FACTORS AFFECTING THE INCREASE OF SKILLS AND INTEREST IN LEARNING AMONG ELEMENTARY SCHOOL STUDENTS AND PROVIDING SOLUTION

FATORES QUE AFETAM O AUMENTO DAS HABILIDADES E DO INTERESSE PELA APRENDIZAGEM ENTRE ESTUDANTES DO ENSINO FUNDAMENTAL E SOLUÇÕES PROPOSTAS

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Abstract. Many students do not have the necessary interest and motivation to learn in schools. Therefore, it is necessary to identify the factors affecting it, as well as effective solutions to increase students' interest and motivation. Therefore, the present study was conducted with the aim of investigating the factors affecting the increase in skills and creating interest in learning among elementary school students and providing solutions. The present study is applied in terms of its purpose and method of conducting it. The data and information collection tool was a questionnaire and interview. The statistical population of the study included students in an elementary school in Tashkent, Uzbekistan in 2023-2024, from which 20 students were selected for discussion and interview with the teacher using a purposive sampling method. It was also used to identify solutions to increase students' interest and motivation in the lesson from the perspective of experienced teachers of education in Tashkent. The main goal of this action research was to use active teaching methods to create students' motivation and interest in mathematics and students' academic progress in learning the lesson. After observing the students' behavior of inattention, feeling tired and bored with math lessons, not doing homework, lack of self-confidence, and getting a poor score in the students' initial test, as well as the students' feelings of anxiety and stress in this test, we investigated the root of the problem by collecting information from the students' own behavior, interviewing parents, examining teaching methods, examining the educational environment and space, and the students' academic status. Various solutions were used to solve this problem, including 1) education through games, 2) using educational software, 3) relieving student anxiety and creating interest in them, 4) using 3D printing and design software, and 5) the way teachers teach. The findings showed that, according to teachers, the following five strategies were the most important ones for increasing students' interest and motivation in the lesson: giving homework outside the classroom, attracting the students' attention by the teacher, and asking the students about the lesson after teaching. The results of this research can be used to increase students' interest and motivation in lessons and help teach unmotivated students more easily.

Keywords: education system, learning, Technology, Interesting, skill, elementary school.



Resumo. Muitos estudantes não demonstram o interesse e a motivação necessários para aprender nas escolas. Por isso, torna-se essencial identificar os fatores que influenciam essa realidade, bem como encontrar soluções eficazes para aumentar o interesse e a motivação dos alunos. O presente estudo foi realizado com o objetivo de investigar os fatores que afetam o desenvolvimento de habilidades e a criação de interesse pela aprendizagem entre estudantes do ensino fundamental, além de propor soluções. Trata-se de uma pesquisa aplicada, tanto em seu propósito quanto em seu método. Os instrumentos de coleta de dados foram questionários e entrevistas. A população da pesquisa incluiu estudantes de uma escola primária em Tashkent, Uzbequistão, no ano letivo de 2023-2024, dos quais 20 alunos foram selecionados para entrevistas com os professores, utilizando amostragem intencional. Além disso, foram colhidas perspectivas de professores experientes da cidade para identificar soluções que contribuam para o aumento da motivação dos estudantes durante as aulas. O principal objetivo desta pesquisa-ação foi utilizar métodos de ensino ativos a fim de despertar motivação e interesse dos alunos pelas aulas de matemática e melhorar seu desempenho acadêmico. Diante de sinais como desatenção, cansaço, tédio, não realização de tarefas, baixa autoestima, fraco desempenho nas avaliações iniciais e sentimentos de ansiedade e estresse, buscou-se investigar as causas por meio da observação de comportamentos, entrevistas com os pais, análise dos métodos de ensino, do ambiente escolar e do rendimento dos estudantes. Entre as estratégias utilizadas destacam-se: 1) Ensino por meio de jogos; 2) Uso de softwares educacionais; 3) Redução da ansiedade e incentivo ao interesse dos estudantes; 4) Utilização de softwares de design e impressão 3D; 5) Metodologias de ensino aplicadas pelos professores. Os resultados mostraram que, segundo os docentes, cinco estratégias foram consideradas mais eficazes para aumentar o interesse e a motivação dos alunos: propor atividades extraclasses, atrair a atenção dos estudantes durante a aula, e interagir com perguntas após o ensino do conteúdo. Os achados desta pesquisa podem ser aplicados para tornar as aulas mais atrativas e facilitar o ensino de alunos desmotivados.

