BABEŞ-BOLYAI UNIVERSITY CLUJ-NAPOCA
FACULTY OF PSYCHOLOGY AND EDUCATION SCIENCES
DOCTORAL SCHOOL "EDUCATION, REFLECTION, DEVELOPMENT"

SUMMARY OF THE DOCTORAL THESIS

SCIENTIFIC SUPERVISOR,
Professor PhD ROMAN ALINA FELICIA

PhD STUDENT,
FELEA MARIA IULIA

CLUJ-NAPOCA
2025

BABEŞ-BOLYAI UNIVERSITY CLUJ-NAPOCA
FACULTY OF PSYCHOLOGY AND EDUCATION SCIENCES
DOCTORAL SCHOOL "EDUCATION, REFLECTION, DEVELOPMENT"

THE DEVELOPMENT OF STUDENTS' LEARNING AUTONOMY THROUGH FORMATIVE ASSESSMENT STRATEGIES

SCIENTIFIC SUPERVISOR,
Professor PhD ROMAN ALINA FELICIA

PhD STUDENT,
FELEA MARIA IULIA

CLUJ-NAPOCA
2025

TABLE OF CONTENTS

INTRODUCTION

MOTTO: *"The purpose of learning is growth, and our minds, unlike our bodies, can continue to grow as long as we live."* Mortimer Adler

In the current context, characterized by the rapid expansion of information and the diversification of communication channels, education increasingly focuses on the development of autonomous learning skills and strategies, emphasizing how students learn rather than the mere content itself.

Learning represents a continuous and flexible process that involves relatively stable changes in human behavior as a result of confronting new situations. Adaptive capacity and behavioral flexibility, through transfer and generalization, are essential for effectively managing current and future challenges (Ellis, 1978). Thus, learning becomes an individualized process, dependent on biological and psychological particularities, as well as on external factors, but also on the learner's immediate needs and personal motivation (Enăchescu, 2011).

Learning autonomy, a relatively recent concept in contemporary didactics, reflects students' assumption of responsibility for managing their own educational process. In this context, assessment becomes a complex, dynamic, and staged activity, designed to continuously guide students' progress while simultaneously contributing to the improvement of instructional and educational practices (Bocoș & Jucan, 2019). Within higher education, assessment goes beyond merely identifying gaps, constituting instead a fundamental instrument for evaluating students' actual progress and preventing academic failure, while promoting continuous personal and professional development (Baciu, 2010)

Formative assessment provides continuous and detailed feedback, fostering authentic cooperative relationships between teachers and students, while encouraging students' self-assessment and self-regulation (Pachef, 2008). Through formative strategies, teachers consistently monitor progress, stimulate self-reflection, and adapt the instructional process, thereby transforming assessment into an ongoing dialogue focused on reducing the discrepancy between what is taught and what students actually understand and apply.

This doctoral thesis, entitled "The Development of Students' Learning Autonomy through Formative Assessment Strategies", aims to enhance students' active and responsible engagement

by implementing these strategies within the courses "Theory and Methodology of Instruction" and "Theory and Methodology of Assessment" in the Primary and Preschool Education study program, with the main objective of facilitating autonomous learning.

The thesis is structured into two distinct parts, each bringing significant and innovative contributions.

The first part addresses the theoretical foundations related to the learning process and students' autonomy in higher education, as well as essential aspects of assessment, with a particular emphasis on formative assessment and its specific features. It provides an in-depth analysis of fundamental landmarks of learning, the particularities of academic learning, the dimensions of learning autonomy, the fundamental dimensions of assessment, and the characteristics of formative assessment.

The second part presents applied studies and research concerning the development of learning autonomy through formative assessment strategies. It details the research design and methodology, analyzing the relationship between the application of formative assessment strategies and the development of students' learning autonomy. This section includes analyses of curricular documents and university regulations, a diagnostic study of existing assessment practices, investigations into students' and teachers' perceptions regarding formative assessment and its role in fostering learning autonomy, as well as an evaluation of the effectiveness of implementing formative strategies within the courses "Theory and Methodology of Instruction" and "Theory and Methodology of Assessment."

Finally, the thesis synthesizes relevant conclusions that highlight the research contributions and outline important perspectives for the advancement of university pedagogy, proposing future research directions and identifying new challenges and opportunities in the field.

PART I – THEORETICAL FOUNDATION

CHAPTER I – Learning and Learning Autonomy in Higher Education

1.1. Fundamental Aspects of Learning

1.1.1. Theoretical Perspectives on the Concept of Learning

Learning is a complex concept, approached from multiple theoretical perspectives, and simultaneously interpreted as a process, an activity, or a result. The specialized literature notes that

systematic studies on learning emerged as early as the end of the 19th century, psychology being the first discipline to pave the way for investigating this phenomenon (Sălăvăstru, 2004). Initially, theories of learning considered this process as a response to external stimuli, defining it as an activity predominantly guided and determined from the outside (Ștefan, 2014).

In a general sense, learning involves both cognitive and behavioral changes, which are later reflected in performance. However, it is important to emphasize that although learning and performance are interdependent, they are not equivalent, since not all performance derives directly from learning, and not every learning process automatically leads to visible performance (Landy, 1987). The cognitive approach highlights that learning essentially concerns changes in knowledge, which subsequently determine behavioral modifications (Zimmerman, 1990).

From a psychological perspective, learning is defined as a fundamental mental activity, essential for adapting the individual's personality to their environment. This adaptation occurs through the acquisition of knowledge, skills, attitudes, and values, and is significantly influenced by the person's psychological age and social status (Cristea, 2019).

From a pedagogical perspective, learning represents an organized didactic activity, coordinated by clear objectives and concretized through specific teaching methods. It may be directly guided by the teacher or self-directed by the pupil or student (Cristea, 2019).

In its narrow sense, learning refers to the individual's systematic activity carried out within a well-organized social framework, aimed at assimilating information and developing the capacity to interpret natural and social phenomena (Golu, 2004). In its broader sense, learning is a continuous, exploratory process of actively assimilating one's own experience and selectively modifying behavior under the influence of the environment (Golu, 2001).

Specialists' definitions converge toward the idea that learning involves a stable change in behavior or cognitive structures, produced as a result of interaction with the environment and accumulated experiences (Fontana, 1995; Lowe, 1978; Lompscher, 1971). Learning is not limited to a particular stage of life but represents a universal phenomenon, present throughout the entire human existence, manifesting in different forms depending on social context, age, and individual motivation (Enache, 2019; Petrache & Mara, 2023).

In particular, human learning is addressed from two major perspectives: psychological and pedagogical. From a psychological standpoint, learning involves new acquisitions that modify the structure of the individual's behavior. From a pedagogical standpoint, it represents a structured,

organized, and institutionally guided activity, oriented toward the development of capacities, competences, and motivational and social structures necessary for proper integration into society (Marin & Marin, 2023).

1.1.2. The Specific Features of the Learning Process in Higher Education

Academic learning represents a pedagogically structured curricular process through which students assimilate specific educational values—knowledge, skills, competences, and attitudes—directly contributing to the development of cognitive, psychomotor, and affective structures essential for their personality formation (Voiculescu, 2010).

The concept of academic learning is largely grounded in constructivist principles, involving innovative teaching methods that encourage active interaction between students and faculty, thereby fostering the development of transferable competences such as problem-solving, critical, and reflective thinking (Attard, 2010).

In academic learning, the teacher's role is a particular one, requiring additional effort in supporting and systematically guiding students' individual activities (Dandara, 2009). In this context, current cognitive orientations promote semi-guidance and self-organization of the learning process, stimulation of critical reflection, recognition of non-formal experiences, and valorization of interdisciplinarity (Neacșu, 2006).

The current paradigm of academic learning promotes student-centeredness and the continuous adaptation of teaching strategies to individual learning particularities and styles. Thus, the university professor becomes a facilitator and creator of dynamic and personalized educational contexts (Jucan, 2009).

From a contemporary perspective, academic learning may be viewed as an active process of knowledge construction, enabling the acquisition of information in a profound and reflective manner. It entails the transfer of new knowledge into cognitive, emotional-affective, and psychomotor behaviors, thereby contributing to the development of a complex personality well integrated into the social and professional environment (Neacșu, 2006).

Academic learning generates lasting effects on students' development, being influenced by complex mechanisms of feedback and anticipation, and directly contributing to the formation of an autonomous personality capable of continuous adaptation to social and professional changes (Neacșu, 2010).

1.1.3. Fundamental Characteristics of Learning

According to Billington's perspective (1990), effective educational programs involve the existence of a safe and stimulating educational environment in which students feel comfortable and valued. Such programs promote critical and creative thinking, support learning autonomy, and encourage learners' direct and active involvement. They also include effective feedback mechanisms, adapting content to students' specific interests and needs.

Malcolm Knowles (1970) identifies the particularities of learning, emphasizing that adult students prefer self-directed learning, grounded in prior personal experiences, practical relevance, and immediate applicability. They value autonomy and require that their opinions, values, and experiences be respected and actively integrated into the educational process. They learn most effectively when educational objectives are clear, relevant, and applicable in both personal and professional contexts.

According to Guțu and Darii's approach (2007), pedagogy centered on each student's potential stimulates critical reflection and creativity, adapts the instructional process to students' individual characteristics, and promotes autonomy, intrinsic motivation, and a spirit of inquiry. The teacher becomes a facilitator and guide, adapting the curriculum and educational strategies to the students' individual potential.

Lea and colleagues (2003) highlight that learning directly involves students in the educational process, turning them into active and responsible participants. The emphasis is placed on a profound and authentic understanding of educational content, on assuming responsibility for one's own learning, on developing autonomy, and on building an authentic educational partnership between teacher and student. Furthermore, they stress the importance of a reflective and critical attitude on the part of both students and teachers in order to ensure the continuous improvement of the educational process.

Academic learning thus becomes an integrative process, centered on the student and their particularities, which stimulates the development of real and lasting competences, relevant not only in the academic context but also in professional and social settings.

1.1.4. Principles of Learning in Higher Education

In the context of academic learning, contemporary literature identifies the existence of certain regularities or fundamental principles that directly influence students' behavior and

development. These principles serve as explanatory models that guide the educational process and determine academic performance (Neacșu, 2006).

The law of motivation represents the first of these principles and defines the internal or external stimuli that trigger and sustain the learning process (Neacșu, 2006).

The law of feedback highlights the importance of continuous evaluation of academic performance (Neacșu, 2006).

The law of repetition emphasizes the essential role of reiterating information in the learning process, activating cognitive mechanisms at multiple levels (Neacșu, 2006).

The law of transfer explains the application of acquired knowledge and skills in new contexts (Neacșu, 2006).

The law of progressive and programmed growth of learning autonomy describes the gradual development of students' ability to independently organize and manage their own learning process (Neacșu, 2006).

These principles thus represent fundamental pillars in structuring effective and sustainable academic learning, providing explanatory frameworks for optimizing the educational process.

1.1.5. Fundamental Principles of Student Learning

Ellis and Goodyear (2010) emphasize that learning has a strongly individual dimension, since each person constructs knowledge in a unique manner, starting from personal experiences. However, they note that collaborative learning produces more consistent results than isolated learning. They also underline the importance of intellectual challenge in the learning process, arguing that this element is essential for stimulating cognitive development. The authors add that university learning is active, requiring students' direct intellectual effort, and self-regulated, involving students' continuous awareness of their progress and difficulties. At the same time, learning has a situational character, implying the application of knowledge in new contexts and the establishment of clear objectives to guide educational efforts (Ellis & Goodyear, 2010).

Rusu (2021) proposes a series of fundamental principles that guide university learning, including student-centered learning, which involves continuous reflection, the stimulation of critical and creative thinking, and the development of transferable competences. He also highlights the importance of support structures adapted to the educational context, as well as the adaptation of teaching strategies to students' diverse learning styles. Moreover, the author argues that the educational process must take into account the diversity of students' experiences and interests, as

well as their active involvement in structuring both curriculum and assessment. Rusu further emphasizes students' increasing responsibility in their own training process and the importance of developing advanced skills such as critical analysis and creative thinking. Finally, he underscores the value of authentic collaboration and effective partnership between students and teachers, built on mutual respect and open communication (Rusu, 2021).

Knowles (1973, 1984), one of the pioneers of research on learning, highlights the specific features of this type of learning through several key principles: autonomy and self-direction in the educational process, the use of prior experience as an essential resource for learning, the orientation of learning toward clear goals with personal and professional relevance, and a preference for a pragmatic approach to information that enables immediate application in practice. He stresses that adults are predominantly intrinsically motivated, favoring content with direct personal relevance and oriented toward solving practical problems. Furthermore, Knowles emphasizes the necessity of a climate of respect toward learners, in which they are actively involved as equal partners in the educational process, contributing significantly to their own development as well as to that of their peers (Knowles, 1973, 1984).

1.2. The Specificity of Learning in Higher Education

1.2.1. Students' Motivation in the Learning and Training Process

Motivation for learning is considered an essential factor of academic success, as it determines students to make sustained efforts and aspire to excellence. Without strong motivation, students experience educational difficulties, lack of interest, and reluctance toward challenges, often pursuing only the acquisition of a diploma (Hamjah et al., 2010).

Self-efficacy perception is identified as a significant factor influencing motivation. This perception is formed based on prior performance and received feedback, being essential in determining the level of engagement and perseverance (Negovan, 2005).

The level of aspiration, resulting from the relationship between self-image, previous achievements, and the context of educational activity, represents another essential factor, directing students' efforts toward achieving the proposed academic goals (Stăncescu, 2017).

Motivation can be defined as an inner drive oriented toward achieving well-defined objectives. It comprises two fundamental components: initial involvement and the ability to sustain this involvement over time (Constantin et al., 2008). Ryan and Deci (2000) emphasize the

importance of clearly identifying motivational goals and objectives, which may range from personal interest to the need for social approval or the acquisition of practical skills.

A positive teacher–student relationship stimulates academic motivation, contributing to the development of self-efficacy and intrinsic interest in learning (Paulino & Lopes da Silva, 2011).

Piccione, Burns, and Sinfield (2015) propose five main types of students' motivational adaptation: intrinsically motivated adaptation, self-image-based adaptation, social adaptation, success-oriented adaptation, and self-protection-centered adaptation. Considering these types of adaptation in the design of educational activities can significantly increase academic motivation.
Among the factors that influence motivation for learning are natural curiosity, the use of modern educational methods, student involvement in authentic activities, high-quality formative assessment, and democratic management of the educational process (Ames, 1992; Pintrich, 2003; Ryan & Deci, 2000; Piccione, Burns & Sinfield, 2015).

1.2.2. Essential Dimensions of Student Learning

Learning in the contemporary academic environment goes beyond the mere accumulation of information, involving the development of fundamental dimensions essential for students' success. The specialized literature highlights several key dimensions of the educational process, such as students' active engagement, the development of autonomy and responsibility, the establishment of a positive student–teacher relationship, the adaptation of teaching methods to individual needs, and the effective integration of modern technologies (Rusu, 2021).

In this current educational context, emphasis is placed on the necessity of promoting active and authentic learning, clearly oriented toward well-defined educational objectives. It is essential to ensure constant feedback and to adopt a reflective approach to the educational process and research activities. Furthermore, it is important for students to demonstrate high levels of personal and professional responsibility, as well as flexibility and autonomy in managing their own educational process. Cooperation based on tolerance of socio-cultural diversity, personalization of learning, and the fulfillment of students' specific needs represent other important dimensions (Rusu, 2021).

From the perspective of an integrative approach, the process of academic learning involves four essential dimensions: behavioral, personal, socio-cultural, and cognitive (Focșa-Semionov, 2010).

- The behavioral dimension reflects the way students strategically organize their educational activities and respond to stimuli within the academic environment.
- The personal dimension focuses on the student's desire to assert personal identity, autonomy, and continuous personal development.
- The socio-cultural dimension involves the need for optimal social integration, effective collaboration, and positive interaction in a multicultural context.
- The cognitive dimension emphasizes students' active involvement in processing information, creative problem-solving, and the development of a strong intellectual commitment.

Thus, the analysis of these dimensions significantly contributes to the understanding of academic behavior and performance, facilitating the adaptation of teaching strategies and the optimization of academic outcomes in the university context (Focșa-Semionov, 2010).

1.2.3. Psychological Influences on Learning in Higher Education

In the current pedagogical context, theories of learning are structured into four fundamental approaches: behaviorism, social learning theory, cognitive theories, and educational constructivism.

Behaviorist models developed from the works of J.B. Watson (1913), who argued that psychology should become a rigorous science based exclusively on the analysis of observable behavior. Behaviorism analyzed learning through the direct relationship between stimuli and responses, excluding the introspective study of mental states (Todor, 2020; Voiculescu, 2010).

Cognitive theories focus on internal mental processes and the way they mediate the relationship between stimulus and response. In this context, metacognition emerges as a fundamental concept, initially defined by Flavell (1976), including knowledge about one's own cognitive processes and the ability to self-regulate and self-evaluate them (Glava, 2009; Cerghit, 2002).

Metacognition is structured into:

- Metacognitive knowledge (regarding persons, tasks, and strategies).
- Metacognitive skills (anticipation, continuous monitoring, and final evaluation of cognitive activities) (Sălăvăstru, 2009).

According to Schraw and Dennison (1994), metacognition involves two essential components: knowledge of cognition (declarative, procedural, conditional) and regulation of cognition (planning, monitoring, use of strategies, and evaluation of cognitive outcomes).

Educational constructivism is based on the idea that learning is an active and personal process, in which students construct their own knowledge starting from individual experiences and social interaction. It is structured into several orientations:

- Radical constructivism (von Glasersfeld), which rejects the idea of an objective reality, emphasizing the subjective nature of knowledge.
- Cognitive constructivism (Piaget), which analyzes learning through the lens of cognitive processes involved in interaction with the environment.
- Social constructivism (Vygotsky), which emphasizes the importance of the socio-cultural context and social interactions in the construction of knowledge (Joița, 2006; Voiculescu, 2010).

Constructivism underlines the central role of the student in managing their own learning, encouraging autonomy, collaboration, authentic experiences, and real contexts. Within this framework, the teacher acts as a facilitator and coordinator, supporting students in the active process of knowledge construction by stimulating critical reflection and metacognition. Assessment is continuous and formative, focused on students' cognitive and metacognitive development (Joița, 2006).

Thus, these theories reflect the complexity and diversity of the learning process, highlighting the multiple dimensions involved in students' academic and personal development.

1.2.4. Learning Styles Developed in Higher Education

A learning style represents a personal trait specific to the way an individual receives, processes, and uses information. It includes preferences regarding the environment, time of day, degree of structure, and types of activities preferred in the educational process (Woolfolk, 1998; Glenn-Cowan, 1995).

From a psychological perspective, learning styles are based on personality traits that influence information processing mechanisms, including cognitive, affective, and psychomotor dimensions (Papuc & Bocoș, 2017; Cerghit, 2008). Thus, they reflect the preferential way in which individuals manage their own learning process.

The learning styles theory proposed by Lussier (1990) identifies four main types:

- Convergent style, focused on the practical resolution of problems, with an emphasis on logical and abstract thinking;
- Divergent style, characterized by emotional involvement and reflective observation, favoring multiple perspectives and imagination;
- Assimilative style, oriented toward theoretical and logical approaches, favoring conceptualization and abstraction;
- Accommodative style, involving concrete experimentation and active engagement, favoring intuition and practice (Trif & Voiculescu, 2013).

According to the scale developed by Grasha and Hruska-Riechmann (1982), students' learning styles are grouped into six categories specific to the university environment:

- Competitive – oriented toward individual success and performance;
- Collaborative – prefers teamwork and exchange of ideas;
- Avoidant/withdrawn – avoids interaction and shows low motivation;
- Participant – active engagement and intrinsic interest in learning;
- Dependent – requires constant support and external structure;
- Independent – high autonomy and preference for individual activities (Hruska-Riechmann & Grasha, 1982; Stăncescu, 2017).

In higher education, the literature also identifies four distinct approaches:

- Undirected – lack of self-regulation and clarity of objectives;
- Reproduction-directed – mechanical memorization and external control;
- Meaning-directed – deep, self-regulated, and autonomous learning;
- Application-directed – focused on the practical application of knowledge (Reaboi & Șevciuc, 2015).

Moreover, pedagogical literature clearly differentiates between two major approaches to the learning process:

- Deep learning, which involves understanding the meaning of information, integrating concepts, and critically analyzing them. This approach is associated with the development of critical and creative thinking and reflects authentic intrinsic motivation (Marton & Säljö, 1976; Biggs & Tang, 2011; Entwistle, 2018).

- Surface learning, which is centered on rote memorization, faithful reproduction, and avoidance of deep understanding of concepts. Students adopting this approach are mainly motivated by external rewards and pass examinations with minimal effort (Chiș, 2005; Biggs & Tang, 2011; Entwistle, 2018).

In the university context, a strategic approach is also noted, involving the rigorous organization of the educational process and the conscious use of strategies adapted to specific requirements, with the aim of achieving optimal academic performance. This approach is characterized by careful planning, adaptation to assessment requirements, and the efficient use of educational resources (Entwistle & McCune, 2004; Biggs & Tang, 2011; Trigwell & Prosser, 2020).

Learning styles are not fixed but adaptive and influenced by the educational context. Awareness and use of appropriate pedagogical strategies can facilitate the transition from surface approaches toward deep or strategic approaches, thereby promoting authentic and effective learning in higher education (Vermunt & Donche, 2017; Panadero & Broadbent, 2018).

1.2.5. Conditions for Effective Learning in Higher Education

The specialized literature identifies two major categories of conditions that influence the process of academic learning, according to the theory of psychologist R. Gagné: internal conditions and external conditions (Cucoș, 2009).

Internal conditions refer to the totality of characteristics specific to the learner, including genetic potential, level of intellectual development, prior knowledge and competences, personal motivation, willpower, and the intellectual strategies employed in the learning process (Cucoș, 2009; Voiculescu et al., 2009). Among these, cognitive factors exert a major influence on the learning process:

- Perception, essential for receiving information, developing observation skills, and structuring knowledge.
- Representations, fundamental for concept formation and memory consolidation.
- Memory, involved in storing and retrieving learned information.
- Imagination, essential for creativity and the generation of new ideas.
- Attention, which determines efficient concentration on educational tasks (Radu, 2000; Negovan, 2007).

At the same time, biological factors such as age, general health, genetic potential, quality of sleep, and intellectual biorhythm significantly influence learning efficiency (Kramar, 2002).

Similarly, psychological factors such as intelligence, educational aptitude, and specific abilities, along with observational skills, largely determine students' academic success (Kramar, 2002).

External conditions include elements independent of the individual, stemming from the educational context. These encompass socio-organizational factors (social and cultural environment, institutional climate, interpersonal relationships), temporal factors (time of day, duration of activities and breaks), psycho-ergonomic factors (the design of the educational space and the comfort it provides), and the teacher's status (professional competence, authority, teaching and communication style) (Roman, 2006; Kramar, 2002).

Studies emphasize the importance of how the teacher organizes and structures educational material, adapting it to students' level of understanding. Furthermore, learning efficiency increases significantly when activities are distributed over longer periods, with sufficient breaks and adequate rest (Roman, 2006; Kramar, 2002).

In addition to these fundamental conditions, there are also disruptive factors such as stress, noise, inadequate physical conditions, poor health, or tense relationships, which can negatively affect the educational process and students' academic performance (Kramar, 2002; Roman, 2006).

Thus, the process of academic learning is influenced in complex ways by both students' individual characteristics and the external conditions created by the educational environment, both of which are essential for achieving performance and academic success.

1.3. Dimensions of Learning Autonomy

1.3.1. Theoretical Delimitation of the Concept of Autonomy

The concept of autonomy defines the individual's capacity to make personal decisions and act independently, in accordance with one's own rules and inner principles. It is a fundamental characteristic of personality and self-awareness (Șchiopu et al., 1997). In the specialized literature, autonomy has often been associated with and even confused with concepts such as freedom, independence, self-determination, and responsibility, although each retains distinct nuances (Faiciuc, 2004).

From a psychological perspective, autonomy involves the internalization of personal rules and values as a result of a continuous negotiation between the individual's beliefs and the external

norms imposed by society (Doron & Parot, 1999). In the educational context, autonomy does not equate with the absence of the teacher or the lack of instructional control; rather, it entails the self-direction of learning under the careful and active guidance of the teacher. The teacher plays the role of facilitator or guide, supporting the development of students' autonomy by encouraging their ability to manage their own learning process independently (Moldovan, 2018; Bouayad-Agha, 2006; Wegmuller, 2002).

Student autonomy implies a high level of personal and professional responsibility, along with the ability to self-assess, analyze, and continuously improve. It manifests differently depending on psychological and contextual particularities, and it is never a completely stable trait nor one that is definitively acquired (Assor et al., 2002; Caudron, 2001).

Other authors argue that personal autonomy is characterized both by the effective capacity for self-determination and by the individual's perception of being able to exercise such control over one's own life (Albu, 2008; Manolescu, 2015). Furthermore, autonomy presupposes the conscious acceptance of personal rules and responsibility for the outcomes of one's own actions (Farcaș, 2019; Pieron, 2001).

Thus, the concept of educational autonomy does not imply isolation or the absence of social interaction but, on the contrary, the capacity of the individual to decide when and how to seek support and cooperation, thereby demonstrating an advanced level of maturity and awareness of one's own limits and needs (Violet, 2002).

Autonomy in the academic context is a complex competence that must be actively cultivated and supported within the educational process. It requires a redefinition of teacher–student relationships, promoting students' active and responsible participation in the construction of their own knowledge and personal development.

1.3.2. Conceptualizations Associated with Learning Autonomy

In the specialized literature, the concept of self-efficacy is recognized as one of the most important psychological factors that significantly contribute to the development of learning autonomy. According to Bandura (1997), self-efficacy represents an individual's belief in their own capacity to plan and carry out specific actions in order to achieve personal and educational goals (Bandura, 1997).

Self-efficacy directly influences task selection, the intensity of effort invested, perseverance in the face of difficulties, and the level of anxiety experienced during educational

activities. Thus, it becomes an essential element in activating and sustaining autonomous and self-regulated behaviors within the educational process (Zimmerman, 2000).

The concept of self-determination involves competencies related to personal control and responsibility, providing students with fundamental tools for continuous intellectual development and the improvement of educational activity quality (Bandura, 1997).

Self-organization refers to the individual's ability to manage resources and educational actions in a global and systematic manner, in accordance with previously established objectives and planning (Bocoș, 2016).

Self-direction designates individual initiative in one's own development, including the identification of learning needs, the establishment of personal objectives, the selection of resources, and the evaluation of results (Ștefan, 2014).

Self-regulation represents students' active and independent involvement in monitoring, adjusting, and adapting the learning process, constantly oriented toward achieving educational objectives (Bocoș, 2016).

Self-control involves both cognitive and behavioral regulation, being essential for the development of academic skills and the prevention of disruptive behaviors (Bocoș, 2016). Individual study entails independent intellectual activity, systematically organized by students to acquire and consolidate academic knowledge and competences, involving essential metacognitive and reflective strategies (Bocoș et al., 2019).

Self-management of learning includes self-decision, self-planning, self-organization, resource management, self-control, self-assessment, and continuous self-regulation of the educational process. It is influenced by factors preceding, accompanying, and following the learning experience (Ștefan, 2014; Frăsineanu, 2012).

The concept of personal identity is fundamental for the development of autonomy, as it allows the individual to manifest independence and continuity in their own personal and academic development. Personal identity provides individuals with a sense of coherence and stability, both essential for the manifestation of genuine autonomy (Marshall & Rowland, 2003; Schaub & Zenke, 2001).

Finally, responsibility is another essential concept associated with autonomy. Thus, academic autonomy implies assuming personal responsibility for one's own educational process, an idea consistently emphasized by teachers during instructional activities (Davis, 1999).

1.3.3. The Theoretical Approach to Learning Autonomy in Higher Education

The concept of learning autonomy is used in a wide variety of educational contexts and has multiple interpretations. In general, autonomy designates the individual's capacity to exercise control over their own educational activity. It involves independence in determining the direction of activities, active participation in organizing the process, and the freedom to decide on the selection of resources and learning strategies (Câmpean, 2004).

Autonomous academic learning is considered a complex competence that entails the integration of the following essential components:

- procedural knowledge regarding the methods and importance of autonomous learning;
- practical skills related to individual study;
- metacognitive capacities and self-management abilities;
- intrinsic motivation and positive attitudes toward learning;
- initiative, responsibility, and self-confidence;
- the individual's freedom to construct a personal learning style (Vovnenciuc, 2013).

Winne (2005) defines autonomy as the activity through which the student exerts significant influence over decisions concerning what, when, how, and for what purpose learning takes place.

Drăghicescu and Stănescu (2008) underline the essential principles of learning autonomy:

- reconsidering the teacher's role as a facilitator;
- fostering students' awareness of active involvement;
- encouraging students' participation in managing their own educational pathway;
- differentiating teaching strategies according to individual learning styles (Drăghicescu & Stănescu, 2008).

Rampillon (1996) stresses that autonomous learning involves a profound process of personal transformation, through which the student identifies the necessary steps and applies appropriate strategies for planning and monitoring their own educational activity.

According to Little (1991), autonomy entails developing a personal perspective on the educational process and actively assuming individual responsibility for learning.

Benson and Voller (1997) define learning autonomy as the ability to independently manage and control the educational process by taking responsibility for one's own goals and strategies.

The proposed framework captures the complexity of the concept of learning autonomy, highlighting the main dimensions and elements that define and influence students' ability to independently manage their own educational process.

