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# Time Management – A Facilitator of Effective Learning in Primary Education
# Applications in the 3rd and 4th Grade

# ABSTRACT

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**TABLE OF CONTENTS**

## Chapter One of the Doctoral Thesis: TIME MANAGEMENT – CONCEPTUAL CLARIFICATIONS, ROLE AND IMPORTANCE IN THE PERSONAL AND SOCIAL DEVELOPMENT OF THE STUDENT

The first chapter of the doctoral thesis, entitled *Time Management – Conceptual Clarifications, Role and Importance in the Personal and Social Development of the Student*, addresses the following main elements: conceptual clarifications regarding the definition of time, forms of expression and perception of time, taxonomies of time, characteristics of the time dimension, time management as a predictor of efficient learning, time management in the context of the differentiation between hard and soft skills, as well as the phenomenon of academic procrastination.

Time has always been a challenge in terms of knowledge, definition, understanding, and use. Approached as a subject in science, religion, philosophy, and art, it has been more or less elucidated. There are many divergences regarding its meaning, which makes it difficult to provide a definition of time that does not lead to controversy. However, in certain fields of activity, an operational definition is used, in which the units of time are defined. Therefore, defining time becomes one of the most difficult tasks, not only from a philosophical, psychological, and artistic point of view, but also from a physical one.

Time expresses a measure of the duration of events and has different meanings depending on the context in which it is defined. Thus, it represents a continuum in which events follow each other from the past, through the present, to the future, and within which all known processes in nature take place. The Oxford Dictionary defines time as "the indefinite continued progress of existence and events in the past, present, and future regarded as a whole." Another standard dictionary definition is the following: *Time... a non-spatial linear continuum in which events occur in an apparently irreversible order*. The significance of the concept of time can be addressed on two comprehensive levels: on the one hand, the measurement of time, respectively the measuring of it and its correlative phenomenon (space), and on the other hand, the description of the way in which time appears to human consciousness and existence. We could say that we speak of a physical time and a human time.

Time is intimately linked to the feeling of our own existence. We can speak about time in several senses: as an interval between two events, as the medium in which events take place, as physical time or as a subjective experience. In every case, the passage of time is marked by

the changes that occur in things or that we perceive as happening. The perception of time always depends on the complexity and quantity of activities the individual undertakes. Therefore, defining objectives by specifying the desired outcomes is essential for the efficient use of time. In summary, any activity, regardless of its nature and importance, requires a well-defined time to be accomplished and cannot be conceived outside of it.

Regarding the various taxonomies of time, the most common is the one that differentiates between:

- Present time – marks the moment when the action takes place;
- Past time – marks the moment when the action took place, being linked to memory and completed events (representing the basis of experience and learning);
- Future time – marks the moment when the action will take place, being linked to anticipation, planning, and projections of what is expected to happen.

Another significant classification refers to formal time and informal time. While formal time generally pertains to astronomical or calendar-based measurements, informal time represents perceived or experiential time, directly influenced by the context or by the events occurring alongside physical time.

Time perception varies depending on situational factors:

- Objective time refers to measurable time, expressed through standard units (seconds, minutes, hours, days). It is universally employed in scientific research, industrial processes, and daily activities for purposes of organization, coordination, and scheduling.
- Subjective time denotes an individual's personal perception of temporal passage. For instance, time may appear to pass more rapidly during engaging or enjoyable activities and more slowly during boredom or anxiety. Often, the evaluation of time is linked to one's sense of satisfaction or dissatisfaction with the effort invested and the outcomes achieved. This leads to additional time taxonomies:
- Productive time**:** time allocated to purposeful activities yielding tangible or intangible benefits (e.g., study, work, personal development).
- Recreational time**:** time dedicated to rest, relaxation, and leisure pursuits, which is essential for maintaining both physical and mental health.

- Wasted time**:** time expended on activities that yield neither value nor satisfaction (e.g., procrastination).

The physical setting associated with specific activities also contributes to time classifications based on task-related engagement:

- Educational time: time invested in learning and personal development, including instructional hours, homework, extracurricular activities, and individual study.
- Professional time**:** time allocated to professional duties or remunerated work.
- Family time**:** time spent with family members, fostering relational bonds.
- Spiritual time**:** time dedicated to reflection, meditation, or religious practices.

Depending on personal commitments and daily responsibilities, additional categories emerge:

- Institutional time**:** time structured according to social regulations and organizational frameworks (e.g., school schedules, work hours).
- Personal time**:** time autonomously managed by the individual, free from external constraints.
- Community time**:** time devoted to social or collective activities (e.g., community events, cultural celebrations).

Moreover, specialized literature delineates further taxonomies of time, reflecting various dimensions of human existence and development:

1. Physical time**:** the measurable dimension of time utilized in scientific and technological contexts, defined through the principles of absolute and relative time. Abstract reasoning divides physical time into equal, qualitatively uniform segments that quantify movement. Subtypes include:
    - Absolute time: as introduced by Isaac Newton, referring to a uniformly flowing continuum, independent of external events.
    - Relative time**:** elaborated by Albert Einstein, where time's flow is influenced by speed and gravitational forces (Theory of Relativity).
    - Cyclic time**:** based on recurring natural patterns (day-night cycles, seasons, biological rhythms), typically prevalent in traditional cultural conceptions.

- Linear time**:** proceeding unidirectionally from past through present toward the future, characteristically emphasized in modern Western cultures.

Generally, physical time is perceived as linear and quantified using devices such as clocks and calendars.

2. Biological time**:** associated with the natural physiological rhythms of living organisms:
   - Circadian rhythms (24-hour cycles regulating sleep and activity patterns);
   - Biological aging and the progression of natural life processes.

Its perception is inherently subjective, varying according to individual states and activity types.

3. Psychological time: reflects the subjective temporal experience, influenced by emotional states, cognitive processes, and mental focus. Emotional fluctuations, stress levels, or concentration can accelerate or decelerate time perception. Children, for instance, often perceive time as passing more slowly than adults. Psychological time encompasses both personal memory (the past) and anticipatory cognition (the future).
4. Social time**:** represents temporality as socially organized for collective activities. It includes academic schedules, work hours, holidays, and public events. This dimension, shaped by the pace of modern life, technology, and cultural norms, may differ significantly across societies—ranging from rigid temporal structures in Western societies to more fluid temporal frameworks in certain traditional cultures.
5. Existential time**:** pertains to the individual's lived experience of existence, emphasizing personal engagement with the present moment, past recollections, and future aspirations. Philosophers such as Martin Heidegger have highlighted the intrinsic connection between time and human consciousness.
6. Historical time**:** structures events within a chronological framework used for the analysis and study of human history.
7. Economic time**:** conceptualizes time as a resource with intrinsic value in economic contexts (e.g., time as a limiting factor in production processes).

Key characteristics of time include:

- Irreversibility**:** time flows unidirectionally from past to future; events cannot be exactly replicated, a feature closely linked to the concept of entropy.
- Universality**:** time operates universally, affecting all matter and energy across spatial and cosmic scales.
- Perceptual subjectivity**:** temporal experience varies individually, contingent upon emotional states and personal circumstances.
- Elasticity**:** while objectively measured in fixed units, time may subjectively appear to pass more rapidly or slowly depending on context.
- Divisibility**:** time can be partitioned into standardized units (hours, days, months, years) to facilitate the organization of human activities.
- Cyclicity**:** many natural processes exhibit cyclic temporal patterns (day-night, seasons, biological rhythms), underlying calendar systems and biological timekeeping.
- Linear temporality**:** most commonly, time is perceived as a sequence of past, present, and future—a dominant paradigm in Western thought, though not universal across cultures.
- Interdependence with space: in physical sciences, time is inseparable from space, forming the integrated concept of space-time, wherein all events possess both spatial and temporal coordinates.

By acknowledging time as an invaluable resource inherent to our existence as rational, finite beings, its pragmatic management becomes essential. The rationale underpinning this assertion includes:

1. Time is fundamentally limited: every activity consumes time, which remains absolute and inelastic.
2. Time is unidirectionally dynamic: it is consumed irreversibly; the notion of "recovering lost time" is metaphorical, referring only to optimizing the remaining available time.
3. Time exhibits maximal polyvalence: all activities compete for temporal resources; allocating time to one activity inherently limits its availability for others.
4. Time is a self-consuming resource; it is either used rationally and efficiently or irreversibly wasted.
5. Time is a resource with variable potential: cosmic, biological, and social.

- Time incurs costs because it is an absolutely limited resource.
- Time incurs costs because it is continuously consumed.

- Time incurs costs because demand for time typically exceeds its "supply."
- Time incurs costs because its "price" is determined under monopolistic conditions — there is no alternative supply; the demand for time is both irreducible and unlimited.

By analyzing these characteristics, one may appreciate the crucial importance of time and the necessity of its appropriate management in personal and professional life. Analogous to economic frameworks, time misused or inefficiently consumed is permanently lost, and the insufficiency of available time directly leads to the concept of opportunity cost in its utilization: choosing the most appropriate methods of time allocation determines the performance achieved.

Regarding time management as a predictor of effective learning**,** it is acknowledged that since outcomes in any domain are significantly influenced by time use, efficient time management in the educational context has direct implications for students' personal development and desirable personality formation. Time, as an educational resource, requires strategic and collaborative management involving students, teachers, and parents. The way time is managed affects not only individual performance but also the outcomes of the entire educational community, thereby amplifying its significance. Efficient time use contributes directly to improved academic performance and the holistic personal development of students.

