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#### ABSTRACT

of the dissertation submitted for the degree of Doctor of Philosophy

## THE IMPACT OF SELF-STUDY ACTIVITY OF SENIOR STUDENTS ON IMPROVING THE QUALITY OF EDUCATION

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#### **GENERAL CHARACTERISTICS OF THE STUDY**

**Relevance and development of the theme**. The current processes of renewal in the world, social, political, cultural processes, the ever-changing requirements of the labor market, the constant development of science and technology force professionals to work in difficult conditions, requires high erudition, competitiveness, constant updating of knowledge, research, creative approach to the profession, encourages young people and children to acquire new knowledge and skills.

The formation of interest in self-study in the successful personality-oriented development of young people has become a necessity in the lives of the majority of high school students and This creates a need to search for new approaches and ways of self-study in the field of pedagogy, to conduct research.

The law of the Republic of Azerbaijan "On education" provides general requirements for the content and organization of education as follows:<sup>1</sup>

- to form the ability of students to adapt to modern requirements and conditions, to be competitive, to live and work in the information society, to communicate;

- to take responsibility, to form an independent, creative personality and citizen with the qualities of participation in collegial decision-making, activity and development of democratic institutions.

Apparently, most of these requirements are implemented in the process of self-study of senior students.

President of the Republic of Azerbaijan Ilham Aliyev said in his address to the youth at the "Constituent Congress of the world Azerbaijani Youth Union": "The growing interest of our youth in education, science and modern information and communication technologies, patriotism and increased social activity give us a

<sup>&</sup>lt;sup>1</sup> "On Education" Law Of The Republic Of Azerbaijan // Education news, 2009, № 6, p.12-57

reason to look to the future with greater hopes. It is gratifying that every young Azerbaijani, regardless of where he lives and social status, is proud of his native land and does not spare any effort to protect national interests".<sup>2</sup> It is from this point of view that the adoption of innovations, constant work on oneself by young people to become the leading force of society is one of the main requirements of our time.

The courage shown by our youth in the liberation of our lands from occupation in the 44-day Patriotic War, which broke out as a result of the Armenia-Azerbaijan Nagorno-Karabakh conflict on September 27, proved it once again. At present, our independent Azerbaijan Republic is experiencing its glorious days. Brave Azerbaijani army under the leadership of Supreme Commander-inchief Ilham Aliyev wrote a heroic history of the liberation of our territory, which was under the enemy's feet for about 30 years.

However, the spread of the new type of coronavirus (COVID-19) pandemic, as in the whole world, has created certain problems for our education, as in all fields. In order to prevent this, from March 2020, the educational process in all educational institutions was temporarily suspended and the lessons were transferred to online training. Since this process covers most countries of the world, UNESCO recommended the use of distance learning programs to limit the emerging interruptions in education. In this period of our education, the relevance of self-study activity is of greater importance.

According to the international definition set by UNESCO "education is a process and the result of improving the skills and behavior of a person, in which he achieves mental maturity and personal development. Note that education is not just about formal education, that is, school or university education. Education is a long-term and multifaceted process of learning to prepare for the

<sup>&</sup>lt;sup>2</sup> Founding congress of the World Azerbaijani Youth Union. Baku, May 9, 2012, (1,4)

https://azertag.az/xeber/Bakida

various challenges of life. In other words, education, through the essential knowledge and skills it gives individuals, determines how they express and realize their desires and goals, and also nurtures them as thoughtful citizens who are actively involved in the lives of their communities"<sup>3</sup>.

Self-study is a purposeful cognitive activity depending on the interest and inclination of the student, guided by him. Undoubtedly, taking into account their interests and inclinations, stimulating self-study is one of the important tasks facing the general education school. In modern times, the teacher not only transmits knowledge, but also encourages students to strive for new knowledge and improvement. It is in this process that students' abilities, desires and opportunities emerge.

Article 4 of the Law of the Republic of Azerbaijan "On Education" states the main purpose of education in the Republic of Azerbaijan as follows:

- to educate citizens and individuals who understand their responsibility to the Azerbaijani state, respect national traditions and principles of democracy, human rights and freedoms, adhere to the ideas of patriotism and Azerbaijanism, think independently and creatively;

- to train specialists-cadres with modern thinking and competitiveness, preserving and developing national-moral and universal values, having a broad outlook, able to evaluate initiatives and innovations, acquiring theoretical and practical knowledge.

At the same time, the elimination of some contradictions creates the basis for the self-study of high school students. These contradictions can be expressed as follows:

1. Lack of preparation of teachers for this process with the requirements for self-study of senior students.

<sup>&</sup>lt;sup>3</sup> Human development. UN Development Program. Teaching aids. Baku: 2014, 373 p. (p.134)

http://www.az.undp.org/content/dam/azerbaijan/docs/publications/sustainabledevel opment/HDtextbook/5.pdf

2. The lack of a special didactic system for self-study of senior students and the development of theoretical foundations of it.

3. Purposeful independent activity of high school students and lack of theoretical basis.

4. Involvement of teachers and parents in the self-study of senior students and its lack of theoretical justification.

All the above contradictions prove once again that the topic is not sufficiently studied, there is no special basis for self-study of senior students and the theoretical basis for it. In this regard, the topic "The impact of self-study activity of senior students on improving the quality of education" is of great relevance both theoretically and practically.

Some ideas have been written in pedagogical, psychological and sociological literature about students' self-study in our country (Z.I Garalov, A.A.Alizade, A.A. Gadirov, A.A.Aghayev, I.H.Jabrayilov, F.N. Ibrahimov, H.H. Ahmadov, Z.I.Aliyeva, A.S.Badalova etc.).

In Russia, a number of studies have been devoted to this problem (V.G.Afanasyev, A.P.Avdeyev, A.K.Gromtseva, Q.I.Gusev, S.Y.Matushkin, I.A.Redkovets, M.N.Skatkin etc.). A.Y.Eisenberg wrote a doctoral dissertation entitled "Theoretical and practical problems of self-study in Russia".

