

# Using Time Management Technology to Develop Students' Competence in Independent Learning

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**Abstract:** In the education system of our country, special attention is being given to developing students' independent learning competence within the framework of continuous education, as training future teachers to become competitive and highly qualified specialists is a key priority. Independent learning enhances students' autonomy, creative and critical thinking, and broadens their worldview. It also fosters the ability to independently analyze newly acquired knowledge, which, in turn, helps them to accurately assess real-life changes and make well-informed decisions. There are various methods and technologies aimed at promoting independent learning, among which time management technology stands out as one of the most relevant today. This is because students become more effective when they act systematically and in an organized manner, facilitating easier assimilation of new information and enabling them to acquire more knowledge in a shorter period.

Therefore, the use of time management technologies is essential in developing students' independent learning competence. This article discusses the theoretical foundations and practical significance of developing independent learning competence. It also presents the analysis of a Google Form survey titled "The use of Time Management technology in developing students' independent learning competence", conducted among student respondents, illustrated in the form of diagrams.

**Keywords:** Independent learning, time management, technology, efficiency, competence, development, and distribution.

**Introduction:** In leading educational and research institutions around the world, significant attention is being paid to the development of students' independent learning competence. Research efforts are focused on systematizing strategies for organizing this process, designing frameworks to enhance social development, and establishing educational practices aimed at fostering students' creative and practical engagement. Contemporary pedagogical and psychological theories increasingly regard the development of independent learning competence as a core component of the didactic process. Within this framework, it is essential to structure students' learning activities around the identification and resolution of specific academic problems, utilizing innovative methods and technologies to support these

efforts. Independent learning competence is understood as the result of a coherent and mutually supportive interaction between students and instructors. This collaboration creates the pedagogical conditions necessary for students to perform learning tasks autonomously, while also receiving purposeful and strategic guidance.

Furthermore, in the education systems of most developed countries, the number of hours allocated for independent learning typically exceeds those dedicated to traditional classroom instruction, reflecting the global shift toward learner-centered educational models. In institutions of higher education, the nature of the teaching process differs significantly from that of general secondary education, particularly in terms of the relationship between the learner

(student) and the object of study (learning process). Higher education requires a greater degree of learner autonomy. However, practice shows that many students lack the necessary skills to effectively organize their learning activities. As a result, despite their potential and aspirations, they often demonstrate low academic performance.

Given that education is a powerful driver of social development, and regardless of whether students study in traditional, distance, or hybrid learning environments, a notable trend is the decrease in contact hours between students and instructors. This reduction is largely due to an increase in the number of subjects and the hours allocated to independent study within academic programs. Consequently, there is a growing need to cultivate students' ability to manage their learning processes independently and to develop their competence in independent learning.

The integration of time management technologies into the development of independent learning competence is emerging as a critical socio-pedagogical issue. Independent learning plays a key role in shaping and enhancing students' intellectual potential. It is also essential for improving the quality of education and supporting the professional formation of students. In fact, international education systems emphasize independent learning as a fundamental component of academic programs. Research indicates that students with well-developed independent learning competence tend to exhibit higher levels of creativity. One of the core objectives of higher education is to guide each student toward becoming a competent specialist in their field—capable of self-development, continuous learning, and creative engagement in innovative activities. The ongoing reforms in the education system and the conditions being established increasingly require an individualized approach to student learning. The use of time management technologies enables students to plan tasks, set priorities, monitor progress, and manage their time more effectively through the use of online tools and other resources. These practices contribute to improved academic performance. However, the successful implementation of such technologies requires a comprehensive and collaborative approach from both instructors and institutional administrators. Developing and integrating time management training into the curriculum can help students build and enhance their time management skills, which are crucial for academic and professional success.

## METHODS

According to N.A. Muslimov, "Independent learning is the process of acquiring knowledge, developing

concepts, and forming skills and competencies through a subjective, purposeful, regular, autonomous, and self-directed activity within the educational process."

Yu. Xanderson defines independent learning as "a form of education offered by many secondary schools, colleges, and other institutions. Sometimes referred to as guided learning, it is largely characterized by the absence of direct supervision and is often conducted independently."