Palavras-chave: sistema educacional, aprendizagem, tecnologia, interesse, habilidade, ensino fundamental.

1. INTRODUCTION

Schools and educational environments are the focus of attention of mental health experts. This is because these environments deal with age groups that are known as sensitive groups. In addition to the fact that elementary, middle, and high school ages are known as the ages where the foundation of individuals' personalities in adulthood occurs, these age groups spend most of their time in these schools and environments, and it is clear that the atmosphere of these situations has important effects on the mental health of individuals in adulthood. Accordingly, psychological experts, in addition to advising families to recognize the factors affecting mental health and provide it, also pay attention to educational centers and schools, and strongly recommend creating familiarity with and observing these factors in schools (Bran & Grosseck, 2020; Abed, 2024a, b).

According to research and studies, one of the issues that is of great importance in elementary and other grades is the social skills of students. Social skills are a set of acceptable learned behaviors that enable a person to interact effectively with others and avoid unreasonable social reactions. Vongkulluksn et al., 2018; Abed et al., 2024). Social skills are a method for improving students' social skills. Social skills training is based on the principle that children's problems with social skills are often because children do not know what to do in social situations and that children can be trained to overcome these problems. (Effective Education. Effective Teaching Method.) Felix et al., (2025) suggests a three-part approach;

The first part is dedicated to the teacher's talk about better interaction with peers. When doing this, the teacher should focus on what the child "should" do, not what he or she should not do.

The second part involves repetition and practice with others.



Part Three: Giving a child a responsible role in the classroom helps increase his acceptance among his peers. (Effective Teaching Effective Teaching Method)...

The development of children's social skills is also related to the parenting style of parents. Parenting styles can be defined along two continuums: parental warmth or responsiveness and parental control or strictness (Darmayanti et al., 2025; Abed, 2024c). Parents can also provide opportunities for children to play with peers or play with their own children and help their children develop the skills necessary to play with peers. Parents can also help their children develop opportunities for playing with peers. Talking to children about their relationships with peers can also improve their social skills (Arsyad et al., 2024). (Effective learning and effective teaching) Currently, many researchers believe that social skills are learned, because children who are in inappropriate and unreasonable environments and are unable to establish any proper communication, which makes the person unpopular with others.

Academic failure, as an indicator of educational loss, is generally referred to as any weakness in literacy or the existence of illiteracy; but in a specific sense, it is the failure to meet educational expectations and failure in educational goals, and it includes a disorder in the teaching-learning process, and ultimately academic failures emerge in the form of school truancy, repetition, rejection, and dropout. Although one of the goals of mathematics is to develop students' mental abilities and intellectual discipline, and the purpose of teaching it is to develop the power of understanding and reasoning, to cultivate rational thinking, and to create a method of reasoning and logical thinking, and to foster creativity. However, there are obstacles to teaching mathematics in schools that not only make teaching this subject difficult, but also have overshadowed the lives of various people by causing academic failure. According to the results of recent research, there is a sharp decline in mathematics in middle and high school, and this is because students do not understand mathematics and cannot relate to it. So, he is not interested in mathematics and its teaching and cannot have a sincere and appropriate relationship with the mathematics teacher. One of the factors that lead to serious problems in learning lessons are weaknesses that are caused by inappropriate teaching, informal thinking, or poor recall of the past. It should be noted that weakness does not exist independently and appears in a specific conceptual framework. Weaknesses can change or disappear with changes in the framework; therefore, one of the key goals in correcting learning weaknesses is to change the students' conceptual framework of the material (Hassan et al., 2024; Maghsoudlou et al., 2025).

