

Psychological and Pedagogical Foundations of the Formation of Students' Own Educational Strategies in the Process of Independent Learning

Fundamentos psicológicos y pedagógicos de la formación de estrategias educativas propias de los estudiantes en el proceso de aprendizaje independiente

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Received 02-12-20 **Revised** 02-25-20 **Accepted** 06-13-20 **On line** 06-29-20

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Cite as:

Tsyganova, L. V., Kozlova, O. E., Vladimirovich, A. Alexandrovich, A. & Egorovich, A. (2020). Psychological and Pedagogical Foundations of the Formation of Students' Own Educational Strategies in the Process of Independent Learning. *Propósitos y Representaciones*, 8 (SPE2), e666. Doi: <http://dx.doi.org/10.20511/pyr2020.v8nSPE2.666>

Summary

The scientific problem to which this article is devoted is determined by the tasks facing modern education. One of these tasks is to build a continuous education system, covering all stages of a person's life. To ensure the movement of the individual in the educational space, it is necessary to form a culture of lifelong learning, which implies the development of technologies of self-education and self-learning. The latter become a fundamental factor in the system of continuous learning. The analysis of pedagogical, psychological and methodical literature showed that the independent work of students in its theoretical justification has always been interpreted as the most important component of the educational process. However, in recent years the problem of improving its effectiveness began to attract increasing attention of researchers. One of the ways, according to scientists, psychologists and methodologists, is to teach students the ability to learn. But in order to "learn how to learn", it is necessary to master various methods of organization and implementation of educational activities. This is facilitated, according to foreign scientists, by the use of various learning strategies. The purpose of this article is to consider different types of educational strategies formed within the framework of independent foreign language training of students. According to the authors of the article, educational process should be organized in such a way that the consistent and purposeful work on formation of teaching strategies is conducted, mastery of which promotes students' ability to learn. The formation of this skill becomes a support for personal readiness to continuously learn throughout life.

Keywords: System of Continuous Education; Lifelong Learning; Educational Process; Independent Work Ability to Learn, Educational Strategies.

Resumen

El problema científico al que se dedica este artículo está determinado por las tareas que afronta la educación moderna. Una de estas tareas es construir un sistema de educación continua que cubra todas las etapas de la vida de una persona. Para asegurar el movimiento del individuo en el espacio educativo, es necesario formar una cultura de aprendizaje permanente, que implica el desarrollo de tecnologías de autoeducación y autoaprendizaje. Estos últimos se convierten en un factor fundamental en el sistema de aprendizaje continuo. El análisis de la literatura pedagógica, psicológica y metódica mostró que el trabajo autónomo de los estudiantes en su justificación teórica siempre ha sido interpretado como el componente más importante del proceso educativo. Sin embargo, en los últimos años el problema de mejorar su efectividad comenzó a atraer una atención creciente de los investigadores. Una de las formas, según los científicos, psicólogos y metodólogos, es enseñar a los estudiantes la capacidad de aprender. Pero para "aprender a aprender", es necesario dominar varios métodos de organización e implementación de actividades educativas. Esto se facilita, según científicos extranjeros, mediante el uso de diversas estrategias de aprendizaje. El propósito de este artículo es considerar diferentes tipos de estrategias educativas formadas en el marco de la formación independiente de lenguas extranjeras de los estudiantes. Según los autores del artículo, el proceso educativo debe organizarse de tal manera que se lleve a cabo un trabajo coherente y decidido en la formación de estrategias de enseñanza, cuyo dominio promueva la capacidad de aprendizaje de los estudiantes. La formación de esta habilidad se convierte en un apoyo para la disposición personal para aprender continuamente a lo largo de la vida.

Palabras clave: Sistema de educación continua; Aprendizaje permanente; proceso educativo; Trabajo independiente; Capacidad de aprendizaje; Estrategias educativas.

Introduction

Changes in socio-economic conditions have led to inevitable changes in value and semantic guidelines and the nomination of certain requirements for the personality of the student and,

accordingly, to the educational process, since training, as well as education in General, is a socially conditioned process caused by the need to educate a person as a subject of activity and relations. In this regard, the most important social function of education is to form a personality that meets social requirements [1, p. 22].

