, which is partly reflected by the results of our empirical study, when self-efficacy positively correlates with almost all scales of student self-regulation, while students

with low self-efficacy would be prone to ineffective self-regulated learning.

In our research, we also discovered a positive correlation between self-efficacy and independence of students in self-regulated learning. This trend is consistent with the theoretical analysis and conclusions of the research of W. Matcha et al. (2019), who proved that students that were more successful and used more self-regulated strategies, control the learning environment according to learning needs, seeking help from teachers when needed.

CONCLUSIONS

The results of our theoretical study confirm that self-efficacy is an important personal characteristic, which is expressed in the feeling of one's own competence and efficiency, as well as in the belief in one's own abilities to cope with the tasks, challenges and difficulties arising during the process of execution of those tasks. This phenomenon includes cognitive, emotional and behavioural components.

Self-efficacy is a product of a complex process of self-belief, which occurs based on the cognitive processing of various sources of information about one's own effectiveness, among which the main ones are direct experience, mediated experience, public opinion, physical and emotional state. A sense of one's own efficacy and competence is an essential determinant of human behaviour because of which it has a significant impact on the success of one's learning and cognitive activities.

Self-efficacy plays an important role in the student period of life because belief in one's own effectiveness and competence facilitates adaptation to the new requirements of a higher educational institution, promotes the disclosure of a student's abilities and capabilities, increases his perseverance, activity, helps overcome difficulties and achieve set goals.

We can conclude that self-regulation is one of the leading factors in determining the effectiveness of students' learning activity, and its importance increases with the continuation of studies. According to this statement, it consists in purposeful planning, construction and reproduction by the subject of learning in accordance with the tasks of higher education, in the ability to control oneself, their emotions in understanding learning tasks, in an adequate self-assessment of the level of own knowledge, abilities and skills. Neither self-regulated learning and autonomy, nor independent and effective use of strategies in self-regulated learning is possible if students are not ready to evaluate, self-evaluate, self-regulate, control and correct the learning process and its results.

Based on the theoretical analysis of scientific literature and the results of empirical research, it was concluded that self-efficacy and self-regulation of educational activities significantly affect students' academic performance. There is a positive correlation between the evaluated variables - self-efficacy and self-regulated learning.

It was also concluded that students with high self-efficacy are better prepared to choose complex tasks that require theoretical knowledge and analytical activity, unlike students with low self-efficacy and the ability for self-regulated learning.

Further research into the problem of self-efficacy and the specifics of its development in students may be related to an in-depth study of various factors that affect the sense of efficiency and competence. Various aspects of this phenomenon need to be revealed, particularly those related to the age characteristics of student youth. In addition, it is important to further search for and improve ways to support students' self-confidence and self-efficacy. We also see the prospect of further scientific research in the study of the relationship between students' self-regulated learning and cognitive and metacognitive aspects that can influence the improvement of the success of students' learning activities.