Student self-directed work is considered an essential component of the independent learning process. As noted by N.F.Koryakovtseva, "student independent work refers to educational activities organized and carried out without direct supervision by the instructor." [15, p. 52]

Time management is a technology that enables an individual or group to organize their activities effectively and rationally within a given time frame, using the most efficient methods and techniques to achieve maximum results with minimal expenditure of time, energy, and other resources (Chulpan Nizamova).

In the Explanatory Dictionary of the Uzbek Language, time management is defined as "a technology for organizing time and using it efficiently. It is a conscious control of time spent on tasks to increase productivity. A set of skills, tools, and techniques can assist in managing time to complete specific tasks, projects, and goals within a designated deadline."

The English philosopher, politician, and scholar Francis Bacon once wrote: "To choose time is to save time. Delay is dangerous." This highlights the critical importance of time management in achieving success and avoiding failure.

The use of time management technologies in the educational process allows students to make rational use of their time, allocate sufficient time for each planned goal and task, and develop the ability to complete assigned tasks within designated deadlines. It is important to remember that the primary objective of time management is not simply to list all possible tasks or organize all available information, but rather to identify the most rational and effective approach to task execution based on priorities.

In the process of independent learning, it is essential to ensure the scientific accuracy and systematic structure of the selected topics, as well as the relevance, interdisciplinary integration, and practical application of learning materials. Additionally, the independent assignments and tasks provided to students should be of a creative nature. The practical relevance of the topic being studied, its scientific depth, the engaging quality of the content, the systematic nature of topics, and the

multifaceted and interconnected nature of assignments all play a crucial role. Furthermore, students' interests and intrinsic motivation should be carefully considered when organizing their independent learning activities.

Independent learning among students in higher education institutions can be classified into three main types:

1. Tasks completed by students without the direct involvement of the instructor;
2. Tasks that require students to comprehend educational material through independent and critical thinking;
3. Tasks in which students are given freedom in choosing the method and content of completion, with no strict time constraints imposed.

The factors influencing the development of independent learning competence among students in higher education institutions include the following:

**1. Intrinsic Motivation** – This refers to motivation that arises from within the individual, rather than from external pressures or incentives. In this context, the student's inclination, interest, worldview, and ability to study in a higher education institution are taken into consideration.

**2. Extrinsic Motivation** – This form of motivation emerges when the individual perceives a benefit or

reward following the completion of a particular activity. At this stage, it is evaluated based on the connection between the outcomes of studying professional training subjects in higher education institutions and students' academic results.

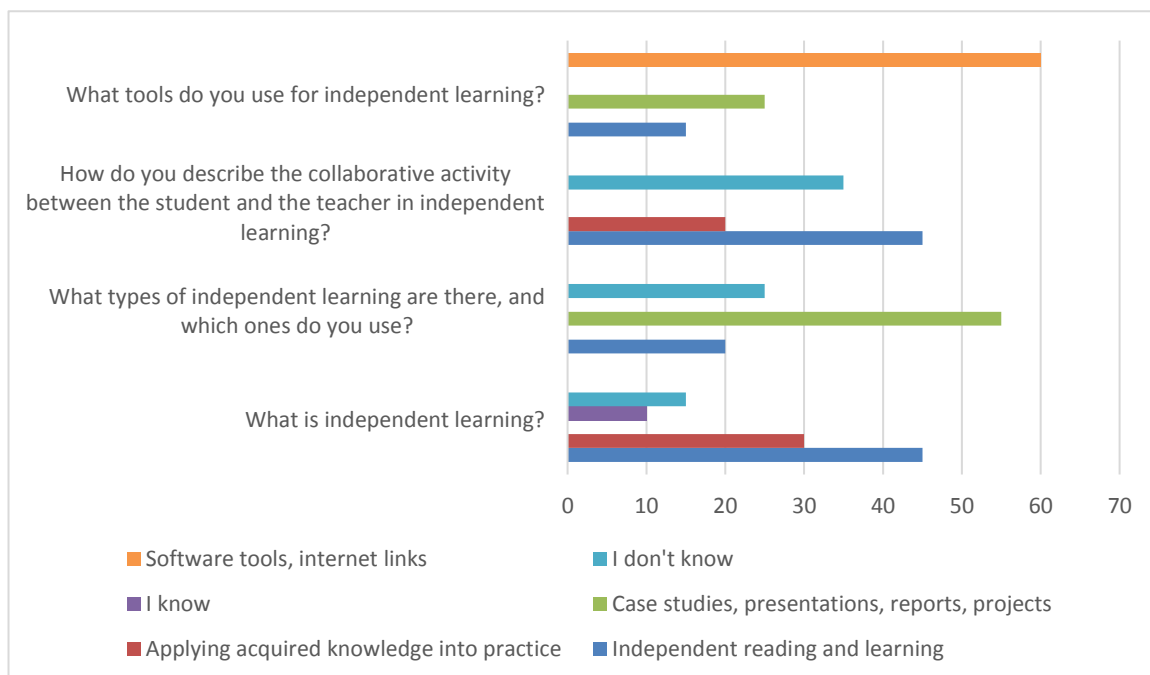
**3. Processual Motivation** – This type of motivation is manifested in the students' understanding of the usefulness and relevance of the tasks they perform. Psychological adaptation to the significance of academic activities and the understanding of their value from a professional training perspective contribute to enhancing students' professional achievements.