To maximize time efficiency in education, various strategies are employed, such as:

1. Promoting active learning by implementing methods that engage students directly in the learning process (e.g., debates, project-based learning), while eliminating passive methods that consume time without producing effective outcomes.
2. Balancing work and rest by ensuring an optimal distribution of academic and non-academic activities to prevent student overload, including scheduled breaks between intensive study sessions.
3. Ongoing evaluation of time use by encouraging both teachers and students to periodically reflect on their time management.
4. Adjusting planning based on observations, such as minimizing time-wasting activities.

In formal education, the efficient utilization of educational time requires meticulous organization of learning processes. Thus, time management education must focus on two complementary dimensions:

- The early development of time management skills from childhood.
- The implementation of pedagogical strategies that help students prioritize tasks and reduce procrastination.

Maintaining a healthy balance between study time and rest is essential for achieving and sustaining high levels of academic performance in the medium and long term. In contemporary society, lack of time has become a widespread issue, increasing the pressure for efficiency. Therefore, improving learning outcomes through adequate time management involves not only learning plans and ergonomic learning environments but also applying principles of cognitive stimulation through intellectual and metacognitive exercises.

In the context of differentiating between hard and soft skills**,** time management involves a comprehensive set of norms, values, principles, and best practices that collectively contribute to the optimal temporal organization of one's responsibilities, ultimately enhancing quality of life and performance. Hard skills refer to measurable, domain-specific technical competencies acquired through formal education, self-study, or professional training. Soft skills refer to interpersonal abilities such as effective communication, adaptability, time management, and teamwork, essential for harmonious interaction and handling professional or personal challenges.

The growing pace of modern life demands constant adaptation to change, requiring sustained effort. Frequently, individuals wish to extend deadlines, feeling that nothing is ever truly complete, perpetually transitioning from one activity to the next with a lingering sense of incompletion.

The causes of inefficient time management can be categorized into:

- External causes**:** lack of organizational structure.
- Internal causes**:** personality traits, behavioral tendencies, and personal circumstances.
- Mixed causes**:** involving both individual and peer group dynamics.

To address these causes, time management strategies should aim to develop both hard and soft skills, such as:

1. Planning and prioritization**:** setting clear objectives and allocating specific time blocks for both technical (hard) and interpersonal (soft) skills development.

2. Continuous learning**:** engaging in lifelong learning activities, including online courses that enhance both skill types (e.g., programming for technical skills, emotional intelligence training for soft skills).
3. Practical application: participating in real-world projects or simulations that integrate technical expertise with teamwork, communication, and time management.
4. Constructive feedback: regularly seeking and analyzing feedback from peers, mentors, and instructors to identify areas for improvement.
5. Effective time management techniques: applying structured time management methods to prevent procrastination and ensure balanced skill development.

Procrastination**,** another phenomenon addressed in this chapter, constitutes a harmful behavioral pattern characterized by the repeated postponement of tasks despite the awareness of potential negative consequences. Academic procrastination specifically refers to delaying educational tasks such as studying, completing assignments, or finalizing projects, often resulting in diminished academic performance and psychological distress.

Etymologically, the term derives from Latin — "procrastinare" (from *pro* = "forward" and *crastinus* = "tomorrow") — and has increasingly entered common usage. Procrastination is generally defined by three simultaneous features: the behavior is unproductive, unnecessary, and delayed. Scholars often describe procrastination as a maladaptive strategy to manage anxiety associated with initiating or completing tasks, wherein intentional and unnecessary delays affect performance and well-being.

Two principal types of procrastination manifest in educational practice:

- Passive procrastination**:** delaying due to decision-making difficulties.
- Active procrastination: intentional delays under the belief that working under pressure enhances motivation.

Although not classified as a mental disorder, procrastination can lead to significant distress, impair performance, and contribute to clinical conditions over time. Chronic and severe procrastination has been associated with:

- Mental health issues: elevated stress, worry, guilt, anxiety, and reduced well-being.

- Physical health problems: delays in seeking treatment and lower adherence to healthy behaviors, potentially exacerbating medical conditions.
- Functional impairment**:** poor academic or work performance and financial difficulties.

Summarizing, procrastination is a persistent behavioral pattern or self-regulation failure involving voluntary postponement of task initiation or completion, often until the last possible moment, despite anticipated negative consequences.

Identifying procrastination requires self-reflection and awareness, particularly regarding recognizing genuinely important tasks and the psychological mechanisms that delay task initiation, such as relaxation needs, passive rest, electronic distractions, or social interruptions.

Key psychological mechanisms underlying procrastination include:

- Fear of failure.
- Fear of success.
- Avoidance of discomfort.
- Desire for autonomy.
- Perfectionism.

Procrastination may also stem from psychological disorders such as attention deficit disorder, bipolar disorder, or depression. Task characteristics also contribute: unpleasant or overwhelming tasks often trigger avoidance tendencies. Individuals may delay tasks where failure would imply a personal competence judgment, preferring the guilt of poor organization to the perceived threat of failure.

At a neurobiological level, unpleasant tasks elicit lower dopamine release compared to preferred activities. Thus, extrinsic motivation undermines sustained cognitive effort and creativity.

For students, procrastination is driven by factors such as:

- Task characteristics: difficulty, monotony, or lack of interest.
- Anxiety and fear of evaluation: avoidance of tasks that may expose one's abilities to external judgment.

- Pressure and overload: multiple simultaneous demands reduce prioritization capacity, leading to avoidance.
- Self-defense mechanism**:** using lack of time as a justification for potential failure.
- Motivational deficits: inability to translate intentions into action.
- Natural productivity cycles**:** the human brain requires breaks for sustained concentration; poorly managed breaks can lead to excessive procrastination.

Many students report discomfort after postponing or failing to complete tasks. Often, they invest effort into minor activities while avoiding more important ones. Despite extensive preparation, they repeatedly delay task initiation for various reasons.

The primary causes of procrastination among students include**:**

- Ineffective organization.
- Fear of failure or perfectionism.
- Distractions (e.g., technology use).
- Low intrinsic motivation.

The consequences of procrastination affect multiple dimensions — performance, well-being, and health. Meta-analyses reveal a negative association between procrastination and academic achievement, indicating that procrastination is often harmful, sometimes neutral, but invariably inefficient. Its effects are particularly evident in educational contexts where both students and teachers confront deadlines that significantly influence academic and professional trajectories.

In this context, self-management becomes indispensable for effective time utilization. Self-management refers to the ability to control and efficiently organize one's personal resources—including time, attention, and energy—to achieve set objectives. Effective time self-management enhances performance, self-esteem, and reduces stress.

Time management rests on three pillars: planning, organization, and control. Efficiency implies that individuals utilize time rationally and productively, aligned with personal rhythms and available resources, aiming to complete specific activities within designated time frames. Therefore, time management involves allocating carefully calculated

time segments for each task, adhering strictly to schedules, and periodically evaluating outcomes.

Ultimately, time management coordinates activities and resources to meet predefined objectives within precise time frames. Importantly, it is not time itself that is managed but the activities performed within available time. In practice, time management equates to controlling this resource, directly linked to academic and socio-professional performance.

A concise and functional definition of time management highlights it as the design and execution of a personal scheduling, forecasting, and responsive process that is planned, predictive, effective, and efficient**.**

Key components of self-management for effective time utilization include:

1. Self-awareness and habit analysis: evaluating current time use and identifying productivity patterns and distractions.
2. Setting clear and realistic goals**:** applying goal-setting frameworks such as the SMART technique (Specific, Measurable, Achievable, Relevant, Time-bound).
3. Planning and organizing tasks**:** utilizing planners, to-do lists, and time-management apps; employing tools like the Eisenhower Matrix (urgent vs. important) or the Pomodoro Technique.
4. Maintaining motivation and self-discipline: adopting productive routines and strategies like the "5-minute rule" to initiate tasks promptly and prevent procrastination.
5. Monitoring progress and adapting strategies: regularly evaluating time management practices and adjusting methods based on performance feedback and challenges.

The benefits of time management include:

- Goal attainment.
- Opportunity maximization.
- Improved communication.
- Enhanced productivity.
- Balanced academic, social, and personal life.
- Fostering creativity.
- Adaptability to change (Cucoș, 2002).

Efficient time utilization depends on both external circumstances and internal states, thus requiring individual stimulation and motivation**.** This involves stimulating creativity through engaging activities, encouraging responsibility and creative expression, and creating environments conducive to focused learning.

In summary, time management fundamentally equates to self-management. It materializes through the individual's capacity to plan objectives and tasks while respecting priorities dictated by personal needs. Time management is a strictly personal skill—each individual knows best their own peak hours, rest needs, and productivity rhythms. Improving time management skills enables better task planning, timely and efficient responsibility fulfillment, and ultimately optimal time utilization.

## Chapter II: Time as an Educational Resource

The second chapter of this doctoral thesis, entitled ***Time as an Educational Resource***, addresses several core components: the concept of time as a resource and its effective utilization in the school context; the characteristics and conditions for the efficient use of school time; time management as a preventive measure against burnout among students and teachers; the optimal use of time for academic performance and personal development (meta-analysis of studies); design and development of time management competencies; and time management programs for students.

Time represents a highly valuable and irreplaceable resource within the educational context, characterized by its limited, irreversible, and non-transferable nature, which confers both uniqueness and intrinsic value. Recognized as a vital pedagogical resource, school time may function as either a supportive factor—when judiciously managed—or a significant disruptive element when misused. Despite its crucial role, school time has been relatively underexplored in specialized pedagogical literature, though it constitutes one of the fundamental components of the instructional process.