REFERENCES

- Agustiani, H., Cahyad, S. Muwaga Musa, M. (2016). Self-Efficacy and Self-Regulated Learning as Predictors of Students Academic Performance. *The Open Psychology Journal*, Vol.9, 1-6.
- Balashov, E., Pasichnyk, I. & Kalamazh, R. (2016). Intercultural Components of Student Selfrelisation in International Volunteering. *Ljetopis Socijalnog Rada / Annual of Social Work*. Vol. 23 Issue 1,123-139.
- Balashov, E. (2018). Metacognitive monitoring and metacognitive strategies in student learning activities. *Scientific Notes of the National University of Ostroh Academy. Series "Psychology and pedagogy"*, 6, 44-48.
- Balashov, E. (2017). Psychological peculiarities and characteristics of student self-regulated learning. *Scientific Notes of the National University of Ostroh Academy. Series "Psychology and pedagogy"*, 5, 5-13.
- Bandura, A. (1993). Perceived Self-Efficacy on Cognitive Development and Functioning. *Educational Psychology*, Vol. 28 (2), 117-148.
- Chen, C.S. (2002). Self-Regulated Learning Strategies and Achievement in an Introduction to Information Systems Course. *Informational Technology, Learning and Performance Journal*, Vol. 20 (1), 11-25.
- Graziano, A.M., & Raulin, M.L. (2000). *Research Methods: A Process of Inquiry*, Boston: Allyn & Bacon.
- Katsero, A. (2008). Main directions and approached in studying self-attitude as personal learning. *Bulletin of Donetsk National University. Series B "Humanities"*, 2, 259-266.
- Matcha, W., Gasevic, D., & Pardo, A. (2019). A Systematic Review of Empirical Studies on Learning Analytics Dashboards: A Self-Regulated Learning Perspective. *IEEE Transactions on Learning Technologies*.
- Pajares, F. (1996). Self-Efficacy Beliefs in Achievement Settings. *Review of Educational Research*, Vol. 6, 543-578.
- Pasichnyk, I., Kalamazh, R. & Avhustiuk, M. (2014). Metacognitive monitoring as a regulative aspect of metaknowledge. Пасічник І., Каламаж Р., Августюк М. *Scientific Notes of the National University of Ostroh Academy. Series "Psychology and pedagogy"*, 28, 3-16.
- Pintrich, P.R. (1989). The Dynamic Interplay of Student Motivation and Cognition in the College Classroom. In: *Advances in Motivation and Achievement*, New York: Jai Press.
- Pintrich, P.R., & DeGroot, E. (1990). Motivational and Self-Regulated Learning Components of Classroom Academic Performance. *Journal of Educational Psychology*, Vol. 82(1), 33-40.
- Pintrich, P.R., & Garcia, T. (1991). *Student Goal Orientation and Self-Regulation in the College Classroom*. In: *Advances in Motivation and Achievement*, New York: Jai Press, 1-24.
- Questionnaire "Style of Self-Regulation of Behavior"*. Access mode: <http://psy.kpi.ua/wp-content/uploads/2018/09/%D0%9C%D0%B5%D1%82%D0%BE%D0%B4%D0%B8%D0%BA%D0%B0-2.-%D0%A1%D0%B0%D0%BC%D0%BE%D1%80%D0%B5%D0%B3%D1%83%D0%B%D1%8F%D1%86%D1%96%D1%8F-%D0%BF%D0%BE%D0%B2%D0%B5%D0%B4%D1%96%D0%BD%D0%BA%D0%B8.pdf>
- Schunk, D.H. (1991). Self-Efficacy and Academic Motivation. *Educational Psychology*, Vol. 26, 207-231.
- Schwarzer, R. & Jerusalem, M. (1995). Generalized Self-Efficacy Scale. In: J. Weinman, S. Wright & M. Johnson, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor: NGER-NELSON.
- Shaposhnyk, D. (2011). Resources of a personality self-efficacy theory in modern psychology. *Bulletin of Kharkiv National University. Series "Psychology"*, 937, 302-305.
- Sternberg, R. (1998). *A three-facet model of creativity. The nature of creativity*. In R. J.Sternberg (Ed.).

Cambridge, England: Cambridge U. Press, 125–147.

Vanderstoep, S.W., Pintrich, P.R., & Fagerlin, A. (1996). Disciplinary Differences in Self-Regulated Learning in College Students. *Contemporary Educational Psychology*, Vol. 21(4), 345-362.

Wolters, C. & Pintrich P.R. (1998). Contextual Differences in Student Motivation and Self-Regulated Learning in Mathematics, English, and Social Studies Classrooms. *Instructional Science*, Vol. 26 (1-2), 27-47.

Young, M.R. (2005). The Motivational Effects of the Classroom Environment in Facilitating Self-Regulated Learning. *Journal of Marketing Education*, Vol. 27 (1), 25-40.

Winne, P. (2017). Learning analytics for self-regulated learning. In C. Lang, G. Siemens, Wise, A., D. Gasevic (Eds.). *Handbook of Learning Analytics*, doi:10.18608/hla17.021, 241-249.

Zimmerman, B.J. (1994). Dimensions of Academic Self-Regulation: A Conceptual Framework for Education. In: Schunk D.H., Zimmerman B.J., Eds. *Self-Regulation of Learning and Performance: Issues and Educational Implications*. Hillsdale, NJ: Erlbaum, 3-21.

Zimmerman, B.J, Bandura, A., Martinez-Pons, M. (1992). Self-Motivation for Academic Attainment: The Role of Self-Efficacy Beliefs and Personal Goal Setting. *American Education Research Journal*, Vol. 29, 663-676.