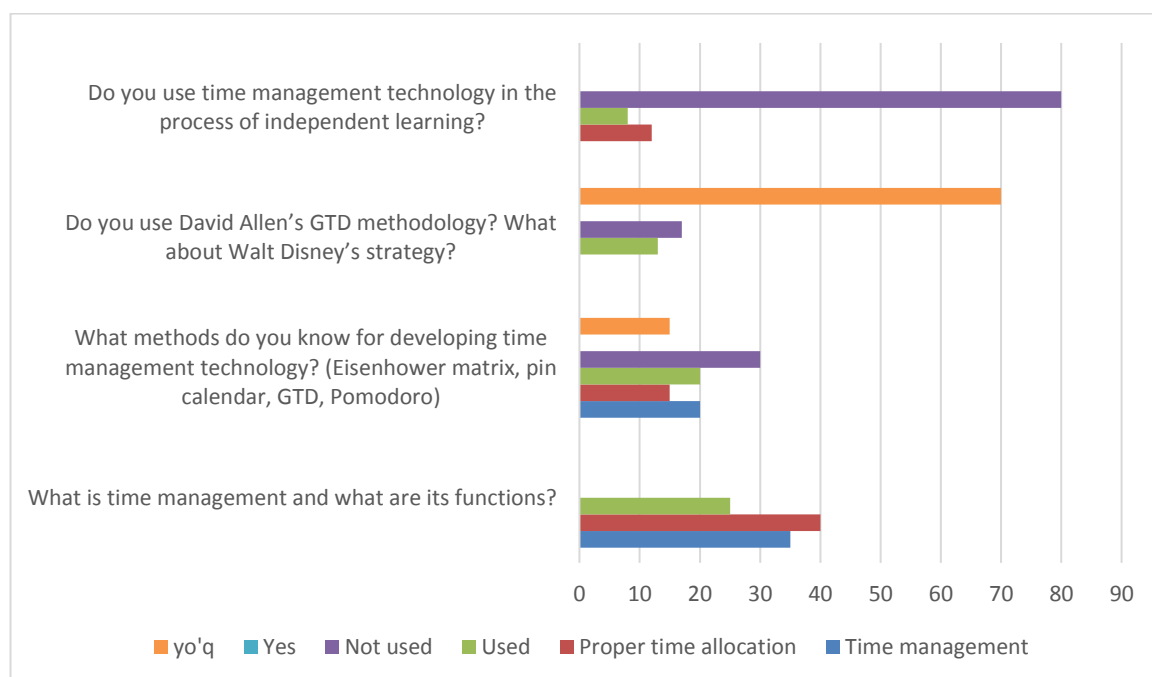
## RESULTS

During the preliminary experimental work conducted in the 2023–2024 academic year, pedagogical observation was carried out to assess students' existing understanding of independent learning and time management technologies. At the same time, a diagnostic survey titled "Methodology for using Time Management technologies in developing students' independent learning competence" was administered to evaluate the level of competence development in independent learning among students.