The object of the research is the self-study activity of senior students.

The subject of the research is the determination of the directions of independent activity of upper graders in the process of self-study training and in extracurricular time, and its impact on the quality of training.

The purpose of the research is to investigate the independent activity of senior students in self-study, create a didactic system, determine the ways of work carried out in this area, and show their impact on the quality of education.

To achieve this goal and to prove the hypothesis correct, the following research objectives have been identified:

1. Investigating the nature and content of self-study activities of senior students.

2. Analysis of the existing literature on the problem. Development of psychological, pedagogical and sociological foundations of self-study of senior students.

3. Setting the problem in the program and methodological literature.

4. Development of a special methodology for self-study of senior students based on the development of cognitive and mental activity.

5. Conducting empirical research on self-study of senior students.

6. Analysis of the results of the pedagogical experiment.

7. Development of scientific and practical recommendations based on the results of the research.

**Research methods**. Theoretical and empirical methods were used to solve the set goals and objectives: analysis of pedagogical and psychological literature, comparative analysis, study and generalization of school experience, observation, interview, questionnaire, pedagogical experiment.

The main provisions for defense:

1. Personality-oriented organization of self-study of senior students in the educational and extracurricular process is associated with cognitive activity (interest, inclination, motivation), as well as mental development (real perception of the problem, planning and finding solutions) and serves for self-development.

2. It is necessary for senior students to independently search, analyze and integrate information. In this process, there is a rapid development of creative and intellectual abilities, independence, responsibility, decision-making.

3. The main criteria for self-study in the training and extracurricular process: continuous motivation of self-study (motivation to acquire knowledge, creation of motivation for students to interact with each other), ensuring the activity of each student, the

formation of self-awareness, self-service and self-relational qualities are possible.

4. The model of self-study of senior students develops students ' cognitive activity, mind, thinking, which encourages them to constantly educate, develop themselves and allows them to constantly gain independent knowledge, increase their competence and positively affect the quality of general training.

The scientific novelty of the research is that the effective use of Information technologies has been enhanced for independent work of students in the process of self-study, the students' competency and dynamism were ensured from the Integrative point of view, the structural components were scientifically substantiated (cognitive, motivational, activity, personality orientation), didactic bases of the training-methodical content of self-study in the learning process and extra-curricular times were developed.

The scientific novelty of the research is that the efficient use of information technologies for independent work of pupils in the self-study process has been improved, the competency and dynamism of the students from the Integrative point of view has been structural components have been scientifically ensured. the motivational, substantiated (cognitive, activity. personality orientation), Didactic bases of training-methodical content of systematic self-study in the learning process and in extracurricular time have been developed.

The theoretical significance of the research is that the opportunities of information technologies and methodological system on self-study of students were revealed, the results contributed to the theory and methodology of school education.

The practical significance of the research is that the model developed on the self-study of senior students was included in the school training, the scientific and practical outlook of students was expanded and the basis for continuity of this activity was created.

The accuracy and justification of the results of the study was ensured based on the methodological principles of scientific and pedagogical research, modern scientific concepts, the application of research methods corresponding to the object, subject, hypothesis, purpose of the study.

**Approbation and application .** On the content of the research, 7 articles (including 2 abroad), and 5 theses were published. There were speeches on the problem at the republican and international conferences.

The dissertation was carried out at the Institute of Education of the Republic of Azerbaijan.

The structure of the dissertation: the dissertation consists of three chapters, eight paragraphs, conclusion, a list of used literature and appendices.

### MAIN CONTENT OF THE RESEARCH

Chapter I of the dissertation is entitled "General pedagogical issues of self-studying activity of senior students". In the first paragraph of this chapter, "*The essence and content of self-study activities of senior students*" is disclosed.

Self-study activities in the period of rapid development of new technologies and computer technology in all spheres of life, its implementation is very important for the future activities and work of young people. The conditions of information abundance encourage the majority of young people to work independently. In the process of research, we tried to disclose the essence of the concept of "selfstudy".

It is noted in the "Dictionary of pedagogical concepts" that self-study is obtained outside educational institutions, independently through work. The correspondence type of education is relatively close to self-study. But this type of education is an integral part of the entire education system. Self-study is a purposeful, systematic activity aimed at improving education<sup>4</sup>. The purpose of self-study is

<sup>&</sup>lt;sup>4</sup> Dictionary of pedagogical concepts

https://portal.edu.az/index.php?r=docman/download&id=3&mid=&lang=en

to develop the mind, mental abilities of students. In order to acquire knowledge in any field, the knowledge given at school is not enough. In the course of self-study, students independently acquire knowledge, which develops their thinking, mind, makes it possible to master the knowledge they want.

It should be noted that when determining the content of selfstudy, it is considered expedient to integrate various technologies and materials into the disciplines in which students are inclined and interested. Of course, in this case, psychological and personal characteristics of senior students, creativity and learning opportunities are revealed, which makes it possible to identify their internal potential. It is required to choose the content of the training so that it is clear to the students their goals and what they will achieve when learning it.

The content of self-study is one of the main problems of didactics, that is, choosing the knowledge gained in our country and in the world and the events taking place, presenting students in separate age periods. This both enriches students with knowledge, affects their intellectual development, and also forms the ability to learn independently. It creates self-confidence in students.

The content of self-study is determined by the following factors:

1. Changes taking place in society and the creation of a demand for mastering them.

2. Students' own tendencies and interests.

3. Real learning opportunities for students.

4. The presence of conditions at home and at school for self-study of students.

The ability of students engaged in self-study, as well as selfassessment, is one of the main factors. "Assessment of student's achievements should cover the following issues:

- goals set;

- criteria;

- current level;

- ways to close the difference between the existing level of  $purpose^{5}$ .

Modern self-study is not only the acquisition of knowledge and skills, it is also a cultural indicator. *"The cultural human formula developed by us includes the following qualities:*"

1. Knowledge.

2. Skill – life activity habits and technologies.

*3. Organization - commitment to discipline, independence, responsibility, will, energy.* 

4. Spirituality - humanism, love, friendship, conscience, dignity, honesty, commitment to truth, justice, kindness, faith, patriotism.