One of the main requirements for the personality of the student at the present stage of development of society is the ability to effectively and continuously learn in the emerging system of continuous education. The basic idea of lifelong learning is based on the need to shape the willingness and ability of each person to learn continuously (lifelong learning) [2,3]. It should be noted that the idea of continuing education is supported in many European countries, and even becomes one of the main priorities of the state. Programs are being implemented to attract people to participate in trainings and courses, the legal framework is being formed and improved, a number of European higher schools are developing programs for the transition to a system of continuous education. The situation with the participation of the adult population in educational programs in our country is much worse than in European countries. We associate the problem of low involvement of the population to a greater extent with the lack of incentives and lack of skills for independent acquisition of knowledge and development of necessary competences [2]. To ensure the movement of the individual in the educational space, it is necessary to form a culture of continuous education implying the development of technologies of self-education and self-learning, which are a fundamental factor in the system of continuous learning

Vocational education occupies a central place in the system of lifelong education, since it is this sector that is entrusted with the task of providing all citizens with the opportunity to master the necessary knowledge, skills and competences that create the conditions for personal and professional development. To implement lifelong learning, Russian higher education is modernizing vocational education in accordance with the Russian Education 2020 model, which is consistent with the general philosophy of continuing education [36].

An analysis of the requirements that are spelled out in the federal state educational standards shows that student preparation, including language training, undergoes a significant reduction in classroom hours by increasing the number of hours of independent work. In this regard, the question of increasing the effectiveness of students' independent work, which is the main component in the training of future specialists, is becoming increasingly acute.

Method

The analysis of pedagogical, psychological and methodological literature showed that the independent work of students in its theoretical justification has always been interpreted as the most important component of the learning process and has been the subject of close attention of scientists. This proves a huge amount of research related to theoretical and practical issues of organizing independent work (S. I. Arkhangelsky, Yu. K. Babansky, A. E. Dzen, B. P. Esipov, L. V. Zharova, I. I Ilyasov, P. I. Pidkasisty, M. N. Skatkin, T. I. Shamova, etc.)

Recently, however, a large number of publications have appeared, which address the issues of increasing the effectiveness of students' independent work in the continuing education system [4,5,2,6,7,8,9].

One of the ways to increase the effectiveness of students' independent work, according to psychologists and methodologists, is the formation of not only subject knowledge, skills and competences, but also training students the ability to learn.

In foreign studies, the ability to learn is considered as: a) a form of training, which, given the motivation, the student selects on his or her own, using various means of self-management and control of the educational process [10]; b) a conscious study of techniques, methods and strategies, the formation of attitudes for the effective organization of training, collection, processing, preservation and use of knowledge, where attention and concentration of will, motivation and self-control give direction to these processes [12]; c) social and interactive process of self-tuning, active construction of knowledge [11]; d) the ability and willingness to initiate and complete the learning process, manage time and information resources, organize, comprehend self-education and own needs and learn to overcome obstacles [13].

In their studies, foreign scientists emphasize that the ability to learn is inseparable from the ideas of independent, self-regulating, autonomous learning, which the American scientist A. Tough was one of the first to describe [14], substantiating his research with the cognitive and metacognitive aspects of learning. Following him, M. Knowles [15] supplemented the research of his colleague, arguing that self-regulatory learning is a process in which a person independently feels the need for self-learning, sets goals for self-learning, mobilizes human and material resources, selects appropriate learning strategies and supervises self-learning. Subsequently, picking up the ideas put forward by A. Tough and M. Knowles, many foreign scientists considered various aspects of independent, autonomous learning, in which the principles of the ability to learn were presented [16; 17; 18; 19].