This assertion rests upon the observation that the volume and complexity of learning objectives, the breadth of content delivered, the teaching methodologies employed, and ultimately, the forms of academic evaluation are all directly influenced by the available time budget.

School time belongs to the broader category of material pedagogical resources and is operationalized within the educational process through variables such as: the academic year, semester/module, school week, school day, and individual class sessions or activities. A central concept in this context is the notion of learning time.

Figure 1. The Structure of Learning Time

As illustrated above, learning time consists of three distinct components:

- Allocated learning time — the amount of time deemed sufficient by the teacher to complete a learning task.
- Individual required learning time — the time a student personally needs to complete the task, depending on their individual skills and abilities.

- Effective learning time — the actual duration spent by the student working on the task.

Regardless of the educational or recreational setting, efficiency remains the guiding principle in organizing time. Efficient spatial and temporal organization has multiple advantages, ranging from time savings to facilitating students' access to necessary materials and providing guidance on their use. The entire organizational environment, including instructional resources, must be carefully designed to support learning.

For teachers, managing their own educational time is a critical professional requirement, involving two main categories:

- In-school educational time, directly related to classroom instruction.
- Out-of-school educational time, encompassing preparation, grading, and professional development.

Two essential attributes define efficient educational time:

1. Educational time must be devoted to meaningful, student-centered activities that promote personal growth and development.
2. Educational time should foster progress, even incremental, toward the attainment of educational success.

Within the educational context, multiple types of time can be identified:

- Micro-educational time: referring to smaller temporal units such as class hours or daily school sessions.
- Macro-educational time: encompassing longer timeframes such as semesters or academic years. Macro-time is subject to external constraints imposed by national curricula, school calendars, and administrative regulations, requiring long-term planning and scheduling.

Furthermore, a distinction may be drawn between teacher time and student time. While these largely overlap, they also differ functionally. Student time is oriented toward acquiring new skills and competencies—manifesting as personal educational advancement—whereas teacher time is dedicated to facilitating others' learning.

Some scholars propose a refined classification of educational time within schools, distinguishing four main types:

1. General allocated time: the global period set by curricula and school calendars, corresponding to macro-time.
2. Instructional time: periods specifically devoted to direct instruction, generally aligned with micro-time units.
3. Task completion time: time allotted for students to complete assignments, both during and outside formal class hours.
4. Summative evaluation time: periods during which students demonstrate acquired competencies through assessments.

Empirical studies reveal that a substantial proportion of classroom time is spent on understanding and managing the student cohort. To minimize this overhead, greater continuity in teacher assignments across multiple academic years is recommended.

Effective use of time in education requires adherence to specific organizational principles:

- Allocating time for each subject according to pedagogical objectives.
- Structuring curriculum content into sequential time-bound segments.
- Alternating between various types of instructional activities with differing objectives.
- Fully leveraging all available educational resources.

School time, as a material pedagogical resource, is activated at the systemic level through a combination of variables: academic year, school week, and school day. It includes both instructional components (classroom lessons, homework, exam preparation, extracurricular activities) and structural elements (curriculum scheduling, distribution of hours by subject, and the pacing of academic activities), all of which influence educational quality.

In this sense, school time intersects closely with broader social time structures, as it is directly affected by external societal rhythms.

School time may be defined as comprising:

- Institutional learning time (in-class instruction, transportation, homework, tutoring).

- Para-school learning time (informal educational activities outside formal school settings).

According to Jigău (2008), *"This constitutes school time — the time dedicated to educational activities, including both formal institutional time within the school setting and peri-school time beyond school premises, aimed directly or indirectly at educational objectives"*.

The definition of student time is often oversimplified by equating it solely with school hours. However, well-rounded student development requires attention to both relaxation and recreation. Thus, student time may be conceptualized through multiple lenses:

- School time.
- Extra-school time.
- Leisure time.

School time remains the central reference around which other temporal components are structured, as learning represents the student's primary activity and vehicle for social integration. The institutionalized learning time comprises the portion of a student's total time dedicated to regulated and programmed academic activities according to official curricular frameworks (Voiculescu, 2011).

Institutionalized learning time serves as the formal foundation for recognizing student status and academic progress. It includes:

- Collective learning activities (e.g., classroom lessons, group projects, field trips), which are institutionally mandated and scheduled, attendance being compulsory and non-compliance subject to disciplinary action.
- Individual or independent learning activities (e.g., homework, independent study, practical assignments, research projects), which complement in-class instruction, remaining under teacher supervision regarding assigned tasks, content, and assessment.

Beyond institutionalized learning, students engage in optional or voluntary learning activities, driven by personal interests or intended as deeper explorations of curricular topics. Such activities, while not mandatory, are valuable for fostering self-directed learning and can contribute significantly to academic and personal growth. However, if these activities excessively substitute institutional learning time, they may signal a misalignment between

institutional objectives and individual student preferences, potentially undermining school-based education (Voiculescu, 2011).

The institutionalized learning time represents a standardized component of the educational system, programmed at the institutional level, and serves as the primary foundation for the social recognition of the student's academic status and credentials. Institutionalized learning time is divided into two categories:

- Collective learning activities**:** These require student presence in the classroom or designated educational spaces and include lessons and various forms of organized instruction conducted in groups. These activities are structured through daily, weekly, semester, or annual schedules and are mandatory for students, with attendance regulations strictly enforced regardless of participation level or learning outcomes.
- Individual/independent learning activities: Conducted outside scheduled school hours, these include independent study, practical assignments, projects, and written compositions. Although these activities are performed autonomously by students, they remain supervised by educators who assign tasks, define content, and evaluate completion.

Beyond institutionalized learning—regulated by school timetables, curricula, and independent study requirements—students engage in optional or extracurricular learning activities**.** These may be aligned or unrelated to formal academic goals, driven instead by personal motivation, enrichment pursuits, or meaningful uses of out-of-school time. Optional learning time is entirely discretionary, neither compulsory nor regulated by school authorities.

Optional time typically constitutes the residual time remaining after fulfilling institutionalized learning obligations, encompassing both class attendance and assigned independent work. However, this optional time does not always follow as a simple residual element. In certain situations, it may reflect intentional withdrawal from institutionalized learning—for instance, skipping school or neglecting homework in favor of self-directed activities that better match student interests.

As Voiculescu (2011) argues in *"Time as an Educational Resource"*, while students' tendency to allocate time for alternative learning activities may be constructive and even encouraged within reasonable limits, excessive divergence from formal educational objectives

may reflect misalignment between institutional and individual aims**,** potentially reducing the effectiveness of the school-based learning process.

The role of time in students' development can be analyzed across three primary dimensions**:** cognitive, emotional, and social.

- From a cognitive perspective**,** well-organized study time fosters knowledge acquisition and critical thinking development.
- The emotional dimension emphasizes the importance of regular breaks and relaxation periods, which contribute to emotional well-being.
- From a social standpoint**,** extracurricular activities and group interactions support the development of interpersonal skills.

Within this framework, we distinguish between extra-school time**,** leisure time**, and** rest time**.**

Extra-school time refers to students' remaining time after accounting for school-related obligations, reflecting a complex balance between numerous demands and limited free-choice opportunities (Voiculescu, 2011). This time encompasses:

- Physiological needs: including sleep, passive rest, meals, personal hygiene.
- Household responsibilities: such as chores or external activities not included in school time.

Empirical studies suggest that during weekdays, students allocate approximately 47% of their time to such activities, with this share increasing to 59% on weekends. Rural students typically spend 50 minutes more daily on these tasks compared to urban counterparts, while girls dedicate 18 additional minutes per day to household activities (Macan et al., 2010).

Leisure time is defined by Leif (1984) as “time for oneself.” It encompasses self-selected, predominantly informal activities and corresponds to the “three eights” model of modern daily life: 8 hours of work, 8 hours of sleep, and 8 hours of leisure. Leisure time, free from social or biological constraints, represents the period between institutional work (school) and sleep. It is real and experiential, felt as both a right and necessity by the individual. Importantly, truancy or absenteeism from school does not qualify as leisure time.

Students' leisure time is employed for recreation, optional educational pursuits (whether imposed or voluntary), and entertainment. It requires careful analysis to delineate its content, duration, scheduling, and educational significance**,** forming a distinct component of students' broader active time management.

In relation to scheduled learning, leisure time occupies the residual daily, weekly, semester, or annual periods following both academic and non-academic obligations. Its precise volume depends on multiple variables, including:

- A maximal threshold (excluding extra-school assignments).
- A minimal threshold (including all extra-school academic tasks).

Other limiting factors include non-school obligations, individual health, family traditions, and personal circumstances. Complete elimination of leisure time is rare and generally undesirable.

Rest time constitutes the portion of total time dedicated to physical and mental recovery, essential for restoring work capacity and cognitive readiness for academic and extracurricular demands. Rest is a physiological necessity, biologically determined, and comprises:

- Passive rest**:** primarily sleep (night and day), but also relaxation following intense physical exertion or mental deconcentration states (e.g., daydreaming or sensory disengagement).
- Active rest**:** revitalizing activities performed while awake, which alleviate selective fatigue resulting from sustained cognitive or physical tasks. While active rest does not replace sleep or alleviate general fatigue, it mitigates fatigue within specific phases of the daily, weekly, or annual learning cycle.

Any form of human activity consumes both physical and mental energy, underscoring the dual burden of cognitive and physical exhaustion inherent to student life.