5. Creative activity.

At the same time, the formation of their personality and worldview meets the requirements of society.

Thus, self-study is defined as the basis for personal development. Self-study is considered to be a systematic and independent training of the individual. Modern self-study also carries the function of a cultural indicator and is a necessary form of education in a very broad sense in the activities of senior students.

The second paragraph of the first chapter is devoted to "Putting the self-studying activity of high school students in scientific-pedagogical and methodical literature". The acquisition of knowledge and other information by senior students in the conditions of information abundance in modern times indicates their possession of many skills, expansion of their worldview. But without control, most of them are not ready to spend their acquired intellectual potential on the development of society and do not think about it at all. In this direction, the formation of not only cognitive processes, forms and methods, but also socially significant qualities of students is one of the main tasks. Thus, the development of social

<sup>&</sup>lt;sup>5</sup> Ahmadov H.H. Zeynalova N.E. Pedagogy. Baku: "Elm & tahsil", 2016, 243 (456 p.)

intelligence is an important factor for the successful realization of students.

I.H. Jabrayilov writes: "In the globalized modern world, in the information society, it is more correct to speak about the three levels of human life (biological, social and spiritual). At the same time, today it is necessary to talk not only about the development of the individual, but also about self-development. In this regard, self-study and self-training are of great importance"<sup>6</sup>

The study and analysis of scientific-pedagogical and methodological literature shows that the self-study activities of senior students can be approached from two positions: from a sociocultural standpoint, that is, mastering the cultural values of society, socialization of students, acceptance of different cultures (values of multiculturalism), approaches to life events and ensuring intellectual freedom, creating a basis for student self-development, creating opportunities for self-realization, etc.

From a personality-oriented position, one can mention such features of self-study as humanitarisation, individualization, continuity in the acquisition of knowledge, informatization.

From the analysis of the literature it can be concluded that the authors touched more on the issues of self-study. The importance of self-study for self-bringing up and their close relationship are not sufficiently explained.

Thus, the system of knowledge in self-study, along with the formation of a worldview, prepares students for life, teaches them to think actively, move creatively, develops and encourages continuous self-improvement.

The third paragraph of Chapter I is entitled "Study of secondary schools and world experience in self-studying activities of senior students".

<sup>&</sup>lt;sup>6</sup> Jabrayilov I.H. "Modernization of the mechanism of innovative activity" Scientifictheoretical problems of modernization of education. Baku: "Mutarjim", 2015, p.34 (452 p.)

Our observations in secondary schools show that there are four types of self-study in this period.

"Purposeful self-study. The importance of self-study for selfstudy and their close relationship are not sufficiently explained. This goal defines the following activities: means the means to achieve goals, the independent setting and solution of tasks, and their social significance (recognition among peers).

To get acquainted with innovations independently, to follow the events in the country and in the world.

Cognitive self-study is related to a person's cognitive needs and expands his personal and social experience. Deep mastery of any science, as well as gardening, hunting, fishing can be attributed to the fact that they can not get it in the educational process. On the other hand, cognitive self-study provides a creative approach.

Self-study for self-affirmation and realization in a social environment. As a self-learning activity, it covers the physical, intellectual, moral, and spiritual spheres of senior students, and is aimed at shaping their personality and seeing themselves as they wish. Then new qualities emerge: decision-making, expansion of personal experience, formation and self-presentation of human qualities as the worldview and worldview expands, and so on"<sup>7</sup>.

The facts we have observed give grounds to conclude that there is a purposeless form of self-study. Sometimes modern technology attracts the attention of students. This includes computers, economics, design, parapsychology, etc. happens. In such cases, the student does not set any goals, but simply follows the information and learns the issues that interest him. These facts also allow us to identify purposeless types of self-study.

There are pros and cons of self-study. In recent years, with the advent of the Internet, students' opportunities for self-study to gain new knowledge have expanded. The following are some of the

<sup>&</sup>lt;sup>7</sup> Suleymanov M.T.Yux The study of the experience of comprehensive schools on self-study activities of senior students. "XXIII Republican Conference of young PhD students" organized by the Ministry of Education of the University of Architecture and Construction on December 3, 2019. 3 p.

positive aspects that arise in the process of students independently acquiring knowledge when using the internet:

1. As it is an independent activity, students are not limited in time neither at home nor at school.

2. Working independently requires discipline, endurance and purposefulness. The student does not have these qualities, but his interest in the work he does teaches them.

3. To work on the internet does not require large material resources.

The disadvantages are as follows:

1. Searching for innovations spends time on unnecessary information, as well as information that negatively affects the morale of the student.

2. As he acquires the information, the student talks about it, but is unable to apply it to practice.

3. The student does not receive information consistently and systematically. Knowledge enrichment is not controlled.

4. Whatever information he wants to get, the student must search from simple to complex. To do this, he must explore the sites, systematize the information and prioritize them. All this causes to lose a lot of time.

5. Students prefer to communicate with their peers who are very far away by phone, internet, but do not even want to talk to a friend who sits next to them. This leads to a decrease in live communication and social passivity.

The spread of the coronavirus (Covid 19) pandemic that has ravaged the world since March 3, 2020 in our country has brought self-study to the forefront. Due to the ineffectiveness of online training (lack of internet in some areas, weakness, student negligence, etc.), this gap was partially filled by self-study activities.

The experience of foreign countries was also studied in the research process.

The experience of foreign countries shows that developing students ' creative abilities, applying innovations, putting forward original ideas is highly appreciated in schools, which allows them to achieve more successful results in the process of self-study. World experience offers an innovative approach. This is the development of leadership qualities shaped on the cooperation and initiative of students in schools. But the abandonment of basic knowledge and the implementation of education as a whole at the request and desire of students also puts the question of what results will be achieved in the future. Research has shown that 65% of students are not interested in science. Boys are more passive in this area.