A significant contribution to the development of the concept of "the ability to learn" was made by domestic researchers S. G. Vorovshchikov, N. D. Galskova, N. I. Gez, V. V. Kraevsky, N. F. Talyzina, according to whom it is understood as students awareness of their own goals, setting specific tasks, choosing adequate means, ways and methods of solving assigned tasks and achieving goals, using various methods of mastering knowledge and skills, the ability to adapt them to oneself and choose the most effective ones, self-monitoring and regulation of the process of one's own educational activity and independent work. In our work, we share the point of view of domestic researchers and adhere to this concept.

But in order to "learn how to learn," it is necessary to master various techniques of organizing and carrying out educational activities. This is facilitated, according to foreign scientists, by the use of various learning strategies.

Noting the undoubted value of the research carried out, their theoretical and practical significance, it must be recognized that we were not able to find works in which the problem of improving the effectiveness of independent work in a foreign language would be considered taking into account the inclusion of learning strategies in its content.

Thus, the relevance of the formulation and solution of the stated problem is due not only to the fact that it was practically not the subject of a special study, but also to the fact that contradictions that have developed are identified in the process of foreign language training:

- between the priority orientation of modern education in the higher education system to increase the effectiveness of students' independent activity and their insufficiently developed ability to organize and carry out independent work;
- the objective need to develop the ability to learn by mastering various independent work strategies and the lack of a scientifically based approach to the formation of these strategies.

Formation of the goals of the article (statement of the task).

The purpose of this article is to consider various types of educational strategies that are formed in the framework of independent foreign language training of students. The educational process

should be organized in such a way that consistent and purposeful work is carried out to formulate strategies, mastery of which contributes to the development of students' learning skills.

Results

Since the educational process appears as a joint activity of the teacher and students, during which the teacher aims, informs, organizes and stimulates, corrects the students' actions, in the current conditions, teachers have to solve another difficult task - to develop students' learning skills, that is, organize student's training activity in such a way that in the course of its implementation to teach him to set goals and consciously carry out educational and cognitive tasks, applying various strategies depending on the kind and the type of tasks independently acquire knowledge and apply them in practice. According to this goal, it is advisable to initially organize appropriate work to familiarize students with learning strategies.

Student survey and questionnaire data show that students have certain strategies, but do not realize their importance. Thus, the largest number of techniques was listed by students as part of cognitive learning strategies in the reading process. However, the listed strategies for working with text, which were used as early as in high school, are perceived by them not as educational strategies, i.e. rational ways to achieve an understanding of what is read, but as habitual forms of working with text (i.e. not recognized by students), so their application is rather intuitive. The teacher's task is to teach them to recognize familiar forms of work when learning a foreign language as a strategy, and also to create conditions for students to effectively learn new educational strategies in order to rationally organize the learning process. Students need to be explained what a particular learning strategy is and why and how the strategies they learn may be useful to them. It is necessary to demonstrate the application of strategies for solving educational and cognitive problems with various examples and samples, so that their further use by students becomes meaningful and conscious. The development of strategies should occur in accordance with the stages of the formation of mental actions [20]. Along with the formation of strategies, educational competence is formed, which means mastering the subject content (declarative knowledge) based on a conscious, reflective application of procedural knowledge. The assimilation of these types of knowledge is characterized as a process of acquiring, semantic processing, preservation of knowledge, and their application in new situations, that is, the ability to use subject and procedural knowledge as the basis for solving new problems. It is also important to show students the possibility of transferring strategies to other subjects, their use throughout their lives in self-learning and continuing education.

Let us successively consider the types of educational strategies and the ways of their formation in the process of independent foreign language training.

The analysis of psychological and pedagogical literature and the authors' own experience show that the main problem students face when performing various tasks in the framework of educational activity is that they do not know how to manage it. Learning management involves the possession of metacognitive strategies, which includes metacognitive strategies for goal setting, planning, self-management, information strategies, strategies for reflective introspection.

A special place in the educational process is held by the methodology of teaching students goal setting. There is even a science of goal-setting - *mathetica*, which proves the need for the initial stage of any activity to be a discussion of the ultimate goals, i.e., the alleged fruits of activity. The goal of an activity is its anticipated result. To set a goal means to predict the expected result. Goal-setting goes through the entire educational process and determines the structural basis of the program of activities. As an aspect of educational competence, goal-setting means the student's ability to realize and independently conduct an analysis of their communicative needs

in the process of foreign language training and formulate educational tasks on this basis. To formulate goal-setting skills, students should:

- 1) be aware of their personal needs in the application and in the study of a foreign language;
- 2) be aware of their communicative needs;
- 3) formulate additional goals for learning a foreign language;
- 4) realize / formulate learning tasks.