Burnout is a state of physical, emotional, and mental exhaustion, caused by prolonged exposure to stress. The phenomenon of burnout increasingly affects both students and teachers, producing negative consequences on physical and mental health, as well as on academic and professional performance. In the educational environment, both students and teachers may experience this condition due to the excessive volume of tasks, academic pressures, or lack of

balance between work and personal life. Effective time management is essential for the prevention of burnout; in other words, efficient organization of time may serve as a key solution for mitigating this phenomenon.

Burnout is primarily driven by overexertion, imbalance between professional and personal life, excessive academic or professional demands, and insufficient recovery time. The most frequent symptoms include:

- Physical and mental exhaustion,
- Decreased motivation and performance,
- Concentration difficulties,
- Feelings of anxiety and depression,
- Irritability and sleep disturbances (Maslach & Leiter, 2016).

In order to intervene effectively in preventing burnout within the school environment, it is necessary to clearly and accurately identify its causes. Thus, for students**,** the most common causes include:

- Overload due to large amounts of homework, projects, and examinations,
- Lack of adequate breaks and recreational time,
- Academic pressure stemming from parental and teacher expectations.

For teachers**,** the causes generating burnout are relatively similar:

- Excessive administrative tasks and extensive instructional planning,
- Lack of time for personal preparation and continuous professional development,
- Management of large classes or challenging student behaviors.

Burnout prevention through time management involves a series of actions covering both organizational functions and educational interventions in time-use training. These include:

a. Efficient time organization:

Both the planning and selection of activities must be approached systematically. Scheduling through planners, organizational applications (e.g., Trello, Todoist), or digital calendars facilitates this process. Priorities should be established using frameworks such as the

Eisenhower Matrix (urgent vs. important). Organizationally, it is necessary to alternate periods of cognitive effort with scheduled breaks to reduce fatigue—for example, applying the Pomodoro technique (25 minutes of work followed by 5 minutes of rest).

b. Maintaining a healthy work-life balance

To achieve balance in daily activities that support healthy development, screen time must be limited, and moments of digital-free relaxation deliberately introduced. Encouraging recreational activities such as physical exercise, reading, or creative hobbies contributes to maintaining this balance. Furthermore, clear boundaries should be set between work/school time and personal time.

c. Developing stress management strategies:

Relaxation techniques such as meditation, deep breathing, and physical exercise are essential in reducing stress. Open communication with peers, teachers, or school counselors also plays a vital role in developing a personal toolkit for combating burnout. Additionally, creating a well-organized, distraction-free work environment supports focus and emotional well-being.

d. Institutional involvement:

As the primary educational authority, schools must implement comprehensive time management education programs**.** Teachers should carefully monitor the volume of assigned homework to avoid overburdening students. Moreover, promoting a culture of balance and mental health awareness among both students and teachers is absolutely essential.

In effectively managing time to prevent burnout within educational environments, balanced time allocation strategies may focus on three key aspects:

1. Institutional time management:

Developing a balanced school schedule that alternates cognitive and recreational activities; introducing thematic weeks featuring interdisciplinary projects aimed at reducing stress associated with traditional examinations.

2. Supporting mental health:

Providing psychological counseling services accessible to both students and teachers; organizing workshops on effective time management techniques to enhance planning and reduce academic stress.

3. Training in time management competencies:

Integrating time management training into both teacher professional development and student support programs, with the goal of promoting sustainable academic achievement and personal well-being.

Parental and Community Involvement in Burnout Prevention and the Role of Time Management Techniques

Parental and community involvement plays a crucial role in preventing burnout within educational environments. Parents are expected to actively monitor their children's mental health and provide a balanced home environment that fosters routine and leisure time. The community contributes by organizing extracurricular activities that promote relaxation and cooperation, as well as by supporting schools in the implementation of preventive programs.

Effective time management remains fundamental in mitigating burnout in education. By adopting appropriate strategies, both students and teachers can improve their quality of life and academic performance. Among the specific time management techniques for burnout prevention in students and teachers, the following can be mentioned:

Mind Mapping — a planning technique that enables optimal utilization of cognitive resources (Bârzea, 1998). Mind mapping combines brainstorming with visual recording of ideas, allowing for subsequent hierarchical structuring and decision tree development. This technique employs words, lines, colors, images, and sounds to stimulate brain activity and is characterized by:

- A central image representing the subject;
- Main components branching directly from the central image;
- Secondary elements linked to the main components;
- An interconnected nodal structure resembling a tree diagram.

The Gantt Chart — another effective instrument for managing educational activities, particularly in extracurricular planning. Teachers can use Gantt charts collaboratively with students. This technique involves:

- Chronological organization of tasks on the horizontal axis and time on the vertical axis;
- Each activity is represented by a bar or line indicating its duration;
- Dependencies between activities are explicitly indicated;
- Completed portions are visually marked;
- A moving vertical line represents the present moment, enabling immediate assessment of progress or delays.

Empirical findings from multiple studies (Zimmerman, 2002; Pintrich, 2004; Van der Meer et al., 2010; Claessens et al., 2007; Steel, 2007; Pychyl & Flett, 2012; Ariely & Wertenbroch, 2002; Glick & Orsillo, 2015; Przybylski, 2019) indicate the following correlations:

- Time planning and organization are positively correlated with improved academic performance (on average, a 20% increase in test scores);
- The use of time management techniques, such as the Pomodoro method or strategic planning, increases productivity and reduces procrastination;
- Students employing effective time management strategies tend to exhibit higher levels of intrinsic motivation and achieve superior academic results;
- Procrastination is strongly associated with elevated stress and anxiety levels, reflected in higher cortisol secretion (the stress hormone);
  Suggested solution: mindfulness practices and relaxation-based stress management techniques.
- Externally imposed deadlines (teacher-assigned) are more effective than self-imposed ones, as individuals tend to underestimate their own procrastination tendencies;
  Suggested solution: fixed deadlines combined with accountability to a mentor or peer.
- In Acceptance and Commitment Therapy (ACT), students participating in ACT sessions reported significant reductions in procrastination;
  Suggested solution: embracing task-related discomfort and engaging in concrete actions.
- The use of digital tools (calendars, organizational apps) may increase efficiency, but excessive use of technology can lead to time wastage.

In terms of personal development, the studies reveal that:

- Effective time management reduces stress and fosters self-control, discipline, and responsibility;
- Students who master time organization develop essential skills more rapidly, including self-discipline, resilience, and decision-making abilities;
- Efficient time use supports emotional balance by lowering stress and anxiety caused by academic overload;
- It positively influences the balance between education and personal life, allowing harmonious integration of study, extracurricular activities, and rest;
- Time management fosters the development of soft skills such as critical thinking, problem-solving, communication, and teamwork, all of which directly contribute to long-term success.

A seminal study by Britton & Tesser (1991) demonstrated that students possessing well-developed time management skills achieve academic results 20–30% higher than their peers lacking such competencies. This illustrates that effective time management not only enhances academic performance but also supports active class participation and engagement in extracurricular activities.

Some studies (e.g., Steel, 2007. *The Nature of Procrastination*; Claessens et al., 2007. *A Review of Time Management Literature*) provide a detailed analysis of procrastination, synthesizing the results of over 200 studies and concluding that procrastination is closely associated with impulsivity, lack of self-discipline, and avoidance of difficult tasks. The solution proposed by researchers emphasizes the enhancement of self-regulation, the establishment of clear objectives, and the adoption of self-management strategies that reduce stress and increase productivity.

The correlation between time planning and academic outcomes is also highlighted in the research *Self-Regulated Learning and Academic Achievement* by Zimmerman & Schunk (2011), which demonstrates that students who organize their weekly activities show a significant improvement in test results.

The positive impact of effective time utilization on both mental and physical health is reflected in the prevention of burnout and the promotion of physical well-being.

1. Burnout Prevention – Studies indicate that students who manage their time effectively reduce the risk of burnout and maintain a balanced approach to academic and personal activities.
    - *Example:* According to Maslach (1997), students who allocate time for rest and recreational activities exhibit greater emotional resilience.
2. Enhancing Physical Health – Effective time management allows for the integration of regular physical activity into daily routines, contributing to overall well-being. A study by the World Health Organization (2018) underscores the importance of time allocated to physical exercise in preventing obesity and improving cardiovascular health.

This meta-analysis confirms that proper time management significantly influences academic success and personal development. It recommends integrating time management education programs in schools, utilizing organizational apps, and promoting effective study strategies.

Given that time management constitutes a set of norms, values, principles, and best practices that collectively foster the development of temporal organization skills necessary to improve the quality of life for oneself and others, the acquisition of strategies for successful time management becomes crucial. In educational contexts, effective time management extends beyond the mere ability of students to complete multiple tasks within a short time frame; it focuses primarily on the prioritization of significant and important activities (Froyen & Iverson, 1999). Among the principles of time management, the following are noteworthy:

- Excessive task fragmentation leads to the perception that tasks require more time to complete.
- A higher level of interest in a task results in the perception that the allocated time passes more quickly.
- Waiting periods inserted within tasks are perceived as highly time-consuming.

Effective time management is regarded as a critical skill for academic, professional, and personal success. It involves organizing tasks, setting priorities, and employing effective strategies to maximize performance and reduce stress. The specialized literature identifies two types of time management programs:

1. Proactive Planning – These programs focus on continuous planning aimed at creating and refining an open system of positive actions. This type of plan is grounded in openness, honesty, and the involvement of all students, collaborators, or partners, requiring concrete actions before potential negative events occur (Afanas, 2015).
2. Reactive Planning – This involves conflict resolution and crisis management once unforeseen situations arise. Although similar techniques are employed as in proactive planning, the chances of success are considerably diminished due to the hostile attitudes of those responsible for the disorder.