Thus, the study of domestic and international experience shows that most senior students perceive self-study as temporary training, that is, this training is carried out to enter higher educational institutions. Some of them follow the processes going on in the world, while others are interested in domestic problems. Experience shows that in the process of self-study, the formation of senior students as individuals, leadership, creativity, organization, creativity, the ability to make independent decisions, the peaceful resolution of conflicts and other qualities are overlooked.

Chapter II is entitled "The concept of determining the impact of self-study activities of senior students on improving the quality of training". In the first paragraph of this chapter, "The conditions, principles and stages of the formation of self-study activities of senior students" are disclosed. The success of selfstudy is due to a number of factors. These are the conditions, principles, stages of self-study and the competencies instilled in students. As we noted, self-study is carried out in the process of training and extracurricular activities.

Conditions of self-study

1. Self-study as a type of cognitive activity both in the learning process and in the extracurricular (at home, inside the school, in the library, in courses, etc.) is carried out). This process is mainly based on the interests of students.

2. Self-study not only instills in students independence, cognitive activity, creative attitude to work, but also develops such qualities as cultural behavior, communication skills and patience.

3. One of the conditions for self-study of senior students is to take into account individual characteristics.

4. Self-study requires the following skills from students:

- to plan work on the field of study;

- to set tasks;

- to identify the most basic within the materials it has obtained;

- to choose appropriate methods to use time efficiently;

- to be critical of their independent work, to make adjustments, to analyze the general results of the work, to compare the results with the previous ones, to find out the reasons and to determine the ways of the future activity.

5. Self-study is organized in such a way that the student assumes time not only for studying, but also for cultural rest. Sets him own day regime in accordance with hygiene requirements.

6. Active self-study of students is possible only in conditions of serious and persistent motivation.

Self-study focuses on the activity of students, the development of intellectual activity, the formation of the ability to acquire independent knowledge. Self-study is based on the following principles:

1. The principle of democratic cooperation (teacher-student, teacher-parent, student-parent) envisages the creation of opportunities for students to pursue their healthy interests, to protect their statehood, be brought up in the spirit of patriotism, to love work, inculcate the habits of self-study and self-study, to pay attention to individual characteristics, individual interests.

2. Taking into account the difficulties in the process of selfstudy. The realization of this principle takes into account the determination of the degree of difficulties, the elimination of obstacles, the interaction and sequence of the studied materials.

3. Principles of the leading role of theoretical knowledge. The identification of concepts, relationships, intransitive and interdisciplinary connections is as important as the development of habits.

4. Students' understanding of what they have learned. This principle is aimed at the development of reflex, the self-realization of the student as a subject of study. The content of this principle may be relevant to the development of self-regulatory reflex.

The stated conditions and principles are also conditioned by generally accepted principles in pedagogical science.

Analysis of pedagogical and psychological literature shows that the technology of self-study of senior students is carried out at the following stages: 1. Preparatory stage. 2. Teaching stage. 3. Practical stage.4. Theoretical stage. 5. Final stage.

The second paragraph of Chapter II is called *"Forms, methods and means of forming self-studying activities of senior students"*. This paragraph provides information on the forms, methods and means of self-study.

In total, there are two forms of self-study. The first is the enhancement of independent work in the learning process (acquisition of additional knowledge from the school program). This form of self-study requires the teacher to develop new forms and methods in order to get a successful result and improve the quality of training. The second is to increase the activity of senior students in different directions during the extracurricular period.

Increasing the activity of students in extracurricular times is associated with a number of difficulties. First of all, this is due to the lack of readiness of pupils and teachers for the self-study process from the psychological point of view. Secondly, the information and communication support of the training process is at a different level everywhere. The main task for the development of intellectual initiatives and thinking in the process of self-study of students in any form of training is the creation of psychological-didactic conditions.

In the process of training, self-study is carried out in the following forms:

1. Individual self-study. This notion of self-study is based on the student's own wishes and interests.

2. Self-study in groups. Self-study based on the interests of students under the guidance of the teacher.

Extracurricular self-study provides for students' interest in the subjects they want, ICT, home appliances, various processes going on in the world. It is known that such self-study continues even in home conditions. But, as mentioned above, since self-study is closely related to self-study, one of the main tasks of a teacher is to constantly give students the right direction, to prevent the use of information and websites that demoralize a person's spirituality, to cultivate self-esteem.

The use of non-traditional forms of training has a very strong incentive. Through these lessons, students' cognitive interests develop. Because by nature, students love fun activities. The second reason is that the motivation is stronger in fun lessons. In the application of this form, T.M.Starodubseva's materials were used. In the process of non-traditional forms of learning, tension is eliminated and students are emotionally affected. "These are non-traditional forms of organization of student activities: socio drama, project work, philosophical table, tea table; presentation of any subject, event, evidence; auspicious day of surprises, questions envelope, graduation ring, etc.

"Sociodrama" is the influence of any social forces and characters between people with groups, intensive communication of people through the theater.

*"Tea table" has a powerful effect, creates a special psychological atmosphere, improves relationships during various conversations, relieves tension.* 

The "Day of Good Surprises" consists of tasks to teach people to instill the ability to distribute attention and joy.

"Graduation ring" is a report of graduates, analysis of previous periods, future plans, creating an atmosphere of friendship, mutual understanding, the formation of skills to interact with people"<sup>8</sup>.

<sup>&</sup>lt;sup>8</sup> Starodubtseva T.M. Non-traditional forms of employment in institutions of preschool education. // Additional education and upbringing. № 11, 2016, p.3-4.

Self-study methods.

1. One of the main methods of self-study is to work on literature. In modern times, literature has a great responsibility - to educate personalities who perceive themselves as part of society and who have moral values. Not only the youth, but also the future of the country depends on the solution of this problem in public life during lack of disinterestedness, benevolence and human relations. Reading is a powerful tool in the spiritual development of students. Reading means communicating with wise people of the world.

2. In the process of self-study, the fulfillment of independent practical tasks is also of great importance.

3. The use of innovative technologies plays a major role in the process of self-study.

4. Development of projects develops individual cognitive abilities of each student, creates opportunities for self-identification and self-realization in a social environment.