Along with educational conditions and facilities, human resources, especially teachers, are among the most important factors that constitute educational environments. The impact of appropriate conditions and facilities on individuals cannot be denied. However, facilities and equipment will not be effective without teachers. The teacher, by recognizing the facilities, equips the educational environment appropriately. He organizes the educational environment and facilities, creates the appropriate educational situation, and by recognizing the talents, interests, and abilities of students, guides them in the right way of learning (see figure 1).

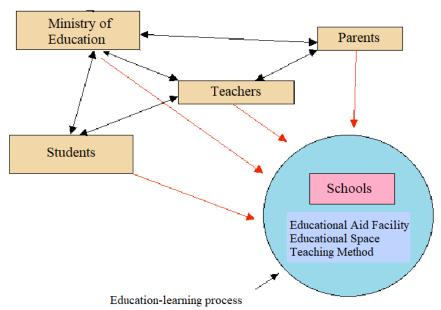


Figure 1. relationships between factors affecting education Source:

Problem statement: Understanding academic decline and the roots of their creation in conceptual areas and at different educational levels can improve learning; therefore, research in the fields of pedagogical content knowledge in conceptual areas and at different educational levels, factor analysis to determine the effectiveness of content, pedagogical and pedagogical content knowledge components, and teaching identified weaknesses to teachers seem essential, and in this case, we will probably see changes in teaching methods and, as a result, learning. The TIMSS test (Utthavudhikorn & Soontornwipast, 2024), as a diagnostic assessment, is one of the most important studies of the International Association for the Evaluation of Educational Progress, which makes it possible to conduct comparative and diagnostic studies by providing a large volume of data. Before grading scores, the International Study Center reviews statistical indicators in order to examine the psychometric properties of each question through an intracountry and inter-country comparison, and by selecting questions, examines statistical indicators that may indicate a problem in a specific country. The diagnostic scoring system is designed to determine the level of accuracy and classify or track common errors or misconceptions and weaknesses, and allows researchers to examine common errors or misconceptions in the educational community in question (Abdullaeva et al., 2024).

Creating a suitable, friendly and comfortable atmosphere in the classroom is one of the most important elements of learning that reduces anxiety and worry in students' learning. We must respect students' opinions. We should ask for their opinions in our decisions. Trusting students' learning will develop their personality. Expressing opinions in the classroom by learners creates enthusiasm for learning. We must act in such a way that students are full of excitement and joy because in this state they are more diligent. This atmosphere can be created by using enthusiastic expressions, joyful factors such as songs, shows, games, entertainment, competitions, etc. Paying attention to their interests is also important, as well as if they feel a close relationship with us. Listening to the problems and problems of the learners and getting to know the psycho-emotional states of the learners is effective in creating a pressure-free atmosphere in the classroom. The teacher's good manners create peace and attract the learners to the classroom. Teaching with passion and interest is effective in attracting the learners to the classroom and the content of the education. If a teacher enjoys teaching, this enjoyment will spread to the students, whether they like it or not. A teacher should not bring his/her life



problems to the class because it has a negative effect on teaching. Diversity in teaching methods leads to creating a lesson attraction. Allocating part of the class time, especially at the end of the class time, to discussing the teaching method and the classroom atmosphere can be useful in improving and increasing the quality of the learning-teaching process. Presentation of conferences by volunteer learners leads to personal and social growth, etc. Another necessary measure is to insist that the student learn the material with effort, rather than having it be received easily and easily by the teacher. Teaching the method of writing reports and preparing summaries of class materials and activities in the first training sessions is effective in learning and transferring the students' educational experiences to the teacher and other members of the group and class. Volunteering weak students to solve problems in class and cooperating with them in solving the problem increases their self-confidence.

2. METHOD

In this study, after observing the behavior of students in the elementary school classroom and the results of the students' first initial test, an attempt was made to study, investigate, and search for the aforementioned causes and factors and to collect solid and solid evidence in this regard.