Without proper planning, class activities are disrupted, and educational coordination suffers. Class members lack a clear understanding of educational processes, potentially leading to the failure of achieving proposed objectives. The planning process typically involves the following stages:

- Defining objectives;
- Generating and evaluating alternatives;
- Identifying activities;
- Sequencing activities;
- Identifying necessary resources;
- Reviewing the plan;
- Preparing implementation measures;
- Monitoring and controlling.

Thus, scheduling involves analyzing the sequence of activities, their durations, the required resources, and creating a timetable for educational programs, particularly those supported through non-formal education. These schedules must specify start and end dates for the planned activities. Studies have shown that for every minute spent planning daily activities, one gains four minutes during implementation. The following rules are essential for effective time scheduling:

1. Schedule time first, then assign activities to it.
2. Adjust work pace as much as possible to one's biological rhythm.
3. Utilize travel and waiting time productively.
4. Include personal time in the daily schedule.
5. Summarize the next day's schedule at the end of the current day.

6. Plan activities according to the pursued objectives.
7. Reserve at least half a day per week for professional reading. (Cucoș, 2002, p. 164)

Effective time management is essential for improving the learning process, enabling optimal organization of both educational and personal activities. Proper time management contributes to reducing stress, increasing productivity, and achieving educational objectives.

The development of time management skills, acquired within an institutionalized framework with the support of the teacher, can be successfully applied within the family environment as well. Starting from simple exercises of scheduling and prioritizing upcoming tasks, one can avoid procrastination tendencies often seen in young students who declare "I will do it later; I don't know how to proceed," etc. These actions, as well as the rigorous setting of a schedule, should not dominate the student's entire activity, whether in school or at home. It is essential to maintain a balanced ratio between organizational aspects and leisure activities, which are crucial for the child's harmonious development, in accordance with their age and individual needs (Muste, 2017).

Strategies for Effective Time Management in the Learning Context:

1. Clear Planning of Educational Activities

- Development of annual, semester, and weekly plans: These should include general and specific objectives, clearly defined content, and evaluation methods.
- Optimal time distribution: It is recommended that lessons be divided into well-defined segments: introduction (10–15% of the time), development (70–75%), consolidation and evaluation (10–15%).
- Flexibility in planning: Teachers must be prepared to adjust their plans according to students' learning pace without compromising educational quality.

2. Task Prioritization

- Setting priorities: Both teachers and students can apply prioritization methods such as:
    - Eisenhower Matrix: Dividing tasks based on urgency and importance.
    - 80/20 Rule (Pareto Principle): 80% of results come from 20% of the effort; thus, activities with the greatest impact are identified.

    - Pomodoro Technique: 25-minute work intervals followed by 5-minute breaks help maintain attention and reduce mental fatigue.
    - Limiting multitasking: Focusing on one task at a time increases efficiency and reduces wasted time.

3. Creating a Conducive Learning Environment

- Classroom organization: An orderly space with easy access to educational resources stimulates student attention and motivation.
- Use of modern technologies: Interactive educational platforms (Google Classroom, Kahoot, Quizziz) contribute to efficient time management and active student engagement.
- Eliminating distractions: Limiting the use of mobile phones and other distractions during lessons.

4. Developing Student Autonomy

- Promoting self-organization: Students can be taught to plan their time by:
    - Creating personal agendas or schedules for homework and projects.
    - Setting daily and weekly goals.
- Effective learning techniques:
    - Mind mapping for organizing ideas.
    - SQ3R technique (Survey, Question, Read, Recite, Review) for study.
- Continuous feedback: Teachers should offer constant guidance and support to foster responsibility.

5. Flexibility and Adaptability

- Adapting teaching pace: Teachers must observe and understand individual student needs, adjusting time allocation accordingly.
- Introducing short breaks: Frequent breaks (e.g., after every 20–30 minutes of intensive activity) help maintain focus and prevent fatigue.
- Personalizing assignments: Students can receive differentiated tasks according to their level of preparation, optimizing time for each learner.

6. Continuous Monitoring and Evaluation

- Use of ongoing assessment tools:
    - Quick tests, questionnaires, and formative evaluations to monitor progress.
    - Time and activity management apps (e.g., Trello, Asana) adapted for education.
- Regular feedback: Teachers must provide constructive feedback, highlighting strengths and areas for improvement.
- Student self-evaluation: Encouraging students to self-assess their progress and time management fosters organizational skills.

7. Use of Educational Technologies

- Online learning platforms: Moodle, Edmodo, and Google Classroom facilitate the distribution of materials, assignments, and assessments.
- Time management applications: MyStudyLife, Todoist, or Evernote assist students and teachers in organizing tasks and monitoring progress.
- Multimedia resources: Educational videos, interactive simulations, and educational games make learning more engaging and effective.

8. Collaboration Between Teachers and Parents

- Ongoing communication: Regular meetings with parents to discuss students' progress and establish joint time management strategies.
- Guides and recommendations for parents: Teachers can provide advice on how parents can support children's time organization at home.
- Balanced extracurricular activities: Ensuring a balance between homework time and extracurricular activities to prevent student overload.

These conditions create a favorable framework for maximizing learning time, improving academic performance, and developing time management skills for both teachers and students. Simultaneously, a comprehensive program aimed at reducing or eliminating procrastination leads to more efficient learning and optimal time utilization. Such a program may be structured into two successive stages of action:

- The first stage addresses cognition, focusing on identifying and understanding the causes of procrastination, as well as recognizing that significant effort is required to change procrastination behaviors.

- The second stage involves the development and implementation of the actual action plan. Organized into five phases, it extends over a finite period of time and requires self-control, self-direction, and self-evaluation (with specialized assistance only in specific cases). The system of strategies and tools is flexible, depending on context, personal capacities, and needs.

Chapter III of the doctoral thesis, entitled **EFFICIENT LEARNING — THEORETICAL AND METHODOLOGICAL APPROACHES**, as indicated by its title, brings together theoretical syntheses and methodological clarifications concerning the conceptualization of learning, the dimensions and characteristics of efficient learning, the meanings and significance of school learning, active learning and interactivity in learning, various learning typologies with applications in primary education, critical analyses of the main theories and models of learning, specificities and interindividual differences in learning, as well as the role of self-management, self-direction, and self-regulation as essential conditions for efficient learning.

Learning, understood as an interactive phenomenon within a complex socio-cultural context mediated by digital transformations, continues to attract the attention of experts in the fields of psycho-pedagogical and social sciences. Simultaneously, learning, viewed both as product and process, constitutes the key to human existence, ensuring prosperity and defining our way of thinking and acting in various life situations.

Being a highly complex and dynamic process, influenced by cultural diversity and rapid technological and social changes, learning increasingly fosters individual and collective decision-making, despite being influenced by multiple perspectives and societal demands.

The educational reality highlights diverse issues related to learning, its mechanisms, causes, and consequences, particularly given that learning is neither unidirectional nor uniform, but rather multidimensional and in continuous transformation.

Contrary to the often widespread belief among educators, academic success cannot be solely assessed or confirmed by the grades obtained by students. In other words, it is fundamentally incorrect to assume a direct proportional relationship between grades and academic achievement. Academic success represents the concordance between academic performance and the learner's abilities. For example, for a student with a very high IQ, a grade of nine (out of ten) may be considered a partial failure, whereas for a student with a lower IQ, a grade of six might signify a significant achievement. Moreover, academic success depends not only on an individual's cognitive resources but also on their contextual ability to mobilize these resources for specific tasks. The real and effective assumption of these theoretical perspectives by teachers constitutes a sine qua non condition for stimulating and motivating students toward more effective learning (Manea & Stan, 2014).

Efficient learning requires a favorable learning environment**.** Such an environment is characterized by several attributes: instructional, developmental, educational, informative, ecological, aesthetic, dialogical, human, and stimulating (Kukushin, 2006). Educational approaches generated by the perspective of organizing and managing the learning environment focus on ecological and interactive conceptions addressing learning difficulties (Chiș et al., 2013). These highlight the possibility that organizational and methodological changes can foster effective, attractive, and beneficial learning experiences for all students. Thus, the challenges posed by this educational paradigm include:

- Student-centered learning — recognizing the importance and uniqueness of the individual;
- Pedagogy of engagement — responsive to diverse educational needs;
- Interdisciplinary and transdisciplinary curriculum design — aligned with socio-cultural pragmatism;
- Democracy and human solidarity — promoting a more equitable, humane, and natural school environment;
- Intra- and interpersonal peace and comprehension — fostering understanding and acceptance of differences and changes (Manea & Barbă, 2020).

The efficiency of learning remains a constant concern in the school environment, engaging the interest of all educational stakeholders — from educators and students to society at large. Learning efficiency strategies aim to leverage students' individual and age-related potential along with their accumulated experiences, while simultaneously activating mental, communicational, physical, individual, and group interaction mechanisms.

Learning represents a fundamental condition for human development, serving as a primary factor in driving change and measuring progress. As a complex process, learning enables objective and profound understanding of the surrounding world, reflecting both cognitive processes and the outcomes of individual and collective experience and creativity. It is simultaneously a uniquely human and essential activity, linked to both cognitive and metacognitive functioning. It may be defined as a change in human behavior resulting from direct interaction with the environment**,** a product of accumulated experience that signifies both quantitative and qualitative acquisitions relative to one's initial repertoire (Albulescu et al., 2021).

As an objective necessity in today's world, learning can be viewed as a consciously assumed endeavor by individuals to form and expand their knowledge through skill acquisition, practice, and value development. In the face of ongoing changes and societal demands, continuous learning — sustained through ongoing education and self-directed learning — ensures personal and societal success and prosperity.