5. Involvement of students in creative activities.

6. Participation in seminars, trainings, courses.

7. Use materials that positively affect cognitive activity: reading, reviewing and analyzing documentaries.

8. Excursions, theaters, exhibitions, museums, concerts, etc.

Means of self-study. In the learning process, each teacher purposefully affects the personality of his student (especially those who have problems with his parents), manages their upbringing, education and development. Other means of self-study activities of senior students are events planned and held on their own initiative (work to do at home on their own plans, collective events, participation in associations, etc.). Carrying out these works requires the mobilization of all efforts of students on the exploration and assimilation of social experience.

Modern information and communication technologies create great opportunities for students.

Thus, the forms, methods and means of self-study activities we have listed do not only feed students with knowledge, they also

enrich pupils morally, promoting kindness, humanity, patriotism and communication during the tension of human relations.

The third paragraph of Chapter II is called "The activities of teachers and parents in the organization of self-stuying activities of senior students".

The main goal of the teacher on self-study is to increase the level of students' independent knowledge, creativity and cultural behavior.

In general, the work of teachers on self-study with students is carried out in three directions:

1. To form the necessity of self-study in senior students.

2. To assist students in clarifying the essence of self-study, the study of its methods and ways.

3. Provide practical assistance to students in developing selfstudy planning and program.

Students face serious difficulties during self-study. These are the following:

- when self-awareness and self-evaluation habits are weak;

- in defining the goals and objectives of self-study;

- improper planning while working on yourself.

These difficulties show once again that it is wrong to allow students to engage in self-study activities spontaneously. This process requires high tact, knowledge, culture and demands from the teacher.

**Chapter III** is entitled "Conducting a pedagogical experiment on the model of the impact of self-study activities on the quality of training". The first paragraph of this chapter describes the "Model of the impact of self-study activities of high school students on improving the quality of education".

The concept of self-study emerged as a result of the crisis in the world education system. It is self-study that shows the way out of this situation. It is a way to develop the intellect, as well as the personality as a whole, and it always accompanies a person.

There are two types of self-study in terms of form and independence: systematic and free. Systematic self-study is

stimulated by the school in which the student is studying. It performs the task given in accordance with the educational interest and enriches his knowledge. In this type of self-study, the student also goes beyond the program requirements and achieves the level of selfdevelopment.

When we refer to free self-study, we understand the need for self-study or any issue arising from the interests and demands of the student's personality. Person at this time determines the purpose of his self-sufficiency and its volume.

It is advisable to present modeling as a set of modern approaches, primes, principles that positively affect the development of self-study activity. Such a model is built on the following principles:

1. The principle of completeness. This principle shows the uniformity of all components in achieving the goal.

2. The principle of consistency. This principle implies the gradual development of skills and habits in self-study in senior students.

3. The principle of personality-oriented. This principle takes into account the individual characteristics, needs and dynamics of development of students aimed at achieving results.

The following sections can be defined in the self-study model:

- motivation. It is connected with the continuous motivation of the student's activity;

- content. Includes the content of the training;

- formation of the unit and making additions taking into account the needs of the student, as well as assessment of mastering the material;

- competence. This section focuses on the formation of competencies in the learning process and its individual components;

- communication. This section covers the communicative interaction between student and teacher, as well as student-student relationships (writing, creative assignments, internet use, etc.).

This approach determines the structure of the model we present and the nature of the interaction of its components.

Goal setting. Perception of motives: completeness, nomenclature, personality-oriented, result-oriented.

Thus, self-study is a combination of self-government and comprehensive, harmonious development of the individual. In this process, not only the mind but also the voluntary attention develops and the independence of the individual as a whole is formed. All this proves that self-study is a process of strong influence on the human psyche and its development.

The model also takes into account the characteristics, social, economic and cultural changes indicated in the "Azerbaijani history curriculum for secondary schools of the Republic of Azerbaijan (grades V-XI)":

- the dominant role of science, education and service in the economy;

- the continuity of technological innovations in the social, political and spiritual life of society, in connection with the introduction of Information Technology in all sectors of the economy;

- the change in the structure of professional activity of the population, the predominance (majority) of population groups in the society associated with the production, dissemination, protection and transmission of information;

- the fact that the level of education plays a key role in determining the social structure of the personality, social strata;

- increased dependence on the daily life of society, it is possible to use mass media, video products, advertising, etc.<sup>9</sup>.

Objectives of modern education. In order to eliminate the contradictions between the flow of information from the outside and the opportunities for students to master it in the modern education system, it is necessary to maximally direct the achievements of

<sup>&</sup>lt;sup>9</sup> http://www.anl.az/down/meqale/az\_muellimi/2010/avqust/130765.htm

pedagogical and psychological theory and practice to the development of self-study activities of students.

Self-regulation is the influence of the subject on his own psyche and his control over achieving the result that he will achieve.

Organization in self-study is an internal control process in which it is important to activate purposeful and planned activities of students, as well as accelerate the development of their capabilities and abilities. In this process, the student directs himself to the work he will do, to work together with others, to realize his goals.

Basic methods of self-study:

1. To work on literature.

2. To fulfill practical tasks.

3. To participate in clubs, seminars, trainings, courses.

4. To use materials that positively affect cognitive activity: reading, reviewing and analyzing documentaries and feature films.

5. Use of Internet resources.

The most convenient way for self-study of high school students is to have "Internet lessons" in online projects. By following these lessons, students learn the foreign language they want, explore historical events, and become acquainted with the global problems of the modern world. Such a flexible approach to the self-study process allows students to prepare not only for the final and entrance exams, but also for international programs.

Self-study is based on accurate time management, proper prioritization and a systematic approach to learning.

**The second paragraph of Chapter III** is entitled *"Conduction of pedagogical experiment. Determinant experiment"*.

In the process of determining the initial level of self-study (self-development, self-determination, self-awareness), their interrelationships, level of activity and motivation of activity were studied. When achieving the goal, it was confirmed that the directions indicated are perspective for self-study of students. The experiment started in September 2018.