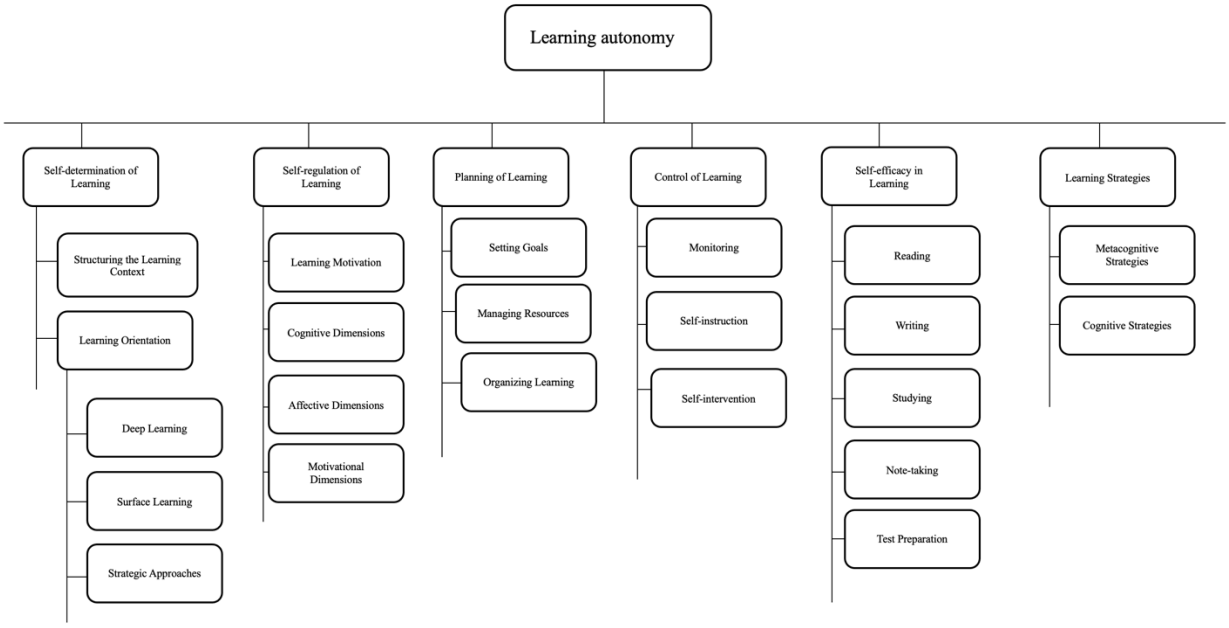

Figure 1.I.1.3.3. Learning Autonomy (Key Elements)

Self-determination in Learning

- Structuring the learning context: the student's ability to organize the physical and social environment in which learning takes place, in order to support the efficiency of the educational process.
- Orientation of learning: refers to the way students establish their study directions and academic priorities.
- Deep learning: an approach that involves active engagement and a thorough understanding of information.
- Surface learning: refers to memorizing information without genuine and profound understanding.

- Strategic approaches: involve the use of specific strategies to optimize academic outcomes and efficiently manage tasks.

Self-regulation of Learning

- Learning motivation: the internal energy and determination that sustains continuous commitment to educational goals.
- Cognitive dimensions: the cognitive skills involved in learning, such as analysis, synthesis, and the application of knowledge.
- Affective dimensions: the emotions and feelings that influence the learning process either positively or negatively.
- Motivational dimensions: the ability to maintain and adjust motivation in accordance with established educational challenges and objectives.

Learning Planning

- Setting objectives: students' ability to formulate clear and achievable goals for their own learning.
- Resource management: the capacity to identify and efficiently use the resources needed in the educational process (time, materials, information).
- Organizing learning: the skill of structuring and prioritizing academic activities and tasks.

Learning Control

- Supervision: continuous monitoring of one's own learning progress.
- Self-instruction: the student's ability to independently guide their learning process using effective techniques and strategies.
- Self-intervention: the ability to adjust one's own strategies and educational behaviors in order to overcome obstacles and optimize the learning process.

Self-efficacy in Learning

- Reading: confidence in one's own ability to understand and interpret academic texts.
- Writing: confidence in one's own ability to produce academic papers and written work.
- Studying: students' belief that they can study academic materials effectively.

- Note-taking: confidence in one's own ability to take clear and useful notes during lectures.
- Test preparation: confidence in one's ability to prepare effectively for academic assessments.

Learning Strategies

- Metacognitive strategies: techniques and methods through which students reflect on their own ways of thinking and learning.
- Cognitive strategies: specific techniques through which information is processed and assimilated, including rehearsal, elaboration, and organization of knowledge.

Learning autonomy is therefore considered a fundamental competence in the current educational context, marked by flexibility, digitalization, and the increased accountability of students. Its development requires a deliberate and explicit educational approach, oriented toward the formation of complex cognitive, metacognitive, and socio-emotional skills that enable students to effectively manage their own academic and professional pathways (Vansteenkiste et al., 2020; Ryan & Tilbury, 2019; Panadero et al., 2022; Rapanta et al., 2021).

1.3.4. Correlative Terms of the Concept of Autonomy

Over time, autonomy has been associated with numerous complementary concepts from various fields such as philosophy, psychology, pedagogy, biology, and sociology. A thorough understanding of this concept therefore requires an analysis of its relationships with these correlative notions (Farcaș, 2019).

The autonomy–freedom relationship

Autonomy is often associated with the notion of freedom, being considered an essential dimension of it. Freedom can be analyzed through the individual's capacity to learn from life experiences, the ability to make personal choices, and the ability to acquire one's own autonomy. Thus, autonomy becomes a fundamental component of freedom and of authentic personal development (Albu, 1998).

The autonomy–identity relationship

Personal identity is closely linked to the acquisition of autonomy, especially during adolescence. From both psychological and philosophical perspectives, identity is the essential property through which a person remains constant in their fundamental traits, allowing clear

differentiation from others. Autonomy is therefore directly connected to a clear sense of personal identity and the awareness of individual distinctiveness (Dictionary of Philosophy, 1978).

The autonomy–responsibility relationship

Responsibility represents an individual's capacity to initiate and accomplish socially and personally valuable actions, being directly associated with autonomy. Responsibility entails the active and conscious assumption of decisions and of the consequences of one's own actions. Thus, autonomy becomes an expression of the individual's ability to act responsibly and consciously in order to achieve well-defined goals (Șchiopu, 1997).

The autonomy–independence relationship

From a psychological perspective, independence refers to the individual's characteristic of reducing or avoiding reliance on others, preferring autonomous action based on personal values and internalized attitudes. As personality matures, independence becomes both a condition and a direct result of personal autonomy; they are interdependent and mutually reinforcing. Consequently, autonomy and independence constitute fundamental traits of a mature and balanced personality (Popescu-Neveanu, 1978; Șchiopu, 1997).

The autonomy–dependence relationship

Dependence (heteronomy) refers to situations in which an individual's actions are influenced or conditioned by external factors. In this sense, autonomy stands in opposition, though not absolute, to dependence. Through autonomy, the individual develops their own universe of action and thought, expressing originality and freedom, yet always within the framework of accepted moral norms and social values. Thus, autonomy does not entail total isolation, but rather the ability to act freely, responsibly, and in a socially integrated manner (Badea, Cuciureanu et al., 2007).

1.3.5. (Meta)cognitive Abilities – Fundamental Premises of Learning Autonomy

In pedagogical literature, special attention is given to critical thinking, defined as the ability to analyze and evaluate information in a profound and constructive manner. Critical thinking involves identifying how the components of a situation interact, formulating rational and well-founded judgments, and reconstructing the meaning of assimilated information (Grolnick & Ryan, 1987).

Critical thinking is not merely a simple skill but a complex intellectual competence, consisting of an integrated set of cognitive skills and abilities that allow knowledge to be

transformed into practical and effective action. It reflects an advanced level of organization and refinement of cognitive processes, being essential for autonomous and self-regulated learning (Nicu, 2007).

The development of critical thinking becomes a priority in autonomous learning, as students often face major challenges in managing the large volume of information available online and from other sources. Critical thinking enables them to distinguish between useful and credible information and unfounded content, thereby contributing to genuine autonomy and to the efficiency of the educational process (George, 2011).

For the effective development of autonomous learning competence, a clear methodology is required, one that stimulates students' motivation by emphasizing its relevance in contemporary society. It is important to strengthen students' self-confidence, to promote the acceptance of errors as natural moments in the construction of knowledge, and to develop their ability for realistic and constructive (self)evaluation (Petre, 2014).

Among the fundamental conditions for the development of critical thinking are the creation of an educational environment conducive to critical reflection, encouragement of diversity of opinions and perspectives, students' active participation, and the manifestation of genuine respect for others' ideas. For students to think critically, it is essential that they strengthen their confidence in their own abilities and become capable of formulating and justifying judgments and points of view (Negovan, 2013).

Another central concept in this context is metacognition, defined as the student's capacity to monitor, control, and regulate their own cognitive and learning activities. Metacognition is a parallel and reflective activity, oriented toward the evaluation, regulation, and continuous refinement of one's own thinking and educational strategies (Joița, 2007).

In autonomous learning, the student assumes the role of educational manager, responsible for planning activities, setting objectives, monitoring progress, evaluating results, and creating the conditions for academic success. Metacognition provides the student with the necessary tools for self-assessment, self-regulation, and the continuous improvement of personal learning strategies (Joița, 2007).

Facilitating metacognition is important both for students and for teachers. The teacher is responsible for creating educational contexts that stimulate the development of metacognitive skills and for exemplifying their own metacognitive reflections within instructional activities. In

this way, students are encouraged to become autonomous and to develop a profound reflective attitude (Brooks, 1990).

Promoting metacognition involves the continuous refinement of personal strategies, the cultivation of systematic critical reflection, and the stimulation of inner dialogue. This directly contributes to the continuous improvement of both teaching and learning processes, leading to the development of genuine and sustainable autonomy (Brooks, 1990).

Among the most effective metacognitive strategies that students can employ are concrete planning of learning, efficient management of time and effort, awareness of the difference between rote memorization and deep understanding, periodic and sequential evaluation of learning progress, as well as awareness of personal potential and limitations (Assor, Kaplan & Roth, 2002).

CHAPTER II – Assessment and Formative Assessment Strategies for Students

2.1. Fundamental Dimensions of Learning

2.1.1. Theoretical Perspectives on Defining the Concept of Assessment

Assessment is a complex didactic activity, organically integrated into the entire educational process. It does not limit itself to the simple ascertainment of results achieved but seeks the continuous improvement of the teaching–learning process and the optimization of future performance. It involves the measurement and evaluation of the quality of students' acquired knowledge, assessing their level, performance, and efficiency at a given moment (Rey et al., 2012).

At the macro level, assessment represents a subsystem of the educational process that evaluates the overall efficiency of the education system, providing useful information for educational policy decisions (Bocoș & Jucan, 2019). At the micro level, assessment reflects the knowledge of the effects of instructional and educational activities and students' academic performance within a given context and at a specific moment (Bocoș & Jucan, 2019).

Bocoș (2013) considers assessment a complex activity involving the systematic collection and rigorous analysis of relevant information regarding the learning process, in order to objectively examine and evaluate the efficiency of the educational process.

Assessment also constitutes an essential form of feedback for both teachers and students, allowing the formulation of judgments on progress made and the identification of aspects requiring continuous correction and improvement (Herlo et al., 2020).

Assessment is an integrated, systemic, and permanent component of the educational process, involving complex activities of measurement, evaluation, analysis, and interpretation of results obtained. It provides valuable information for effective educational decision-making, directly contributing to the optimization and continuous self-regulation of the entire instructional–educational process.

2.1.2. Conceptual Landmarks in Defining Student Assessment

Assessment in the university academic context represents a fundamental and systematic component of the educational process, reflecting not only the quantity and quality of the competences acquired by students, but also their efficiency and performance within a clearly defined timeframe. Thus, assessment directly contributes to the optimization and adaptation of educational activities for adults, enabling the identification of concrete solutions for the improvement and refinement of the learning process (Bocoș et al., 2016).

Assessment exerts a significant influence on the way students learn. In this regard, Jacques (1999) provides important recommendations for achieving effective and constructive assessment, including:

- Aligning assessment with the learning process, thereby stimulating students' effort and active involvement;
- Conducting continuous assessment, with the active involvement of students in the process (self-assessment, peer-assessment);
- Valuing errors as learning opportunities;
- Using diverse assessment methods and providing clear, frequent, and relevant feedback;
- Adopting strategies to reduce assessment-related anxiety and ensuring transparency of the methods used (Jacques, 1999).

Assessment is described as a complex process of monitoring, measuring, and evaluating acquired knowledge and competences, serving as an analysis and valorization of the efficiency of teaching activity. It provides essential opportunities to identify achievements, limitations, and difficulties encountered, thereby contributing to the continuous improvement of the educational process (Herman, 2017).

According to Agnes (2008), quality assessment must meet three fundamental conditions:

- Relevance: assessment must be adapted to and aligned with educational objectives;
- Validity: instruments and methods must accurately measure what they are intended to measure;
- Reliability: assessment must yield stable and consistent results (Agnes, 2008).

From a curricular perspective, assessment is considered a complex activity that involves the collection, organization, and interpretation of data regarding the effects of the teacher–student relationship, with the purpose of optimizing and increasing the efficiency of the entire educational system (Neacșu & Stoica, 1996).

Assessment involves the formulation of well-founded value judgments and the comparison of results against clearly defined qualitative criteria. In this context, assessment directly contributes to the regulation and improvement of the educational process, the selection of students, and the certification of their competences (Manolescu, 2010; Țeican, 2019).

At present, assessment occupies a central place in specialized literature, generating numerous debates concerning its validity and social relevance. As such, assessment has become the subject of extensive critical reflection on the utility and real meaning of evaluative practices in education (Lopez & Figari, 2012).

Assessment in the university context is a complex, systematic, and continuous activity, organically integrated into the instructional–educational process. It involves both objective measurement and qualitative appraisal of results obtained, providing valuable feedback that directly contributes to the optimization and ongoing improvement of the university educational process.

2.1.3. The Main Operations of Assessment

In pedagogical literature, educational assessment is defined as a complex activity that involves carrying out multiple interdependent actions and operations. The structure of the educational assessment process comprises four fundamental operations, organized hierarchically and interdependently, both at the systemic and processual levels: verification, measurement, appraisal, and decision-making (Baciu, 2010; Mogonea, 2010).

Verification consists of the systematic collection of relevant information regarding the level of students' achieved performance. In this process, various strategies, methods, techniques, and specific instruments are employed in order to identify the actual level of acquired competences (Baciu, 2010; Mogonea, 2010).

According to Mogonea (2010), measurement represents the action through which the results obtained are assessed and interpreted in relation to specific performance indicators. In this process, the observable characteristics of educational performance are assigned precise numerical values, thus achieving an objective and rigorous quantification of the results.

Measurement involves the identification and recording of observable characteristics, expressed quantitatively through scores, numbers, or statistics, or qualitatively through synthetic descriptions oriented toward specific aspects of the behavior or performance analyzed (Baciu, 2010).

Appraisal is the operation of assessment that involves interpreting the information collected during the measurement stage by relating it to qualitative criteria specific to the pedagogical or professional field. At this stage, results are interpreted through well-defined value judgments, using criteria, standards, grids, and scales. Appraisal thus makes it possible to identify aspects

related to the quality of results, the efficiency of activities carried out, effectiveness, recorded progress, and the level of students' performance (Mogonea, 2010; Baciu, 2010).

Decision-making is the final operation of assessment and represents the translation of appraisals into grades, evaluations, or recommendations. This operation has a clear pedagogical and professional forecasting function, marking the culmination of the assessment process. Decision-making determines the future direction of educational actions and establishes concrete measures to be adopted for the continuous improvement of the learning process (Baciu, 2010).

Concretely, decision-making involves the formulation of specific solutions and recommendations for improving the educational process, having both anticipatory and managerial roles. The purpose of this operation is the regulation and refinement of educational activity, thereby ensuring continuous progress and the ongoing optimization of the instructional process (Mogonea, 2010).

2.1.4. Types of Assessment in Higher Education

In the academic environment, the most common classification is based on the timing of the assessment:

- Initial assessment (diagnostic or predictive): conducted before the beginning of an educational program, academic year, or semester. It identifies students' initial level of preparation and establishes the necessary conditions for understanding and assimilating new content (Cucoș, 2008).
- Formative assessment (progressive or continuous): carried out throughout the entire instructional activity, constantly monitoring students' progress. This assessment provides continuous feedback and allows for the immediate correction and optimization of the educational process (Cucoș, 2008).
- Summative assessment (cumulative or final): conducted at the end of significant stages (chapters, semesters, academic years), using complex instruments that comprehensively cover the content addressed. Its role is to provide a global appraisal of students' performance (Cucoș, 2008).

Recommendations for effective assessment in higher education (Jacques, 1999):

- Establishing a direct correlation between assessment and the learning process.
- Involving students in assessment through self-assessment and peer-assessment.
- Valuing errors as opportunities for learning.

- Diversifying assessment methods.
- Providing clear, precise, and frequent feedback.
- Reducing assessment-related anxiety by ensuring transparency of the process.
- Presenting model answers to students prior to assessment.
- Acknowledging the limits of objectivity and accuracy in assessment.

For assessment to be considered effective, it must fulfill three essential conditions:

- Relevance: alignment and adaptation of assessment to educational objectives.
- Validity: the methods and instruments used must accurately measure what they are intended to.
- Reliability: results must be stable and consistent.

2.1.5. Conceptual Approaches to the Functions of Student Assessment

Assessment in the university academic environment fulfills a series of distinct functions, each contributing significantly to the optimization of the educational process and to the continuous development of students. The main functions of educational assessment, as presented in the specialized literature, include the following (Bocoș & Jucan, 2019):

- Social function:

Assessment reflects the overall efficiency and productivity of the educational process from the perspective of its social and economic impact (Bocoș & Jucan, 2019).

- Diagnostic function:

Assessment identifies the level of students' performance at a given moment, highlighting gaps, errors, and difficulties encountered in the educational process (Bocoș & Jucan, 2019).

- Selection (discriminatory) function:

This function provides the necessary information for the objective classification and selection of students based on their educational performance (Bocoș & Jucan, 2019).

- Certification function:

Assessment certifies the level of competences acquired by students at the end of an educational period (academic year, semester, or curricular cycle) (Bocoș & Jucan, 2019).

- Predictive (prognostic) function:

Assessment allows for estimates regarding students' future performance and subsequent development (Bocoș & Jucan, 2019).

- Constatative function:

This function analyzes and evaluates students' results by directly relating them to the initial educational objectives (Bocoș & Jucan, 2019).

- Motivational function:

Assessment acts as an important motivational factor, stimulating students' active and continuous involvement in the learning process (Bocoș & Jucan, 2019).

- Feedback function:

Assessment constitutes an essential source of both positive and negative feedback, providing information on aspects that need to be maintained and developed, as well as on those requiring correction and improvement (Bocoș & Jucan, 2019).

- Educational function:

Systematic and objective assessment contributes to the development of students' abilities of self-observation, self-knowledge, self-appraisal, and self-evaluation (Bocoș & Jucan, 2019).

2.2. Formative Assessment

2.2.1. Theoretical Overview of the Concept of Formative Assessment

Formative assessment is carried out continuously, usually at the completion of specific educational tasks, with the clear purpose of providing relevant information to both the student and the teacher regarding the degree of mastery of the learned content. In addition, formative assessment allows the identification of difficulties encountered by students in the learning process and contributes to their discovery or development of effective strategies to overcome obstacles and make progress. Thus, formative assessment becomes a central element in supporting and facilitating effective and autonomous learning (De Landsheere, 1992).

Through formative assessment, the capacity of educational actors to listen and be receptive to one another is implicitly developed. Consequently, those involved become more sensitive to interactions, feedback, and the need for ongoing adaptation and improvement. The teacher who employs formative assessment adopts a systemic approach in which all components of the educational process are flexible, adaptable, and dynamic. By integrating formative assessment practices into learning strategies, the interactive dimension of assessment is valorized, simultaneously contributing to the development of two essential types of competences: the teacher's competence (to guide, monitor, and adjust the educational process) and the student's competence (to self-assess and self-regulate their own learning process). In this way, formative

assessment generates a framework of reciprocal development, where both parties continuously evolve through effective (self)evaluative and (self)formative practices (Roman, 2014).

By actively involving students in assessment activities, providing constant feedback, and promoting guided reflection, formative assessment significantly contributes to the development of autonomy, responsibility, and self-regulation competences in learning—fundamental aspects for the training of contemporary students (Nicol & Macfarlane-Dick, 2006).

2.2.2. Specific Characteristics of the Formative Assessment Process

Formative assessment is organically and continuously integrated into the structure of instructional activity, being directly connected to the teaching and learning processes. It does not constitute an isolated activity but an authentic and integrated approach, essential for the continuous orientation and regulation of the instructional–educational process (Radu, 2004).

One of the fundamental concepts associated with formative assessment is that of regulation.

Formative assessment ensures three distinct types of regulation within the instructional process:

- Retroactive regulation focuses on correcting errors and difficulties already identified by organizing specific remedial activities. It therefore involves subsequent intervention aimed at improving results already achieved (Allal, 1988).
- Proactive regulation is carried out through future-oriented activities that aim to consolidate or deepen the knowledge and skills already acquired by students, stimulating their motivation and interest in continuing to learn and progress toward higher levels (Allal, 1988).
- Interactive regulation is based on constant interactions between student and teacher, among students themselves, or between the student and educational materials. This regulation is permanent, informal, and grounded in interactive methods such as self-assessment and peer-assessment (Allal, 1988; Meyer, 2000).

Another distinctive and essential element of formative assessment is the active participation of students in the assessment process. Thus, the student is not only the subject of assessment but also becomes a direct and active participant in this process, through the frequent use of self-assessment and peer-assessment techniques. In this way, formative assessment contributes significantly to the development of students' autonomy and accountability (Voiculescu, 2010).

The main specific features of formative assessment are:

- It is based on clear learning objectives and has a well-defined criterial character (Manolescu, 2010).
- It is organically and consistently integrated into the structure of the educational process, not a separate activity.
- It regards errors and difficulties as natural stages in solving educational tasks rather than as personal deficiencies.
- It provides constant and relevant information to both teacher and student regarding the degree of achievement of the proposed objectives.
- It facilitates the rapid identification and remediation of encountered difficulties, allowing the continuous adaptation of instructional activities.
- It directly contributes to increasing students' motivation for learning through constructive and encouraging feedback.
- It promotes an analytical approach explicitly centered on the student and the educational process, as opposed to an exclusively summative type of assessment (Manolescu, 2010).

2.2.3. Fundamental Principles of Formative Assessment

Formative assessment represents a specific form of evaluation that intervenes actively and immediately, especially when difficulties or problems arise in the learning process. This type of assessment is triggered when other common modes of pedagogical regulation have temporarily reached their limits, becoming an essential instrument in effectively supporting the instructional–educational process. Formative assessment aims to provide continuous feedback and to facilitate the immediate regulation of instructional activities, with the explicit objective of overcoming the difficulties encountered by students (Oprea, 1992).

The fundamental principles of formative assessment:

- It is a criterial assessment, explicitly oriented toward clear and precise educational objectives. It involves direct reference to previously established standards or criteria in order to provide relevant information about students' progress in relation to defined educational goals.

- It is characterized by its natural and continuous integration into regular educational activities. Formative assessment is not an isolated activity but an organic and constant part of the teaching–learning process.
- It regards the difficulties and errors encountered by students as normal and inevitable moments in the learning process. Errors are not interpreted as student deficiencies but are treated as valuable opportunities for identifying and applying effective improvement strategies.
- It is present throughout every instructional activity and takes place continuously and systematically, enabling permanent monitoring and regulation of the instructional–educational process.
- It provides both student and teacher with immediate and continuous feedback on the degree of achievement of the established educational objectives. This feedback helps to promptly adjust instructional activities and supports the student's autonomous development in managing their own learning process.
- It establishes the precise conditions required for the student to advance effectively to the next stage of learning in a sequentially organized process. Thus, formative assessment identifies exactly when and under what conditions academic progress should continue.
- It ensures continuous regulation of the educational process, allowing for the ongoing adaptation of instructional activities to the specific and concrete needs of the student. This regulation enables prompt and effective pedagogical intervention to facilitate the overcoming of identified difficulties.
- It explicitly and actively supports the student in overcoming obstacles encountered during the educational process, having a pronounced supportive and pedagogical guidance role.
- It is predominantly analytical, focusing more on the student's internal learning and development process and less exclusively on the final outcome of educational activities.
- This form of assessment benefits both the student and the teacher, as it provides precise and relevant information about progress achieved and about the optimal ways to continue instructional–educational activities (Oprea, 1992).

2.2.4. Approaches and Conditions of Formative Assessment

Formative assessment represents an essential and dynamic component of the educational process, adapted to students' individual needs and oriented toward a detailed analysis of how they learn and solve the proposed tasks. It is based on the observation, appraisal, and continuous regulation of educational behavior, aiming to identify and promptly correct errors and difficulties encountered during learning. Through formative assessment, students benefit from the constant consolidation of educational competences and skills, which leads to the efficient achievement of established academic objectives (Popa, 2015).

Formative assessment involves three fundamental stages:

1. Information collection: This stage involves the analysis of the learning object, the examination of its epistemological status, methodological analysis, and historical evolution. In this way, formative assessment seeks to gather relevant and clear information on students' performance, contributing to a deeper understanding of the educational process (Popa, 2015).
2. Information interpretation: This stage concerns the investigation of the specific conditions under which students acquire knowledge, such as the level of cognitive development, mental representations, prior knowledge, cognitive abilities, personal conceptions, and attitudes. Careful interpretation of this information allows for the identification of the strategies students employ and the difficulties they encounter in the educational process (Popa, 2015).
3. Decision-making: At this stage, the information collected and previously interpreted is used to design instructional interventions adapted to educational objectives and students' specific characteristics. Decisions include the organization of educational situations and sequences, the selection of appropriate teaching resources, and the adjustment of teaching and learning strategies according to the institutional and social context (Popa, 2015).

For formative assessment to effectively fulfill its educational and regulatory role, it must meet certain essential conditions:

- It must be continuous and sequential, carried out systematically throughout the entire educational process. This aspect enables the rapid identification and

correction of errors and difficulties, preventing the accumulation of major learning deficiencies (Popa, 2015).

- It must be analytical and comprehensive, oriented toward the detailed analysis of each student's performance. This approach allows the identification of individual difficulties, facilitating personalized and effective pedagogical interventions (Popa, 2015).
- The results of formative assessment must be interpreted in direct relation to the objectives previously established, avoiding comparisons among students. This approach supports individual development and stimulates the continuous improvement of personal performance, while encouraging students' autonomy (Popa, 2015).

2.2.5. The Role and Importance of Formative Assessment

Formative assessment is a fundamental component of the educational process, playing an essential role in continuously supporting and optimizing students' learning. This specific form of assessment involves a systematic and constant process of observing, analyzing, and interpreting the way students solve learning tasks. Formative assessment explicitly aims at identifying students' difficulties and correcting them immediately, thereby supporting the development of individual competences and the improvement of future instructional activities (Stoica, 1997).

The central role of formative assessment lies in providing continuous, relevant, and timely feedback to both teacher and student. Through this feedback, students' achievements as well as their cognitive difficulties are highlighted, which allows for rapid intervention and the constant adaptation of teaching strategies to their actual needs. Formative assessment thus contributes significantly to stimulating students' motivation, strengthening self-confidence, and fostering learning autonomy (Pachef, 2008).

2.3. The Specificity of Formative Assessment

2.3.1. Conceptual Approaches to the Term 'Strategy

Didactic strategies are flexible and adaptable operational frameworks designed to facilitate and optimize the educational process by aligning specific objectives with concrete educational contexts. These strategies aim to create a favorable framework for transmitting knowledge, developing competences, and stimulating significant changes in students' educational attitudes and behaviors (Cucoș, 2002; 2014).

According to Ștefan (2006), a didactic strategy involves identifying and analyzing educational problems, designing and implementing appropriate action plans, selecting the most effective teaching–learning methods, and carefully evaluating the results obtained. This process requires well-founded decisions and efficient organization of the available resources to achieve the established objectives.

Bocoș and Jucan (2019) define didactic strategies as complex and coherent systems, integrated into a systemic vision, aimed at constructing meaningful learning experiences, developing specific skills and competences, and rationalizing the instructional–educational process. From a psycho-pedagogical perspective, these strategies include multiple elements: types and styles of learning, teaching methods and tools, content organization, structuring of tasks, learning guidance, as well as the assessment and self-assessment of results (Bocoș & Jucan, 2019).

From a broader perspective, a didactic strategy is considered a structured and planned framework, including methods, procedures, and specific organizational forms, all oriented toward achieving educational objectives (Nicola, 2003; Cerghit, 2002). Complementarily, Damian (2020) emphasizes the importance of organized spatio-temporal structures of the educational process, which enable effective and direct interaction between teacher and student, thereby contributing to their intellectual and personal development.

2.3.2. Particularities of Formative Assessment Strategies

In the current university context, formative assessment represents an essential component of the educational process, going beyond the mere measurement of academic performance and playing the role of facilitating authentic learning and the development of students' autonomy. This form of assessment is organically integrated into teaching and learning, providing active support for the development of self-regulation competences (Bocoș & Jucan, 2019).

Formative assessment strategies include practical and operational methods that establish the concrete forms and types of assessment, the methods and instruments applied, the timing of assessment, performance descriptors, and specific grading systems. They ensure the systematic collection of relevant data for the continuous optimization of educational activities (Bernard & Defrace, 2012; Herlo et al., 2020).