The formation of skills to set goals, to understand communicative needs and learning tasks occurs through the use of goal-setting strategies. These strategies can be implemented using various techniques. So, according to A. V. Khutorsky, for the formation of the ability to set a goal, students are initially proposed to put the goal for one lesson, then realize its achievement and draw conclusions [21]. This technique is repeated many times, as a result students master the goal-setting strategies and they form the skill of competent goal-setting, which can later be applied in the process of self-learning.

The formation of goal-setting strategies can be organized by the teacher in determining the goal before completing any learning task. The teacher offers to determine the purpose of an exercise in the classroom. Formulating aloud the objectives of the assignment, in our opinion, on the one hand, leads students to the idea of understanding why and for what purpose he or she should perform one or another task, and on the other hand, it enables the teacher to assess the level of proficiency in techniques and the degree of formation of these strategies. The main teacher's task in this case is to bring the level of proficiency in techniques and the degree of formation of strategies to their use by students in independent work without teacher's participation.

After determining the purpose of the upcoming activity, the next stage in the implementation of training tasks is the implementation of the planning stage. Planning is the construction of an action plan (according to A.V. Khutorsky). The planning stage in the educational process is one of the most important ones. To develop the ability to plan, students should be given the opportunity to plan and regulate their educational activities themselves. To realize this opportunity, in our opinion, it is necessary to introduce students to work planning strategies that will contribute to the formation of the ability to determine and plan actions to achieve the goal. So, according to A. V. Khutorsky, students are invited to plan their educational activities for a specific period, topic, or creative work to form the skill in question. The plan can be written or oral, simple or complex. The main idea is that it should denote student's main stages and types of activities in achieving the goal [21]. Planning strategies may include the following techniques: plan time for the implementation of the training task; plan your activities by keeping a "Diary"; plan the necessary resources and information sources to complete the training task; plan various actions for the implementation of the objectives of the educational activity; draw up a plan and a phased program indicating the intermediate results of the development of the educational task, etc.

We distinguish the management stage as the next stage in the implementation of training tasks.

According to P. I. Pitkasistiy, the main feature of independent work expressing its essence lies in the fact that the purpose of the student activity at the same time carries the function of its management. Hence, the core of independent learning activities is, in fact, a complete coincidence of contents of a target activity (goal setting) with the management of this activity (goal implementation) [22, p.57]. From the point of view of the scientist, in order for the independent work of students to function at the optimal level, it is necessary that the student is both an object of control and a subject who creates the process of moving from ignorance to knowledge on the basis of constant, uninterrupted internal feedback [22, p.73]. The object of activity in this case is

a certain educational task that must be performed. As a subject of independent activity, the student must assume the functions of managing independent work.

To prepare students for self-governance of their own educational activity it is required, as noted by K. B. Esipovich that there was a gradual build-up of students' managerial functions at all levels of the learning activities that will create a more active approach to self-teaching in the learning process [23,p.22]. The psychological and pedagogical literature highlights the increasing role of the ideas of self-management in ensuring the effectiveness of independent teaching [23;24]. The formation of skills to manage their own learning activities in the framework of assignments is carried out through the use of self-management strategies. The structure of this strategy includes the following techniques: "collect" in a repository a variety of techniques to perform educational work in a foreign language; apply different strategies in the process of performing educational work; choose the most appropriate strategies in the performance of educational and cognitive tasks in a foreign language, etc.