Purpose, objectives, hypothesis and organization of the experiment.

The determiningng experiment was conducted at school No. 3 in Khirdalan and school No. 2 in Gazakh and school No.1 in Tovuz districts. 161 students of IX-XI grades and 12 teachers took part in the experiment.

The purpose of the diagnostic experiment was to study the state of self-study activities of senior students.

The study put forward the following working hypothesis. It is possible to form an interest in self-study in senior students and carry out work on this problem taking into account:

- if interest in self-study, self-education and self-development is formed in senior students in the training process on a regular basis;

- if the attention of high school students in the learning process and outside of learning is drawn to the processes and events taking place in the world;

- if conditions are created for the cooperation of all participants of the senior class individually and collectively during the training process and outside the training;

- if the content, methods and forms of self-study increase the cognitive activity of students;

- if the formation of students' personality, leadership, creativity, organization, creativity, ability to make independent decisions, peaceful resolution of conflicts and other qualities are ensured;

- if a model of self-study of senior students is presented, taking into account the above, it develops students' thinking, which stimulates them to acquire the knowledge they are interested in and the ability to constantly acquire independent knowledge, and at the same time creates the basis for the development of personality.

The results of self-study work on classes in the learning process and extracurricular times.

Table 3.2.1.

Year	Schools	ber of nts		cla	asses	in the		ing p	tudy rocess mes		on	
	Control classes	79p 100%	IX grade 25p				K grad 27p		XI grade 27 p			
	Khirdala	5p	4p	8p	3р	15p	10p	2p	16p	8p	3р	
2018	n's № 3 school	7 p	6	2	2	5,5	7,0	,4	9,2	9,6	1,1	
2019	Tovuz's № 2 school	<i>'</i> p	0	2	2	5,5	7,0	,4	9,2	9,0	1,1	
• • • • •	Gazakh's № 2 school	7 p										
2018 - 2019	Experim ental classes	82 100 %		24 p			28 p			30 p		
	Khirdala n's №3 school	8 p	2p	р	р	4p	1p	р	7p	p	p	
	Tovuz's №1 school	8 p	0	3,3	6,6	0	9,2	0,7	6,6	0	3,3	
	Gazakh's № 2 school	6 p										

Note: L - low, A - average, H - high.

As it seems, The mastery of self-study skills by both control (79 people) and experimental class (82 people) in the learning process and outside of training is approximately equal, with lower (56% ~ 50%), average (32% ~ 33,3%) and high (12% ~ 16,6%) in the IX grade, lower (55,5% ~ 50%), average (37% ~ 39,2%) and high (7,4% ~ 10,7%) in the X grades, and lower (59,2% ~ 56,6%), average (29,6% ~ 30%) and high (11,1% ~ 13,3%) in the XI grades.

Results of the determining experiment:

1. Independent activity of senior students is the leading factor of self-study and will allow them to take more creative steps in their future professional activity and life. Given this, it is necessary to study the features of their independent activity in self-study of students.

2. The results of the experiment showed that not all students have an idea of independent work. So, 22.6% of students responded to the concept of "independent activity" quite comprehensively. 77.4% said they understood "independent activity" as expanding the world outlook or eliminating backwardness in school training.

3. High school students confuse the concept of "self-study" with the concept of "independent activity", self-study is understood as reading additional literature, spending leisure time working at the computer, communicating with friends, and engaging in a job where he is enthusiastic.

4. An analysis of the results showed that the learners do not make full use of the information they independently obtained in oral and writing works: some use the material in the lesson and the textbook, while others do not use it at all.

5. In some cases, students wrote any statement as a paragraph of the plan, regardless of the content of the text. Conversations with individuals and groups showed that students' skills on independent activity are formed, but this process is not of a systematic and purposeful nature.

6. Computer skills are not formed in most of the students.

7. The defining experiment showed that the world outlook, creativity, independence, leadership abilities in senior students are not sufficiently formed.

8. Conducting a determining experiment revealed difficulties encountered by both students and teachers during self-study. To overcome these difficulties, it is necessary to develop special forms, methods and tools. The results of the experiment allowed to determine the content of self-study in the learning phase.

Conduction of teaching experiment

Taking into account the results of the research on the problem, a program for self-study activities of senior students for IX-XI grades was developed. (Appendix  $N_{0}$  6). For students, project materials were provided (We love to learn). 163 students and 12 teachers were involved in the experiment.

The experiment was conducted in the 2019/2020 academic years.

The main ideas of the program are as follows:

- self-study is an integral part of the pedagogical process as a whole;

- self-study stimulation of pupils is a necessary component of general education;

- preparing students for independent self-study is the main goal and condition of continuing education

- all educational work carried out in secondary schools (including social work) is aimed at the formation of skills and habits of students' independent activity;

- in the process of self-study, high school students are stimulated to acquire certain professional skills.

Stimulating conditions were created for the learning experiment to activate students' self-study both during the learning process and during extracurricular activities. Methodical recommendations for the experiment were written and applied.

Table 3.2.2.

Yea rs	Schools	Num ber of stude nts	Results of self-study work on classes in the training process										
	Control classes	80 p	I	X gra 25p		X	K grad 28p	le	XI grade 27p				
	classes	00%	L										
	Khirdala n's № 3 school	27 p 25 p		8 p	2 p	13	12	3р	14	8p	5p		
	Tovuz's	25 p	6	32 %	8 %	46,	42,	10,	51,	29,	18,		
2017- 2018	№ 1 school	28 p	%			%	%	%	%	%	%		
2019-	Gazakh' s № 2 school												
2020	Experim ental classes	83 p 100 %	27 p				29 p		27 p				

The purpose of the learning experiment is to determine the

effectiveness of the model developed for high school students' self-study.