These strategies can be analyzed from two major perspectives: the criterial perspective, focused on the actors involved, the instruments, and the subsequent educational decisions; and the polar axes perspective, which highlights oppositions such as formative versus summative

assessment, process-oriented versus product-oriented assessment, and internal versus external assessment (Herlo et al., 2020).

2.3.3. Examples of Formative Assessment Strategies

In the context of contemporary higher education, educational assessment is undergoing a significant transition, gradually moving away from traditional approaches based exclusively on summative testing and shifting toward alternative methods that provide a more comprehensive perspective on students' progress and development. Among these innovative methods are the portfolio, the project, self-assessment, and the reflective journal, each contributing in distinct ways to the development of students' metacognitive competences, autonomy, and critical thinking.

The portfolio is defined as an organized collection of representative student work, reflecting long-term progress and facilitating the development of metacognitive competences. This method promotes critical reflection on the educational process and stimulates learning autonomy (Cerghit, 2002; Cristea, 2019; Barrett, 2007).

The project represents a complex and integrative method that combines elements of formative and summative assessment. It involves carrying out extensive research, planning and implementing activities, engaging in critical reflection, and active collaboration. Project-based assessment fosters the development of autonomy, transversal competences, and the application of knowledge in authentic and meaningful contexts (Thomas, 2000; Zimmerman, 2002).

Self-assessment is the process by which the student analyzes and evaluates their own performance and educational activities. It stimulates self-regulation, autonomy, and the development of critical abilities. For maximum efficiency, self-assessment requires clear and explicit criteria, reflecting the student's actual level of performance and contributing to assessment literacy (Panadero, 2017; Andrade, 2019).

The reflective journal is an open and flexible alternative method that involves students' systematic recording of their own thoughts, emotions, and reflections regarding educational experiences. This practice facilitates the development of critical thinking, self-regulation, and metacognition, supporting a deeper and more personalized educational process (Moon, 2006; Zimmerman, 2002).

Overall, these alternative assessment methods promote a student-centered approach, contribute significantly to the development of learning autonomy, and provide extended opportunities for critical reflection and self-analysis.

PART II – PRACTICAL STUDIES AND INVESTIGATIONS ON THE DEVELOPMENT OF LEARNING AUTONOMY THROUGH FORMATIVE ASSESSMENT STRATEGIES

CHAPTER III – Research Design and Methodology

In the current context of higher education, formative assessment and learning autonomy are fundamental theoretical constructs, representing essential pillars for the efficient and sustainable development of students' academic and professional competences. The main objective of the present research is to analyze and determine the role that formative assessment plays in fostering the autonomy of students enrolled in the Primary and Preschool Education Pedagogy study program, within the specific courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

The second part of this doctoral thesis includes practical studies and investigations aimed at the development of learning autonomy through formative assessment strategies. This section details the research design and methodology and examines the relationship between formative assessment strategies and learning autonomy. Accordingly, it presents a series of studies concerning the analysis of university standards and regulations, students' perceptions of formative assessment, the perspectives of both teachers and students on the role of formative assessment, as well as the investigation of the effectiveness of the system of formative strategies applied within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

3.1. Theoretical Constructs and Their Operationalization

In order to conduct the research under optimal conditions, it is necessary to explicitly operationalize the key concepts used: learning autonomy and formative assessment. Such clear and concrete operationalization will allow for precise measurement and analysis, thereby contributing significantly to the validity of the research findings.

Learning autonomy *is a complex and multifunctional competence, manifested through the student's ability to responsibly take control of their own educational process. It entails the conscious identification of personal needs and interests, the establishment of clear personal objectives, the planning of activities, the selection and application of appropriate cognitive and metacognitive strategies, and the monitoring and critical evaluation of personal progress. Autonomy does not imply educational isolation; rather, it requires collaborative interactions, contextual support, and constant formative feedback, particularly in the initial stages of*

developing this competence. Moreover, it is closely related to the development of social and emotional competences, academic self-efficacy, and resilience, contributing to the strengthening of intrinsic motivation, adaptation to the challenges of the current academic context—including digital or hybrid environments—and facilitating the transfer of knowledge and competences into authentic contexts relevant for long-term professional and personal development.

***Formative assessment** is a continuous, integrated, and adaptive didactic process, systematically carried out throughout educational activities, with the aim of constantly gathering relevant information regarding students' progress and the difficulties they encounter, in order to allow for the immediate adjustment of instruction and the optimization of learning. Characterized by constructive, specific, and forward-looking feedback, formative assessment actively engages the student through self-assessment, metacognitive reflection, and peer-assessment, thereby fostering autonomy, self-regulation, and personal responsibility toward learning. This approach goes beyond the mere measurement of performance, transforming assessment into a continuous and meaningful dialogue between teacher and student. It supports the development of higher-order cognitive competences, such as critical, analytical, and creative thinking, as well as socio-emotional competences essential for sustainable academic and professional adaptation. Formative assessment is also flexible and context-sensitive, involving the diversified and adaptive use of multiple tools and techniques, such as portfolios, authentic projects, reflective journals, and self-assessment tests, thereby facilitating deep learning and the sustainable development of autonomous competences.*

3.2. The Aim and Objectives of the Research

Research Aim

To determine and analyze the role of formative assessment in the university education system and to improve the process of developing learning autonomy among students enrolled in the Primary and Preschool Education Pedagogy program, within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment. Furthermore, to identify the extent to which the system of formative assessment strategies—consisting of portfolio, project, reflective journal, and self-assessment—contributes to the development of students' learning autonomy in the study of these courses.

Research Objectives

Objective 1. To identify and analyze the specific provisions in the university standards and regulations of "1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad regarding formative assessment in higher education, using an analysis grid, with the purpose of identifying best practices and optimizing the instructional process.

Objective 2. To highlight and analyze the evaluative components (assessment criteria, assessment methods) provided in the curricular documents (course syllabi for Theory and Methodology of Instruction, Theory and Methodology of Assessment), in order to clarify their role and weight in assessing students' performance, using an analysis grid.

Objective 3. To identify the perceptions of students in the Primary and Preschool Education Pedagogy program regarding the role of formative assessment in the development of learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, from the perspective of its adaptation to individual needs and personal learning styles.

Objective 4. To identify and analyze the proposals offered by students in the Primary and Preschool Education Pedagogy program to their professors, aimed at supporting and optimizing the process of developing learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Objective 5. To investigate the difficulties identified by teachers in implementing formative assessment for the development of students' learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Objective 6. To examine the extent to which the academic results of students in the Primary and Preschool Education Pedagogy program in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment have improved following the application of the system of formative assessment strategies (portfolio, project, reflective journal, self-assessment).

Objective 7. To experimentally test the impact of the system of formative assessment strategies (portfolio, project, reflective journal, self-assessment) on learning autonomy in higher education, specifically in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, for students in the Primary and Preschool Education Pedagogy program.

Objective 8. To analyze the relationship between the learning styles proposed by Duff (2003) (deep processing, surface processing, strategic approach), the perceived level of self-efficacy in learning as proposed by Zimmerman and Kitsantas (2005) (according to the RASI and

SELF questionnaires), and the development of learning autonomy, before and after the implementation of the system of formative assessment strategies (portfolio, project, reflective journal, self-assessment) in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

3.3. Research Questions

1.To what extent do national standards and university regulations encourage formative assessment and students' learning autonomy?

2.In what form and to what extent are elements of formative assessment (assessment criteria, assessment methods) included in the curricular documents of instructional activities?

3.To what extent do students support formative assessment strategies (portfolio, project, reflective journal, self-assessment)?

4.How do teachers perceive their role in developing students' learning autonomy through formative assessment strategies?

5.What is the impact of the system of formative assessment strategies on students' learning autonomy?

6.What recommendations can be formulated, based on theoretical and experimental evidence, to enhance the impact of formative assessment on students' learning autonomy?

3.4. Research Hypotheses and Variables

Main Hypothesis

The systematic use of formative assessment strategies within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment leads to changes in the academic results of students enrolled in the Primary and Preschool Education Pedagogy program and to an increase in learning autonomy, reflected in deep learning and self-efficacy in learning.

Secondary Hypotheses

Hypothesis 1. It is assumed that the adaptation of formative assessment strategies to individual needs and personal learning styles is perceived by undergraduate students in the Primary and Preschool Education Pedagogy program as having a positive effect on their learning autonomy.

Hypothesis 2. There are statistically significant differences between the academic results in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, obtained by students in the experimental group (PIPP II UAB) and the control group (PIPP II UAV), after the implementation of the system of formative assessment strategies.

Hypothesis 3. The implementation of the system of formative assessment strategies contributes to increasing the level of learning autonomy as perceived by second-year students in the Primary and Preschool Education Pedagogy program.

Hypothesis 4. There are significant correlations between the learning styles adopted (deep processing, surface processing, strategic approach) and the level of learning self-efficacy perceived by students, before and after the formative intervention.

Research Variables

Independent Variable

The system of formative assessment strategies applied in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Dependent Variables

Dependent Variable 1. The academic results of second-year students in the Primary and Preschool Education Pedagogy program in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Dependent Variable 2. The level of development of learning autonomy as perceived by second-year students in the Primary and Preschool Education Pedagogy program.

Dependent Variable 3. The learning style of second-year students in the Primary and Preschool Education Pedagogy program.

Dependent Variable 4. The level of learning self-efficacy as perceived by second-year students in the Primary and Preschool Education Pedagogy program.

3.5. Research Methods and Instruments

In Study I – "Analysis of Standards, Regulations, and Curricular Documents Regarding Formative Assessment in Higher Education: A Constatative Study on Assessment Practices in the Academic Context" – the research method used was document analysis, applying an analysis grid (personal design).

In Study II – "Investigating Students' Perceptions of Formative Assessment and Its Role in the Development of Learning Autonomy" – the method employed was the questionnaire-based survey (personal design).

In Study III – "Exploring Teachers' and Students' Perspectives on Formative Assessment and Its Role in the Development of Learning Autonomy. A Qualitative Analysis" – the research method applied was the focus group, using a focus group interview guide (personal design).

In Study IV – "Investigating the Effectiveness of the System of Formative Assessment Strategies in Developing Students' Learning Autonomy in the Courses Theory and Methodology of Instruction and Theory and Methodology of Assessment* – the research method employed was the experiment, using: knowledge tests for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment (personal design); the SELF questionnaire (Self-Efficacy for Learning Form, Zimmerman & Kitsantas, 2005); the RASI questionnaire (Revised Approaches to Studying Inventory, Duff, 2003); and formative assessment sheets (personal design).

3.6. Participant Samples

For Study II – "Investigating Students' Perceptions of Formative Assessment and Its Role in the Development of Learning Autonomy" – the participant sample consisted of 216 students from two universities in Romania. The sample was divided as follows:

- 96 students from the Primary and Preschool Education Pedagogy program, second year, Faculty of History, Letters, and Educational Sciences at "1 Decembrie 1918" University of Alba Iulia. Of these, 94 were female and 2 were male, with ages ranging from 20 to 42 years.
- 120 students from the Primary and Preschool Education Pedagogy program, second year, Faculty of Educational Sciences, Psychology, and Social Work at "Aurel Vlaicu" University of Arad. Of these, 114 were female and 6 were male, with ages ranging from 20 to 43 years.

For Study III – "Exploring Teachers' and Students' Perspectives on Formative Assessment and Its Role in the Development of Learning Autonomy. A Qualitative Analysis" – the participant sample was as follows:

- for the first focus group, which explored students' opinions regarding formative assessment and its role in the development of learning autonomy, the participant sample consisted of 10 second-year students from the Primary and Preschool Education Pedagogy program, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia.
- for the second focus group, which explored teachers' perspectives on students' opinions regarding formative assessment in the development of learning autonomy, the participant sample consisted of 10 teachers from the Department for Teacher Training, "1 Decembrie 1918" University of Alba Iulia. These teachers conduct

both lectures and seminars with second-year students from the Primary and Preschool Education Pedagogy program, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia.

For the implementation of Study IV – "Investigating the Effectiveness of the System of Formative Assessment Strategies in Developing Students' Learning Autonomy in the Courses Theory and Methodology of Instruction and Theory and Methodology of Assessment* – a total of 216 second-year students from two universities participated: "1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad.

This participant sample was divided into two groups, as follows:

- experimental group – consisting of 96 second-year students from the Primary and Preschool Education Pedagogy program, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia. The sample was not homogeneous in terms of age (students' ages ranged from 20 to 42 years; 94 were female and 2 were male).
- control group – consisting of 120 second-year students from the Primary and Preschool Education Pedagogy program, Faculty of Educational Sciences, Psychology, and Social Work, "Aurel Vlaicu" University of Arad. The sample was not homogeneous in terms of age (students' ages ranged from 20 to 43 years; 114 were female and 6 were male).

3.7. The Stages and Timeline of the Research

The entire research was carried out over the academic years 2022–2023 and 2023–2024.

In the first stage, during the beginning of the academic year 2022–2023, semester I, I analyzed the standards and regulations regarding formative assessment in higher education.

Subsequently, in the second semester of the academic year 2022–2023, I identified the evaluative components in the curricular documents of the two courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

At the beginning of the academic year 2023–2024, semester I, I administered a questionnaire at both "1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad, investigating students' perceptions of formative assessment and its role in the development of learning autonomy.

During this same first semester of 2023–2024, I explored, through a focus group, the perspectives of students from "1 Decembrie 1918" University of Alba Iulia on formative assessment and its role in developing learning autonomy.

Subsequently, I investigated teachers' perspectives on students' opinions regarding formative assessment in the development of learning autonomy. This was conducted through another focus group held during the first semester of 2023–2024.

Also, during this first semester, I administered at the two universities ("1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad) two questionnaires designed to investigate students' beliefs regarding different learning approaches (SELF and RASI questionnaires).

At the beginning of semester I of the academic year 2023–2024, second-year students in the Primary and Preschool Education Pedagogy program, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia, participated in two pre-tests for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Throughout semester I of the academic year 2023–2024, I conducted the experimental testing of the impact of a system of formative assessment strategies on students' learning autonomy in higher education, within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment. This experimental testing focused only on students enrolled in the Primary and Preschool Education Pedagogy program, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia.

Still in semester I of the academic year 2023–2024, I re-administered at both universities ("1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad) the two questionnaires (SELF and RASI) to further investigate students' beliefs regarding different learning approaches.

At the end of semester I of the academic year 2023–2024, second-year students in the Primary and Preschool Education Pedagogy program, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia, participated in two post-tests for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Because the second-year students in the Primary and Preschool Education Pedagogy program, Faculty of Educational Sciences, Psychology, and Social Work, "Aurel Vlaicu"

University of Arad, study the two courses in different semesters, in semester I of the academic year 2023–2024 I conducted the pre-test and post-test for Theory and Methodology of Instruction, while in semester II of the academic year 2023–2024 I carried out the pre-test and post-test for Theory and Methodology of Assessment.

CHAPTER IV – The Relationship between Formative Assessment Strategies and the Development of Students' Learning Autonomy

4.1. Analysis of Standards, Regulations, and Curricular Documents Regarding Formative Assessment in Higher Education: A Constatative Study on Assessment Practices in the Academic Context

4.1.1. The Aim and Objectives of the Constatative Study

In this study, I conducted a detailed analysis of the standards and regulations regarding formative assessment in the university academic environment, in order to highlight the ways in which they are implemented in practice and to identify possible discrepancies or areas requiring improvement.

Complementary to this analysis, I aimed to clearly and precisely delimit the evaluative components stipulated in the official documents used for planning instructional activities, particularly in the course syllabi. These efforts contribute significantly to shaping a coherent and integrative perspective on the role of formative assessment in improving the quality of teaching and learning in universities, as well as to the development of an academic culture based on reflection and continuous feedback.

The study focuses on a detailed analysis of the standards and regulations governing formative assessment in Romanian higher education. For a better understanding and systematization of this analysis, an analysis grid structured by specific criteria is employed, allowing for an in-depth evaluation of the ways in which the two universities ("1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad) apply the principles of formative assessment. Thus, fundamental aspects will be addressed, such as transparency of the assessment process, compliance with ARACIS standards, implementation of the ECTS system, and the monitoring of feedback provided by students.

This study also seeks to delineate the evaluative components from instructional planning documents (course syllabi), which serve as an essential tool in the research by providing a clear and structured framework for examining how assessments are established and implemented in the teaching process.

Objective 1. To identify and analyze the specific provisions in the university standards and regulations of "1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad

related to formative assessment in higher education, using an analysis grid, with the aim of identifying best practices and optimizing the instructional process.

Objective 2. To highlight and analyze the evaluative components (assessment criteria, assessment methods) stipulated in the curricular documents (course syllabi for Theory and Methodology of Instruction, Theory and Methodology of Assessment), in order to clarify their role and weight in assessing students' performance, using an analysis grid.

4.1.2. Methods and Instruments for Document Research

In this study, I applied two specific research instruments, namely analysis grids:

- Analysis of standards and regulations regarding formative assessment in higher education – analysis grid (personal design).
- Delineation of evaluative components from instructional planning documents for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment – analysis grid (personal design).

In the first phase of the research, using these analysis grids, I examined both the standards and regulations regarding formative assessment in higher education, as well as the evaluative components from the instructional planning documents for the two courses Theory and Methodology of Instruction and Theory and Methodology of Assessment. Each analysis grid comprised three distinct sections through which I delineated: the criteria of analysis, the aspects analyzed and the legislative and institutional references, the indicators of analysis, description, and recording.

4.1.3. Analysis and Interpretation of Results

A. The stage of analyzing standards and regulations regarding formative assessment in higher education represents a fundamental component of the present research, contributing to a better understanding of the current legislative and institutional context. In this regard, in order to ensure a coherent and structured evaluation, I developed a specific analysis grid. This grid targets essential aspects such as compliance with general quality principles, the practical implementation of formative assessment, adherence to ARACIS standards, the transparency and documentation of the assessment process, as well as its impact on students and teachers. The proposed grid enables a clear and systematic identification of the ways in which universities apply legislative norms and internal regulations concerning formative assessment, thereby facilitating the identification of strengths and areas requiring improvement in academic practice.

No.	Criteria of Analysis	Analyzed Aspects	Legislative and Institutional References
1.	Compliance with general quality standards	Respect for the principles of equity, transparency, and student-centeredness in formative assessment	• Law on Higher Education No. 199/2023, Ch. I, Art. 1, para.2, p.2; • Law No. 199/2023, Ch. I, Art. 3, para.2, points a) and i), p.2; • Law No. 199/2023, Ch. I, Art. 4, points e), g), j), p.3; • Regulations of the Faculty of Educational Sciences, Psychology and Social Work UAV, R.47, 2nd ed./10.10.2024, Title I, Art.3, p.4; • Student Rights and Obligations Code UAV, CO.01, 2nd ed./01.11.2024, Ch.II, Art.8, pp.7–9; • Regulations of the Faculty of History, Letters and Educational Sciences UAB, COD:R-SFDA-2, 2nd ed./30.10.2024, Title II, Ch.VI, pp.14–17.
2.	Organization of formative assessment process	Implementation of continuous assessment through tests, mid-term evaluations, projects, individual assignments	• Order No. 7479/2024 (27 Nov. 2024) approving Minimum Standards for Continuous and Summative Assessment, Official Gazette of Romania, Part I, No. 1223/5.12.2024; • Law No. 199/2023, Title I, Ch. V, Sec. VI, Art.37, p.14.

3.	ARACIS methodology	Compliance with methodological requirements and ARACIS performance indicators in formative assessment	• ARACIS External Evaluation Methodology, Standards, Reference Standards, and List of Performance Indicators – Gov. Decision No.1418/2006, amended by GD No.1512/2008 and GD No.915/2017.
4.	Compatibility with ARACIS specific standards	Application of standards on educational content, practice, learning outcomes, and scientific research	• Specific Standards for External Evaluation of Academic Quality of Bachelor's and Master's Programs, Specialty Commission No.5 (Administrative Sciences, Education and Psychology), 28.09.2022.
5.	Application of internal institutional regulations	Application of institutional provisions regarding examinations, grading, and alternative/online assessment	• Operational Procedure on Examination and Grading of Students, PO.60/12.05.2020, 1st ed., UAV; • Regulations on Students' Academic Activity UAB, COD:R-SA-1/26.06.2024, 1st ed., pp.10–14; • Regulations on Student Examinations and Grading UAB, COD:R-SA-4/30.10.2024, 1st ed.
6.	Application of the ECTS system	Correlation of formative assessment with the ECTS credit transfer system	• Regulations on Students' Academic Activity Based on ECTS, R.05/30.09.2024, 3rd ed., UAV;

			• ECTS Application Guide, "1 Decembrie 1918" University Alba Iulia, COD:G-SA-1/30.10.2024, 1st ed.; • Regulations on Bachelor's Degree Programs, COD:R-SA-2/13.11.2024, 1st ed., UAB; • Law No.199/2023, Title I, Ch. XII, pp.28–30.
7.	Documentation and transparency of assessment process	Accessibility and publication of assessment documents, clear communication of objectives	• Operational Procedure on Examination and Grading, PO.60/12.05.2020, 1st ed., UAV; • Internal Evaluation Report on Education Quality, UAV, No.878/05.02.2024; • Regulations on Students' Academic Activity, COD:R-SA-1/26.06.2024, 1st ed., UAB, Ch. III, Arts. 21, 23, 25–27; • Regulations on Student Examinations and Grading, COD:R-SA-4/30.10.2024, 1st ed., UAB.
8.	Monitoring student feedback	Systematic collection and use of student feedback for continuous improvement	• Operational Procedure on Teacher Evaluation by Students, UAV, PO.03-E.P/20.05.2024, 2nd ed.; • Internal Evaluation Report on Education Quality, UAV, No.878/05.02.2024; • Operational Procedure on Evaluating Student Satisfaction with Professional/Personal Development, UAB, PO-CMCSI-03/23.11.2022, 3rd ed.; • Solaris Platform Tutorial on Teacher and Learning Environment Evaluation, UAB, 2022;

			• Law No.199/2023, Title III, Ch. V, p.65.
9.	Impact on student motivation and engagement	Assessment of formative methods' contribution to student motivation and involvement	• Law No.199/2023, Title I, Ch. XVI, Sec.1, Art.121, p.32.
10.	Clarity of learning and assessment objectives	Clear communication of learning objectives and their correlation with formative assessment	• Order No.7479/2024 approving Minimum Standards, Official Gazette No.1223/5.12.2024; • Operational Procedure on Examination and Grading, PO.60/12.05.2020, 1st ed., UAV; • Regulations on Student Examinations and Grading, COD:R-SA-4/30.10.2024, 1st ed., UAB; • Specific Standards for External Quality Evaluation, Specialty Commission No.5, 28.09.2022.
11.	Continuous teacher training in formative assessment	Existence of systematic teacher training programs in formative assessment	• Law No.199/2023; • Annual Report on UAV, 2023; • Methodology for Periodic Evaluation of Teaching and Research Staff, COD:M-CD-2/24.07.2024, 2nd ed., UAB.
12.	Documentation of individual student progress	Monitoring and documenting students' progress through	• Operational Procedure on Examination and Grading, PO.60/12.05.2020, UAV;

		regular formative assessments	• Regulations on Student Examinations and Grading, COD:R-SA-4/30.10.2024, 1st ed., UAB.
13.	Personalized development of formative methods	Adaptation of formative assessment to students' individual learning styles and specific needs	• Specific Standards for External Quality Evaluation, Specialty Commission No.5, 28.09.2022.
14.	Evaluation of formative methods' quality and effectiveness	Periodic and systematic evaluation of the efficiency and impact of formative methods used	• Operational Procedure on Examination and Grading, PO.60/12.05.2020, UAV; • Regulations on Student Examinations and Grading, COD:R-SA-4/30.10.2024, 1st ed., UAB.
15.	Student support and counseling	Existence of clear counseling and support mechanisms for students within formative assessment	• Operational Procedure on Supporting High-Performing Students and Remediation/Dropout Prevention, UAV, PO.56/20.05.2024, 2nd ed.; • Counseling and Career Guidance Center Regulations, COD:R.10, 2015; • Operational Procedure on Counseling and Career Guidance of Students/Graduates/High School Seniors, UAB, PO-CICOC-01/30.10.2024, 3rd ed.

Table 1.IV.4.1.3. Qualitative Analysis Grid of Standards and Regulations on Formative Assessment in Higher Education

1. Compliance with general quality standards:
    - Explains the importance of respecting the principles of equity, transparency, and student-centeredness in formative assessment.
    - Details how these principles help create an equitable university environment in which each student is given equal opportunities and progress is monitored transparently and effectively.
2. Organization of the formative assessment process:
    - Describes the concrete ways in which continuous assessment (tests, projects, individual assignments) contributes to students' progress.
    - Highlights the advantages of continuous formative assessment compared to traditional summative assessment, such as early identification of difficulties and timely interventions in the learning process.
3. ARACIS methodology:
    - Emphasizes the role of ARACIS methodologies in ensuring rigorous and relevant formative assessment.
    - Presents ARACIS performance indicators and the importance of adhering to them in maintaining high academic standards.
4. Compatibility with ARACIS specific standards:
    - Explains how the application of these standards positively influences educational content, pedagogical practice, and learning outcomes.
    - Argues that integrating scientific research into formative assessment contributes to developing students' critical and analytical thinking.
5. Application of internal institutional regulations:
    - Analyzes the importance of the consistent and coherent application of internal regulations on examinations and alternative evaluation, including online.
    - Describes the advantages of alternative evaluation (e.g., digital portfolios, peer-to-peer assessment) for developing students' practical and technical competences.
6. Application of the ECTS system:
    - Clarifies how aligning formative assessment with ECTS contributes to student mobility and the international recognition of learning outcomes.

- Provides examples of effective ways of implementing the ECTS system in formative assessment.

7. Documentation and transparency of the assessment process:
    - Explains the benefits of transparency and accessibility of assessment documents for both students and teachers.
    - Highlights the importance of clear communication of educational objectives and how this influences students' performance.
8. Monitoring student feedback:
    - Shows how student feedback can serve as an essential tool for the continuous improvement of the educational process.
    - Provides concrete examples of how feedback data can be used to adjust teaching strategies.
9. Impact on student motivation and engagement:
    - Analyzes how formative assessment can increase students' motivation and engagement through constant feedback and personalized educational support.
    - Highlights the positive effects of formative methods on reducing university dropout rates and increasing academic performance.
10. Clarity of learning and assessment objectives:
    - Develops the idea that clearly defining educational objectives helps students better understand what is expected of them and how to organize their learning efforts efficiently.
    - Provides practical examples of how clarity of objectives positively influences educational outcomes.
11. Continuous teacher training in formative assessment:
    - Explains the importance of continuous teacher training for the constant updating of formative strategies and methods.
    - Suggests specific activities and training sessions that can be included in professional development programs for teachers.
12. Documentation of individual student progress:
    - Discusses the relevance of continuously monitoring individual progress and its impact on the personalized and effective development of students' competences.

- Provides examples of tools (e.g., digital platforms) that facilitate the monitoring and documentation of such progress.

13. Personalized development of formative methods:
    - Argues the benefits of adapting formative assessment to students' learning styles and individual needs.
    - Proposes practical ways through which teachers can identify and respond to the diversity of students' learning styles.
14. Evaluation of the quality and effectiveness of formative methods:
    - Explains the importance of periodically evaluating the formative methods used and how such evaluation contributes to the constant improvement of the educational process.
    - Provides examples of indicators that can be used to assess the efficiency of formative strategies.
15. Student support and counseling:
    - Highlights the role of counseling and educational support as essential factors in the success of the formative assessment process.
    - Develops the idea that such mechanisms support low-performing students, preventing academic failure and facilitating both professional and personal development.

Through the analysis of these dimensions, I aimed to identify effective practices, highlight possible deficiencies, and provide recommendations for the continuous improvement of the educational process and, implicitly, for the enhancement of students' academic performance and satisfaction.

Based on the criteria of the proposed analysis grid, the following recommendations can be formulated for improving formative assessment practices in higher education:

- Increase transparency and clarity by systematically publishing all documents detailing the objectives, criteria, and methods of formative assessment, ensuring students' easy access to this information.
- Develop continuous training programs for teachers in the field of formative assessment, taking into account ARACIS standards, in order to improve pedagogical competences and ensure a high level of educational quality.

- Diversify formative assessment tools (short tests, projects, digital portfolios), including more consistent integration of online technologies, so that assessment becomes better adapted to students' different learning styles.
- Systematically and consistently use student feedback by establishing clear mechanisms for the collection, analysis, and utilization of their suggestions and observations, with the purpose of continuously optimizing the instructional and assessment process.
- Implement rigorous and continuous documentation of each student's individual progress, to closely monitor academic development and to enable prompt intervention in cases of learning difficulties.
- Create clear mechanisms for academic support and counseling for students, especially for those facing difficulties in adapting to the requirements of formative assessment, with the aim of preventing dropout and fostering academic performance.
- Conduct periodic evaluations of the effectiveness of formative methods applied and regularly update institutional regulations in line with national best practices and ARACIS recommendations.
- Encourage personalized and flexible assessment, adapted to students' individual needs and characteristics, directly contributing to the increase of their motivation and engagement in the educational process.