In analyzing the various definitions of learning, it becomes evident that a comprehensive conceptualization requires an integration of multiple perspectives:

1. Psychological perspective:

Learning is a psychological process through which individuals acquire knowledge and competencies, modify behavior, and develop new abilities.
*Example:* Skinner (1948) defines learning as behavioral change produced by experience via conditioning processes.

2. Pedagogical perspective:

Learning is an organized process of acquiring knowledge and competencies through structured instructional activities.
*Example:* Ausubel (1968) emphasizes the role of meaning in learning, asserting that meaningful learning occurs when new information connects to pre-existing cognitive structures.

3. Social perspective:

Learning is the process by which individuals interact with the social and cultural environment to acquire knowledge and behavioral norms.
*Example:* Bandura's Social Learning Theory (1977) emphasizes observation and modeling as key mechanisms in learning.

Depending on the individual and social value of learning experiences**,** as well as perceptions and societal representations regarding the role of education, two additional perspectives can be identified:

- Individual perspective: Focuses on identifying and addressing personal learning challenges. This entails student-centered learning — a teaching-learning-evaluation process tailored to learners' specific needs and developmental goals. "The focus lies in designing high-performing learning experiences and structures, which cannot exclude the use of new technologies" (Glava, 2009).
- Group perspective: Refers to peer relationships and group-based problem-solving strategies or mutual understanding among students. Essential here is mutual recognition and appreciation of each member's value within the group.

School learning requires teachers to assume responsibility for content selection and task design**,** organizing learning sequences in ways that promote active, participatory, efficient, and high-quality learning. Effective instructional strategies involve idea exchange, collaborative problem-solving, skillful expression of personal viewpoints, argumentation, and questioning aimed at fostering understanding. In today's educational context, the teacher's role increasingly involves facilitating and moderating learning — helping students comprehend, explain, and justify their perspectives, thus becoming partners in the learning process.

The dynamic nature of learning calls for assessments that evaluate competence — what students can do with what they know — with an emphasis on qualitative aspects (values, attitudes), alongside responsible and honest self-assessment.

Learning how to learn**,** or metacognition**,** involves teaching learners to become aware of their cognitive abilities and intellectual characteristics while simultaneously understanding their learning processes. Thus, each learner builds a personalized learning plan. Given that *meta-* denotes change, metacognition entails deliberate interventions by the individual to optimize learning and knowledge acquisition, representing a higher level of cognition directed toward future growth. This process includes:

- Conscious learning of thinking behavior;
- Self-evaluation and management of one's cognitive system;
- Mastery and awareness of one's learning processes;
- Monitoring knowledge acquisition progress;
- Adjustment and balancing mechanisms for learning;
- Analysis of one's intellectual functioning;
- Understanding learning, problem-solving, and memory mechanisms;

- Awareness of one's learning trajectory;
- Knowledge about knowledge (Cerghit, 2002).

By analyzing the educational phenomenon and learning itself, we observe a fundamental feature of learning: its multidimensional nature. Thus, learning can be analyzed from various perspectives associated with three key dimensions: cognitive, affective, and behavioral. Each of these dimensions contributes uniquely to how individuals acquire and apply knowledge. For example, the cognitive dimension refers to mental processes involved in acquiring knowledge, such as memory, critical thinking, and problem-solving (Joița, 2018). The affective dimension encompasses attitudes, emotions, and motivation, which strongly influence one's willingness and capacity to learn (Miclea, 2017). The behavioral dimension refers to observable changes in behavior resulting from experience (Bontaș, 2002), involving the practical application of acquired knowledge and skills in real-life contexts.

Contemporary approaches in education emphasize the importance of an integrative perspective on learning, recognizing that these dimensions do not function in isolation but interact to create a holistic learning experience. The constructivist model of learning suggests that learners actively construct knowledge through interactions with their environment, simultaneously integrating cognitive, affective, and behavioral aspects. Thus, understanding the multidimensional nature of learning is crucial for developing effective educational strategies. Educators must acknowledge that learning is not a linear process but rather a complex interplay of interdependent factors. Leveraging these factors, particularly through the mediation of educational technologies, creates interactive and engaging learning environments that respond to the diverse needs of students (Albulescu et al., 2021).

Effective school/academic learning exhibits three key characteristics: *activism*, *goal orientation*, and *measurable outcomes*:

1. Activism —involves intentional and motivated engagement in the processes of knowledge assimilation, comprehension, processing, and transfer, as well as in the structuring of personal understanding. It entails the conscious assumption of effort associated with studying.
2. Goal orientation — requires learners to adopt learning objectives that reflect both external expectations and self-imposed demands. Initially, these objectives are set by teachers or significant adults, but progressively, through repeated evaluations and self-

assessments, students develop their own study goals that reflect their interests and perceived learning needs. Over time, the process of defining learning objectives becomes more refined, precise, and developmentally focused, guiding the selection of content and study procedures.

3. Measurable outcomes — provide external indicators of learning efficiency and serve motivational and (self-)regulatory functions. These outcomes enable learners to evaluate whether their learning efforts have been worthwhile and whether their study methods were appropriate. Results manifest both immediately (e.g., academic performance, passed exams, assimilated content) and in the long term (e.g., professional success, recognized expertise, acquired competencies, and appropriate behaviors).

Conducted within the instructional-educational process, academic learning is characterized by:

- a strong informative-formative character, structured sequentially and gradually in terms of task difficulty;
- a conscious approach, involving goal-setting and voluntary effort mobilization;
- an institutionalized framework regulated by laws, principles, norms, and organizational structures;
- strict control, which progressively transforms into self-control and self-directed learning, especially toward the later stages of schooling;
- mediated relationships between teachers and students, expressed through communication, socio-affective, cognitive, and influential interactions (Zlate, 1996).

Thus, learning may be seen as:

- a quantitative and qualitative product resulting from systematic, formal, and non-formal knowledge acquisition;
- a multifaceted cognitive structure, whose memory-based information storage supports refined, creatively reproducible intellectual activity;
- an information acquisition process yielding factual understanding and skill formation suited to individual needs and contexts;
- an activity of elaborating new constructs with new meanings and significance;
- a superior human capacity for understanding, interpreting, and reinterpreting perceived reality in ways shaped by individual personality;

- a complex mental, affective, or motor exercise of deep reflection and engagement with the studied knowledge universe;
- a translation process where newly acquired knowledge, experiences, and skills are transformed into cognitive (facts, concepts, theories, problem-solving), emotional-affective (attitudes, values, beliefs, convictions), psychomotor (skills, algorithms, performance models), socio-moral-character, and spiritual behaviors;
- a specific and preferential matrix for processing learning tasks — activating strategies adapted to new learning environments, known as *learning style*;
- a generative synthesis of strategies organized into models and operational modes forming varied academic disciplinary schemata;
- a coherent and functional structural set of:
    - competencies (desired, projected, expected, and conceived as processes, methodologies, strategies, and useful behaviors);
    - products/outcomes;
    - strategic, transversal, and metacognitive reflections;
    - learning styles;
    - success-generating factors in academic learning;
- recognition and application behaviors; observation, understanding, exemplification, conceptualization, structuring, summarization, synthesis, problem-solving, relational analysis, criteria-based analysis, and reasoning behaviors;
- strategic process behaviors — intelligent repetition, creative elaboration, organization and control, understanding, and emotional-affective accompaniment (Neacșu, 2006).

Efficient learning is also associated in some studies with accelerated learning. C. Drapeau (2000) defines accelerated learning as a self-facilitating approach that enables rapid and easy knowledge acquisition. Strategies include mnemonics, relaxation, mental visualization, music-assisted learning, and other techniques involving physiological, psychological, and neurological dimensions to maximize intellectual receptivity. Learning efficiency is determined by how well new acquisitions can be successfully applied in various life situations, generate solutions for daily problems, add value, and produce personal and social satisfaction.

Lucian Ciolan (2008) provides an innovative perspective by linking effective learning to the concept of authentic learning**.** Key characteristics of authentic learning, derived from specialized studies, include:

- Exploratory learning — emphasizes curiosity and investigative spirit as motivators for direct participation in knowledge acquisition.
- Reflective and self-reflective learning — fosters internalization of learning experiences and awareness of one's own ideas and cognitive constructions.
- Exercise/play-based learning — stresses the importance of a stimulating and relaxed learning climate.
- Learning through connections — links new school knowledge with real-world contexts and pre-existing knowledge, ensuring durability and relevance.
- Staged and cyclical learning — guides learners in restructuring mental models according to current learning achievements.
- Social learning — recognizes the peer group as a valuable learning source, where learning outcomes gain meaning through social validation.
- Intercultural learning — underscores the importance of expressing, confronting, negotiating, and accommodating one's own structures with those of broader cultural fields.
- Meaningful learning — emphasizes learning relevance based on the learner's interests and knowledge needs.
- Guided learning — the teacher mediates learning by providing cognitive organizers, study models, processing strategies, and learning goals.
- Dialogic learning — authentic dialogue and communication among learners facilitate learning.
- Integrated learning — acknowledges the multidimensional nature of learning, integrating cognitive, emotional, social, and action-oriented aspects into knowledge structuring, application, and transfer (Ciolan, 2009, p. 229).

Known as a new learning paradigm, connectivism, introduced by George Siemens in 2004, offers an approach to learning and knowledge suited to recent technological developments. Given the undeniable impact of technology on learning, connectivism views knowledge as distributed across networks of people, technologies, and organizations. This

perspective recognizes the evolving nature of knowledge and the importance of maintaining connections in a dynamic environment (Alam, 2023).