2.1. Observing behaviors and examining students' performance

By observing the behavior of students, the level of enthusiasm and enthusiasm of students in the classes under study was determined. Experimental observations showed that they were reluctant and bored in writing assignments and did not participate in group work. They constantly asked for the time and were forced to endure the class just to pass the time and at the first opportunity they asked to leave the class under various excuses. Students did not volunteer to solve the exercises in class and when the teacher solved the exercise, they did not pay attention and did not correct their mistakes.

2.2. Talking to the school principal and teacher from the previous year

Due to the outbreak of the coronavirus, the previous two academic years, schools were virtual and students were active on the internet, and in terms of education, the teacher has put all his efforts into virtual classes. The teacher from the previous year showed the activities that the students had done in different lessons, and most of the students had done their homework, some on time and some late. One thing that caught my attention was that the students had only written the answers to the problems in summary form in their homework and there was no solution. As if they had used old methods or calculators to solve the problems.

2.3. Conversation with parents of students:

Due to virtual teaching on the Internet in previous years, parents of students, especially mothers of students, had to spend their own time and teach their students lessons. On the other hand, they believed that the content of elementary lessons had become more difficult than before and they were not familiar with new methods of solving exercises and teaching, so they had to use the same old method or just tell the students the answers to the homework. For this reason, parents had a negative view of the lessons and sometimes used violence to teach their students.

2.4. Examination of teaching methods and teaching and learning activities

Due to the virtual nature of schools, students in the previous 2 academic years used their materials and content from educational videos that the teacher gave them. For this reason, it can



be said that the lecture method was used to transfer the materials and the parents were only busy transferring information to the students. In fact, it can be said that there was no creativity and activity in the teaching methods and the students were not active and memorized and wrote down the materials that their parents told them.

The results of the initial written test show that the students were not in a good academic situation.

3. RESULTS

Currently, most teachers, students, and their parents consider poor learning to be low grades in exams. In this article, poor learning refers to students not achieving the basic and main goals in schools. The main goals of education, according to the National Council of Teachers in the School Curriculum and Assessment Standards (1989) and the goals stated in the Education and Upbringing Regulations, include the following:

- 1. Cultivating intellectual discipline and correct thinking through teaching the application of knowledge to obtain results.
- 2. Creating the ability to perform numerical calculations in everyday life.
- 3. Creating the ability to perform mental calculations and to guess and estimate quantities within the limits of everyday life needs.
- 4. Creating and developing the ability to discover, guess, reason logically and the ability to effectively use various methods to solve unusual problems.

Considering the above goals, it must be admitted that most students, even the top students, have not achieved all of these goals, because it is observed that even outstanding primary school graduates cannot use their knowledge in everyday life as they should and their ability to solve problems is very low. This claim is evidenced by the results of international studies by Bran & Grosseck (2020), which always show that Uzbek students perform poorly compared to students in other countries in the application and application of lessons.

3.1. Causes of students' weakness in learning

To justify the weakness of students in learning, various causes and factors can be mentioned, such as psychological factors, physical factors, social factors, individual factors, school factors, etc.; but in this article, we will only examine school causes, and school causes mean textbooks, curriculum, and the way it is taught and taught in the classroom by respected teachers. In this study, the most important school causes that lead to students' academic decline in learning were examined, based on research and books on educational sciences, principles of learning and teaching, principles and rules that must be observed in elementary school teaching, as well as conditions and factors that make learning this subject easy, and based on observing different classes and the way teachers teach, the opinions of teachers and students, and examining elementary school mathematics books.

Some teachers' lack of mastery of teaching knowledge

The concepts and topics taught in schools must be within the framework of principles, foundations, and logic; therefore, the first condition in teaching is the teacher's mastery of the basics of the subjects to the required extent; but since the recruitment of primary education personnel in Uzbekistan is and has been more than just secondary school diploma holders, teachers, teaching staff, and teacher training associates with unrelated qualifications, one of the main reasons for students' decline in mathematics can be considered the lack of mastery of relevant knowledge and teaching methods by some teachers.