B. The analysis grid regarding the delineation of evaluative components from instructional planning documents (course syllabi) represents an essential tool within the research, providing a clear and structured framework for examining the way assessments are established and implemented in the instructional process. Through this grid, the main components of course assessment are comparatively analyzed, such as the type and status of the course, the allocation of hours and credits, the criteria and methods of assessment specific to both lectures and seminars or laboratory activities, as well as the minimum performance standards required for course completion. Furthermore, the grid enables the identification of the types of assessment used (initial, formative, and summative) and the ways in which students' active participation is integrated and evaluated within instructional activities.

No.	Analysis Indicators	Description	Record
1.	Course Title	Name of the analyzed course	UAV – Theory and Methodology of Instruction (TMI)
			UAB – Theory and Methodology of Instruction (TMI)
2.	Course Code	Course identifier code	UAV – FIBD3O01
			UAB – PIPP2301
3.	Type of Assessment (E/C/CA)	Exam, colloquium, continuous assessment	UAV – E (exam)
			UAB – E (exam)
4.	Course Status	Compulsory, optional, elective	UAV – compulsory
			UAB – compulsory
5.	Number of Hours per Week (lecture)	Lecture hours	UAV – 2 hours
			UAB – 2 hours
6.	Number of Hours per Week (seminar/lab)	Seminar/laboratory hours	UAV – 2 hours
			UAB – 1 hour
7.	Number of Credits	Credits allocated to the course	UAV – 5 credits
			UAB – 4 credits
8.	Weight in Final Grade (lecture) (%)	Percentage of lecture assessment in the final grade	UAV – 70 %
			UAB – 70 %
9.	Weight in Final Grade (seminar/lab) (%)	Percentage of seminar/lab assessment in the final grade	UAV – 30%
			UAB – 30%
10.	Specific Criteria for Lecture Assessment	What is assessed (volume, accuracy, organization, scientific language, etc.)	UAV – • Attendance; • Contribution to activities; • Communication and presentation skills; • Completion of individual training portfolio.
			UAB – • Volume and accuracy of knowledge; • Scientific rigor of language; • Content organization.
11.	Specific Criteria for Seminar/Lab Assessment	What is assessed in seminar/lab (portfolio, practical applications, active participation, etc.)	UAV – • Attendance; • Contribution to activities;

			• Communication and presentation of ideas and required products; • Completion of individual training portfolio (knowledge of main conceptual and thematic dimensions of basic concepts and principles from TMI; integration of complex principles and concepts from TMI into knowledge system related to teaching activity; promotion of effective didactic strategies in designing, organizing, and carrying out educational activities).
			UAB – • Development of a portfolio with tools and applications according to specified standards; • Active participation in seminars.
12.	Assessment Methods (lecture)	Methods used for lecture assessment (written exam, oral exam, portfolio, etc.)	UAV – • Written exam.
			UAB – • Written exam.
13.	Assessment Methods (seminar/lab)	How seminar/lab is assessed (sheet, portfolio, active participation, etc.)	UAV – • Attendance sheets and current observation; • Project presentations; • Verification of individual training portfolio.
			UAB – • Portfolio evaluation sheet; • Seminar evaluation sheet.
14.			UAV – 50%

	Minimum Performance Standard (%)	Minimum percentage required to pass the course	• Minimum completion of assigned tasks during lectures and seminars; • Completion of individual training portfolio in at least two of the three dimensions specified in the evaluation criteria.
			UAB – 50 % • Result after summing weighted scores from lecture.
15.	Types of Assessment Used (lecture)	Initial, formative, summative	UAV – summative assessment
			UAB – summative assessment
16.	Types of Assessment Used (seminar/lab)	Initial, formative, summative	UAV – formative assessment
			UAB – formative assessment
17.	Assessment of Active Participation (lecture)	How active participation during lectures is assessed	UAV -
			UAB -
18.	Assessment of Active Participation (seminar/lab)	How active participation during seminars/labs is assessed	UAV -
			UAB – seminar evaluation sheet

Table 2.IV.4.1.3. Analysis Grid for Delineating the Evaluative Components in Instructional Planning Documents (Course Syllabi) for the Course Theory and Methodology of Instruction (UAV/UAB)

No.	Analysis Indicators	Description	Record
1.	Course Title	Name of the analyzed course	UAV – Theory and Methodology of Assessment (TME)
			UAB – Theory and Methodology of Assessment (TME)
2.	Course Code	Course identifier code	UAV – FIBD4O14
			UAB – PIPP2302
3.	Type of Assessment (E/C/CA)	Exam, colloquium, continuous assessment	UAV – E (exam)
			UAB – E (exam)
4.	Course Status	Compulsory, optional, elective	UAV – compulsory
			UAB – compulsory
5.	Number of Hours per Week (lecture)	Lecture hours	UAV – 2 hours
			UAB – 2 hours

6.	Number of Hours per Week (seminar/lab)	Seminar/laboratory hours	UAV – 2 hours
			UAB – 1 hour
7.	Number of Credits	Credits allocated to the course	UAV – 5 credits
			UAB – 4 credits
8.	Weight in Final Grade (lecture) (%)	Percentage of lecture assessment in the final grade	UAV – 70 %
			UAB – 50 %
9.	Weight in Final Grade (seminar/lab) (%)	Percentage of seminar/lab assessment in the final grade	UAV – 30%
			UAB – 50%
10.	Specific Criteria for Lecture Assessment	What is assessed (volume, accuracy, organization, scientific language, etc.)	UAV – • Communication and presentation skills; • Completion of written work respecting the grading rubric.
			UAB – • Volume and accuracy of knowledge; • Development of a portfolio with tools and applications in line with specified standards; • Active participation in lectures.
11.	Specific Criteria for Seminar/Lab Assessment	What is assessed in seminar/lab (portfolio, practical applications, active participation, etc.)	UAV – • Contribution to activities; • Communication and presentation of ideas and required products; • Completion of individual training portfolio (knowledge of main thematic dimensions of key concepts and principles from TME; integration of complex principles and concepts from TME into the knowledge system related to teaching activity; promotion of effective assessment strategies in designing, organizing, and carrying out educational activities for

			primary and preschool education).
			UAB – • Development of a portfolio with tools and applications in line with specified standards; • Active participation in seminars.
12.	Assessment Methods (lecture)	Methods used for lecture assessment (written exam, oral exam, portfolio, etc.)	UAV – • Written exam.
			UAB – • Written exam; • Lecture evaluation sheet.
13.	Assessment Methods (seminar/lab)	How seminar/lab is assessed (sheet, portfolio, active participation, etc.)	UAV – • Project presentations; • Verification of individual training portfolio.
			UAB – • Portfolio evaluation sheet; • Seminar evaluation sheet.
14.	Minimum Performance Standard (%)	Minimum percentage required to pass the course	UAV – 50% • Minimum completion of assigned tasks during lectures and seminars; • Completion of individual training portfolio in at least two of the three dimensions specified in the evaluation criteria.
			UAB – 50 % • Result after summing weighted scores from lecture.
15.	Types of Assessment Used (lecture)	Initial, formative, summative	UAV – summative assessment
			UAB – summative assessment
16.	Types of Assessment Used (seminar/lab)	Initial, formative, summative	UAV – formative assessment
			UAB – formative assessment
17.	Assessment of Active Participation (lecture)	How active participation during lectures is assessed	UAV -
			UAB – lecture evaluation sheet
18.			UAV -

	Assessment of Active Participation (seminar/lab)	How active participation during seminars/labs is assessed	UAB – seminar evaluation sheet

Table 3.IV.4.1.3. Analysis Grid for Delineating the Evaluative Components in Instructional Planning Documents (Course Syllabi) for the Course Theory and Methodology of Assessment (UAV/UAB)

Recommendations for Improving Evaluative Components and Practices. Their Inclusion in the Course Syllabi for the Courses Theory and Methodology of Instruction / Theory and Methodology of Assessment:

• Correlation of Objectives with Assessment	• The alignment between the course objectives and the assessment methods/approaches used
• Feedback Provided to Students	• The type and frequency of feedback provided to students after assessments
• Self-Assessment and Self-Reflection	• The way in which self-assessment and self-reflection are integrated into the assessment process
• Transparency of Indicators and Criteria	• The clarity of the indicators and criteria used in assessment
• Adaptation of Assessment	• Adaptation to the specific needs of students (individualization, differentiation)
• Remedial Measures	• Whether there are measures for the remediation/improvement of poor results
• Frequency and Periodicity of Assessment	• How often and when assessment is carried out

• Evaluator's Responsibility	• Who carries out the assessment (teacher, peers, self-assessment)
• Reducing Subjectivity in Assessment	• Measures to reduce subjectivity in assessment
• Innovation in Assessment	• The use of innovative or creative methods in assessment
• Clarity in Communicating Results	• The way in which assessment results are communicated
• Contribution of Assessment to Transversal Competences	• The development of transversal competences (collaboration, problem-solving, etc.) – The impact of assessment on students' transversal competences
• Post-Assessment Remedial Measures	• Explicit remediation of poor results following assessment
• Use of Assessment Results	• How assessment results are used (feedback, curricular improvement, etc.)
• Students' Involvement in Assessment	• The degree of students' involvement in the assessment process

4.1.4. Conclusions and Perspectives

University standards and regulations on formative assessment are, for the most part, consistent with ARACIS requirements; however, there are significant differences between institutions regarding the actual implementation of the principles of transparency, equity, and student-centeredness.

The correlation of formative assessment with the ECTS system is only partially achieved: some universities demonstrate effective alignment with European standards, while others still employ traditional methods, thus limiting academic mobility and the international recognition of learning outcomes.

The documentation and transparency of the assessment process vary considerably. The communication of educational objectives and assessment criteria is often insufficient, which negatively affects students' performance and their trust in the assessment process.

The use of student feedback to optimize the educational process is largely formal, without systematic and clear mechanisms that would allow for the effective valorization of the collected information.

The continuous training of teachers in formative assessment, although formally stipulated in documents, is not yet systematically and mandatorily implemented, which limits the constant updating of pedagogical competences and, consequently, the quality of the educational act.

The formative evaluation of the quality and effectiveness of formative methods is often merely formal, lacking coherent strategies for integrating its results into the continuous improvement of teaching and assessment activities.

Clear and effective mechanisms for counseling and supporting students with difficulties are insufficiently developed in most of the institutions analyzed, which may lead to a decrease in academic performance and an increased risk of university dropout.

The application of formative assessment is formally stipulated in standards and regulations, but in practice it is insufficiently implemented, with summative assessments still predominating, having a limited impact on the real optimization of the learning process.

The adaptation of formative assessment to students' individual needs and characteristics is limited, with a tendency to use general and non-differentiated methods, which restricts the development of individual competences.

In most cases, students receive insufficiently detailed information about the specific requirements and criteria used in assessment, which negatively affects the transparency of the process and their confidence in the fairness of assessment.

Innovative and creative assessment methods, although recommended by documents, remain scarcely applied in practice, with traditional methods prevailing, limiting active participation and the development of students' transversal competences.

The monitoring of students' individual progress through regular formative assessments is formally stipulated, yet in practice rigorous and continuous documentation is often lacking, which would otherwise allow for prompt and effective educational interventions.

Subjectivity in assessment continues to persist due to the absence of clear and coherent mechanisms for diversifying evaluators (self-assessment, peer assessment, multiple teachers), which may affect the objectivity and fairness of assessment.

The following section presents a series of final conclusions resulting from the analysis of evaluative components in the curricular documents of instructional activities for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, using the analysis grid elaborated within this research.

The applied analysis grid highlighted that the evaluative components are clearly specified in the curricular documents (course syllabi), including the types of assessment used (formative and summative), the concrete methods applied (written exam, portfolio, assessment of active participation), and their weight in the final grade. However, there are significant differences between courses in terms of the detail and clarity of these elements.

The comparative analysis of the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment revealed a generally unified approach, but with differences in the concrete structuring and application of assessment. This suggests the need for clearer and more transparent standardization of evaluative criteria.

It was noted that, although formative assessment is clearly stipulated in the analyzed documents, its actual integration into instructional activities is less explicit in the case of lectures compared to seminars and laboratory activities, which limits the full valorization of its formative potential.

The analysis grid allowed the clear identification that students' active involvement in assessment and the integration of innovative methods (such as digital portfolios or authentic assessments) are still addressed timidly and sporadically, which requires greater attention in future curricular planning.

Feedback provided to students, although recognized as essential for their progress, is mentioned only in general terms in the documents, lacking clear specifications regarding periodicity, typology, or concrete modalities of provision, which may affect the effectiveness of the formative process.

It was found that there is insufficient clarity and detail in the analyzed documents regarding how students' self-assessment and self-reflection are concretely integrated into the instructional process, these being treated more at a declarative rather than operational level.

The adaptation of assessment to students' individual characteristics and specific needs is scarcely reflected in the analyzed documents, indicating the necessity of introducing more flexible and differentiated strategies in assessment practices.

There is a clear concern for reducing subjectivity in assessment through the use of standardized and explicit methods (evaluation sheets, grids, rubrics), but the concrete mechanisms to ensure objectivity are still insufficiently detailed and systematized in the syllabi analyzed.

The analysis highlighted the need for a clearer specification of the contribution of evaluative activities to the development of transversal competences (collaboration, problem-solving, critical thinking), as these aspects are mentioned only in a generic and insufficiently detailed manner.

According to the applied analysis grid, the frequency and periodicity of assessment, although recognized as important, are not always specified clearly and in detail, which may lead to ambiguities in the instructional and assessment process.

The analyzed documents do not provide sufficient detail regarding the explicit responsibility of evaluators, such as the clear specification of the roles of teachers and students in the assessment process—an aspect that must be clarified to ensure comprehensive and transparent evaluation.

A clearer definition of concrete post-assessment remedial measures is recommended, as these are only superficially addressed in the analyzed documents, so that students may effectively benefit from real opportunities for academic improvement and progress.

4.2. Investigating Students' Perceptions of Formative Assessment and Its Role in the Development of Learning Autonomy: A Quantitative Study

4.2.1. The Aim and Objectives of the Quantitative Study

In this study, I conducted research aimed at investigating students' opinions on formative assessment and its role in the development of learning autonomy.

The present study focuses on exploring students' perspectives on formative assessment and analyzing the role it plays in the development of learning autonomy.

For this purpose, I designed and administered a specially developed questionnaire through which I sought to capture, in a structured manner, students' perceptions of fundamental aspects of the educational process. The questionnaire was constructed around key concepts relevant to the

research: learning, learning autonomy, formative assessment, and specific formative assessment strategies.

Objective 1. To identify the perceptions of students enrolled in the Primary and Preschool Education Pedagogy program regarding the role of formative assessment in the development of learning autonomy within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, from the perspective of its adaptation to individual needs and personal learning styles.

4.2.2. Research Hypotheses

Hypothesis 1. It is assumed that the adaptation of formative assessment strategies to individual needs and personal learning styles is perceived by undergraduate students in the Primary and Preschool Education Pedagogy program as having a positive effect on their learning autonomy.

4.2.3. Methodology of the Quantitative Research

In this study, the research instrument used was a questionnaire, designed with a five-level Likert scale. The questionnaire (self-designed) consisted of 35 statements, and students were asked to select one of the following options: strongly disagree, disagree, neither agree nor disagree, agree, strongly agree.

At the beginning of the academic year 2023–2024, semester I, the questionnaire was administered at the two universities—"1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad—to investigate students' opinions regarding formative assessment and the role it plays in the development of learning autonomy.

Participation in completing the questionnaire was voluntary and anonymous, and the data were collected through self-administered questionnaires.

4.2.4. Participant Sample

For the implementation of this study, the participant sample consisted of 216 students from two universities in Romania.

The participant sample was divided as follows:

- 96 students from the Primary and Preschool Education Pedagogy program, second year, Faculty of History, Letters, and Educational Sciences, "1 Decembrie 1918" University of Alba Iulia. Among them, 94 were female and 2 were male, with ages ranging from 20 to 42 years.

- 120 students from the Primary and Preschool Education Pedagogy program, second year, Faculty of Educational Sciences, Psychology, and Social Work, "Aurel Vlaicu" University of Arad. Among them, 114 were female and 6 were male, with ages ranging from 20 to 43 years.

4.2.5. Analysis and Interpretation of Results

Below are presented 12 of the most relevant statements extracted from the questionnaire, targeting the concepts of learning, learning autonomy, formative assessment, and its specific strategies, accompanied by the analysis of the results obtained from the application of the instrument.

The first statement extracted from the questionnaire highlights the following aspect: "I develop my academic performance through autonomous learning, relying on my own resources and strategies, without requiring direct support from the teacher." As can be observed, 2% of the students responded with strongly disagree; 14% of the students responded with disagree; 17% responded with neither agree nor disagree; 40% of the students responded with agree; and 27% of the students responded with strongly agree to the proposed statement.

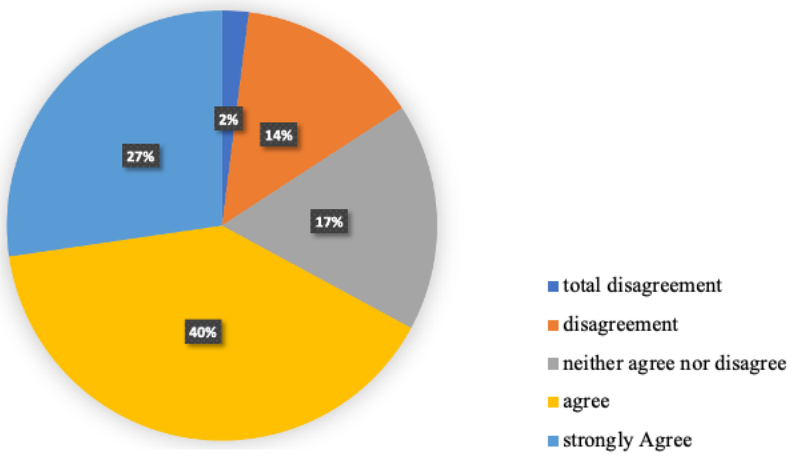

Figure 1.IV.4.2.5. Development of Academic Performance through the Autonomous Use of Personal Resources and Strategies

The interpretation of this diagram indicates that the majority of respondents (40%) agree with the statement: “I develop my academic performance through autonomous learning, relying on my own resources and strategies, without requiring direct support from the teacher.”

Additionally, 27% of the students selected the option strongly agree, which means that they support, to varying degrees, the idea of developing academic performance through autonomous learning.

In contrast, 17% of respondents chose the option neither agree nor disagree, which suggests a neutral or uncertain attitude toward their ability to improve academic performance without direct support from the teacher.

At the opposite end, 16% disagree with the statement, indicating that they consider direct support from the teacher necessary in order to effectively develop their academic performance.

The results suggest that a significant percentage of students (more than half) acknowledge their potential to learn and make academic progress autonomously, while a considerable proportion are either neutral or require additional support from teachers.

The second statement extracted from the questionnaire presents the following aspect: “Learning autonomy improves when I have the freedom to select study content and tasks, which allows me to personalize the learning experience according to my interests and needs.” The results obtained for this statement are as follows: 3% of students responded with strongly disagree; 5% of students responded with disagree; 7% responded with neither agree nor disagree; 55% of students responded with agree; and 30% of students responded with strongly agree to the proposed statement.

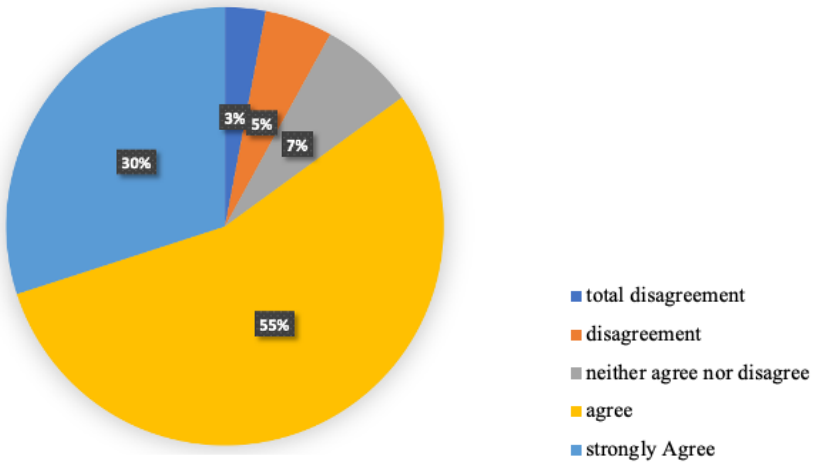

Figure 2.IV.4.2.5. Increasing Learning Autonomy through the Personalization of Academic Content and Tasks

The interpretation of this diagram indicates that a very large percentage of students (55%) agree with the statement that learning autonomy improves when they have the freedom to select study content and tasks, thereby being able to personalize their educational experience according to their own interests and needs. In addition, another 30% of respondents selected strongly agree, which shows that an overwhelming majority of students support this idea.

Only 7% hold a neutral position (neither agree nor disagree), which suggests that they do not have a clearly formed opinion on the subject or are partially uncertain.

At the opposite end, the percentages are low: only 5% of respondents disagree and another 3% strongly disagree, indicating that very few students do not perceive this freedom as an important factor for the development of learning autonomy.

The results highlight the importance students place on freedom and flexibility in learning, showing that the majority perceive the autonomous selection of content and tasks as an essential aspect for their academic and personal development.

The third statement extracted from the questionnaire highlights the following aspect: "Autonomous learning is entirely based on the student's independence, without benefiting from the teacher's support or involvement." As can be observed, 3% of students responded with strongly disagree; 19% of students responded with disagree; 16% responded with neither agree nor disagree; 38% of students responded with agree; and 24% of students responded with strongly agree to the proposed statement.

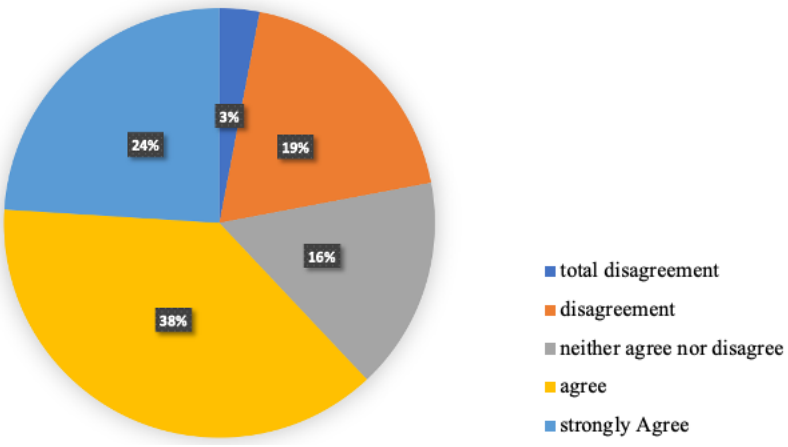

Figure 3.IV.4.2.5. Autonomous Learning as an Independent Process Carried Out without the Direct Involvement of the Teacher

The interpretation of this diagram shows that students' opinions regarding the statement "Autonomous learning is entirely based on the student's independence, without benefiting from the teacher's support or involvement" are distributed quite evenly and diversely:

- 38% of students responded agree, indicating that more than one-third of respondents believe that learning autonomy primarily involves complete independence from direct teacher support.
- 24% selected strongly agree, which means that, together with those who chose agree, they clearly support the idea of total independence in autonomous learning.
- By contrast, 16% of respondents were uncertain, choosing the neutral option (neither agree nor disagree), which suggests uncertainty or ambivalence regarding the statement.
- On the other hand, 19% responded disagree, and 3% expressed strongly disagree, indicating that they do not support the idea that autonomous learning necessarily implies total independence without teacher involvement.

These results suggest a dominant tendency toward perceiving learning autonomy as an independent process, but also highlight a significant proportion of students who believe that autonomy does not necessarily exclude teacher support and involvement. This diversity underlines the need for a balanced approach between student independence and the role of teachers in the educational process.

The fourth statement extracted from the questionnaire presents the following aspect: "Learning autonomy develops when I am motivated and encouraged to monitor my own progress and to self-assess." The results obtained for this statement are as follows: 2% of students responded with strongly disagree; 4% of students responded with disagree; 5% responded with neither agree nor disagree; 55% of students responded with agree; and 34% of students responded with strongly agree to the proposed statement.

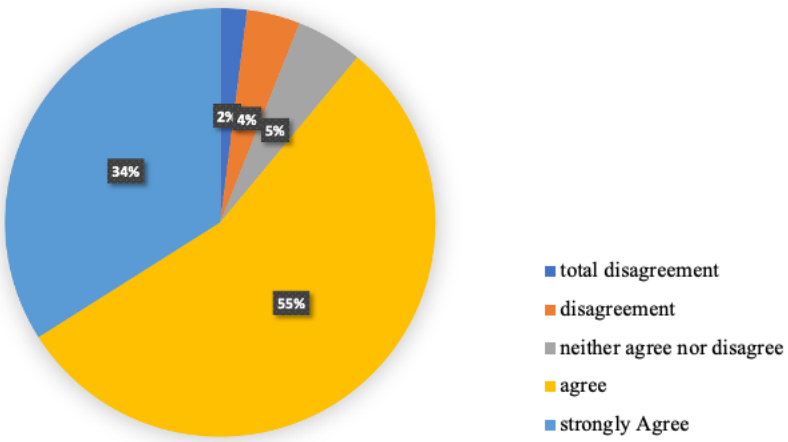

Figure 4.IV.4.2.5. Developing Learning Autonomy through Motivation, Progress Monitoring, and Self-Assessment

The interpretation of this diagram indicates a very clear and positive opinion from respondents regarding the statement: "Learning autonomy develops when I am motivated and encouraged to monitor my own progress and to self-assess:"

- A significant majority, 55%, agree with this statement, suggesting that most students perceive motivation and self-assessment as key elements for the development of learning autonomy.
- Another 34% strongly agree, leading to a very strong and widespread support for the role of motivation and self-assessment in the autonomous learning process.
- Only a small proportion, 5%, chose the option neither agree nor disagree, which may indicate slight indecision or lack of clarity regarding this relationship.
- Negative positions are clearly a minority: 4% disagree and only 2% strongly disagree.

The results of this analysis confirm that motivation and self-assessment are essential factors, recognized by the majority of students as having a decisive contribution to the development of their autonomy in the learning process.

The fifth statement extracted from the questionnaire highlights the following aspect: "I encounter difficulties in the formative assessment process integrated by the teacher into lecture/seminar activities." As can be observed, 9% of students responded with strongly disagree; 28% of students responded with disagree; 37% responded with neither agree nor disagree; 15% of

students responded with agree; and 11% of students responded with strongly agree to the proposed statement.

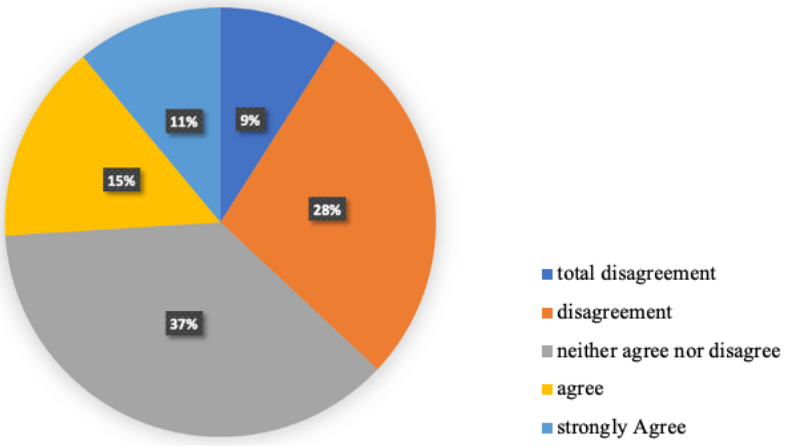

Figure 5.IV.4.2.5. Difficulties Encountered by Students in the Formative Assessment Process Integrated into Instructional Activities

The interpretation of this diagram reveals the following aspects regarding the statement: "I encounter difficulties in the formative assessment process integrated by the teacher into lecture/seminar activities":

- The largest proportion of students (37%) opted for the neutral option (neither agree nor disagree), which may indicate uncertainty about the difficulties encountered or suggest that they do not perceive such difficulties as constant or significant.
- An important percentage, 28% of respondents, disagree, suggesting that nearly one-third of students do not face major difficulties in the formative assessment process integrated into academic activities.
- Conversely, 11% strongly agree and 15% agree, totaling 26% of students who explicitly acknowledge the existence of difficulties in this assessment process.
- Only 9% of respondents expressed strongly disagree, indicating that they perceive absolutely no difficulties in formative assessment.

These results suggest that, although a considerable percentage of students do not report significant difficulties, there remains a substantial proportion who experience real difficulties or uncertainties regarding the use of formative assessment. Thus, the data may indicate the necessity of a clearer and more structured approach from teachers in applying formative assessment strategies.

The sixth statement extracted from the questionnaire presents the following aspect: "I believe that the formative assessment process integrated into lectures and seminars requires certain improvements." The results obtained for this statement are as follows: 13% of students responded with strongly disagree; 13% of students responded with disagree; 22% responded with neither agree nor disagree; 42% of students responded with agree; and 10% of students responded with strongly agree to the proposed statement.