Let us consider another type of strategy included in the group of metacognitive strategies. They are information strategies. At the moment, post-industrial society is unique thanks to being characterized by extremely rapid development of information and communication technologies. In the scientific and pedagogical literature, exploring the issues of inclusion of information technologies in the educational process, it is emphasized that the competent and skillful use of these technologies is possible only by those who has the necessary knowledge to navigate in the information space [25]. At the same time, there is an active use of information technology in schools and universities, which undoubtedly will require significant changes in the content of education. Higher education institutions are required to introduce new approaches to training, ensuring the development of communicative, creative and professional skills of students on the basis of the potential multivariance of the content and organization of the educational process [25, p.5]. According to scientists, the content of education enriched with the use of information and communication technologies will become much deeper and more meaningful if the following conditions are met:

- significant increase in the level of professional and humanitarian interaction between teachers and students due to the possibility of joint projects, including telecommunications;
- the emergence of qualitatively new conditions for realization of students' creative potential due to the access to electronic libraries, scientific, educational and other culturally and socially important Internet resources;
- increase of efficiency of students' independent work with traditional and electronic resources due to developed systems for self-monitoring and feedback with teacher;
- the realization of continuous education, where students can take an active part in the organization of the learning process [25, p. 5-6].

The arguments presented above, prove once again the need to form the foundations of information culture among students, through the inclusion in the content of the educational process of appropriate strategies.

In the course of our research the formation of information strategies and skills was carried out on the material and in the process of foreign language text activity. When implementing information strategies, students organized independent activities to find and select the necessary information. Metacognitive information strategies were used to form the ability to search and choose information, representing the following set of techniques: to search for and highlight the necessary information in the text; to separate the main information from the secondary; highlight the necessary details (more important or less significant); establish a link between events; classify facts in accordance with the logical task; organize the search for information in search engines; formulate a request for topics of interest, etc. [35].

Another type of strategy that needs to be included in the content of the educational process is metacognitive strategies of reflexive introspection. Many studies emphasize the need for students to form the experience of reflexive analysis [24; 26; 27; 28; 29]. In the European tradition, reflection is thought of as the ability to distance oneself from the activity situation. According to K. Ya. Vazina, reflection is the ability of a person to be aware of his/her own activity, to see success, mistakes in it, to correct them [30]. Actually the reflection is a comprehension of person's actions, such a reflection on them, the implementation of which gives the person a full and clear report that he is doing, i.e. he/she is aware of the scheme and rules in accordance with which he/she operates [31]. The purpose of reflection is to recall, identify, understand and analyze the main components of the activity (its meaning, types, methods, problems and solutions, the results, etc.). In recent years, due to the need to teach students the ability to learn, reflection becomes the object of attention of teachers, because without understanding the ways of their teaching, mechanisms of cognition and mental activity, students will not be able to appropriate the knowledge that they have obtained. Reflection helps students to formulate the results. Reflection is a source of inner experience, a way of self-knowledge, self-analysis and a necessary tool of thinking.

The development of reflexive introspection in the field of foreign language learning involves the formation of skills to analyze, on the one hand, the goal/result of communicative activity, and on the other hand, reflexive analysis as a meta-activity strategy involves the analysis of the success of educational independent activity, i.e. the result and methods of language learning. Reflexive practice is an important component of the educational process and leads to self-management of the process of language acquisition. It should be noted that mastering the strategies of reflexive introspection actualizes the position of "I am a teacher", because it allows the student to build his/her own educational route. Having formed the ability to reflexive assessment, the student is able to monitor their own activities, assess achievements, identify difficulties, set goals for further development. V. V. Davydov calls reflection "a universal way of building a person's attitude to his/her own activity" [32].

Strategies of reflexive introspection need to be used For the formation of skills to analyze independent educational activities. They include the following techniques: to find out what is not assimilated while studying a foreign language; to analyze the effectiveness of techniques in solving the set goals; to refer to the previous educational experience in the performance of independent work; to analyze the sequence of techniques in the development of various strategies, etc. One of the ways of reflection of the acquired knowledge can be keeping a diary on the study of a foreign language, the meaning of which is to write activities in the classroom in a foreign language, new phrases, etc. at the end of the school day or week, which contributes to better memorization of the material. One of the strategies that should be taught to students is KWL – "know", "want to know", "learned", which was proposed by Donna Ogle [33]. The purpose of this strategy is to develop reflexive analysis in the process of cognition. Using it when working with information, students learn to relate the known and the new, to determine their cognitive needs, justifying them with information known to them. For example, with the help of the table developed by Donna Ogle, you can learn how to determine the direction in the individual research search within the study topic. Such tools of reflection as questionnaires, questionnaires, progress graphs, self-assessment sheets, etc. are also considered promising.