Failure to use teaching aids

The learning materials of the lessons should be presented in accordance with the cognitive development of the students. Since elementary school students are still in the concrete operations stage and have not reached the abstract thinking stage, ways should be provided in teaching and learning lessons so that students understand the basic concepts through intuition and experience. The most important and best way in this regard is to use concrete and semi-concrete stages at the beginning of teaching each concept. This requires the use of appropriate teaching aids. However, for the following reasons, some teachers use less appropriate teaching aids and, as a result, they present theoretical explanatory methods in the classroom, which students only learn at the level of knowledge and memory:

- Some teachers enter the classroom without a prior plan or program.
- Teachers are not familiar with the best and most modern teaching methods
- Teachers do not know the impact and role of teaching aids in the lesson.
- There are fewer suitable teaching aids in schools.

Lack of participation of students in the teaching process and their inactivity

Considering the active and action-oriented nature of students and the fact that learning is the result of experience and the only way to learn lessons is to attend lessons; the teaching method of elementary lessons should be based on student activity, meaning that students should be made to be active in each of the concrete, semi-concrete and theoretical stages, and the teacher's intervention in teaching, leadership and guidance of class activities, intellectual guidance, facilitating learning, regulating the results that students achieve, and teaching materials that have a conventional aspect should be limited; but what is clear and obvious is that a number of teachers use the same traditional teacher-centered method in teaching in which students have no role and the students' thoughts remain idle in the face of the teacher's words and they do not make any effort to understand. As a result, the teaching process will be dry, lifeless and devoid of enthusiasm, and learners will not achieve the goals of the lesson.

Undesirable educational conditions and facilities

Lack of desirable educational facilities and facilities is another factor in the academic decline of students. The lack of experienced and capable teachers in transferring the content and subjects of the lessons to students, the weakness in teaching methods and reliance on repositories, crowding in the classroom, the compactness of the curriculum and educational aids, the distance of the school from the place of residence and dozens of other issues regarding desirable educational conditions and educational facilities and facilities are significant factors in the creation and development of academic decline.

Failure to pay attention to the prerequisites of new lessons

Learning each new lesson content is done with the help of other previously learned content; however, since some teachers do not care about the previous prerequisites of the new lesson and the level of knowledge and input of the learners, and in fact do not conduct diagnostic evaluation, no matter how much they sacrifice, they cannot create new behavior in the student that is based on other behaviors (which he has difficulty learning).

The high volume of textbooks

Since learning usually takes place gradually, the material should never be taught quickly and then passed. The speed of progress in teaching should be proportional to the speed of



students' learning; but considering that it was previously said that our educational system is book-oriented and unfortunately, elementary textbooks, especially in the fourth and fifth grades, are large in volume and quantity is preferred over quality, as a result, respected teachers first think about completing textbooks in accordance with the budget table provided by the Education Department, and this lack of time to present the material correctly and completely is itself an important factor in students' academic decline and their weakness in learning.

Teacher-Student Relationships

Education is meaningless without relationships. The teacher's first goal should be to establish a friendly and supportive relationship with students. It should be remembered that any interaction with students can either strengthen or weaken their impression of the teacher; therefore, efforts to build positive relationships with students should involve both the teacher and the students at all times.

Inconsistency of educational programs and methods

If curricula are prepared and adjusted with the opinions of experts and educational psychologists, and the contents are clear and unambiguous, it will prevent possible backwardness of students. Teaching methods should also be applied to individual differences and complete knowledge of students.