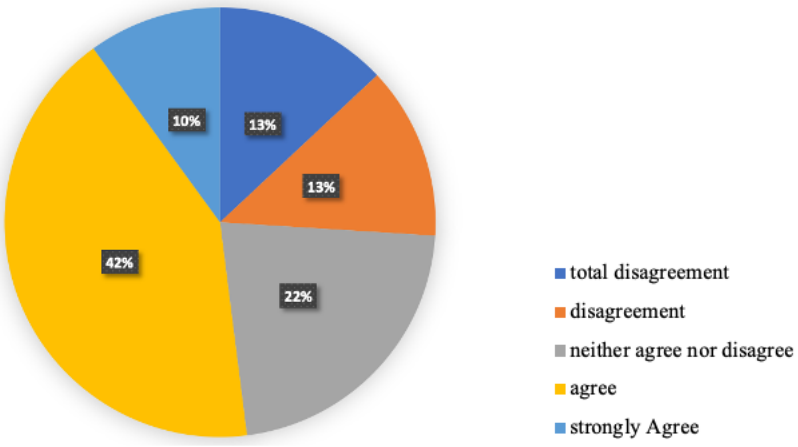

Figure 6.IV.4.2.5. Suggestions for Improving the Formative Assessment Process Integrated into Lecture and Seminar Activities

The interpretation of this diagram for the statement "I believe that the formative assessment process integrated into lectures and seminars requires certain improvements" is as follows:

- A clear majority (42% agree + 10% strongly agree, totaling 52%) support the idea that formative assessment within academic activities requires improvements, indicating that more than half of the students perceive clear opportunities for optimization.
- 22% of respondents are undecided (neither agree nor disagree), which reflects some uncertainty or the fact that these students cannot yet assess the current effectiveness of the process.
- Conversely, 13% expressed disagree and another 13% strongly disagree, totaling 26% of students who believe that the current formative assessment process does not require major improvements and is satisfactory in its present form.

In conclusion, the majority of respondents agree on the need for improvements in the implementation of formative assessment, which indicates the necessity of continuous review and optimization of the pedagogical and methodological practices used in higher education.

The seventh statement extracted from the questionnaire presents the following aspect: "Through the application of formative assessment, teachers stimulate the development of students' autonomy in the learning process by providing them with constant support and guidance." As can be observed, 5% of students responded with strongly disagree; 4% of students responded with disagree; 10% responded with neither agree nor disagree; 54% of students responded with agree; and 27% of students responded with strongly agree to the proposed statement.

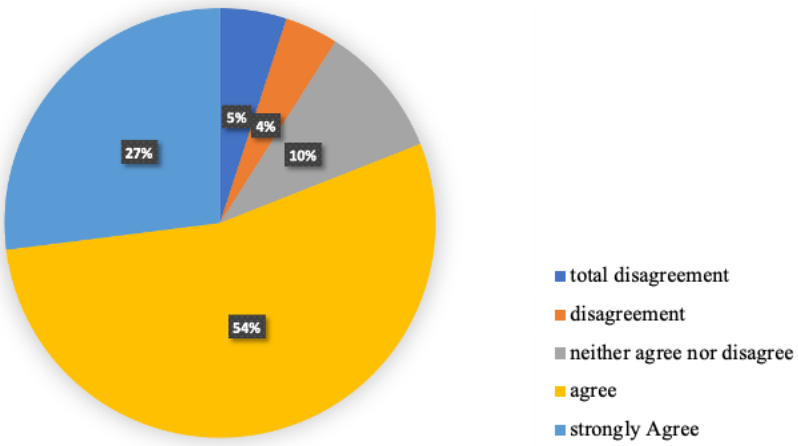

Figure 7.IV.4.2.5. The Role of Formative Assessment in Stimulating Students' Autonomy through Continuous Support and Guidance

The interpretation of this diagram for the statement: "Through the application of formative assessment, teachers stimulate the development of students' autonomy in the learning process by providing them with constant support and guidance" is as follows:

- A significant majority of students (54%) agree with the proposed statement, indicating that they perceive formative assessment as an effective method through which teachers actively contribute to the development of their autonomy.
- Moreover, 27% of respondents strongly agree, bringing the percentage of those who clearly support the statement to 81%. This result suggests a positive and strongly favorable perception of the role of formative assessment in supporting learning autonomy.
- In contrast, the percentage of undecided students (neither agree nor disagree) is low (10%), which reflects a general clarity in students' opinions on this topic.

- At the negative end of the scale, opinions are a minority: 4% of students disagree, and 5% strongly disagree, totaling only 9%.

In conclusion, the results reflect a strong consensus among students that formative assessment, when properly implemented by teachers, effectively stimulates the development of autonomy and facilitates the learning process. This reinforces the importance and value of formative assessment practices in the current academic context.

The eighth statement extracted from the questionnaire highlights the following aspect: "I would appreciate it if the teacher adapted formative assessment strategies according to our individual needs and learning styles." The results obtained for this statement are as follows: 3% of students responded with strongly disagree; 3% of students responded with disagree; 6% responded with neither agree nor disagree; 45% of students responded with agree; and 43% of students responded with strongly agree to the proposed statement.

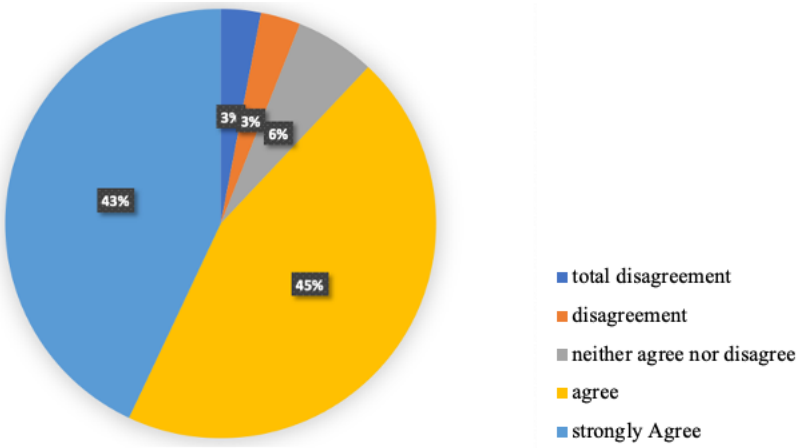

Figure 8.IV.4.2.5. Students' Appreciation of Adapting Formative Assessment Strategies to Individual Needs and Learning Styles

Interpretation of this diagram, which refers to the statement: "I would appreciate if the professor adapted formative assessment strategies according to our individual needs and learning styles," is as follows:

- The vast majority of respondents (45% "agree" and 43% "strongly agree," totaling 88%) expressed a positive opinion, thereby highlighting that students highly value

the personalization of formative assessment and its adaptation to their individual needs.

- The proportion of neutral responses ("neither agree nor disagree") is relatively low (6%), which indicates a high degree of clarity in students' perceptions regarding the importance of adapting assessment strategies to their individual characteristics.
- The percentages of "disagree" (3%) and "strongly disagree" (3%) are very small, suggesting that only an insignificant minority of respondents consider the adaptation of assessment strategies as unnecessary or unimportant.

In conclusion, the results clearly emphasize that students perceive the personalized adaptation of formative assessment strategies as a major need, which suggests that this aspect should be more strongly and systematically integrated into higher education practice.

The ninth statement extracted from the questionnaire highlights the following aspect: "Formative assessment is oriented towards providing immediate pedagogical support, assisting the student in addressing learning gaps, thereby sustaining and motivating them throughout the process of autonomous learning." As can be observed, 8% of respondents answered "neither agree nor disagree"; 60% of students agreed, while 32% of students strongly agreed with the proposed statement.

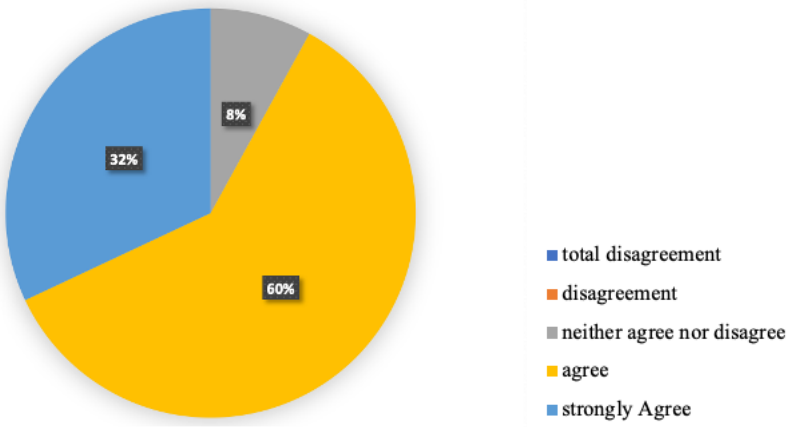

Figure 9.IV.4.2.5. Formative assessment as immediate pedagogical support in addressing learning gaps and fostering motivation for autonomous learning

The interpretation of this diagram, corresponding to the statement: "Formative assessment is oriented towards providing immediate pedagogical support to assist students in addressing their

learning gaps, thereby sustaining and motivating them throughout the process of autonomous learning," is as follows:

- A very clear majority, representing 60% of students, "agree" with this statement, reflecting a significant appreciation of formative assessment as a method that offers students immediate and effective support.
- An additional substantial percentage (32%) "strongly agree," raising the overall positive endorsement to 92%, which indicates an extremely high level of positive perception regarding the immediate and effective role of formative assessment in overcoming learning difficulties and supporting learner autonomy.
- Only a very small percentage (8%) selected the neutral option ("neither agree nor disagree"), indicating a minor degree of uncertainty among respondents.
- It is important to note that no respondents chose the negative options ("disagree" or "strongly disagree"), which suggests that all participants, at least to some extent, recognize the effectiveness of formative assessment as immediate pedagogical support.

In conclusion, the results demonstrate strong and unanimously positive validation of the role of formative assessment in providing rapid and effective pedagogical support—an essential aspect in fostering students' autonomy in learning. This positive perception underscores the necessity of continuing and intensifying the integration of such practices within the academic environment.

The tenth statement extracted from the questionnaire presents the following aspect: "I believe that each stage of the formative assessment process should be personalized in order to respond to the individual needs of every student, capitalizing on their unique learning styles and personal pace of progress." The results obtained for this statement are as follows: 2% of students responded with "disagree"; 11% answered "neither agree nor disagree"; 50% of students agreed, and 37% strongly agreed with the proposed statement.

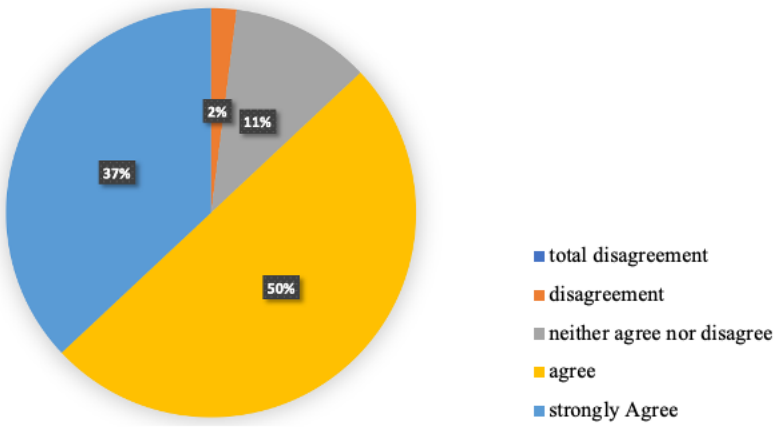

Figure 10.IV.4.2.5. Personalization of formative assessment stages according to students' individual needs, unique learning styles, and personal pace of progress

The interpretation of this diagram, referring to the statement: "I believe that each stage of the formative assessment process should be personalized in order to respond to the individual needs of every student, capitalizing on their unique learning styles and personal pace of progress," is as follows:

- Half of the respondents (50%) "agree" with the statement, indicating a significant acknowledgment of the importance of personalizing the stages of formative assessment.
- An additional 37% "strongly agree," which brings the overall percentage of positive responses to a very high level (87%), clearly and explicitly supporting the personalization of the formative assessment process according to students' individual needs.
- Only 11% of respondents selected the neutral option ("neither agree nor disagree"), suggesting a slight degree of uncertainty or lack of a clearly defined opinion on this matter.
- Negative percentages are minimal, with only 2% selecting "disagree," and no respondents opting for "strongly disagree." This indicates that, to a large extent, students do not reject the idea of personalizing formative assessment.

These results demonstrate that the vast majority of students support the necessity of adapting and personalizing the formative assessment process, clearly emphasizing the relevance of a differentiated approach in accordance with each student's individual learning style and

personal pace of progress. This perspective should be taken into consideration in the future development of formative assessment strategies within higher education.

The eleventh statement extracted from the questionnaire presents the following aspect: "Through the process of formative assessment, I was able to identify my learning style, which offered me the opportunity to approach study materials in a manner adapted to my needs, thereby contributing to greater learning efficiency." As can be observed, 5% of students responded with "disagree"; 12% answered "neither agree nor disagree"; 57% agreed, and 26% strongly agreed with the proposed statement.

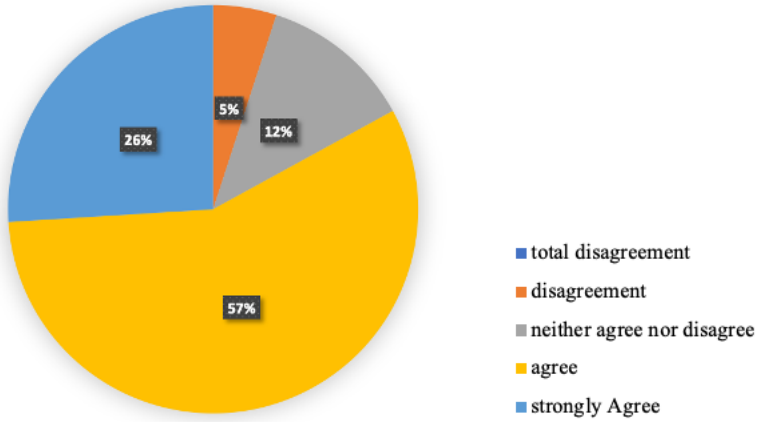

Figure 11.IV.4.2.5. Identifying one's personal learning style through formative assessment – a premise for enhancing efficiency in individual study

The interpretation of the diagram corresponding to the statement: "Through the process of formative assessment, I was able to identify my learning style, which offered me the opportunity to approach study materials in a manner adapted to my needs, thereby contributing to greater learning efficiency," is as follows:

- The majority of students (57%) responded "agree," indicating that formative assessment has largely helped them identify their personal learning style and adjust their approach to study materials accordingly.
- A further 26% of respondents "strongly agree," bringing the total to 83% of students who clearly affirm that formative assessment plays a significant role in the identification of individual learning styles and in enhancing learning efficiency.

- A smaller proportion (12%) positioned themselves as neutral ("neither agree nor disagree"), suggesting that the majority of students have a well-defined opinion on this matter.
- By contrast, the negative percentages are relatively low: 5% of respondents selected "disagree," and none opted for "strongly disagree." This indicates that only a minority do not consider formative assessment to have contributed to the identification of their own learning style.

In conclusion, the results strongly confirm the value of formative assessment in identifying and leveraging students' personal learning styles, being perceived as a major factor in optimizing the efficiency of the educational process.

The twelfth statement extracted from the questionnaire presents the following aspect: "The relationship between student and professor represents an essential factor for the success and efficiency of the teaching process, focused on developing students' competence in autonomous learning." The results obtained for this statement are as follows: 2% responded with "neither agree nor disagree"; 44% of students agreed, and 54% of students strongly agreed with the proposed statement.

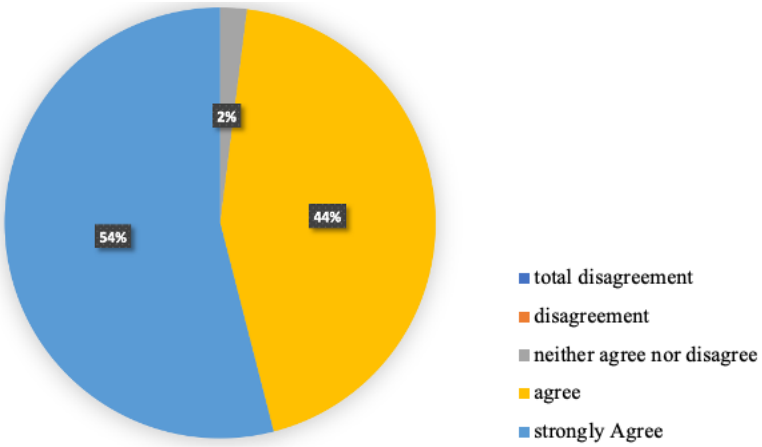

Figure 12.IV.4.2.5. The importance of the student–professor relationship in developing autonomous learning competence and enhancing the efficiency of the teaching process

The interpretation of this diagram, referring to the statement: "The relationship between student and professor represents an essential factor for the success and efficiency of the teaching process, focused on developing students' competence in autonomous learning," is as follows:

- The results indicate an almost total unanimity among respondents regarding the importance of the student–professor relationship, given that 54% “strongly agree” and 44% “agree,” amounting to a remarkable total of 98% in support of the statement.
- The neutral option (“neither agree nor disagree”) was chosen by only 2%, suggesting that very few students expressed uncertainty about the relevance of this relationship.
- It is noteworthy that no respondents expressed disagreement with the statement, either partial or total.

Thus, these results clearly highlight that a positive and effective student–professor relationship is perceived as essential by nearly all respondents, confirming its major importance for the development of autonomous learning competences and for the overall success of the teaching process. This aspect is crucial for future strategies aimed at fostering learner autonomy within higher education.

4.2.6. Conclusions and Implications for Subsequent Research Directions

The majority of students perceive formative assessment as playing an essential role in the development of learning autonomy, clearly identifying its benefits within both their academic and personal trajectories. They particularly value the fact that formative assessment enables them to identify their individual learning styles and to adapt their study materials in a personalized manner.

Students acknowledge the importance of tailoring formative assessment strategies to their individual needs and learning styles, thereby indicating a strong demand for personalization and flexibility in the implementation of this type of assessment.

A significant proportion of students consider that their learning autonomy increases when they are granted the freedom to choose learning content and tasks, which underscores the importance of curricular flexibility and of teaching strategies adapted to students’ interests.

The findings also reveal diversity in students’ perceptions regarding the notion of complete independence in autonomous learning. While most value independence, a considerable segment supports the view that professors’ involvement remains necessary and valuable in fostering autonomy.

Motivation and self-assessment are perceived by the majority of respondents as key factors in the development of learning autonomy. They appreciate the immediate pedagogical support

provided through formative assessment in addressing learning gaps and consolidating individual progress.

At the same time, a considerable percentage of students report difficulties in applying formative assessment integrated into teaching activities, signaling the need for a clearer and more systematic approach on the part of academic staff.

The majority of respondents agree on the necessity of improving the implementation of formative assessment in university teaching practices, emphasizing that it must be constantly optimized in light of students' evolving needs and their diverse learning styles.

The student–professor relationship is unanimously perceived as an essential factor for the success and efficiency of the educational process, as well as for the development of students' competence in autonomous learning. This highlights the importance of continuous and constructive interaction between academic staff and students.

These conclusions clearly reflect the results of the conducted research and provide a comprehensive overview of the ways in which formative assessment contributes to the development of students' learning autonomy, thereby offering valuable insights for the elaboration of future educational recommendations and measures.

The study demonstrates that formative assessment is positively perceived and valued by the majority of students as being essential for the development of learning autonomy. Moreover, the analysis of the collected data highlights the importance of personalizing assessment strategies and the necessity of maintaining a balanced involvement of professors. Therefore, the coherent and continuous integration of formative assessment into academic activities can decisively contribute to optimizing the educational process, enhancing academic performance, and increasing students' satisfaction with learning.

Based on the research results, we may conclude that the research hypothesis is confirmed, as follows:

Hypothesis 1. It is assumed that the adaptation of formative assessment strategies to individual needs and personal learning styles is perceived by undergraduate students in the Primary and Preschool Pedagogy program as having a positive effect on their learning autonomy.

4.3. Exploring the Perspectives of Professors and Students on Formative Assessment and Its Role in the Development of Learning Autonomy. A Qualitative Analysis

4.3.1. The Purpose and Objectives of the Qualitative Study

The present study aims to explore the perspectives of both students and professors regarding formative assessment and its role in the development of learning autonomy. The research endeavor focuses on highlighting students' perceptions concerning the importance and impact of formative assessment on the development of autonomous competences, as well as on investigating how professors perceive these opinions and integrate formative assessment into their teaching practice.

The analysis conducted through the focus group reveals that students value formative assessment for the continuous support and constructive feedback they receive, which are essential aspects in fostering responsibility and critical thinking. At the same time, professors acknowledge the importance of formative assessment, yet they identify certain difficulties in its effective implementation, such as students' reluctance, the limited time available for personalized feedback, and the challenge of adapting assessment methods to the individual needs of students.

Based on these integrated perspectives, the study seeks to identify the most effective didactic and methodological strategies, as well as to formulate recommendations that may contribute to the optimization of the educational process and, implicitly, to the enhancement of students' academic performance and learning autonomy.

The central issue of this study lies in identifying and analyzing students' perceptions regarding formative assessment and its contribution to the development of learning autonomy, as well as in exploring how professors perceive, understand, and respond to these students' opinions in their own teaching practice. The research therefore aims to highlight both the convergences and possible discrepancies between the perspectives of students and professors, with the purpose of optimizing formative assessment practices and effectively promoting autonomy in the context of higher education.

This exploration was carried out using the focus group method, for which a specific interview guide was designed and applied, thereby allowing for the collection of detailed and nuanced information regarding the opinions and experiences of both students and professors with respect to formative assessment and its impact on the development of learning autonomy.

Objective 1. To identify and analyze the proposals advanced by undergraduate students in the Primary and Preschool Pedagogy program for professors, with the aim of supporting and optimizing the process of developing learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Objective 2. To investigate the difficulties identified by professors in implementing formative assessment for the development of students' learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

4.3.2. Methodology of the Qualitative Research

Within the present study, two interview guides designed for focus groups were employed as research instruments—one addressed to students and the other to professors, both being self-designed tools.

The interview guide for students included seven questions, while the guide for professors consisted of eight questions.

During the first semester of the 2023–2024 academic year, the focus group method was employed to investigate the perspectives of students from "1 Decembrie 1918" University of Alba Iulia regarding formative assessment and its role in the development of learning autonomy.

In the same semester of the 2023–2024 academic year, the perspective of professors was also explored with respect to students' opinions on formative assessment in fostering learning autonomy, using the same focus group method.

4.3.3. Participant Samples

For the first focus group, which aimed to investigate students' opinions on formative assessment and its role in the development of learning autonomy, the participant sample consisted of 10 second-year students enrolled in the Primary and Preschool Pedagogy program within the Faculty of History, Letters, and Educational Sciences at "1 Decembrie 1918" University of Alba Iulia.

For the second focus group, which sought to explore professors' perspectives on students' views regarding formative assessment in the development of learning autonomy, the participant sample comprised 10 professors from the Department for Teacher Training at "1 Decembrie 1918" University of Alba Iulia. These professors deliver both lectures and seminars to second-year students enrolled in the Primary and Preschool Pedagogy program within the Faculty of History, Letters, and Educational Sciences at the same university.

4.3.4. Analysis and Interpretation of the Results

A. Formative assessment plays an essential role in the development of learning autonomy, being positively perceived by students as an effective instrument for fostering critical thinking, self-discipline, and educational responsibility. Students value interactive online activities and recommend the integration of innovative teaching strategies, such as interactive tests, engaging multimedia presentations, and individual projects, as means of promoting autonomy and active involvement in the educational process. They emphasize the importance of using practical and authentic examples, which help them apply knowledge in real contexts and develop personal initiative.

Students highlight the critical role of individualized and constructive feedback, which helps them clearly identify both strengths and areas in need of improvement, thereby increasing their motivation and self-confidence. They also stress that professors should support students in setting their own objectives and in self-assessing their progress, thus encouraging accountability and self-discipline.

In students' perception, autonomous learning entails taking responsibility for one's own educational pathway through careful management of time and available resources. They mention that effective learning strategies include rigorous organization of study materials, highlighting key ideas, creating summaries, outlines, and mind maps, as well as engaging in regular self-assessment. Additionally, simulating exam conditions and consulting with peers are considered useful strategies for consolidating knowledge and preparing effectively for assessments.

Nevertheless, students face major difficulties in the process of autonomous learning, including inefficient time management and the excessive volume of information. Fluctuating motivation and limited access to relevant resources represent further significant obstacles, alongside the lack of constant feedback, which may generate uncertainty and challenges in self-evaluation.

The personal strategies mentioned by students include detailed planning of time and tasks, the use of outlines and summaries for better organization of learning materials, and the use of technology to deepen their understanding of subjects. Continuous review and regular self-assessment are perceived as essential practices for maintaining a clear and effective direction in autonomous learning.

B. Formative assessment is positively perceived by professors, being regarded as playing an essential role in the development of students' learning autonomy. Professors emphasize the importance of their role as facilitators of the educational process, providing regular, constructive, and personalized feedback in order to stimulate students' reflection and self-regulatory capacities.

Faculty members recommend the use of interactive activities and the integration of innovative and diversified teaching strategies, such as individual projects, practical activities, and multimedia presentations. They further suggest the use of digital platforms to facilitate continuous monitoring of progress and to provide students with timely and accessible feedback.

Among the difficulties encountered by professors in implementing formative assessment are students' reluctance to express their opinions and engage actively, the lack of intrinsic motivation, low attendance at instructional activities, and insufficient time to provide individualized and detailed feedback—particularly in the context of large groups.

Professors advocate for improving formative assessment by clarifying objectives and evaluation criteria from the beginning of the semester, employing active-participatory methods, and promoting both self-assessment and peer assessment. They also underline the importance of organizing interactive sessions and debates to foster critical thinking and autonomy among students.

Professors identify significant differences between first-year students and those in advanced years, the latter demonstrating greater openness and autonomy in the learning process. From the perspective of faculty, an autonomous student is characterized by responsibility, the ability to set and pursue clear objectives, advanced critical thinking skills and intellectual curiosity, as well as the capacity for self-assessment and self-regulation.

Although most professors evaluate formative assessment positively, some isolated perceptions suggest potential negative effects, such as overload and stress experienced by more sensitive students when assessment is perceived as a form of continuous grading. Nevertheless, the majority of professors regard formative assessment as a valuable instrument in promoting autonomy and educational responsibility.

4.3.5. Conclusions and Implications for the Further Course of the Research

Formative assessment plays an essential role in the development of students' autonomy, being valued by both students and professors for its capacity to stimulate critical thinking, self-reflection, and individual responsibility within the educational process.

Students highlighted the importance of interactive and innovative methods, such as the use of digital technologies, individualized feedback, and continuous self-assessment activities, for the optimization of autonomous learning.

Professors identified the main difficulties in applying formative assessment, including students' reluctance to engage actively, insufficient time for personalized feedback, and the challenge of adapting methods to students' individual needs.

Both students and professors proposed concrete measures for improving formative assessment: the integration of digital platforms to ensure rapid and efficient feedback, the clarification of objectives and criteria at the beginning of the course, and the use of active teaching and assessment methods.

The results indicate significant differences in the perception of formative assessment between first-year and advanced students, as well as between undergraduate and master's students, with the latter demonstrating greater autonomy and active engagement in the educational process.

The study confirms that continuous and personalized feedback contributes significantly to the development of students' self-assessment and self-regulation skills, thereby facilitating a higher degree of learning autonomy.

Professors perceive their own role in formative assessment as fundamental, being responsible for guiding, supporting, and encouraging students in the development of autonomy by creating an educational environment conducive to reflection, active learning, and responsibility.

Despite the generally recognized benefits of formative assessment, the study also points out potential negative effects when assessment is misinterpreted, highlighting the need for clear and continuous communication between professors and students in order to avoid overload and stress.

In conclusion, the effective integration of formative assessment strategies into higher education practice—constantly adapted to students' real needs and to the specificities of the taught disciplines—decisively contributes to the development of learning autonomy and to the enhancement of students' academic performance.

4.4. Investigating the Effectiveness of the System of Formative Assessment Strategies in Developing Students' Learning Autonomy in the Study of the Courses "Theory and Methodology of Instruction" and "Theory and Methodology of Assessment". An Experimental Study

4.4.1. The Purpose and Objectives of the Experimental Study

The experimental study presented in this research aims to investigate the effectiveness of implementing a program of formative assessment strategies in fostering the learning autonomy of students enrolled in the Primary and Preschool Pedagogy program. The specific context is represented by the study of two fundamental courses—Theory and Methodology of Instruction and Theory and Methodology of Assessment—which constitute essential pillars in the training of future education professionals.

Based on an experimental approach, this study proposes to analyze the impact of a teaching intervention grounded in formative assessment on students' capacity to become autonomous in their own learning process. The central objective is to identify the extent to which the systematic application of formative assessment strategies contributes to the development of learning autonomy.

The experimental endeavor sought to highlight the concrete benefits of formative assessment strategies and to provide relevant data that may underpin the optimization of teaching and learning processes in higher education. Accordingly, the study's results aim to contribute both to the advancement of effective educational practices and to the enrichment of the scientific literature concerning the promotion of learning autonomy through formative assessment strategies.

The research problem consists in determining the extent to which the implementation of a structured program based on specific formative assessment strategies (portfolio, project, reflective journal, and self-assessment) influences the development of students' learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment. More precisely, the study seeks to determine how and to what extent these formative assessment strategies contribute to improving students' autonomy by means of a comparative analysis of the results obtained from the RASI (Revised Approaches to Studying Inventory) and SELF (Self-Efficacy for Learning Form) questionnaires (pre-test and post-test), as well as from T-test statistical results applied before and after the experimental intervention in the control group (PIPP II UAV) and the experimental group (PIPP II UAB).

Objective 1. To verify the extent to which the academic results of students in the Primary and Preschool Pedagogy program in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment improved following the application of the formative assessment strategy system (portfolio, project, reflective journal, self-assessment).