The principles guiding connectivist educational approaches include:

- Learning and knowledge rest on diversity of opinions;
- Learning is a process of connecting specialized nodes or information sources;
- Non-human appliances can contribute to learning;
- The ability to know more is more important than what is currently known;
- Maintaining connections is essential for continuous learning;
- The ability to see connections between fields, ideas, and concepts is a core skill;
- Currency (accurate, up-to-date knowledge) drives all connectivist learning activities (Siemens, 2005; Downes, 2010).

Connectivism reflects significant changes in contemporary learning, shifting from individual to collaborative learning. As society increasingly adopts new technologies, learning evolves, though the educational sector may be slow in fully recognizing this transformation. The theory promotes internet integration as a learning tool, fosters the development of digital teaching competencies, and supports creative, autonomous, and collaborative learning (Cruz et al., 2021). Engaging students through learning networks and sharing information derived from personal experiences and inquiries fosters quality academic performance in a sustained, efficient, and enjoyable manner. Connectivist learning actively involves every student in processing, understanding, and applying information in innovative and meaningful constructs.

Depending on the learner's level of involvement in the learning process, learning can be categorized as either active or passive:

- Active learning: Involves learners actively participating in the process by exploring new situations and phenomena, applying critical thinking, and practicing the acquired knowledge.
- Passive learning: Involves the reception of information without active engagement in assimilation. While new information may still be acquired, it happens unsystematically and unorganized, thus reducing the quality of learning.

In terms of how information is processed — including logic, synthesis, detail, and connections between conceptual elements — learning can be either surface or deep:

- Surface learning: Characterized by the memorization of information to meet immediate requirements without a profound understanding of the content.
- Deep learning: Students comprehend concepts and relationships among them, developing critical thinking skills and the ability to apply knowledge.

The pace and quality of learning are critical for learners who expect the educational environment to facilitate this process. Consequently, teachers organize learning as either individual or collaborative to ensure efficient learning outcomes:

- Individual learning: Focuses on the individual's effort and personal progress.
- Collaborative learning: Involves students learning together in groups, sharing ideas, and solving problems collectively.

Another significant dimension of learning relates to the cognitive processing of knowledge (cognitive, metacognitive) or the social observation of phenomena through others' experiences or mediated by audio-visual content. Learning may therefore be cognitive or behavioral:

- Cognitive learning: Focuses on mental processes such as perception, memory, and problem-solving.
- Behavioral learning: Based on modifying behavior through responses to external stimuli.

Learning occurs in diverse contexts and formats, accessible to each learner according to their needs, interests, and capacities. The teacher must carefully observe which type of learning approach aligns with each student to optimize academic performance.

Specialized studies highlight how individual student characteristics (e.g., gender, academic motivation, academic self-efficacy), family environment (e.g., parental support), and school climate (e.g., teacher and peer support, student autonomy, instructional quality) significantly influence students' engagement and academic achievement (Tonofrei, 2018).

The interconnected factors supporting successful learning operate at three levels (Falk & Dierking, 2000):

- Personal context: motivation, expectations, interests, prior beliefs, decision-making, and self-control;
- Social context: socio-cultural mediation within peer groups or facilitated by others;
- Physical context: the rigor and effectiveness of organization, planning, and leveraging available opportunities and experiences.

Thus, learning is perceived as a continuous dialogue between the individual and the socio-cultural environment, revealing a necessary interdependence among these three contextual domains for successful learning.

Because individuals are different, learning styles also differ**.** Learning style refers to a person's preferred way of learning, shaped by cognitive, emotional, and behavioral traits. Students tend to achieve better results and greater success when actively engaged in learning experiences that align with their preferences. Educational practice confirms that students learn faster when new knowledge is useful, relevant to daily life, and applicable in the future. Recent brain research indicates that when learning methods are adapted to students' learning styles, they retain information more easily and improve academic performance significantly within as little as two weeks. Students who understand their learning style tend to be more engaged, confident, and independent in the learning process. Learning style reflects preferred methods for acquiring and retaining information and guides how learning occurs. Teachers' analysis of information processing, cognitive engagement, emotional and psychomotor involvement, and specific learning situations allows for identifying each student's learning style.

Chapter IV of the doctoral thesis, entitled **Pedagogical Investigation on the Influence of Developing Time Management Skills on Improving Learning Efficiency in Primary School Pupils,** begins by presenting the general coordinates of the pedagogical research.

The investigation belongs to the category of practice-oriented or action research, designed and carried out as part of my role as a practitioner teacher, based on observations made during my teaching career and conducted at the micro-level of a student classroom.

The aim of this research was to identify methods for developing time management skills in primary school students and to highlight the effects of these interventions on learning efficiency.

The main objectives of the research focused on:

- Investigating primary school teachers' opinions on time management and effective learning;
- Investigating primary school students' opinions on time management and effective learning;
- Investigating parents' opinions regarding time management and effective learning;
- Designing and implementing an educational program to develop time management skills in primary school students, thereby enhancing their learning efficiency;
- Analyzing the impact of the experimental intervention and developing a good practice guide based on the findings.

Research hypothesis:

The implementation of the formative educational program entitled *"Planning–Compliance–Success"*, which targets the active involvement of students and their parents in both formal and non-formal activities, will lead to the development of time management skills and increased learning efficiency. These outcomes are expected to be reflected in the improvement of students' academic performance.

Independent Variable:

- The formative educational program entitled *"Planning–Compliance–Success"*.

Dependent variables:

- The level of development of time management skills among primary school students;
- The degree of learning efficiency, expressed through academic performance levels.

Sampling:

Convenience sampling was used, where participants were selected based on accessibility and availability rather than randomization or representativeness of the target population.

The pilot study included:

- 128 primary school teachers;
- 143 third and fourth-grade students;
- 181 parents of these students.

For the pedagogical experiment:

- The control group included 147 third and fourth-grade students.
- The experimental group included 151 students from the same grade levels.

Teachers, students, and parents were drawn from various schools in Cluj County, most of them from the town of Dej.

The content sample consisted of curriculum elements selected from Romanian language and mathematics textbooks for third and fourth grades.

Duration of the study: 6 months (October 2023 – March 2024).

Research methods included:

Systematic observation, questionnaire-based interviews, and psychopedagogical experimentation. Focus groups were occasionally used for in-depth qualitative data collection with some teachers, students, and parents. Data processing methods were also applied.

Research design included the following stages:

1. Conducting a pilot study with teachers, students, and parents on time management and effective learning;
2. Designing, based on the needs analysis from stage 1, an educational program for developing time management skills and improving learning efficiency;
3. Developing knowledge tests in Romanian and mathematics, and designing a time management skill assessment scale for primary school students;
4. Pre-test: Comparing control and experimental groups in terms of time management skills and academic performance;
5. Implementing the time management educational program with the experimental group and their parents;
6. Post-test: Re-assessing both groups to evaluate the impact of the program on time management skills and academic performance.

The experimental design was cross-sectional, inter-subject. Data processing and interpretation were performed using specialized software such as Excel and SPSS. The internal consistency of the time management skills assessment scale (designed by the researcher but not standardized for the Romanian student population) was analyzed using Cronbach's Alpha. For comparing the control and experimental groups, significance tests such as T-tests and Chi-square ($\chi^2$) were employed. Results were presented both graphically and in tables.

Summary of the pilot study results regarding time management and effective learning – as perceived by teachers, students, and parents:

Teachers' perspectives on time management and effective learning:

- 71.88% of teachers believe there is a concordance between students' learning effort and their academic performance.
- 89.1% state that most of their students receive grades of "Very Good" and occasionally "Good."

- 50% of teachers report dedicating less than one hour per week to extracurricular activities.
- 67.18% estimate that students could complete their daily assignments in less than two hours.
- 72.65% believe that the study time can be interrupted by no more than one or two breaks.
- 43.75% consider that 2–3 hours are sufficient for students to recover their energy and concentration after study.
- 60.15% believe that at home, parents establish and impose a program balancing study time and playtime for their children.
- 96.09% affirm that maintaining a daily routine contributes to optimal learning efficiency.
- 81.25% view time management at home as primarily the parents' responsibility.
- 98.40% believe that parents should strictly monitor and limit screen time (TV, tablets, smartphones).
- Only 39.06% believe that they should take an active role in teaching students effective time management skills.
- 73.44% assert that efficient learning cannot occur without proper time management.
- 32.82% designate teaching students how to prioritize tasks based on importance/urgency as the most effective strategy for improving learning efficiency.
- 65.62% believe that teacher training programs on time management should be implemented.
- 48.43% assess their students' academic activity as highly efficient.

Students' perspectives on time management and effective learning:

- Only 35.00% report following a daily schedule (school, homework, playtime, bedtime) with strict regularity.
- 57.30% say they need 1–2 hours to complete their homework on school days.
- Only 15.38% always complete their homework on time.
- 52.44% begin homework immediately after classes end (often explained by participation in after-school programs).
- Only 37.08% feel they generally have enough time for both homework and leisure.

- 53.14% report feeling stressed often due to the perception of insufficient time to complete planned activities.
- For 32.86%, free time on school days averages 2–3 hours.
- 53.12% rely on memory or reminders from parents/peers to track assignments and deadlines.
- The most common daily screen time (TV, tablet, smartphone) is 2–3 hours for 37.10% of students.
- Only 8.40% state they are strictly monitored by parents regarding leisure time.
- 40.55% say their parents are often lenient when asked to delay starting homework or extend playtime; only 16.10% say their parents never allow such delays.
- 18.88% report that poor academic results are sometimes punished by restricted access to digital devices.
- 50.37% wish their day could be extended by at least four more hours to fit all activities.
- 48.30% identify screen time as the main factor consuming their time.
- When asked what would help them manage time better, 34.27% requested more guidance from parents or teachers.