The survey was distributed to respondents (students) via Google Forms.

<https://forms.gle/mxrDuEegy6cvM9wY8>





According to the analysis of responses obtained from student respondents through the Google survey, we cannot positively assess students' knowledge about independent learning and time management technologies in higher education. This is because, based on our pedagogical observations and Google surveys, although 70-80% of students had the opportunity to acquire information about independent learning and time management technologies, only 30-40% of students demonstrated actual knowledge about independent learning.

## DISCUSSION

In developing students' competence in independent learning through the use of Covey's methodology, students study six principles for creating a time management system:

**1. Consistency (Integrity)** – the interconnectedness and unity of all elements within an individual time management system. According to Covey, this means alignment between vision and mission, roles and goals, priorities and plans, desires and discipline.

**2. Balance** – in this context, “balance” means allocating time harmoniously across different areas of life (family, work, health, etc.) so that sufficient attention is given to achieving important goals.

**3. Concentration** – you must always remember the importance of the activities in your life and prioritize them accordingly. Covey suggests focusing on weekly planning rather than daily, as weekly planning allows reserving significant time for important but not urgent tasks.

**4. Humanity** – the system should not just be a schedule of tasks, but a program that takes into account human interests. Ordinary people think about effective use of

time, while those who center their life around principles focus on spending quality time with people.

**5. Flexibility** – your plans are not your masters, but your servants! Plans should be convenient for you and fit your habits and working style. If necessary, you should be able to easily modify planned activities.

**6. Compactness** – planning and time management tools (such as organizers) should be as compact and convenient as possible to work in any condition. This helps you capture one important idea at the right time without losing it.

To increase their effectiveness, students must consider the following four factors as essential:

**First, Desire:** You need a strong, burning desire to control your time and achieve maximum productivity.

**Second, Willpower:** You must make a clear decision to apply effective time management methods consistently until they become a habit.

**Third, Determination:** You should be prepared to face all difficulties until you become an efficient time manager. Your desire will strengthen your determination.

**Finally, Discipline:** The most important key to success in life is discipline — you must cultivate yourself to make time management a lifelong practice. This is crucial for achieving success.

In developing time management technology, the Pareto principle illustrates that, in some cases, most results come from a minority of causes, namely:

- 20% of actions yield 80% of results;
- 20% of tasks generate 80% of income;
- 20% of errors cause 80% of failures;

- 20% of features account for 80% of usage. GTD (Getting Things Done) methodology is based on several key principles:

**1. Capture all tasks:** This means writing down all tasks, ideas, and commitments in an external, organized system so that you don't have to keep them in your mind.

**2. Define the next concrete action:** For each task, you need to identify the very next step to move it forward.

**3. Organize tasks by context:** Group tasks according to the type of activity or context in which they can be easily completed (e.g., home, office, phone calls, etc.).

**4. Set priorities and deadlines:** Assigning priorities and deadlines to tasks helps allocate time and resources more effectively.

**5. Regularly review the system:** Reviewing your tasks and commitments daily helps you stay aware of the current situation and plan the next steps accordingly.

## CONCLUSION

The conducted studies indicate that two main approaches are used to develop students' competence in independent learning:

**1. Pedagogical approach**, which primarily focuses on the teacher's role and the use of didactic tools in fostering students' independent learning.

**2. Psychological approach**, which considers students' unique pedagogical and psychological characteristics when promoting their independent learning.

Creating favorable conditions for students' creative activity during the process of developing their independent learning is regarded as an effective teaching method. Therefore, in pedagogical processes based on a competency-based approach, students act as the main subjects of activity.

During the observation of the experimental test groups, it was found that students lacked sufficient knowledge about independent learning and its organization, time management technology, and the use of this technology in the independent learning process. Therefore, a software tool was developed that provides comprehensive information on using time management technology to develop students' competence in independent learning and can be easily used in daily activities. Additionally, theoretical information on how to use this software was provided.

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