Objective 2. To experimentally test the impact of the system of formative assessment strategies (portfolio, project, reflective journal, self-assessment) on the development of learning autonomy in the university context, within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, for students enrolled in the Primary and Preschool Pedagogy program.

Objective 3. To analyze the relationship between the learning styles identified by Duff (2003) (deep processing, surface processing, strategic approach), the perceived level of self-efficacy in learning proposed by Zimmerman and Kitsantas (2005) (as measured by the RASI and SELF questionnaires), and the development of learning autonomy before and after the implementation of the system of formative assessment strategies (portfolio, project, reflective journal, self-assessment) in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

4.4.2. Research Hypotheses

Hypothesis 1. There are statistically significant differences between the academic results in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment obtained by students in the experimental group (PIPP II UAB) and those in the control group (PIPP II UAV), after the implementation of the system of formative assessment strategies.

Hypothesis 2. The implementation of the system of formative assessment strategies contributes to the increase of the level of learning autonomy as perceived by second-year students enrolled in the Primary and Preschool Pedagogy program.

Hypothesis 3. There are significant correlations between the learning styles adopted (deep processing, surface processing, strategic approach) and the level of self-efficacy in learning as perceived by students, both before and after the formative intervention.

4.4.3. Research Methodology

The RASI Questionnaire (Revised Approaches to Studying Inventory)

The Revised Approaches to Studying Inventory (RASI), developed by Duff (2003), identifies two distinct styles employed by students in processing academic information. The first

style, referred to as deep processing, is specific to students who strive to grasp the underlying meanings of the text, critically analyze the authors' premises, and connect the presented ideas with their own knowledge and experiences. The second style, known as surface processing, characterizes students who focus primarily on memorizing declarative knowledge, paying less attention to comprehension and to establishing meaningful connections between pieces of information.

The questionnaire consists of 30 items, structured into three distinct scales:

- deep processing (items: 1, 4, 9, 13, 17, 20, 23, 25, 28, 30);
- surface processing (items: 3, 5, 6, 7, 11, 14, 16, 18, 21, 26);
- strategic approach (items: 2, 8, 10, 12, 15, 19, 22, 24, 27, 29).

Responses are measured on a five-point Likert scale.

The SELF Questionnaire (Self-Efficacy for Learning Form)

The Self-Efficacy for Learning Form (SELF), developed by Zimmerman and Kitsantas (2005), investigates students' beliefs regarding the self-regulation of various aspects of academic learning, such as reading, note-taking, writing tasks, and general learning-related activities.

The questionnaire consists of 57 items, structured into five distinct scales:

- R – Reading items (1, 2, 3, 7, 15, 18, 20, 23, 27, 34, 53);
- S – Study items (4, 6, 10, 12, 13, 14, 17, 19, 24, 25, 29, 40, 43, 51);
- T – Test preparation items (5, 28, 31, 32, 36, 37, 38, 41, 52, 54, 56);
- N – Note-taking items (8, 9, 11, 16, 21, 22, 26, 30, 39, 42, 55, 57);
- W – Writing items (33, 35, 44, 45, 46, 47, 48, 49, 50).

Responses are measured on a five-point Likert scale.

Knowledge Test in the Course "Theory and Methodology of Instruction"

The Knowledge Test for the course Theory and Methodology of Instruction is designed to comprehensively evaluate students' knowledge and competences related to the subject matter and specific methods of this discipline. The structure of the test includes several sections that cover various aspects of the educational process, thereby facilitating a detailed and integrated assessment.

Initially, students are asked to identify and elaborate on the subject matter of the discipline, including current trends and recent developments in the field of education. This task enables the

evaluation of students' critical analysis skills and their deeper understanding of the contemporary educational context.

Subsequently, the test assesses students' understanding of the fundamental principles of the instructional process through the analysis of statements that reflect essential elements, such as active and conscious student participation in educational activities, the integration of theory with practice, accessibility of information, and the systematization of content in the teaching–learning process.

The test also includes multiple-choice questions explicitly aimed at assessing knowledge of the characteristics, core components, relationships, and theoretical and practical models of the instructional process. These items stimulate analytical thinking and the ability to synthesize complex information.

Students are further required to make correct associations between pedagogical concepts and their corresponding definitions, thereby demonstrating their ability to correctly distinguish and apply specialized terminology. In addition, there are completion tasks in which students must fill in statements about teaching methods with the most appropriate terms, reflecting their level of understanding of specific instructional tools.

In the open-ended sections of the test, students provide concise and relevant responses regarding the role of teaching aids, types of lessons, categories of instructional activities, and specific forms of organizing the teaching process. This component evaluates their ability to present essential pedagogical knowledge in a clear and succinct manner.

Finally, the test requires the elaboration of an applied essay in which students design and propose a concrete activity for the stage of "consolidation and systematization of content" within a mixed Civic Education lesson. This task evaluates students' capacity to integrate theory into practical contexts, thereby demonstrating relevant pedagogical competences.

Thus, the proposed test ensures a complex and nuanced evaluation, providing a clear and comprehensive picture of students' theoretical preparation and practical skills in the field of Theory and Methodology of Instruction.

Knowledge Test in the Course "Theory and Methodology of Assessment"

The Knowledge Test for the course Theory and Methodology of Assessment is designed to provide a rigorous and comprehensive evaluation of students' knowledge and competences regarding educational assessment processes and principles. The structure of the test is diversified,

allowing for an in-depth assessment of the understanding of fundamental concepts, as well as of the methods and tools specific to educational assessment.

In the initial section, students are invited to identify and elaborate on the subject matter of the discipline, highlighting current trends in the field of educational assessment and thereby contextualizing the practical importance of assessment within the contemporary educational system.

The following section examines students' ability to recognize correct and incorrect statements concerning the essential qualities of an effective assessor, such as objectivity, empathy, communication skills, integrity, and the role of subjectivity in evaluation.

The test also includes multiple-choice items that explicitly and in detail evaluate the understanding of theoretical and practical concepts related to the significance of grades and marks, the advantages and disadvantages of different assessment systems, and the criteria for ensuring efficient and equitable assessment.

In addition, there is a section dedicated to the correct association of key assessment terms with their respective definitions, testing students' ability to use domain-specific terminology accurately and coherently.

Subsequently, the test requires the completion of statements regarding various methods and instruments of assessment, thereby emphasizing students' knowledge of the diversity of evaluative methods as well as their practical applicability in different educational contexts.

The open-ended question section allows for the evaluation of students' analytical and interpretative competences concerning assessment results, as they are challenged to provide clear and concise answers about the significance of assessment outcomes and the most frequent errors in the process.

Finally, the test requires the elaboration of an essay in which students analyze the relationship between objectivity and subjectivity in school assessment, identify disruptive factors, and propose practical solutions for minimizing errors and improving the evaluation process.

Thus, the proposed test represents an in-depth and integrated assessment of the theoretical and practical competences specific to the field of educational assessment.

The present study employs a quasi-experimental research design, organized around two distinct groups of subjects: an experimental group and a control group.

The experimental group was subject to an intervention consisting of the application of a program of formative assessment strategies (portfolio, reflective journal, self-assessment, and project).

The control group, on the other hand, carried out its activity in accordance with traditional methods.

This methodological approach enables a comparative analysis of the results obtained, identifying the direct influence that the formative assessment strategy program had on the development of students' learning autonomy within the two courses. The study focuses on analyzing the differences recorded between the pre-test (initial stage) and post-test (final stage) variables in both the experimental and the control groups.

4.4.4. Participant Sample

A total of 216 second-year students participated in this study, coming from two universities: "1 Decembrie 1918" University of Alba Iulia and "Aurel Vlaicu" University of Arad.

This participant sample was divided into two groups, as follows:

- Experimental group: consisting of 96 second-year students enrolled in the Primary and Preschool Pedagogy program within the Faculty of History, Letters, and Educational Sciences at "1 Decembrie 1918" University of Alba Iulia. The participants' ages ranged from 20 to 42 years; among them, 94 were female and 2 were male.
- Control group: consisting of 120 second-year students enrolled in the Primary and Preschool Pedagogy program within the Faculty of Educational Sciences, Psychology, and Social Work at "Aurel Vlaicu" University of Arad. The participants' ages ranged from 20 to 43 years; among them, 114 were female and 6 were male.

4.4.5. Stages of the Experiment

The research was carried out in three stages: the pre-experimental stage, the experimental stage, and the post-experimental stage.

A total of 216 students were surveyed and assessed both before the beginning of the experiment and after its completion. Only the students in the experimental group participated in the program integrating formative assessment strategies, while the students in the control group were surveyed and tested exclusively during the pre-test and post-test stages.

The program was conducted throughout the 2023–2024 academic year.

The use of a control group in this study was necessary in order to ensure that the differences observed between the pre-experimental and post-experimental stages were determined exclusively by the implementation of the program based on formative assessment strategies, and not by external factors that might have intervened during the course of the experiment.

Pre-test Stage

During this pre-experimental stage, the two questionnaires (RASI – Revised Approaches to Studying Inventory and SELF – Self-Efficacy for Learning Form) were administered to students from both groups (experimental and control). In addition to these two instruments, students also completed two knowledge tests designed within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment.

Thus, in the initial (pre-experimental) stage, both groups of students involved in the research (experimental and control) were administered two tools: the RASI questionnaire, aimed at identifying learning styles and approaches, and the SELF questionnaire, designed to measure students' perceived self-efficacy in learning. Furthermore, to complement this initial analysis, students also participated in two specific tests, conceived and administered within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment. The pre-experimental stage therefore provided essential data regarding the students' initial level, allowing for relevant and meaningful comparisons to be carried out after the implementation of the intervention program based on formative assessment strategies.

Experimental Stage

The activities carried out during this experimental stage were organized on a biweekly basis, as determined by the specific curricular structure of the two courses involved. For both Theory and Methodology of Instruction and Theory and Methodology of Assessment, the curricular plan includes a total of seven seminar sessions per semester. This structure imposed an even distribution of experimental activities across the entire study period, thereby allowing for the effective integration of formative assessment strategies and ensuring sufficient time both for addressing the specific requirements of each activity and for in-depth reflection on the results obtained.

In each seminar session for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, students were actively engaged in solving tasks, conducting investigations, making presentations, and carrying out various assignments adapted to the specific

theme of the seminar. During the final twenty minutes of each seminar, students participated in a structured reflection stage, conducted with the aid of a reflective journal, in which they analyzed the activity, identified strengths and difficulties encountered, and highlighted aspects to be improved in the future. In these final minutes, students also received the corresponding activity sheet, containing the task to be completed before the next meeting, as well as the topic of the assignment to be integrated into the project.

In the following section, the activities conducted within the seminars of the course Theory and Methodology of Instruction will be presented in detail. These activities are an integral part of the program of formative assessment strategies, designed to facilitate the development of students' learning autonomy in the study of Theory and Methodology of Instruction.

Post-test Stage

In the final stage of the research (post-experimental), the same two instruments used in the initial stage were re-administered to students from both groups (experimental and control): the RASI questionnaire (Revised Approaches to Studying Inventory), aimed at capturing possible changes in the learning styles and approaches adopted by students, and the SELF questionnaire (Self-Efficacy for Learning Form), designed to analyze modifications in the perceived level of self-efficacy following the implementation of the educational intervention.

At the same time, students once again completed the two knowledge tests specifically designed for the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, with the purpose of measuring the progress in knowledge and competences acquired as a result of the intervention based on formative assessment strategies.

In this way, the post-test stage generated valuable data regarding the concrete effects of the applied program, allowing for a rigorous comparative analysis between the initial and final levels of the studied variables.

4.4.6. Analysis and Interpretation of the Results

The following table presents the formative assessment strategies together with the specific activities carried out within the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment. The formative assessment strategies include a variety of techniques and methods aimed at ensuring continuous feedback for both students and professors. Through these strategies, the progress of students is monitored, areas in which they encounter difficulties

are identified, and the teaching process is continuously adjusted in order to optimize learning outcomes.

Each strategy listed in the table is further detailed through the description of the concrete activities implemented in the two courses. The formative assessment strategies applied in this experiment included the portfolio, the reflective journal, self-assessment, and the project.

For the course Theory and Methodology of Instruction, the student portfolio was structured as a series of activity sheets, individually designed and adapted to each seminar topic. By designing these activity sheets, corresponding to each theme addressed in the seminars, the aim was to support the gradual and structured development of students' specific competences. Each sheet facilitated active student participation, encouraged reflection on the content addressed, and promoted the practical application of theoretical knowledge in concrete contexts. This methodological approach fostered learning autonomy, stimulated critical thinking, and contributed to the development of a clear and coherent understanding of the teaching–learning process. Thus, the portfolio became not merely a collection of completed tasks but an effective tool for monitoring and self-assessing individual progress.

For the course Theory and Methodology of Assessment, the student portfolio was also structured as a series of activity sheets, carefully designed and adapted to the specific topics addressed in seminars. This approach aimed to facilitate students' active engagement in the learning process, ensure a clear connection between taught theory and practical applications, and allow for systematic evaluation of each student's individual progress throughout the semester.

By elaborating seven activity sheets, corresponding to each seminar topic, the portfolio became a valuable instructional tool focused on developing specific competences in the field of educational assessment. These sheets encouraged students' active involvement, supported the application of theoretical knowledge in practical situations, and fostered a deeper, contextualized understanding of evaluative processes. At the same time, the proposed activities offered students opportunities to develop critical and reflective skills, essential for building autonomy and for continuously improving their own educational practices.

The reflective journal was conceived as a systematic tool of self-reflection for each course, including a series of structured questions provided after each seminar activity. The questions were formulated to guide students in analyzing their personal experiences, identifying positive aspects and difficulties encountered during the learning process, and becoming aware of ways to improve

their own teaching practice. Through the reflective journal, students had the opportunity to self-assess, draw conclusions, and formulate their own strategies for the continuous development of professional competences. Thus, the journal became not only a method of monitoring individual progress but also a personal space for authentic reflection, essential for cultivating critical and constructive thinking about teaching activities.

Self-assessment was integrated into a special task through an additional activity sheet, which students were required to complete for each course before the following seminar session. Through this task, students had the opportunity to reflect on their own performance, identifying both the aspects they had understood well and those that required further study.

The project was conceived in a gradual and systematic manner for both courses. After each seminar, students received an activity sheet corresponding to the topic addressed during that session. This sheet had to be completed individually, reflecting both theoretical knowledge and its practical application in specific educational contexts, and was subsequently included in the final project. In this way, the final project was built progressively, seminar by seminar, becoming a coherent and relevant synthesis of the activities carried out throughout the course. At the last seminar session, students presented the complete project, composed of all the previously completed sheets, thereby showcasing the evolution of their thinking and demonstrating the integrated and coherent application of the acquired knowledge. This approach fostered consistent engagement and accountability, stimulated students' learning autonomy, and supported the development of essential practical and analytical competences in the field of education.

"*Theory and Methodology of Instruction"*						
PORTFOLIO						
Activity "1" „Theory and Methodology of Instruction. General Didactics"	**Activity "2"** „Principles of General Didactics"	**Activity "3"** „Teaching, Learning, and Assessment – Essential Components of the Educational Process"	**Activity "4"** „Instructional Strategies"	**Activity "5"** „Instructional Materials"	**Activity "6"** „Instructional Design"	**Activity "7"** „Forms of Organizing the Educational Process: Whole-Class, Individual, and Small-Group Instruction"
Develop a complex mind map that synthesizes the theme "Theory and Methodology of Instruction. General Didactics." The mind map should be organized in such a way as to explicitly highlight the key concepts.	Using the "Double Bubble" method, conduct a comparative analysis between two didactic principles presented in the studied material.	Perform a comprehensive analysis of the essential components of the educational process through the application of the CHATT method. The analysis must be logically structured and demonstrate an in-depth understanding of the subject matter.	Develop a graphical representation employing the Lotus Blossom technique to systematically explore and analyze various instructional strategies.	Create a photographic portfolio using the Photovoice method to illustrate different instructional materials from the school or preschool environment.	Complete the proposed template below with relevant information that can be included in the structure of a lesson plan for the 2nd grade, subject: Personal Development, lesson title: Similar and Different. Similarities and Differences between Oneself and Others, lesson type: mixed.	Develop a free-form text in which you present and critically analyze the three major forms of organizing the educational process: whole-class instruction, individual instruction, and small-group instruction.
REFLECTIVE JOURNAL						
Reflective Journal "1"	**Reflective Journal "2"**	**Reflective Journal "3"**	**Reflective Journal "4"**	**Reflective Journal "5"**	**Reflective Journal "6"**	**Reflective Journal "7"**
SELF-ASSESSMENT						
"Self Check-in"	**"AutoScanner"**	**"Instructional Self-Service"**	**"Taking a Closer Look at Myself"**	**"My Moment of Achievement"**	**"A Stress-Free Moment of Truth!"**	**"Netflix for Neurons"**
THE PROJECT **"**Educational Magazine"						
"Theory and Methodology of Instruction. General Didactics"	**"Article Two – Principles of General Didactics"**	**"Article Three – Teaching, Learning, and Assessment: Essential Components of the Educational Process"**	**"Article Four – Instructional Strategies"**	**"Article Five– Instructional Materials"**	**"Article Six – Instructional Design"**	**"Article Seven – Forms of Organizing the Educational Process: Collective, Individual, and Small-Group Instruction"**

Table 1.IV.4.4.6. Formative Assessment Strategies Used in the Course Theory and Methodology of Instruction

"*Theory and Methodology of Assessment"*						
PORTFOLIO						
Activity "1" The Relationship between the School Curriculum and the Curriculum for National Assessments/Examinations Create a mind map to illustrate the relationship between the school curriculum and the curriculum for national assessments/examinations.	**Activity "2"** „Methods of Self-Assessment and Peer Assessment" Using the Lotus Blossom method, create a detailed scheme to explore the theme "Methods of Self-Assessment and Peer Assessment."	**Activity "3"** „School Grading: Theoretical and Practical Significance. Grading Systems. Marks and Qualitative Assessments" Create a photographic portfolio using the Photovoice method to illustrate the theoretical and practical significance of school grading, the grading systems, and the qualitative assessments used in the school environment.	**Activity "4"** „The Personality and Qualities of the Assessor" Conduct a detailed analysis of the assessor's personality and qualities using the CHATT method. The analysis should be logically structured and reflect a thorough understanding of the proposed topic.	**Activity "5"** Elements of the Deontology of Assessment Using the "Double Bubble" method, carry out a comparative analysis between two elements (principles) of the ethics of assessment presented in the studied material.	**Activity "6"** „Objectivity and Subjectivity in Assessment. Disruptive Factors and Errors in Assessment and Grading" Develop a free-form text in which you present and critically analyze the topic: "Objectivity and Subjectivity in Assessment. Biasing Factors and Errors in Assessment and Grading.	**Activity "7"** „Analysis and Interpretation of Assessment Results" Using the "Flipped Classroom" method, prepare individually at home on the topic "Analysis and Interpretation of Assessment Results" by reviewing the support materials previously provided (course, articles, videos). During the seminar, based on the information studied individually, you will carry out the following activities: Present concisely the main ideas you understood regarding the process of analyzing and interpreting school assessment results.
REFLECTIVE JOURNAL						
Reflective Journal "1"	**Reflective Journal "2"**	**Reflective Journal "3"**	**Reflective Journal "4"**	**Reflective Journal "5"**	**Reflective Journal "6"**	**Reflective Journal "7"**
SELF-ASSESSMENT						
"Myself, the Subject Matter, and the Truth"	**"Let Me See What I Know"**	**"What Does My Mind Know Today?**	**"Personal Academic Pulse"**	**"Academic Confessions"**	**"My Test, My Rules"**	**"In Dialogue with My Academic Self"**
THE PROJECT **"**Letter to My Future Self as a Teacher"						
First Letter – "The Relationship between the School Curriculum and the Curriculum for National Assessments/Examinations"	**Second Letter – "Methods of Self-Assessment and Peer Assessment"**	**Third Letter – "School Grading: Theoretical and Practical Significance. Grading Systems. Qualitative Assessments"**	**Fourth Letter – "The Personality and Qualities of the Assessor"**	**Fifth Letter – "Ethical Principles of Assessment"**	**Sixth Letter – "Objectivity and Subjectivity in Assessment. Biasing Factors and Errors in Assessment and Grading",**	**Seventh Letter – "Analysis and Interpretation of Assessment Results"**

Table 2.IV.4.4.6. Formative Assessment Strategies Used in the Course Theory and Methodology of Assessment

The processing of the data obtained from the administration of the tests in the two courses (Theory and Methodology of Instruction, Theory and Methodology of Assessment) during the two stages (pre-experimental/post-experimental) was carried out using the T-test available in the statistical program IBM SPSS Statistics 20.0 for Windows.

In the pre-experimental stage, both the experimental group (UAB students) and the control group (UAV students) participated in the initial test administered during the first seminar session of the course Theory and Methodology of Instruction.

The following section presents the statistical results obtained through the T-test for the course Theory and Methodology of Instruction in the initial stage (pre-test) for both the experimental group (UAB) and the control group (UAV).

Statistici de grup

	universitate	N	Medie	Std. Abatere	Std. Eroare medie
TMI.pre_test	UAB	96	5,8177	,67547	,06894
	UAV	120	5.7571	,68336	,06238

Test independent de probe

		Testul lui Levene pentru egalitatea variațiilor		testul t pentru egalitatea mijloacelor						
		F	Sig.	t	df	Sig. (cu două cozi)	Diferența de medie	Std. Diferența de eroare	Intervalul de încredere de 95% al diferenței	
									Mai jos	Superior
TMI.pre_test	Variante egale presupuse	,745	,389	,651	214	,516	,06062	,09310	-,12288	,24413
	Nu sunt presupuse variații egale	,652	204.703	,515	,06062	,09297	-,12269	,24394		

Table 3.IV.4.4.6. Initial Statistical Results (Pre-test) for the Course Theory and Methodology of Instruction (UAB/UAV)

General Conclusion of the Interpretation:

There are no statistically significant differences between the UAB and UAV group scores at the pre-test (Theory and Methodology of Instruction – TMI). The result indicates that the two groups started the experiment from very similar levels, which represents an ideal situation for subsequently testing the effectiveness of the formative assessment strategy program.

Based on the descriptive statistical analysis, we observe that the two groups involved in the research, UAB and UAV, show very close means at the initial measurement (pre-test). Specifically, the UAB group (N = 96) obtained a mean score of 5.8177 with a standard deviation of 0.67547, while the UAV group (N = 120) had a very similar mean of 5.7571 and a standard

deviation of 0.68336. The numerical difference between these means is minimal, suggesting that the groups are comparable prior to the application of the educational intervention.

Furthermore, when applying Levene's Test for Equality of Variances, we obtained an F value of 0.745 with a significance level (p) of 0.389. Since this value is greater than the conventional threshold of 0.05, we conclude that the variances of the two groups are equal. Therefore, in the subsequent interpretation, we rely on the results under the condition Equal variances assumed.

The results of the independent T-test, conducted to evaluate the difference in group means, indicate a T value of 0.651 with 214 degrees of freedom and a p-value (Sig. 2-tailed) of 0.516, which is above the significance threshold of 0.05. Consequently, the null hypothesis (H_0) cannot be rejected. This indicates the absence of a statistically significant difference between the mean scores of the UAB and UAV groups at the pre-test.

The 95% confidence interval for the difference in means (lower limit: -0.12288, upper limit: 0.24413) includes the value zero, reconfirming the previous conclusion that the observed differences are not statistically significant.

In conclusion, the statistical analysis of the pre-test highlights that the two groups started the experiment from very similar levels. This situation is methodologically ideal, as it provides a solid basis for the objective and rigorous evaluation of the effectiveness of the formative assessment strategy program.

In the post-experimental stage, both the experimental group (UAB students) and the control group (UAV students) participated in the final test administered during the first seminar session of the course Theory and Methodology of Instruction.

The following section presents the statistical results obtained using the T-test for the course Theory and Methodology of Instruction in the final stage (post-test) for both the experimental group (UAB) and the control group (UAV).

Statistici de grup					
	universitate	N	Medie	Std. Abatere	Std. Eroare medie
TMI.post_test	UAB	96	8,9625	,70300	,07175
	UAV	120	6.7204	,88568	,08085

Test independent de probe										
		Testul lui Levene pentru egalitatea variațiilor		testul t pentru egalitatea mijloacelor						
									Intervalul de încredere de 95% al diferenței	
		F	Sig.	t	df	Sig. (cu două cozi)	Diferența de medie	Std. Diferența de eroare	Mai jos	Superior
TMI.post_test	Variante egale presupuse	,134	,715	20.222	214	,000	2,24208	,11087	2,02354	2,46062
	Nu sunt presupuse variații egale	20.741	213.990	,000	2,24208	,10810	2,02901	2,45515		

Table 4.IV.4.4.6. Final Statistical Results (Post-test) for the Course Theory and Methodology of Instruction (UAB/UAV)

General Conclusion of the Interpretation:

There is a statistically significant difference between the UAB and UAV groups at the post-test, with the UAB group obtaining a significantly higher mean score.

This result indicates that the program of formative assessment strategies implemented within the UAB group led to significantly better outcomes compared to the UAV group. The finding is statistically robust and clearly demonstrates a real difference between the two groups.

The descriptive statistical results for the final evaluation (post-test) reflect a clear and relevant difference between the two groups involved in the research, UAB and UAV. The UAB group (N = 96) obtained a significantly higher mean of 8.9625 with a low standard deviation of 0.70300, compared to the UAV group (N = 120), which obtained a mean of 6.7204 and a higher standard deviation of 0.88568. This evident difference between the group means suggests the effectiveness of the formative assessment strategy program applied to the UAB group.

Levene's Test for Equality of Variances indicated an F value of 0.134 and a significance level of $p = 0.715$, which is much higher than the conventional threshold of 0.05. Consequently, we consider the variances of the two groups to be equal, and the interpretation is based on the results for Equal variances assumed.

The results of the independent T-test for equality of means confirm and further highlight the statistical relevance of the observed difference. The T value is 20.222, with 214 degrees of freedom, and an extremely small p-value ($p < 0.001$), far below the standard threshold of 0.05. Therefore, the null hypothesis (H_0) is firmly rejected, indicating the existence of a statistically significant difference between the mean scores of the two groups at the post-test.

The 95% confidence interval for the difference between the group means (lower limit: 2.02354, upper limit: 2.46062) does not include zero. This further consolidates the statistical significance and suggests that the obtained results are both robust and relevant.

In conclusion, the final statistical analysis demonstrates that the program of formative assessment strategies implemented for the UAB group had a significantly positive effect compared to the UAV group. This result is statistically compelling and validates the effectiveness of the applied educational intervention.

In the pre-experimental stage, both the experimental group (UAB students) and the control group (UAV students) participated in the initial test administered during the first seminar session of the course Theory and Methodology of Assessment.

The following section presents the statistical results obtained through the T-test for the course Theory and Methodology of Assessment in the initial stage (pre-test) for both the experimental group (UAB) and the control group (UAV).

Statistici de grup

	universitate	N	Medie	Std. Abatere	Std. Eroare medie
TME.pre_test	UAB	96	5,9078	,66749	,06813
	UAV	120	5.7546	,67001	,06116

Test independent de probe

		Testul lui Levene pentru egalitatea variațiilor		testul t pentru egalitatea mijloacelor						
									Intervalul de încredere de 95% al diferenței	
		F	Sig.	t	df	Sig. (cu două cozi)	Diferența de medie	Std. Diferența de eroare	Mai jos	Superior
TME.pre_test	Variante egale presupuse	,442	,507	1.673	214	,096	,15323	,09159	-,02731	,33377
	Nu sunt presupuse variații egale	1.674	204.040	,096	,15323	,09155	-,02728	,33374		

Table 5.IV.4.4.6. Initial Statistical Results (Pre-test) for the Course Theory and Methodology of Assessment (UAB/UAV)

General Conclusion of the Interpretation:

There are no statistically significant differences between the two groups (UAB and UAV) regarding the mean score obtained at the Theory and Methodology of Assessment (TMA) pre-test. Although the mean of the UAB group is slightly higher than that of the UAV group, this difference cannot be considered statistically significant.

In other words, from a statistical standpoint, the two universities demonstrate comparable performance in the context of the analyzed pre-test.

The analysis of descriptive statistics shows that the two studied groups, UAB and UAV, recorded similar mean scores in the initial evaluation (pre-test). More specifically, the UAB group (N = 96) reported a slightly higher mean (5.9078), with a standard deviation of 0.66749 and a standard error of 0.06813, compared to the UAV group (N = 120), which had a mean of 5.7546, a similar standard deviation (0.67001), and a standard error of 0.06116. The numerical difference between the means is minimal, indicating group comparability at the initial stage.

Levene's Test for Equality of Variances produced an F value of 0.442, with a significance level of p = 0.507. Since this value is higher than the conventional threshold of 0.05, the result suggests equality of variances between the two groups. Therefore, the interpretation of the T-test is carried out under the assumption of Equal variances assumed.

The results of the independent T-test for equality of means indicate a T value of 1.673 with 214 degrees of freedom and a p-value (Sig. 2-tailed) of 0.096, which exceeds the 0.05 threshold. Consequently, the null hypothesis (H_0) cannot be rejected. This finding reveals that the observed difference between the mean scores of the UAB and UAV groups at the pre-test is not statistically significant.

The 95% confidence interval for the difference in means (lower limit: -0.02731, upper limit: 0.33377) includes the value zero, reconfirming the lack of statistical significance of the observed difference.

In conclusion, the results of the analysis suggest that the two groups performed comparably at the pre-test. Although the UAB group shows a slightly higher mean than the UAV group, this difference does not reach the threshold of statistical significance, which validates the comparability of the groups at the initial stage of the research.