Khirdala 's №3 school	n 30 p	p	11 p	3p	p	4p	1p	p	1p	3p
Tovuz's №1 school	27 p 26 p	1, 1	r 0, 7	8, 1	3, 7	8, 2	7, 9	1, 1	0, 7	8, 1
Gazakh': №2 school	5									

Note: L - low, A - average, H - high.

As can be seen from the table, the level of formation of selfstudy skills in control class students (80 people) was 60% at the lower level, 32% at the average level, 8% at the high level in the X grade, 46,4% at the lower level, 42,8% at the average level, 10,7% at the high level in the 10th grade, 51,8% at the low level, 29,6% at the average level, 18,5% at the high level in 11th grade, while significant progress was observed in dynamics of self-study activity of students in experimental classes. Thus, the development indicators of the experimental classes (including 83 people) are as follows: In the ninth grade, mastery fell from 60% to 11.1% at the lower level, rose from 32% to 40.7% at the average level, and from 8% to 48.1% at the high level. In the 10th grade, it fell from 46.4% to 13.7% at the lower level, rose from 42.8% to 48.2% at the average level, and from 10.7% to 37.9% at the high level. As expected, progress was made in the 11th grade. Thus, in the 11th control class, mastery fell from 51.8% to 11.1% at the lower level, rose from 29.6% to 40.7% at the average level, and from 18.5% to 48.1% at the high level. increased.

The analysis of the results shows that the majority of students are able to summarize the material they read, express the main idea, be able to make a plan for the presentation of the material and ask questions about the text.

Organizational and self-regulatory skills in students' selfstudy activities were determined by giving the following tasks:

1. Defining the purpose of self-study activities in the direction of interest.

- 2. Forming a goal for self-study.
- 3. Self-study work planning.
- 4. Implementation of the plan in practice.

Students assessed themselves on three levels:

- I can

- I can, but sometimes it doesn't work

- I can't.

81% of students wrote a positive result.

The results of the experiment on self-study of senior students in extracurricular times

Table 3.2.3.

Years	Schools	Numb er of stude nts 80 p	The results of the experiment on self- study of senior students in extracurricular timesIX gradeX gradeXI grade									
	Control	80 p	17 g 25p	, aue		лgi	28p	)	27p	XI grade 27p		
	classes	100%	L	А	Η	L	А	Η	L	А	Н	
	Khirdalan		14	8 p	3 p	18	6 p	4 p		10	4 p	
2018-	's № 3	27 p	p n	32	12	р	_		13	р		
2019	school			%	%		21,	14,	n		14,8	
		25 p	56			64,	4	2		37	%	
	Tovuz's		%			2	%	%	48,	%		
	Nº1					%			1			
	school	28 p							%			
	Gazakh's											
	Nº 2											
	school											

2018- 2019	Experime ntal classes	83 p 100%	27p			29p			27p		
	Khirdalan		3p	13	11	5p	11p	13p	4p	13p	10p
	's №3	30 p		р	р						
	school										
		27 p	1,1	48,1	40,7	7,2	37,9	44,8	4,8	48,1	37 %
	Tovuz's										
	Nº1	26 p									
	school										
	Gazakh's										
	№2school										

If the indicators of self-study activities of upper-grade students (80 people) in extracurricular time were 56% in the ninth grade at the lower level, 32% at the average level and 12% at the high level in the 9th grade, 64.2% at the lower level, 21.4% at the average level, 14.2% at the high level in the 10th grade, 48.1% at the lower level, 37% at the average level, 14.8% at the high level in the 11th grade, in the experimental classes, higher indicators were obtained in the dynamics of development. Thus, in experimental classes (including 83 people) development indicators were manifested in this ratio: In the IX grade, self-study decreased from 56% to 11.1% at lower level, while in average it rose from 32% to 48.1% and in high level from 12% to 40.7%.

In the 10th grade, self-study indicators fell from 64.2% to 17.2% at the lower level, rose from 21.4% to 37.9% at the average level and from 14.2% to 44.8% at the high level.

In the 11th grade, significant progress was made in the results of senior students in self-study. Thus, the performance of control class students decreased from 48.1% to 14.8% at the lower level, increased from 37% to 48.1% at the average level, and from 14.8% to 37% at the high level.

From the results it was clear that 81% of students were able to accurately establish their self-study activity compared to a certain experiment. We see the reasons for this in the correct idea of the essence of their self-study activity, its implementation in a consistent, planned manner and taking into account the nature of its implementation over a certain period of time.

During the educational experiment, 72% of senior students went to a high level of self-study. This indicator made it possible to make a final decision on the result-oriented activity of personalityoriented self-study and to clarify its future prospects.

Thus, as a result of the evidence obtained, it can be concluded that the experimental class.

Such activities aimed at the activities of students expand the scope of knowledge on self-study, which is not reflected in training programs and textbooks, form values, develop their activities.

Thus, in the process of research, the values of self-study of senior students are formed as lifelong education with the idea of building a future profession and career. Communication and acquiring cultural habits contribute to their becoming an influential and active participant in the society. They realize the importance of self-study in the life of modern man and set goals for his future activities.

# These are the conclusions that we have come about the research:

1. Great responsibility lies with secondary schools, where students spend most of their time as a personality. However, a number of social reasons do not allow each student to define an individual approach and formulate a trajectory for his individual development: poor communication, inability of teachers and parents to find a common language with students, disregard of their interests and desires, inability to gain authority in the team, etc.

2. As a result of the analysis of psychological and pedagogical literature, as well as the study of experience in self-study

of senior students in secondary schools, the need to carry out systematic work in this area and create methodological literature has arisen. In the course of the study, the goals, objectives, structure, conditions, conditions and criteria for students' self-study were systematized on the basis of new approaches we acquired in the scientific and peagogical literature.

3. Modernization of the education system requires teachers to direct students to self-study activities. Self-study activity is managed by the teacher and becomes an independent activity. It is important to have clear pedagogical recommendations to manage such activities and achieve successful results. An analysis of scientific and pedagogical literature showed that the concept that teachers can use in the self-study activities of students is incomplete.