Let us consider the following set of strategies that govern the behavior and thought operations that learners undertake to codify a new language.

In the process of learning a foreign language, many students face the problem of remembering a large amount of information. Surveys of students show that the only way to remember something is learning by heart. However, psychology and methods of teaching foreign languages have accumulated a huge set of useful methods, rules and techniques aimed at improving the level of memory and the ability of purposeful memorization (memorizing the necessary information) [34]. The method of teaching methods of memorization is the systematic

development of memory skills in four main areas: attention and impression – one memorizes better what he/she is interested in, what he/she is focused on. These conditions of memorization can be trained and specially applied at the right time: associations help to create a connection between what needs to be remembered and what is already firmly entrenched in the brain; structuring of the material is the most important factor of purposeful memorization, that is, the ability to correctly share information, create thematic blocks based on logic and associative thinking; repetition – human memory is a dynamic process, something is forgotten over time.

To develop the ability to memorize information, it is useful to use mnemonics and special techniques and exercises to train memory and memorize certain information. This is due to the fact that sometimes there are convenient associations, the use of which gives a strong effect on memory in certain cases. Such methods and recommendations are called mnemotechnics. At the same time, despite the fact that understanding the laws of human memory can improve the memorization of the necessary information, it is difficult to achieve good results without special exercises.

In this regard, the educational process should be organized in such a way that students have the opportunity to get acquainted with various mnemonic strategies, which include techniques such as linking new words in the associative chain, even ridiculous ones (associative links technique); recording memorized words and expressions on flashcards, memorizing words in the technique of "Loci", etc.

The next group of educational strategies that we present in our work are compensatory strategies, the function of which is to fill, compensate for the gap in the language means, allowing to overcome their deficit and insufficient development of speech skills. This group of strategies ensures the process of learning a foreign language, despite the presence of unfamiliar elements or lack of means of expression. In order to compensate for the lack of language facilities, students can use a variety of strategies.

The ability to compensate for the deficit of language and speech means and the ability to find support are formed through the use of compensation strategies. Compensation strategies are represented by such techniques as: ignore unfamiliar words in the text; convey the content of the text/conversation using words that are known; use facial expressions and gestures when there are not enough words, etc.

Let us consider the strategies of educational cooperation. According to N. F. Koryakovtseva, this group of skills in the content of educational activities is particularly important because it provides the actualization of the collective subject of educational activity and the development of such characteristics of Autonomous learner as the ability to interact in the process of solving learning tasks and transfer individual experience to the peers in the group [24, p. 49]. Strategies of educational cooperation are used to form the skills to cooperate in the process of educational activities. They include the following methods: to discuss various joint actions with members of your group; to interact with members of your team in extracurricular time to solve various problems, etc.

In the process of research, we came to the need to turn to presentation strategies. Mastering this group of strategies is necessary for the preparation and success of public speaking. Effective presentation is based on the planning and elaboration of the following key points: preparation, content, structure, language, presentation and cultural sensitivity. Formation of skills to effectively conduct presentations is provided through the use of presentation strategies, which are implemented using the following techniques: to determine the purpose of the presentation and make an overall plan; prepare for the presentation taking into account the principles of effective presentation, etc.

Conclusion

It must be noted that an overview of educational strategies that should be formed in the process of educational work is not exhaustive and may not be such, as familiarity with the strategies, their application in teaching and in independent work involves the creation of strategies oriented on the personal characteristics of the learner, therefore, the number of those cannot be limited. Teacher's task is to organize the educational process to consistently and purposefully work on the formation of strategies, the mastery and application of which contribute to the successful implementation of educational tasks in the process of independent foreign language training.

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