In the post-experimental stage, both the experimental group (UAB students) and the control group (UAV students) participated in the initial test administered during the first seminar session of the course Theory and Methodology of Assessment.

The following section presents the statistical results obtained through the T-test for the course Theory and Methodology of Assessment in the final stage (post-test) for both the experimental group (UAB) and the control group (UAV).

Statistici de grup					
	universitate	N	Medie	Std. Abatere	Std. Eroare medie
TME.post_test	UAB	96	8,9682	,70102	,07155
	UAV	120	6.7204	,88568	,08085

Test independent de probe										
		Testul lui Levene pentru egalitatea variațiilor		testul t pentru egalitatea mijloacelor						
									Intervalul de încredere de 95% al diferenței	
		F	Sig.	t	df	Sig. (cu două cozi)	Diferența de medie	Std. Diferența de eroare	Mai jos	Superior
TME.post_test	Variante egale presupuse	,186	,666	20.293	214	,000	2.24781	,11077	2,02948	2,46615
	Nu sunt presupuse variații egale	20.820	213.980	,000	2.24781	,10796	2,03501	2,46062		

Table 6.IV.4.4.6. Final Statistical Results (Post-test) for the Course Theory and Methodology of Assessment (UAB/UAV)

1. Descriptive Statistics:

- UAB Group:
  - Number of participants (N): 96
  - Mean: 8.9682
  - Standard Deviation: 0.70102
  - Standard Error of the Mean: 0.07155
- UAV Group:
  - Number of participants (N): 120
  - Mean: 6.7204
  - Standard Deviation: 0.88568
  - Standard Error of the Mean: 0.08085

These statistics clearly show that the mean score of the UAB group is significantly higher than that of the UAV group.

2. Levene's Test for Equality of Variances:

- F value = 0.186
- Significance level (Sig.) = 0.666

Interpretation: Since p = 0.666 (greater than the 0.05 threshold), we conclude that the variances of the two groups are approximately equal. Therefore, the result for Equal variances assumed is used in the interpretation.

3. Independent Samples T-Test for Equality of Means:

- T value = 20.293

- Degrees of freedom (df) = 214
- p-value (Sig. 2-tailed) = 0.000 (extremely small)

Detailed Interpretation:

Since the p-value is far below the standard threshold (0.05), we can confidently reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). This means that there is a statistically significant difference between the two groups (UAB and UAV) in their post-test scores.

4. 95% Confidence Interval for the Difference in Means:

- Lower limit: 2.02948
- Upper limit: 2.46615

Because the confidence interval does not include zero, this once again confirms that the difference between the two groups is statistically significant and stable.

General Conclusion of the Interpretation:

There is a statistically significant difference between the scores of the two groups (UAB and UAV) at the post-test. The UAB group obtained a significantly higher score than the UAV group, and the difference between means is strongly supported by the results of the statistical analysis ($p < 0.001$).

The post-intervention descriptive statistics highlight a notable difference between the two groups analyzed, UAB and UAV. The UAB group (N = 96) recorded a considerably higher mean (8.9682), with a low standard deviation (0.70102) and a standard error of 0.07155. In contrast, the UAV group (N = 120) obtained a much lower mean (6.7204), with a higher standard deviation (0.88568) and a standard error of 0.08085.

The verification of the equality of variances using Levene's Test yielded an F value of 0.186 and a significance level of $p = 0.666$. This result confirms that the variances of the two groups are equivalent, and thus the interpretation of the independent T-test is based on the assumption of Equal variances assumed.

The results of the independent T-test for comparing means are remarkable. The computed T value is 20.293, with 214 degrees of freedom, and an extremely small p-value ($p < 0.001$). These results allow us to categorically reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1), highlighting a statistically significant difference between the UAB and UAV groups in terms of their post-test scores.

The 95% confidence interval for the difference in means (lower limit: 2.02948, upper limit: 2.46615) excludes zero, clearly reinforcing the statistical significance and stability of the observed difference.

In conclusion, the statistical analysis conducted at the post-test stage confirms with certainty that the program of formative assessment strategies implemented in the UAB group generated significantly superior results compared to the UAV group. These findings support the effectiveness of the applied formative assessment strategy program and provide a solid foundation for the conclusions of the research presented in the thesis.

The following section presents the results of the paired-samples T-test (UAB/UAV groups).

This T-test compares the scores obtained by students in the initial stage (pre-test) and the final stage (post-test) for the course Theory and Methodology of Instruction, analyzed separately for each university.

Statistici de mostre pereche

universitate			Medie	N	Std. Abatere	Std. Eroare medie
UAB	Perechea 1	TMI.pre_test	5,8177	96	,67547	,06894
		TMI.post_test	8,9625	96	,70300	,07175
UAV	Perechea 1	TMI.pre_test	5.7571	120	,68336	,06238
		TMI.post_test	6.7204	120	,88568	,08085

Corelații de probe pereche

universitate			N	Corelație	Sig.
UAB	Perechea 1	TMI.pre_test și TMI.post_test	96	-,043	,680
UAV	Perechea 1	TMI.pre_test și TMI.post_test	120	-,006	,948

Test de probe pereche

			Diferențele pereche					t	df	Sig. (cu două cozi)
						Intervalul de încredere de 95% al diferenței				
universitate			Medie	Std. Abatere	Std. Eroare medie	Mai jos	Superior			
UAB	Perechea 1	TMI.pre_test - TMI.post_test	-3,14479	,99550	,10160	-3,34650	-2,94308	-30.952	95	,000
UAV	Perechea 1	TMI.pre_test - TMI.post_test	-,96333	1,12193	,10242	-1.16613	-,76054	-9.406	119	,000

Table 7.IV.4.4.6. Results of the Paired-Samples T-Test for the Course Theory and Methodology of Instruction (UAB/UAV Groups)

UAB Group:

1.Descriptive Statistics:

- Pre-test:
  - Mean: 5.8177
  - Standard Deviation: 0.67547

- Post-test:
    - Mean: 8.9625
    - Standard Deviation: 0.70300

2.Correlation between Pre-test and Post-test:

- Correlation: -0.043 (very weak and non-significant)
- p = 0.680 (non-significant)

3.Paired Samples T-Test Results:

- Mean Difference (Pre-test – Post-test): -3.14479
- T value: -30.952
- Degrees of freedom (df): 95
- p-value: 0.000
- 95% Confidence Interval: between -3.34650 and -2.94308

Interpretation for the UAB Group:

The extremely small p-value ($p < 0.001$) indicates that the difference between pre-test and post-test scores is highly statistically significant. Participants in the UAB group demonstrated a significant improvement following the implementation of the formative assessment strategies program.

UAV Group:

1.Descriptive Statistics:

- Pre-test:
    - Mean: 5.7571
    - Standard Deviation: 0.68336
- Post-test:
    - Mean: 6.7204
    - Standard Deviation: 0.88568

2.Correlation between Pre-test and Post-test:

- Correlation: -0.006 (very weak and non-significant)
- p = 0.948 (non-significant)

3.Paired Samples T-Test Results:

- Mean Difference (Pre-test – Post-test): -0.96333
- T value: -9.406

- Degrees of freedom (df): 119
- p-value: 0.000
- 95% Confidence Interval: between -1.16613 and -0.76054

Interpretation for the UAV Group:

Although the correlation between pre-test and post-test is non-significant, the difference between means is nevertheless highly statistically significant ($p < 0.001$). Participants in the UAV group also recorded significant improvement, but of a much smaller magnitude compared to the UAB group.

General Conclusions of the Interpretation:

The UAB group achieved statistically significant progress following the implementation of the formative assessment strategies program.

The UAB group showed a much more pronounced improvement (a mean difference of approximately 3.14 points), compared to the UAV group (a mean difference of approximately 0.96 points). The results suggest that the formative assessment strategy program applied to the UAB group was effective.

UAB Group: Descriptive statistics reveal a substantial increase in the mean, from 5.8177 in the pre-test stage to 8.9625 in the post-test, indicating a clear and consistent improvement. The weak and non-significant correlation ($r = -0.043$; $p = 0.680$) suggests that initial results did not directly influence the final performance. The T-test confirms this significant improvement, with a mean difference of -3.14479, a T value of -30.952, 95 degrees of freedom, and an extremely small p-value ($p < 0.001$). The 95% confidence interval (between -3.34650 and -2.94308) excludes zero, further consolidating the statistical relevance of the improvement.

UAV Group: The UAV participants also recorded improved scores, but of considerably smaller magnitude. The mean increased from 5.7571 to 6.7204, with a non-significant correlation between initial and final scores ($r = -0.006$; $p = 0.948$). Nevertheless, the T-test reveals a statistically significant difference between the pre-test and post-test (mean difference: -0.96333; T value = -9.406; $df = 119$; $p < 0.001$), supported by the 95% confidence interval between -1.16613 and -0.76054.

General Conclusions: The statistical analysis results show that both groups achieved significant progress. However, the progress made by the UAB group was considerably more substantial than that of the UAV group. The significantly higher mean difference recorded by the

UAB group (approximately 3.14 points) compared to the UAV group (approximately 0.96 points) clearly highlights the superior effectiveness of the formative assessment strategy program implemented with the UAB group. This supports the validity and usefulness of the program of formative assessment strategies applied to UAB participants and suggests favorable directions for its replication and expansion in similar contexts.

The following section presents the results of the paired-samples T-test (UAB/UAV groups).

This T-test compares the scores obtained by students in the initial stage (pre-test) and the final stage (post-test) for the course Theory and Methodology of Assessment, analyzed separately for each university.

Statistici de mostre pereche

universitate			Medie	N	Std. Abatere	Std. Eroare medie
UAB	Perechea 1	TME.pre_test	5,9078	96	,66749	,06813
		TME.post_test	8,9682	96	,70102	,07155
UAV	Perechea 1	TME.pre_test	5.7546	120	,67001	,06116
		TME.post_test	6.7204	120	,88568	,08085

Corelații de probe pereche

universitate			N	Corelație	Sig.
UAB	Perechea 1	TME.pre_test și TME.post_test	96	,633	,000
UAV	Perechea 1	TME.pre_test și TME.post_test	120	,161	,079

Test de probe pereche

			Diferențele pereche							
						Intervalul de încredere de 95% al diferenței				
universitate			Medie	Std. Abatere	Std. Eroare medie	Mai jos	Superior	t	df	Sig. (cu două cozi)
UAB	Perechea 1	TME.pre_test - TME.post_test	-3.06042	,58736	,05995	-3,17943	-2.94141	-51.052	95	,000
UAV	Perechea 1	TME.pre_test - TME.post_test	-,96583	1,02083	,09319	-1.15036	-,78131	-10.364	119	,000

Table 8.IV.4.4.6. Results of the Paired-Samples T-Test for the Course Theory and Methodology of Assessment (UAB/UAV Groups)

UAB Group:

1.Descriptive Statistics:

- Pre-test:
  - Mean: 5.9078
  - Standard Deviation: 0.66749
- Post-test:
  - Mean: 8.9682
  - Standard Deviation: 0.70102

2.Paired Correlation:

- Correlation: 0.633 (strong)
- p = 0.000 (significant)

3.Paired Samples T-Test Results:

- Mean Difference (Pre-test – Post-test): -3.06042
- T value: -51.052
- Degrees of freedom (df): 95
- p-value: 0.000
- 95% Confidence Interval: between -3.17943 and -2.94141

Interpretation – UAB Group:

Since the p-value is below 0.001, the difference between pre-test and post-test scores is highly statistically significant.

Participants in the UAB group achieved a considerable improvement following the implementation of the formative assessment strategy program.

UAV Group:

1.Descriptive Statistics:

- Pre-test:
  - Mean: 5.7546
  - Standard Deviation: 0.67001
- Post-test:
  - Mean: 6.7204
  - Standard Deviation: 0.88568

2.Paired Correlation:

- Correlation: 0.161 (weak)
- p = 0.079 (not statistically significant)

3.Paired Samples T-Test Results:

- Mean Difference (Pre-test – Post-test): -0.96583
- T value: -10.364
- Degrees of freedom (df): 119
- p-value: 0.000

- 95% Confidence Interval: between -1.15036 and -0.78131

Interpretation – UAV Group:

Although the correlation between pre-test and post-test is weak, the difference between means is nevertheless statistically significant ($p < 0.001$). Participants in the UAV group also showed significant improvement, but the magnitude of change is smaller than in the case of UAB.

General Conclusions of the Interpretation:

Both universities recorded statistically significant progress from pre-test to post-test. However, the improvement observed at UAB (mean difference = 3.06) is considerably greater than that observed at UAV (mean difference = 0.97).

This result suggests that the implementation of the formative assessment strategy program applied to the UAB group was highly effective.

UAB Group: Descriptive statistics indicate a significant increase in the mean from 5.9078 (pre-test) to 8.9682 (post-test), highlighting a clear and consistent improvement. The correlation between paired scores is strong and statistically significant ($r = 0.633$; $p < 0.001$), suggesting that initial results are significantly related to final performance. The T-test confirms this improvement, with a mean difference of -3.06042, a T value of -51.052, df = 95, and an extremely small p-value ($p < 0.001$). The 95% confidence interval (between -3.17943 and -2.94141) strengthens this conclusion, as it excludes zero.

UAV Group: UAV participants also improved their scores, although to a lesser extent. The mean increased from 5.7546 (pre-test) to 6.7204 (post-test). The correlation between paired scores is weak and not statistically significant ($r = 0.161$; $p = 0.079$). Nevertheless, the T-test reveals a significant difference between pre-test and post-test (mean difference = -0.96583; T = -10.364; df = 119; $p < 0.001$), also confirmed by the 95% confidence interval (between -1.15036 and -0.78131).

General Conclusions: Statistical analysis demonstrates that both groups (UAB and UAV) recorded significant progress from pre-test to post-test. However, the magnitude of improvement among UAB participants (mean difference of approximately 3.06 points) is much greater than that observed in the UAV group (approximately 0.97 points). These results support the conclusion that the implementation of the formative assessment strategy program in the UAB group was effective, providing strong arguments for applying and expanding this intervention in similar contexts.

The processing of data obtained from the administration of the two questionnaires—RASI (Revised Approaches to Studying Inventory) and SELF (Self-Efficacy for Learning Form)—in the two stages (initial and final) was carried out using IBM SPSS Statistics 20.0 for Windows.

The following table presents information about the Pearson correlations between the three types of processing (deep processing, surface processing, strategic approaches) from the RASI questionnaire and the five types of items (reading, studying, test preparation, note-taking, writing) from the SELF questionnaire.

Pre-test							
			R(reading)	S(study)	T(test preparation)	N(note-taking)	W(writing)
UAB	Deep Processing	r	,147	,017	-,169	,163	-,036
		p	*,143*	*,870*	*,093*	*,106*	*,726*
	Surface Processing	r	,185	-,166	,179	,104	-,016
		p	*,065*	*,099*	*,075*	*,302*	*,876*
	Strategic Approaches	r	-,055	-,087	,078	-,184	,038
		p	*,587*	*,388*	*,440*	*,066*	*,707*
UAV	Deep Processing	r	,019	-,029	,009	,029	,055
		p	*,840*	*,753*	*,926*	*,758*	*,555*
	Surface Processing	r	**,443**	**,346****	**,248****	**,367****	,168
		p	***,000***	***,000***	***,007***	***,000***	*,071*
	Strategic Approaches	r	,129	**,375****	**,212***	**,344****	**,222***
		p	*,169*	***,000***	***,022***	***,000***	***,016***

Table 9.IV.4.4.6. Results of the Pre-test

In the pre-test stage, we observe that statistically significant correlations are present only in the control group (UAV). All these significant correlation indices indicate a positive association.

For surface processing, statistically significant associations were identified with the R – Reading, S – Study, T – Test Preparation, and N – Note-Taking scales. Thus, in the pre-test evaluation, positive correlation indices were found between surface processing and the R, S, T, and N scales, as follows:

- High values of the surface processing variable correlate directly with Reading scores, meaning a direct connection between the two. Higher surface processing scores are associated with an increased perception among students that they can improve their academic performance through reading activity.
- High values of the surface processing variable correlate directly with Study scores, indicating a direct relationship. Higher surface processing scores are associated

with a stronger perception among students that they can improve their academic performance through study activity.

- High values of the surface processing variable correlate directly with Test Preparation scores, indicating a direct relationship. Higher surface processing scores are associated with a stronger perception among students that they can improve their academic performance through test preparation activity.
- High values of the surface processing variable correlate directly with Note-Taking scores, indicating a direct relationship. Higher surface processing scores are associated with an increased perception among students that they can improve their academic performance through note-taking activity.

For strategic approaches, in the pre-test evaluation, positive correlation indices were observed with the S – Study, T – Test Preparation, N – Note-Taking, and W – Writing scales, as follows:

- High values of the strategic approaches variable correlate directly with Study scores, meaning a direct connection between the two. Higher strategic approach scores are associated with an increased perception among students that they can improve their academic performance through study activity.
- High values of the strategic approaches variable correlate directly with Test Preparation scores, indicating a direct relationship. Higher strategic approach scores are associated with a stronger perception among students that they can improve their academic performance through test preparation activity.
- High values of the strategic approaches variable correlate directly with Note-Taking scores, showing a direct relationship. Higher strategic approach scores are associated with an increased perception among students that they can improve their academic performance through note-taking activity.
- High values of the strategic approaches variable correlate directly with Writing scores, indicating a direct connection. Higher strategic approach scores are associated with an increased perception among students that they can improve their academic performance through writing activity.

Post-test							
			R(reading)	S(study)	T(test preparation)	N(note-taking)	W(writing)
UAB	Deep Processing	r	**,485****	**,322****	**,470****	**,447****	**,579****
		p	***,000***	***,001***	***,000***	***,000***	***,000***
	Surface Processing	r	**-,268****	,003	**-,393****	**-,273****	**-,357****
		p	***,007***	*,977*	***,000***	***,006***	***,000***
	Strategic Approaches	r	**,633****	**,266****	**,618****	**,495****	**,659****
		p	***,000***	***,007***	***,000***	***,000***	***,000***
UAV	Deep Processing	r	,118	,134	-,074	,156	-,104
		p	*,205*	*,151*	*,428*	*,095*	*,265*
	Surface Processing	r	,119	,136	,085	,009	-,062
		p	*,204*	*,146*	*,367*	*,922*	*,510*
	Strategic Approaches	r	,080	-,116	,126	-,112	-,055
		p	*,394*	*,213*	*,176*	*,233*	*,555*

Table 10.IV.4.4.6. Results of the Post-test

In the post-test evaluation, statistically significant correlation indices were identified only in the experimental group (UAB). Deep processing and strategic approaches were positively associated, whereas surface processing presented negative correlation indices.

For deep processing, positive correlation indices were found with the R – Reading, S – Study, T – Test Preparation, N – Note-Taking, and W – Writing scales, as follows:

- High values of the deep processing variable correlate directly with Reading scores, meaning a direct link between the two. Higher deep processing scores are associated with an increased perception among students that they can improve their academic performance through reading activity.
- High values of the deep processing variable correlate directly with Study scores, indicating a direct connection. Higher deep processing scores are associated with an increased perception that study activity enhances academic performance.
- High values of the deep processing variable correlate directly with Test Preparation scores. Higher scores suggest students perceive test preparation as a means of improving academic outcomes.
- High values of the deep processing variable correlate directly with Note-Taking scores, meaning students associate note-taking with better academic performance.

- High values of the deep processing variable correlate directly with Writing scores, reinforcing the perception that writing activity contributes to improved academic performance.

For surface processing, negative correlation indices were observed with the R – Reading, T – Test Preparation, N – Note-Taking, and W – Writing scales, as follows:

- High values of the surface processing variable correlate inversely with Reading scores, indicating no direct positive relationship.
- High values of the surface processing variable correlate inversely with Test Preparation scores, again suggesting no direct positive connection.
- High values of the surface processing variable correlate inversely with Note-Taking scores, indicating a lack of positive association.
- High values of the surface processing variable correlate inversely with Writing scores, reflecting the same absence of a direct positive relationship.

For strategic approaches, positive correlation indices were found with the R – Reading, S – Study, T – Test Preparation, N – Note-Taking, and W – Writing scales, as follows:

- High values of the strategic approaches variable correlate directly with Reading scores, suggesting students perceive reading as enhancing academic performance.
- High values of the strategic approaches variable correlate directly with Study scores, highlighting a strong association with improved performance through study activity.
- High values of the strategic approaches variable correlate directly with Test Preparation scores, showing that students link this activity to academic improvement.
- High values of the strategic approaches variable correlate directly with Note-Taking scores, reinforcing the role of note-taking in better learning outcomes.
- High values of the strategic approaches variable correlate directly with Writing scores, indicating students perceive writing activity as a key factor in enhancing their academic performance.

4.4.7. Conclusions and Perspectives

The implementation of the system of formative assessment strategies (portfolio, reflective journal, self-assessment, project) had a clear, positive, and statistically significant impact on the development of learning autonomy among students in the experimental group (UAB), compared

to the control group (UAV). The significant differences highlighted by the statistical analysis confirm the effectiveness of these strategies.

The results obtained at the final stage of the experiment were significantly better for students in the experimental group, clearly demonstrating the efficiency of the formative assessment program in comparison with traditional methods.

The formative assessment strategies implemented (portfolio, reflective journal, self-assessment, and project) fostered the development of students' analytical, reflective, and practical abilities, contributing substantially to the increase of their perceived self-efficacy in learning.

The analysis of the relationship between learning styles and perceived self-efficacy showed that deep processing and strategic approaches were positively and significantly associated with higher academic performance after the intervention, while surface processing was negatively associated. These correlations demonstrate that the program encouraged students to adopt deeper and more strategic approaches to learning.

Students who actively and systematically participated in the formative strategies program demonstrated greater autonomy in managing their own learning process, manifested through active engagement, profound reflection, and effective self-assessment.

The program had evident positive effects on students' scores in the tests specific to the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, a fact confirmed by the comparative pre-test and post-test analyses.

The instruments used in the research (RASI and SELF) proved effective in measuring learning styles and perceived self-efficacy, thereby allowing for a rigorous and objective analysis of the effects of the experimental program.

Methodological conclusions:

- The experimental research design, which included a control group and an experimental group, ensured the validity and relevance of the results, allowing for the clear identification of the impact of the formative intervention.
- The formative strategies applied stimulated continuous reflection and effectively supported the process of developing learning autonomy.

Perspectives and practical recommendations:

- Expanding and replicating the formative assessment program in other university courses in order to confirm and consolidate the benefits obtained.

- Continuing the monitoring of learning styles and perceived self-efficacy by periodically administering the RASI and SELF questionnaires.
- Permanently integrating the tested formative strategies into university curricula, with the aim of sustainably developing learning autonomy and students' professional competences.
- Promoting an academic culture based on reflection, self-assessment, and autonomous learning within higher education, in order to ensure the continuous improvement of educational processes and student performance.

Following the investigation of the effectiveness of the formative assessment strategy program in developing students' learning autonomy in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment, the validity of the three initially formulated hypotheses is confirmed:

Hypothesis 1. There are statistically significant differences between the academic results in the courses Theory and Methodology of Instruction and Theory and Methodology of Assessment obtained by students in the experimental group (PIPP II UAB) and the control group (PIPP II UAV), after the implementation of the system of formative assessment strategies.

Hypothesis 2. The implementation of the system of formative assessment strategies contributes to the increase of the level of learning autonomy perceived by second-year students enrolled in the Primary and Preschool Pedagogy program.

Hypothesis 3. There are significant correlations between the learning styles adopted (deep processing, surface processing, strategic approach) and the level of perceived self-efficacy in learning before and after the formative intervention.

Chapter V – Final Conclusions and Perspectives in University Pedagogy

Following the theoretical analysis carried out in Part I of this thesis, a series of relevant conclusions were outlined regarding the development of learning autonomy at the university level and the importance of integrating formative assessment strategies into this process.

Learning in the academic environment represents more than the mere accumulation of information. It is a complex process that involves stable behavioral changes and the development of the capacity for adaptation and effective problem-solving, contributing significantly to the integrated development of students' personality (Ellis, 1978; Cerghit, Oprescu, 1998).

The specificity of academic learning is marked by the transition from guided learning to autonomous and self-directed learning, which requires the active involvement of the student and the assumption of responsibility for their own educational trajectory. This is a current requirement of the modern academic environment, which emphasizes the development of essential transferable competences such as critical thinking, problem-solving, and metacognitive skills (Neacșu, 2006; Attard, 2010).

Learning autonomy is viewed as a fundamental competence of the contemporary student, involving the development of cognitive and metacognitive skills, reflection, and self-assessment abilities that allow them to manage their learning process independently and efficiently, and to respond autonomously to academic and professional challenges (Pachef, 2008; Bocoș, Jucan, 2019).

Student motivation is a central element in the process of autonomous learning. In the absence of strong motivation, students encounter difficulties in maintaining consistent commitment to the educational process. Therefore, the role of professors is crucial in identifying strategies that stimulate and maintain students' intrinsic motivation by integrating formative assessment as a key instrument for fostering engagement and autonomy (Ryan & Deci, 2000; Entwistle, 2004).

Formative assessment strategies are essential for promoting learning autonomy, as they provide continuous and detailed feedback that allows for the adjustment of educational activities. Formative assessment supports the development of students' self-assessment capacity, thereby stimulating the advancement of metacognition and autonomy (Pachef, 2008; Bocoș, Jucan, 2019).

Through formative assessment strategies, students become active participants in the evaluation process, which stimulates the development of critical thinking, self-reflection, and self-regulation skills.

According to the cognitive and constructivist theories analyzed, autonomous learning at the university level involves the development of complex cognitive structures and the ability to critically reflect on one's own learning process. Professors must facilitate these processes by adopting interactive and flexible teaching methods oriented towards the development of critical thinking and creative problem-solving skills (Joița, 2006; Voiculescu, 2010).

Students' individual learning styles influence the way they approach the educational process and must be taken into account when adapting teaching strategies. The awareness and valorization of these styles allow for the personalization of the educational process, which contributes significantly to the development of learning autonomy and the improvement of academic performance (Grasha & Hruska-Riechmann, 1982).

The laws and principles of academic learning highlight the importance of optimal conditions for stimulating and maintaining motivation, continuous feedback, and the ability to transfer knowledge across varied contexts, thereby strengthening students' autonomy and responsibility in managing their own educational process (Neacșu, 2006).

Psychological influences on learning, such as behaviorist, social, and cognitive perspectives, underline the need for integrative and flexible approaches in designing learning activities, so as to support students' autonomy development in a holistic way adapted to the current academic context (Flavell, 1976; Bandura, 1977).

The academic environment must provide a supportive framework in which students feel encouraged and valued, thus facilitating the development of personal and professional competences through continuous formative assessment and a genuine and effective partnership between professors and students (Knowles, 1984; Billington, 1990).

In the process of developing learning autonomy, the acquisition of digital competences becomes indispensable, with students being encouraged to use information technologies and modern educational platforms efficiently for deepening content knowledge and for continuous and constructive interaction with educational resources and faculty.

Formative assessment not only facilitates autonomy but also strengthens students' confidence in their own abilities, thereby stimulating the development of a strong academic

identity and a proactive approach to the educational process. It contributes essentially to the development of a profound understanding of content, encouraging students to reflect on how they learn and to continuously optimize their personal learning strategies.

Professors act as facilitators and guides in the process of developing learning autonomy, being responsible for creating a positive climate that stimulates initiative, curiosity, and the development of an open attitude towards exploration and innovation.

Formative assessment contributes to building an academic culture of continuous learning, in which mistakes are viewed as opportunities for personal and professional growth and improvement.

The development of learning autonomy also involves cultivating fundamental academic values such as integrity, responsibility, and respect for cultural diversity and others' opinions, all of which are essential for shaping a balanced and inclusive educational environment.

The theoretical foundation of learning autonomy and formative assessment emphasizes the importance of a flexible and supportive educational framework, student-centered, which values active engagement, intrinsic motivation, and the continuous development of personal and professional competences necessary for adapting to the challenges of the contemporary academic and professional environment.

The analysis carried out reveals that the standards and regulations regarding formative assessment in higher education are, in general, aligned with ARACIS requirements. However, significant differences exist between universities in the actual implementation of fundamental principles such as transparency, fairness, and student-centeredness, which directly influence the quality of the educational process.

The correlation of formative assessment with the ECTS system is inconsistently achieved. Some institutions effectively apply these European standards, thereby facilitating academic mobility and the international recognition of learning outcomes, while others still maintain a traditional approach, limiting opportunities for mobility and international cooperation.

The level of documentation and transparency of the assessment process shows notable discrepancies. The communication of objectives and evaluation criteria is often insufficient and inconsistent, which affects students' performance and their trust in the fairness of assessment.

Although student feedback is recognized as an essential tool for improving the educational process, its use is predominantly formal. Clear and systematic mechanisms for collecting and

capitalizing on feedback are often absent, which reduces the effectiveness of curricular and instructional optimization.

The continuous training of faculty in the field of formative assessment is insufficiently implemented, despite the formal provisions outlined in official documents. This shortcoming affects the updating of pedagogical competences and, consequently, the quality of the educational process offered to students.

The evaluation of the effectiveness and impact of formative methods applied is often superficial and formal, lacking coherent strategies for integrating the results of such evaluations into decision-making and instructional processes for genuine and continuous improvement.

Support and academic counseling mechanisms for students—especially for those experiencing difficulties in the assessment process—are insufficiently developed in most of the institutions analyzed, which may negatively affect academic performance and increase the risk of university dropout.