4. The analysis of scientific and pedagogical literature and the defining stage of the experiment made it possible to determine the criteria for self-study activity of senior students. These are the following:

1. Continuous motivation of personality-oriented development of students: (cognitive motivation; communication motivation of students with each other).

2. Activity in training activities.

3. Development of the student in all directions.

- 4. Self-development, self-awareness, self-affirmation.
- 5. To be able to communicate with peers and other people;
- 6. Development of creative qualities.
- 7. Giving new ideas

8. At the educational stage of the pedagogical expert, a model of self-study activity of senior students was introduced. It was considered appropriate to present the structure of the model as a set of approaches, principles that positively affect the development of self-study activity. In the self-study model of the student, the purpose of training, motivation, organizational principles, communicativeness are established with reference to self-regulation, which ensures the competence of the personality. 5. The creation of a methodological system for self-study of senior students is conditioned by the following reasons:

- "The requirements set for education in the "State Strategy for the Development of Education in the Republic of Azerbaijan", ie the knowledge and skills acquired in the educational process, as well as ethical and moral norms and values create the necessary conditions for every student to be a worthy member of society, makes him a role model, exemplary family member and citizen who can be an example through his knowledge and ethical behavior;

- the social need of the student as a person to be a creative person;

- Insufficient research for self-study activities of senior students;

- the need to put into practice the model developed for students' self-study activities<sup>10</sup>

6. A theoretical analysis of the problem and the experimental work carried out proved the validity of the hypothesis put forward by us that the self-study activity of senior students on the basis of pedagogical conditions will be more effective and purposeful in conducting personality-oriented.

7. Our research and pedagogical experiment made it possible to determine the perspective directions of self-studying of students:

- the works carried out by teachers on stimulation of upper class students to work on their own, strengthening of self-confidence, expansion of self-esteem (attitude to modern problems, formation of position on the events taking place);

- in-depth study of certain subjects in accordance with students' inclinations, interests and vital plans;

- general self-study. Self-study of students in expanding their outlook by showing interest in certain areas (legal, aesthetic, history,

<sup>&</sup>lt;sup>10</sup> ate Strategy for the Development of Education in the Republic of Azerbaijan. "Azerbaijani teacher", October 25, 2013, № 41

foreign language, information and communication technologies, sports, protection of health, with different interest).

- self-study in connection with the development of students' own abilities.

8. Based on the above, it can be said that the goal has been achieved, the assumption is correct, and the tasks have been accomplished. The effect of the personality-oriented self-study we offer on improving the quality of education has been experimentally proven. This model provides a basis for the modernization of the educational process in general.

9. A person with a high culture understands that he should think about his life and activity, deeply understand what is happening around him, analyze it, have comprehensive knowledge.

Thus, the formation of self-educational activities of senior students, having a phased, planned character, takes place on an independent and continuous plane of activity, taking advantage of the system of methodological work carried out by the teacher. The basis of this is the modeling of training situations. Here the goal is set, the material they will study is planned, the sources of information are determined, interest in art and the profession is clarified. The conceptual approach to self-study of students allows to clarify the theoretical foundations of self-education, to determine the didactic conditions and requirements for its development, to justify the content, activity and organizational aspects of this process.

The presented model allows to gradually improve the indicated forms, methods and tools in IX-XI grades, methodical recommendations provide guidance to students' self-study activities. Students are prevented from applying to tutors.

Based on the results of our research, we consider it important to take into account the following suggestions:

1. In order to expand students' self-study opportunities, taking into account the fact that training is conducted mainly online during the pandemic, to ensure that an individual plan is developed according to the interests and tendencies of each student. 2. It is important to focus more on creativity, independent work, projects and research, and the application of innovations in self-study of students.

3. The continuation of the work carried out on self-study in higher educational institutions has a positive impact on the career of young people in the field they are interested in.

The content of the research, the main scientific ideas and scientific conclusions related to the obtained results are published in the following works of the author of the dissertation:

1. "The essence and content of self-study activities of senior students // Institute of Education of the Republic of Azerbaijan, Scientific works, 2018,  $N_{0}$  6 p. 49-53

2. "Some issues of self-study activities of senior students // Ministry of Education of the Republic of Azerbaijan, Materials of the XXII Republican Scientific Conference of Doctoral Students and Young Researchers. Baku, November 22-23, 2018, II volume. p.379-381

3. "The role of fiction in the self-study of senior students" // Scientific works of the Institute of Education of the Republic of Azerbaijan, Baku 2019, № 2 p.116-119

4. "Study of the experience of secondary schools on self-study activities of high school students". Ministry of Education of the Republic of Azerbaijan. Materials of the XXIII Republican Scientific Conference of Doctoral Students and Young Researchers, Baku December 3-4, 2019, I volume. p. 483-485

5. "The model of self-study of senior students and its influence on the quality of education" Municipal entity: Innovation and experiment. Moscow 2020, 4 [73], p.66-71.

6. "Pedagogical and psychological bases of self-study activity of senior students" Scientific works of the Institute of Education of the Republic of Azerbaijan, Baku 2021, No4, p. 28-33.

7. "Theoretical and practical issues of self-study activities of senior students in secondary schools". Ganja Branch of Azerbaijan National Academy of Sciences, News bulletin. Ganja 2021, No1, p. 90-97.

8. "Self-study issues in Nizami Ganjavi's work" Materials of the international scientific conference. Ganja November 13-15, 2021. p. 137-141.

9. "The role of teachers and students in the organization of self-study activities of senior students". Materials of the international scientific conference, Nakhchivan November 26-27, 2021.p. 499-501.

10. "Questions of self-study of senior students during the pandemic" Collection of materials of the V international scientific and practical conference, Moscow February 27, 2022. p. 319-325

11. The main directions of systematic self-education of high school students // - Baku: Institute of Education of the Republic of Azerbaijan, Scientific Works, - 2022. №3, - p. 15-20 (15,747)

12. Main directions of systematic self-education of high school students // - El Capital del Alma Mater, - 2022. Vol. 14 Núm. S 5, - p. 437-444 (27,637)

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