School expectations of students:

Some of the academic failures in mathematics and other subjects are related to the children's incompatibility with the school's expectations. In failures where the student's personality is not the main source, it plays the role of a specific cause. In other words, the school's expectations have not yet been able to adapt to some of the children's personalities. The school's adaptation to the personalities of children or adolescents should be done through a meeting between the student and the teacher and by taking steps towards each other, and in this way, "generosity" takes the initiative in the school. (Frémeaux & Moneyron, 2024). sometimes the cause of a student's academic failure is the teacher's expectation of failure and false prejudices from the student. The teacher tries to predict their academic future with his prejudices in the first encounter with his students. The result is that teachers should completely avoid negative prejudice about an individual, because this prejudice itself may lead to his failure. The main reasons for academic failure:

- Individual factors: including intelligence, attention and precision, motivation, emotions and emotional turmoil and physical deficiencies.
- Family factors: including family relationships, financial and economic poverty, cultural poverty of parents, absence of parents or guardians.
- School educational causes: including teacher teaching style, school curriculum, teacher prejudice, physical conditions of the classroom, teachers' incorrect assessments of student performance, low teacher-student ratio, lack of experienced, trained and interested teachers in teaching and non-coverage of compulsory education students.
- School factors: such as teacher-student relationships, teacher skills, educational conditions and desirable academic exams, evaluation, textbooks and school materials, inconsistency of the program and educational methods and techniques, lesson preparation and grading, educational calendar and hours, classroom space and school



facilities, school expectations of students, frequent teacher changes, distance from school ((distance from home to school))

Choosing a solution After collecting information and diagnosing the students' situation, appropriate solutions were proposed to solve the existing problem; among these solutions are:

- 1. The teacher should always be fully prepared for each new lesson topic and should prepare a written lesson plan that includes goals, areas, input and diagnostic evaluation, determining the teaching method, and formative assessment.
- 2. Providing lesson stars to motivate students to do homework, class activities, do homework, and succeed in exams
- 3. Making and providing teaching aids to apply the skills and concepts learned, so that as much as possible, the teaching aids are prepared by the students themselves so that they are fully prepared for active teaching
- 4. Preparing educational videos, PowerPoints, and interesting stories related to the lesson to motivate students
- 5. Class grouping of students and making a plan for students to do group work
- 6. Paying attention to the individual differences of students and giving them assignments that they can handle
- 7. Preparing educational videos on new course materials by the teacher for parents to use and upload on social networks, so that parents are familiar with new teaching methods and can help their students in the right way in the lesson
- 8. Using active teaching methods and considering students' concrete, semi-concrete, and abstract learning
- 9. To reduce students' stress and anxiety, as well as increase their self-confidence Try to use more classroom questions and continuous evaluation, and have students sit in the classroom to do exercises.
- 10. Improve the educational environment by choosing comfortable tables and chairs for students and creating a suitable environment for interactive and active learning with students and the teacher.

4. CONCLUSION

It has become clear to those involved in natural sciences that academic research alone does not answer the scientific issues and problems of education. It is the teacher and his/her view of the student and his/her profession that can largely solve the problems of students by choosing different methods and approaches.

This research aims to provide a solution to improve learning and increase the interest of elementary school students in learning subjects, and the results have shown that by using active teaching methods and creating practical learning situations, the level of interest, motivation, and progress of students in elementary school subjects can be improved.

This research was conducted in 2023-2024 in elementary schools in Tashkent, Uzbekistan. In this research, by identifying the problem, collecting information about the problem, selecting and implementing effective solutions, the problem was solved.

By using solutions, using new teaching methods, creating a positive attitude in parents and students, and establishing a connection between mathematical content and students' daily lives, students' motivation and interest in mathematics lessons were increased, and as the tests show, about 80% of students reached good and very good levels in the second test and after using the active teaching method, and the students' learning level improved. In order to achieve valuable



goals, in line with precise and regular planning such as the aforementioned project, which has an implementation context, the following suggestions are presented:

- 1. Consider concrete, objective, diverse, and creative tasks and activities, considering the needs and interests of students.
- 2. Try to create a happy and lively environment in the classroom and be friendly with students.
- 3. Try to make the most of teaching aids in teaching each concept.
- 4. Students should gain self-confidence that they can learn the lessons and answer the questions. When a weak student answers a question, he gets excited and unconsciously shouts with joy, so we must control them so that the class does not fall apart.
- 5. Reducing the size of the fourth-grade textbook by education officials and paying attention to quality instead of quantity.

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