Parents' perspectives on time management and effective learning:

- Only 35.35% say their child has a daily routine that is consistently followed.
- 57.45% believe their child manages time relatively effectively.
- 45.30% estimate that 1–2 hours suffice for completing homework.
- 64.64% consider themselves highly involved in helping their child organize time for schoolwork and extracurricular activities.
- Only 3.31% say reading is their child’s preferred leisure activity.
- Only 28.17% believe their child successfully balances schoolwork, extracurriculars, and free time.
- 58.56% observe that their child initiates studying or homework sporadically.
- According to 27.07%, the main difficulty their child faces in learning is the abundance of distractions.
- Only 30.38% consider their child’s academic productivity (time invested vs. learning outcome) to be highly efficient.
- 35.91% feel that the school workload is excessive compared to the available time.
- 60.23% are willing to participate in parental training workshops on time management.

- 29.28% identify heavy school workload as the primary reason for students' frequent time shortage.
- 59.11% believe they had more free time during childhood than their children do now.
- 82.33% say they are more involved in their children's schooling than their own parents were in theirs.

Summary of the experimental pedagogical research regarding the development of time management skills and its impact on effective learning at primary school level

Purpose of the experiment:

To investigate how the implementation of an educational intervention program aimed at developing time management skills among primary school students influences their learning efficiency, as reflected in academic performance improvements.

Design and structure of the experimental research:

- Type of research: Applied pedagogical experiment (action-research).
- Duration: 6 months (October 2023 – March 2024).
- Sample:
    - Experimental group: 151 students (3rd and 4th grade).
    - Control group: 147 students (3rd and 4th grade).
    - Participants drawn from several schools in Cluj County, mainly from the city of Dej.
- Research methods used: systematic observation, questionnaire-based interviews, psycho-pedagogical experiment, focus groups, statistical data processing using Excel and SPSS.
- Instruments:
    - Cognitive tests in Romanian Language and Mathematics;
    - Time Management Abilities Assessment Scale for Primary School Students (46 items across 7 subscales);
    - Statistical tests: Cronbach Alpha (for internal consistency), T-test, and Chi-square ($\chi 2$ test).

Structure of the experimental process:

1. Pre-test phase:
    - Assessment of time management skills and academic performance levels in both experimental and control groups before the intervention.
2. Intervention phase:
    - Implementation of a structured educational program targeting time management skill development among the experimental group and their parents.
3. Post-test phase:
    - Re-assessment of both groups to measure progress in time management skills and academic performance.

Results of the experiment

**1** Pre-test results (initial phase):

- No significant statistical differences between the experimental and control groups were found in:
    - Initial time management skills level;
    - Academic performance (Romanian Language and Mathematics scores).

2 Post-test results (after the intervention):

Following the intervention, significant improvements were recorded in the experimental group compared to the control group:

A. Improvement in time management abilities (as measured by the Time Management Abilities Assessment Scale):

| Subscale | Experimental Group (Post-test improvement) | Control Group (Post-test improvement) | Statistical Significance |
|---|---|---|---|
| Goal Setting | Strong improvement | No significant change | $p < 0.01$ |
| Prioritizing Activities | Marked improvement | Slight improvement | $p < 0.01$ |

| Subscale | Experimental Group (Post-test improvement) | Control Group (Post-test improvement) | Statistical Significance |
|---|---|---|---|
| Managing Interruptions | Significant improvement | Minimal change | $p < 0.05$ |
| Self-discipline | Clear improvement | Insignificant change | $p < 0.01$ |
| Planning | Strong improvement | Slight improvement | $p < 0.01$ |
| Procrastination | Significant decrease | No relevant change | $p < 0.01$ |
| Perceived School Stress | Notable reduction | Minor reduction | $p < 0.05$ |

B. Improvement in academic performance (test scores in Romanian Language and Mathematics):

| Discipline | Experimental Group (Post-test) | Control Group (Post-test) | Statistical Significance |
|---|---|---|---|
| Romanian Language | Substantial increase (average score up by ~15%) | Slight improvement (~3-4%) | $p < 0.01$ |
| Mathematics | Significant increase (average score up by ~17%) | Marginal improvement (~5%) | $p < 0.01$ |

C. Overall interpretation:

- The intervention program contributed significantly to the development of students' time management skills.
- These improvements were positively correlated with increased academic performance.
- Students reported greater confidence in managing study time, better organization of daily routines, and reduced stress associated with school tasks.
- Parents involved in the program also expressed positive feedback, reporting observable improvements in their children's study habits and overall emotional balance.

Validation of the assessment instrument:

- The Cronbach's Alpha coefficient for the entire scale was $\alpha = 0.86$, indicating high internal consistency and good reliability of the scale designed to assess time management skills among primary school students.

General conclusions of the experiment:

- The educational intervention focusing on time management skills has demonstrated strong potential to enhance learning efficiency at the primary school level.
- Involving both students and parents in the time management training process amplifies the effectiveness of the intervention.
- Structured time management education may serve as a preventive factor for academic stress, procrastination, and low academic engagement, particularly at young ages.
- The obtained results advocate for the systematic integration of time management training programs into the primary education curriculum as part of transversal competence development.

Description of the Experimental Intervention

We present below, in a synthetic manner and by way of example, the major coordinates of the formative educational program entitled *"Planning–Compliance–Success!"* The thematic area is aligned with the content and curricular elements corresponding to the 3rd and 4th grades, and its implementation will take place in both formal and non-formal settings.

The intervention aims to ensure optimal synchronization between the delivery of informational and scientific content and the completion of tasks/homework assignments. These tasks will be carried out in parallel within the two structural groups: the 3rd and 4th-grade students who form the experimental group, and their parents. It is worth noting that some activities will be carried out jointly by students, parents, and the teacher.

The program is structured into two main components:

- **The student component** (Duration: 6 months; Frequency: 1 activity per week – 4 activities per month; Total number of activities: 24; Methods used: educational stories, role-playing games, self-reflection exercises, visual planners, group activities, and interactive discussions).
- **The parent component** (Duration: 6 months; Frequency: 2 activities per month; Total sessions: 12; Format: interactive workshops, informational sessions, practical exercises, and case studies; Methods: group discussions, concrete examples, simulations, and take-home materials).

Comparative Pretest-Posttest Analysis of Time Management Skills Development

The intervention effects were evaluated across seven subscales measuring specific time management competencies.

Subscale 1 — Goal Setting

- Statistically significant improvements were found in the experimental group for setting short-term objectives, tangible daily/weekly goals, and learning-related planning.
- No significant differences were observed for setting extracurricular goals and post-failure analysis behaviors.

Subscale 2 — Activity Prioritization

- The experimental group demonstrated significantly better ability to prioritize tasks, analyze task lists by importance, and estimate daily time allocation.
- No statistical difference was found in consistently applying a strict task order or creating daily priority lists, both groups showing high awareness of these aspects.

Subscale 3 — Management of Breaks/Interruptions

- Statistically significant improvements were observed in the experimental group regarding ability to study for longer periods without interruptions, easier resumption after breaks, and fewer unplanned breaks.
- No significant differences were noted concerning planned versus spontaneous breaks and reasons for interruptions.

Subscale 4 — Self-Discipline and Compliance with Rules

- The experimental group exhibited significant progress in perceiving self-discipline as beneficial, reducing avoidance of planning due to fear of non-compliance, and seeing rule-following as valuable for personal development.
- No significant differences emerged regarding concentration on routine tasks, strict program adherence, or keeping personal commitments.

Subscale 5 — Planning

- Statistically significant improvements were observed in the experimental group regarding adherence to daily routines, valuing pre-planning, and evaluating task value before engagement.
- No differences were found in daily planning habits for the following day or program flexibility.

Subscale 6 — Procrastination

- The experimental group showed significantly reduced procrastination: fewer delays in starting tasks, earlier task completion, and diminished reliance on last-minute efforts.
- No significant differences were observed concerning avoidance despite awareness of consequences, initiation of tasks without external prompting, or task-related discouragement.

Subscale 7 — Perceived Academic Stress

- The experimental group reported significant reductions in stress related to workload, limited leisure time, and assignment deadlines.
- No significant differences were found regarding general school-related stress or emotional state at school attendance.

Based on these findings, the hypothesis that student and parent participation in the time management program would lead to the development of students' time management skills is partially confirmed.

Comparative Pretest-Posttest Analysis of Academic Performance

- In the pretest phase, no statistically significant differences existed between the experimental and control groups in Romanian Language and Mathematics performance.
- In the post-test phase, significant improvements were observed in the experimental group for both subjects:
    - Romanian Language: approx. 15% increase.
    - Mathematics: approx. 17% increase.

- The hypothesis that improving time management skills would enhance academic performance is confirmed.

Limitations of the Research and Future Directions

The main limitations of this research include:

1. Sample characteristics:
    - The use of convenience sampling with relatively small, non-representative samples limits the generalizability of findings.
2. Measurement instrument:
    - The Time Management Abilities Scale was newly developed by the researcher and has not been standardized or validated for the Romanian school population.
3. Potential motivational bias:
    - The experimental group may have been influenced by knowing their parents were involved in the intervention, which could have increased their engagement or socially desirable responses.

Future directions:

- Standardization and validation of the Time Management Abilities Scale.
- Extension of the intervention to include younger students (grades I-II) and secondary school levels (lower secondary education).