Although formative assessment is included in official documents, its concrete implementation remains limited. Summative evaluations still dominate, exerting only a limited impact on the development of students' real competences and autonomy.

The adaptation of formative assessment to the individual needs of students is often inadequately carried out. General and undifferentiated methods prevail, thereby restricting the personalized development of each student's competences.

Clear and detailed communication of specific evaluation criteria to students is, in many cases, insufficient, which affects the transparency of the process and students' perception of the fairness of assessment.

The use of innovative and creative assessment methods is rarely observed in practice, even though such methods are officially recommended. This limits students' active involvement and the development of transversal competences.

Continuous monitoring of students' individual progress through regular formative assessments is formally prescribed, yet rigorous and coherent documentation is often missing, preventing effective and immediate interventions.

The subjectivity of assessment remains a significant issue, mainly due to the lack of clear mechanisms for diversifying evaluators and standardizing evaluations.

With regard to curricular documents, the analyzed course syllabi generally reflect a coherent approach, with clear details about the types and methods of assessment. However, significant differences exist in the degree of clarity and detail across disciplines. It is therefore recommended to standardize and improve the precision with which evaluative components are defined, including the explicit integration of student feedback and self-assessment, in order to optimize the formative impact of the evaluation process.

The results of this analysis highlight the need to strengthen an academic culture based on authentic and personalized formative assessment, through the adoption of clear and transparent mechanisms, the encouragement of continuous professional development for faculty, and the active involvement of students in their own assessment process, with the aim of constantly improving the quality of higher education.

The majority of students consider that formative assessment plays an important role in the development of learning autonomy. They particularly appreciate the fact that this form of assessment helps them to identify and capitalize on their individual learning style, allowing them to adapt their educational strategy in an efficient and personalized way.

Students perceive the personalization of formative assessment strategies as extremely important, supporting the need to adapt these strategies to individual learning needs and styles. This perception emphasizes the importance of flexibility and differentiated approaches in the academic context.

The freedom to select study content and tasks is viewed by most respondents as a determining factor for enhancing learning autonomy. This curricular flexibility is perceived as essential in the development of a personalized and motivating academic experience.

The results reflect a diversity of student perceptions regarding complete autonomy in the educational process. While most value independence, a significant proportion underline the ongoing need for support and involvement from professors, demonstrating the importance of balancing autonomy with didactic guidance.

Motivation and self-assessment are perceived as key elements of learning autonomy. Students report that formative assessment, through immediate feedback and continuous pedagogical support, facilitates the remediation of learning gaps and consolidates individual progress.

A notable proportion of students acknowledge the existence of difficulties in the implementation of formative assessment within instructional activities. This aspect indicates the need for a clearer and more systematic approach on the part of faculty in order to reduce uncertainties and difficulties experienced by students.

The majority of students support the need for the constant improvement of the formative assessment process. They perceive the current system as having significant room for optimization and suggest its continuous adaptation to the evolving needs of students.

The student–professor relationship is unanimously perceived as fundamental for the success and efficiency of the teaching–learning process. This underscores the importance of constant and constructive interaction, regarded as a pillar in the development of autonomous learning competence.

Most students consider that formative assessment provides immediate pedagogical support, playing a role in remedying learning gaps and stimulating continuous motivation for learning. Thus, formative assessment is valued as a proactive tool that contributes to maintaining a steady pace of educational progress.

Students emphasize the importance of adapting the stages of the formative assessment process to their individual characteristics, including their unique learning styles and different learning rhythms. This differentiated approach is perceived as essential for the efficiency and relevance of the learning experience.

The results of this research strongly support the importance of formative assessment as a central instrument in the development of students' learning autonomy. It is essential for higher education institutions to consistently and adaptively integrate these evaluative strategies into academic activities, thereby contributing significantly to improving educational quality, enhancing student performance, and increasing student satisfaction.

Formative assessment is appreciated by both students and faculty as an essential tool for developing learning autonomy. It stimulates critical thinking, self-reflection, and individual responsibility, contributing to the improvement of students' academic performance.

Faculty members acknowledge the importance of formative assessment, yet they identify major difficulties in its implementation, including students' reluctance to participate actively, insufficient time for providing personalized feedback, and the difficulty of adapting assessment methods to students' individual needs.

Students highlight the importance of using interactive and innovative methods, including the integration of educational technology, individualized feedback, and continuous self-assessment activities. They perceive these methods as essential for stimulating active engagement and for developing self-assessment capacity.

There are significant differences between the perceptions of first-year students and those of advanced students, as well as between undergraduate and master's students. Advanced students and master's students demonstrate a higher level of autonomy and active engagement, while first-year students show initial reluctance and require additional support in developing autonomy.

Continuous and personalized feedback represents a key component of formative assessment, having a significant positive impact on students' self-reflection and self-regulation abilities, which leads to increased learning autonomy.

Professors perceive their own role in formative assessment as fundamental, emphasizing the importance of creating an educational environment conducive to reflection, active engagement, and student responsibility. They identify their role as facilitators and guides in supporting the development of students' autonomy.

The results indicate the necessity of clear and constant communication between faculty and students in order to prevent the misperception of formative assessment as an additional form of academic pressure. Such communication is essential for avoiding overload and stress.

Faculty members suggest clarifying objectives and evaluation criteria from the very beginning of the course and recommend diversifying assessment methods through the integration of digital technologies and active-participatory methods. These recommendations aim to optimize the impact of formative assessment on students' autonomy.

The study confirms that the coherent and continuous implementation of formative assessment, consistently adapted to the individual needs of students and the specificities of disciplines, decisively contributes to the development of learning autonomy and, implicitly, to the enhancement of educational quality and academic performance.

The systematic use of peer assessment and self-assessment activities encourages students to become active participants and to assume greater responsibility for their own learning process, thus contributing to the development of strong and sustainable autonomy.

The implementation of a clear framework for formative assessment, supported by the continuous professional development of faculty, is essential for overcoming existing barriers and ensuring consistent effectiveness in supporting student autonomy.

For the full valorization of the potential of formative assessment, it is essential to adopt an integrated strategic approach that involves both faculty and students in a continuous process of adapting and improving educational practices.

The implementation of formative strategies in the university context has stimulated an increased sense of responsibility and active engagement of students in their own educational process. Through the activities of developing portfolios, projects, and reflective journals, students have been guided to assume the role of active authors of their own academic development, which has led to a significant positive change in their attitude toward learning.

Furthermore, the research conducted has clearly highlighted the importance of continuous formative feedback in supporting the self-regulation of the learning process. Students, having the constant opportunity to reflect and adjust their own strategies, learned how to use the feedback received both from professors and from self-assessment to achieve continuous and autonomous improvement of personal performance.

The constant application of reflective and metacognitive methods, such as the reflective journal and periodic self-assessment, has fostered the development of advanced metacognitive competences among students. These competences—manifested through enhanced abilities of self-analysis and self-correction—represent essential components in the formation of authentic learning autonomy, capable of sustaining lifelong learning.

At the same time, the introduction of formative assessment strategies has led to a significant reduction in the prevalence of surface learning approaches and has, instead, stimulated the adoption of learning styles based on deep processing of information and strategic approaches. This reflects a clear qualitative improvement in the way students interact with academic material, thereby generating more consistent and durable educational outcomes.

The results of this research contribute significantly to the development and enrichment of the specialized literature on formative assessment, providing clear and empirical evidence of the beneficial effects of these strategies in the specific context of Romanian universities. These findings offer a valuable basis for future research as well as for the design of educational and curricular programs adapted to the requirements of student-centered education.

A particularly relevant aspect of the study is the clear positive impact of formative strategies on students' perception of their academic self-efficacy. According to the results of the SELF questionnaire, the didactic intervention carried out contributed decisively to improving students' confidence in their own academic abilities—an essential element in maintaining motivation, active engagement, and the achievement of significant academic results.

The experimental study conducted demonstrates that the formative strategies employed, such as portfolios and the reflective journal, are transferable, flexible, and adaptable educational methods across different contexts and university disciplines. Therefore, they can be extended and replicated in other similar educational domains, contributing to the generalization of effective pedagogical practices within higher education institutions.

The research also emphasizes the importance of adequate and continuous pedagogical training for university faculty, which is necessary for the effective application of these formative strategies. The training of academic staff in formative strategies and reflective methods is an essential condition for ensuring a significant impact on the development of students' autonomy.

In addition, the implementation of these formative strategies brings long-term benefits to students' professional and personal development, fostering fundamental competences such as critical thinking, self-reflection, and the ability to autonomously manage complex tasks. These competences serve students not only during their academic trajectory but also later, in their professional careers and lifelong learning processes.

In conclusion, the findings of this research support the idea of constant and permanent implementation of formative strategies in higher education. The experimental intervention carried out demonstrated that the integrated and systematic application of these strategies, as part of regular pedagogical practice, generates positive and lasting effects on students' learning autonomy as well as on their subsequent academic and professional performance. These results validate and recommend the extension and permanent inclusion of formative assessment in the curricular and instructional policies of higher education institutions.

This thesis highlights that the coherent and systematic implementation of formative assessment strategies contributes significantly to the development of university students' learning autonomy. Through the use of portfolios, projects, reflective journals, and self-assessment, students not only improved their academic performance but also developed a greater sense of responsibility for their own learning process.

The results confirm that formative assessment, when systematically implemented, facilitates the development of metacognitive and reflective skills that are essential for autonomous learning. At the same time, the research underscores the importance of continuous feedback and of a flexible pedagogical framework that supports self-regulation in learning and encourages the adoption of deep and strategic learning styles over surface approaches.

The experimental intervention conducted clearly demonstrates that the application of these formative strategies leads to a significant improvement in students' perception of academic self-efficacy, a fact confirmed by the quantitative and qualitative analyses carried out in this research. Moreover, the perceptions of both students and faculty, collected through qualitative and quantitative studies, revealed that the formative strategies implemented had a positive impact not only on academic performance but also on students' long-term personal and professional development.

The results of this research contribute both to the theoretical literature on learning autonomy and formative assessment and to university teaching practice, offering a concrete model of good pedagogical practices that can be replicated and adapted in diverse educational contexts.

Based on the conclusions obtained, several potential directions for future research can be identified:

- Extending the study to other university specializations: it would be useful to investigate whether the effectiveness of formative assessment strategies in developing learning autonomy holds across other academic disciplines and contexts, including technical and humanities fields.
- Investigating long-term impact: a longitudinal study could provide valuable insights into how learning autonomy developed through formative strategies influences graduates' professional evolution and their adaptation to the labor market.
- Exploring contextual factors: future research could examine how contextual elements, such as the organizational climate of the university or faculty characteristics, affect the implementation and effectiveness of formative assessment strategies.
- The impact of educational technologies: it would be relevant to investigate how the integration of digital technologies into formative assessment could amplify the

development of learning autonomy, especially in today's increasingly digitalized educational context.

- Developing advanced assessment tools: future studies could contribute to improving formative assessment instruments and methods, specifically adapted to measure the progress of learning autonomy at the university level, thereby offering professors more effective and precise resources for monitoring students' progress.
- In-depth analysis of metacognitive processes: future studies could investigate in more detail how different formative strategies specifically influence students' metacognitive and reflective processes, offering a deeper psychological perspective on learning autonomy.

In conclusion, the present research opens numerous opportunities for further studies aimed at consolidating and extending the results obtained, thus continuing to contribute to the development of university pedagogy and to supporting autonomous learning as an educational standard in the academic environment.

BIBLIOGRAPHY

1. Agich, G.J., (2003), Dependence and Autonomy in Old Age. An Ethical Framework for Long-Term Care, Cambridge, Cambridge University Press.
2. Agnes, H., (2008), Dictionnaire de l"education, P.U.F., Paris.
3. Ajjawi, R., Tai, J., Boud, D., Dawson, P., (2020), Scaling up assessment for learning: Feedback literacy and self-regulated learning. Assessment & Evaluation in Higher Education, 45(1), 103–117.
4. Albu, G., (1998), Introducere într-o pedagogie a libertății, Editura Polirom, Iași.
5. Albu,M., (2008), Variații ale autonomiei personale în funcție de vârstă, Anuarul Institutului de Istorie George Barițiu din Cluj-Napoca, Seria Humanistica, tom.VI.
6. Albu, M., Ţăran, C., (coord.), (2004), Autonomia comportamentală: definire şi căi de dezvoltare, în Cercetări şi aplicaţii în psihologie, Editura Augusta şi Artpress, Timişoara.
7. Allal, L., (1988), Assurer la réussite des apprentissages scolaires? M. Huberman, Delachaux – Niestlé.
8. Allal, L., (1999), Acquisition et évaluation des compéten- ces en situation scolaire, Dolz j., Ollagnier E. l'énigme de la compétence en éducation. Raisons éducatives. Bruxelles: De boeck.
9. Ames, C., (1992), Classrooms: Goals, structures, and student motivation, Journal of Educational Psychology, vol. 84, no. 3.
10. Andrade, H., Du, Y., (2007), Student responses to criteria-referenced self-assessment. Assessment & Evaluation in Higher Education, 32(2), 159–181.
11. Andrade, H., Valtcheva, A., (2009), Promoting learning and achievement through self-assessment. Theory into Practice, 48(1), 12–19.
12. Andrade, H.L., (2019), A Critical Review of Research on Student Self-Assessment. Frontiers in Education, 4(87), 1–13.
13. Asikainen, H., Virtanen, V., Postareff, L., Heino, P., (2013), The relationship between student learning and motivation. Scandinavian Journal of Educational Research, 57(6), 675–688.
14. Asikainen, H., (2014), The development of student study orientations and study success. Scandinavian Journal of Educational Research, 58(2), 115–134.

15. Asikainen, H., Gijbels, D., (2017), Do students develop towards more deep approaches to learning during studies? Educational Research Review, 22, 1–21.

16. Assor, A., Kaplan, H., Roth, G.,(2002), Choice is good, but relevance is excellent: Autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork, in British Journal of Educational Psychology, vol. 72.

17. Attard, A., (coord.), (2010), Student-Centred Learning. Toolkit for students, staff and higher education institutions, Bruxelle, p.5.

18. Ausubel, D., Robinson, F., (1981), Învățarea în școală. O introducere în psihologia pedagogică, Editura Didactică și Pedagogică, București, p.450.

19. Baciu, S., (2010), Suport metodologic pentru evaluarea academică, Editura ASEM Chişinău.

20. Badea, D., Cuciureanu, M., (coord.), (2007), Drepturile și responsabilitățile copilului în context școlar, Editura Institutul de Științe ale Educației, București.

21. Baeten, M., Kyndt, E., Struyven, K., & Dochy, F. (2010). Using student-centred learning environments to stimulate deep approaches to learning. Educational Research Review, 5(3), 243–260.

22. Bandura,A. (1997), Self-Efficacy: The Exercise of Control , WH Freeman and Company, New York.

23. Banu, I., Apostol, P., Becleanu A., (1978), Dicţionar de filozofie, Editura Politica.

24. Barrett, H., (2007), Researching electronic portfolios and learner engagement: The REFLECT Initiative. Journal of Adolescent & Adult Literacy, 50(6), 436–449.

25. Barron, B., Darling-Hammond, L., (2008), Teaching for meaningful learning. In Powerful Learning: What We Know About Teaching for Understanding. San Francisco: Jossey-Bass.

26. Barrot, J. S., (2021), A multilevel analysis of online learning self-efficacy among Filipino preservice teachers. Education and Information Technologies, 26, 295–311.

27. Baume, D., Yorke, M., (2002), The reliability of assessment by portfolio on a course to develop and accredit teachers in higher education. Studies in Higher Education, 27(1), 7–25.

28. Bădoi-Hammami, M., (2023), Instruirea în învățare și în desfășurarea procesului didactic, Editura Universitară, București, pp.150-151.

29. Bell, S., (2010), Project-Based Learning for the 21st Century: Skills for the Future. The Clearing House, 83(2), 39–43.

30. Benson, P., Voller, P., (1997), Autonomy and Independence in Language Learning, Editura Routledge, Londra, 1997, pp 192-203.

31. Benson, P., (2011), Teaching and researching autonomy in language learning (2nd ed.). London: Routledge.

32. Benson, P., (2020), Learner autonomy and teacher autonomy: Conceptual links and future research directions. Language Teaching Research, 24(4), 519–533.

33. Bernard, R., Defrace, A., (2012), Competenţele în şcoală, formare şi evaluare, Editura Aramis Print București.

34. Biggs, J., Tang, C., (2011), Teaching for quality learning at university (4th ed.). Maidenhead: McGraw-Hill/Open University Press.

35. Billington, D., (1990), Developmental aspects of adult education: A comparison of traditional and montraditional self-directed learning programs, Journal of Continuing Higher Education, 38(1), pp.31-38.

36. Black, P., Wiliam, D., (2009), Developing the theory of formative assessment. Educational Assessment, Evaluation and Accountability, 21(1), 5–31.

37. Black, P., Wiliam, D., (2018), Classroom assessment and pedagogy. Assessment in Education: Principles, Policy & Practice, 25(6), 551–575.

38. Blumenfeld, P.C., (coord.), (1991), Motivating project-based learning: Sustaining the doing, supporting the learning. Educational Psychologist, 26(3–4), 369–398.

39. Bocoș,M.D., (2013), Instruirea interactivă. Repere axiologice și metodologice, Editura Polirom, Iași.

40. Bocoș, M.D., (coord.), (2016), Dicționar praxiologic de pedagogie,Volumul I (A-D), Editura Paralela 45, Pitești.

41. Bocoș, M.D., (coord.), (2016), Dicționar praxiologic de pedagogie, Volumul II (E-H), Editura Paralela 45, Pitești.

42. Bocoș, M.D., (coord.), (2017), Dicționar praxiologic de pedagogie, Volumul III (I-L), Editura Paralela 45, Pitești.

43. Bocoș, M.D., (coord.), (2018), Dicționar praxiologic de pedagogie, Volumul IV (M-O), Editura Paralela 45, Pitești.

44. Bocoș, M.D., (coord.), (2019), Dicționar praxiologic de pedagogie, Volumul V (P-Z), Editura Presa Universitară Clujeană, Cluj-Napoca.

45. Bocoș, M., Jucan, D., (2019), Teoria și metodologia instruirii. Teoria și metodologia evaluării. Repere și instrumente didactice pentru formarea profesorilor, ediția a IV-a, Editura Paralela 45, Pitești.

46. Bocoș, M., Jucan, D., (2022), Teoria și metodologia instruirii. Teoria și metodologia evaluării. Repere și instrumente didactice pentru formarea profesorilor, ediția a V-a, Editura Paralela 45, Pitești.

47. Boekaerts, M., (2000), Personality and psychology of learning, P.K., Smith, A.D., Pellegrini (Eds.), Psychology of Education. Major Themes (Vol. II, pp.414-447). London, New York: Routledge Falmer. Taylor & Francis Group, p.417.

48. Bontaș, I., (1998), Pedagogie, Ediția a IV-a revăzută și adăugită, Editura ALL Educational S.A., București.

49. Bouayad-Agha, Y., (2006), L"evaluation de l"autonomie, facteur d"autonomosation", 7e colloque europeen sur l"Autoformation „faciliter les apprentissages autonomes", Enfa, Auzeville.

50. Boud, D., (1995), Enhancing learning through self-assessment. London: Kogan Page.

51. Boud, D., Keogh, R., Walker, D., (1985), Reflection: Turning experience into learning. London: Routledge.

52. Boud, D., Walker, D., (1998), Promoting reflection in professional courses: The challenge of context. Studies in Higher Education, 23(2), 191–206.

53. Boud, D., (2000), Sustainable assessment: Rethinking assessment for the learning society. Studies in Continuing Education, 22(2), 151–167.

54. Boud, D., (2001), Using journal writing to enhance reflective practice. In New directions for adult and continuing education, 90, 9–18.

55. Boud, D., Molloy, E., (2013), Feedback in higher education: Understanding it and doing it well. London: Routledge.

56. Breban V., (1992), Dicționar general al limbii române, Editura Enciclopedică, București, p.80.

57. Brookhart, S. M. (2017). How to use grading to support learning. Alexandria, VA: ASCD.

58. Brooks, J.G., (1990), Teachers and students:constructivists forging new connections, https://files.ascd.org/staticfiles/ascd/pdf/journals/ed_lead/el_199002_brooks.pdf

59. Cai, Y., Jin, X., Fan, L., (2021) Enhancing students' learner autonomy in higher education: The roles of institutional culture and teacher support. Studies in Higher Education, 46(10), 2145–2160.

60. Carless, D., (2007), Learning-oriented assessment: Conceptual bases and practical implications. Innovations in Education and Teaching International, 44(1), 57–66.

61. Carless, D., (2015), Exploring learning-oriented assessment processes. Higher Education, 69(6), 963–976.

62. Carless, D., Boud, D., (2018), The development of student feedback literacy: Enabling uptake of feedback. Assessment & Evaluation in Higher Education, 43(8), 1315–1325.

63. Catalano, C.M., (2019), Blogul, spațiu virtual de învățare academică de tip colaborativ, sprijinită de calculator, Editura Presa Universitară Clujeană, Cluj-Napoca, pp.67-68.

64. Caudron, H., (2001), Autonomie et apprentissage – Les questions clés. Douai: Édition Tempes.

65. Câmpean, E., (2004), Metode de dezvoltare a autonomiei în învăţare. In: Analele Institutului de Istorie George Bariţiu, tom. II. Cluj-Napoca: Series Humanistica.

66. Cerghit, I., Oprescu, N., (1998), Curs de pedagogie, Universitatea București, p.111.

67. Cerghit I., (2002), Sisteme de instruire alternative și complementare. Structuri, stiluri și startegii, Editura Aramis, București.

68. Cerghit I., (2008), Sisteme de intruire alternative și complementare. Structuri, stiluri și startegii, Ediția a II-a, Editura Polirom, Iași, p.257.

69. Chi, M. T. H., Wylie, R., (2014), The ICAP framework. Educational Psychologist, 49(4), 219–243.

70. Chipea, F., (coord.), (2007), Volumul Sesiunii de Comunicări Ştiinţifice, Cultură, Dezvoltare, Identitate. Perspective actuale, Editura Expert, Bucureşti.

71. Chiș, V., (2005), Pedagogie contemporană.Pedagogia pentru competențe, Editura Casa Cărții de Știință, Cluj-Napoca.

72. Ciolan, L., (2008), Învățarea integrată. Fundamente pentru un curriculum trasndisciplinar, Editura Polirom, Iași, p.77.

73. Clipa, O., (2008), Evaluarea în învățământul universitar, Editura Didactică și pedagogică R.A., București.

74. Constantin, T., Macovei, E.I., Orzan, A., Nechita, V., (2008), Implicarea motivațională - operaționalizare și primele studii de validare a unei scale standardizate, Editura Analele Științifice ale Universității „Alexandru Ioan Cuza", Iași.

75. Cosmovici, A., (2005), Psihologie generală, Editura Polirom, Iași.

76. Cristea, S., (2005), Evaluarea pedagogică, în Revista de teorie și practică educațională a Centrului Educațional "Pro Didactica" Nr. 5-6 (33-34).

77. Cristea, S., (2019), Realizarea instruirii ca activitate de predare-învățare-evaluare, Volumul 12, Editura Didactica Publishing House, București, p.60.

78. Cristea, S., (2019), Evaluarea instruirii în cadrul procesului de învățământ, Editura Didactica Publishing House, București.

79. Cucoș, C., (2002), Pedagogie, Editura Polirom, Iași.

80. Cucoş, C. (coord.) (2005), Educaţia – provocări la început de mileniu, Editura Universităţii „Alexandru Ioan Cuza", Iași.

81. Cucoș, C., (2008), Teoria și metodologia evaluării, Editura Polirom, Iași.

82. Cucoș, C., (2009), Psihopedagogie pentru examenele de definitivare și grade didactice, Ediția a III-a, Editura Polirom, Iași, p.305.

83. Cucoș, C., (2014), Pedagogie, Ediția a III-a revăzută și adăugită, Editura Polirom, Iași.

84. Dam, L., Legenhausen, L., (2010), Learner Autonomy and Interdependence: An Analysis of Self-Assessment in Cooperative Learning. In J. Mynard & L. Carson (Eds.), Applications of Self-Directed Learning in Higher Education.

85. Damian, M.A., (2020), Introducere în pedagogie. Considerații teoretice și metodologice, Editura Universitară, București, 2020, p.57.

86. Damşa, C., Langford, M., Uehara, D., Scherer, R., (2022), Learner agency and self-directed learning in collaborative online settings: Findings from a longitudinal study. Higher Education, 84, 219–238.

87. Dandara, O., (2009), Învăţarea academică independentă – modalitate de formare a competenţelor profesionale, Studia Universitatis, nr.5 (25), p.30-33.

88. Davis, J. (n.d.). The Basics and the Whole Curriculum, http://www.devon.gov.uk/des/provdev/tipd/states/cons/jason.htm.

89. De Landsheere, G., (1992). L`éducation et la formation, P.U.F., Paris.

90. De Landsheere, G., (1992), Évaluation continue et examens. Précis de docimologie, Éditions Labor, Bruxelles.

91. Deci, EL., Nezlek, J., Sheinman, L., (1981), Characteristics of the rewarder and intrinsic motivation of the rewardee. Journal of Personality and Social Psychology, 40.

92. Deci, E.L., Ryan, R.M., (1985), Intrinsic motivation and self-determination in human behavior, New York: Plenum.

93. Deci, E.L., Ryan, R.M., (2000), The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior, Journal, Psychological Inquiry An International Journal for the Advancement of Psychological Theory, Volume 11, 2000 - Issue 4, pp. 227-268.

94. Deci, E.L., Erikson, E., Gewirth, A., (2006), Enhancing Autonomy with Rationality while Dealing while Dependency and Peer Pressure, în D. Franken, Personal Strengths: Positive Psychology.

95. DeLuca, C., Coombs, A., LaPointe-McEwan, D., (2018), Assessment for learning in higher education. Assessment & Evaluation in Higher Education, 43(2), 221–242.

96. Donche, V., Van Petegem, P., (2009), Learning patterns of student teachers. Higher Education, 57(4), 449–464.

97. Doron, R., Parot, F., (1999), Dicţionar de psihologie, Editura Humanitas, Bucureşti.

98. Drăghicescu L., Stăncescu I., (2008), Metacogniţia – componentă a învăţării academice. In: Cace,C., (coord.), Cercetarea şiinţiică educaţională. Domenii, priorităţi, efecte. Editura ASE, București.

99. Duff, A., (2003), Quality of learning on an MBA programme: The impact of approaches to learning on academic performance. Educational Psychology, 23(2), 123-139.

100. Dumitru C., (2003), Strategii alternative de evaluare. Modele teoretico-experimentale, Editura Didactică și Pedagogică R.A., București.

101. Dumulescu, D., Valer, N.C., (2019), Autonomie, competență și relaționare în învățare, în Research and education, Nr. 3.

102. Dyment, J. E., O'Connell, T. S. (2011). Assessing the quality of reflection in student journals. Teaching in Higher Education, 16(1), 81–97.

103. Dziuban, C., Moskal, P., Cavanagh, T., Kellum, D., (2021), Education in a pandemic: The role of student self-direction. Online Learning Journal, 25(1), 67–84.

104. Ellis, H.C., (1978), Fundamentals of Human Learning, Memory and Cognition.Dubuque, Iowa:Wm.C. Brown Company Publishers, p.1.

105. Ellis, R., Goodyear, P., (2010), Students" experiences of e-learning in higher education: The ecology of sustainable innovation. New York: Routledge, p.25.

106. Enache, R., (2019), Managementul învățării, Editura Universitară, București, pp.40-41.

107. Enăchescu, E., (2011), Învățarea continuă. Aplicații la educație și învățământ, Editura Universitară, București, p. 27./pp.9-10/85/86.

108. Entwistle, N., & Ramsden, P. (1983). Understanding student learning. London: Croom Helm.

109. Entwistle, N., (2004), Motivation and approaches to learning: Motivating and conceptions in teaching, In S. Brown, S. Armstrong şi G. Thompson (Eds.), Motivating students, New York: Routledge Falmer, pp.15-23.

110. Entwistle, N., McCune, V., (2004), Conceptual bases of study strategy inventories. Educational Psychology Review, 16(4), 325–345

111. Entwistle, N., Peterson, E.R., (2004), Conceptions of learning and knowledge in higher education. International Journal of Educational Research, 41(6), 407–428.

112. Entwistle, N., (2018), Teaching for understanding at university: Deep approaches and distinctive ways of thinking. Palgrave Macmillan.

113. Faiciuc, L., Comportamentul autonom: fantoma de la operă, „Anuarul Institutului de Istorie „George Bariţiu" din Cluj-Napoca. Series Humanistica, tom II, 2004.

114. Farcaș,G., (2019), Autonomia copilului de vârstă mică, Repere pedagogice, Editura Polirom, Iași.

115. Feltham,C., Dryden,W., (1993), Dictionary of Counselling, London, Whurr Publishers.

116. Flavell, J.H. (1976), Metacognitive aspects of problem-solving, In Resnick. L.B. Perspectives on the development of memory and congnition. Hillsdale; N,J.:Lawrence Erlbaum Associates.

117. Fleming, M., (2005), Gender in Adolescent Autonomy: Distinction between Boys and Girls Accelerates at 16 Years of Age, Electronic Journal of Research in Educational Psychology.

118. Focşa-Semionov, S.,(2010), Învăţarea autoreglată.Teorie şi aplicaţii educaţionale, Editura Epigraf, Chişinău.

119. Fontana, D., (1995), Psychology for Teacher, Houndmills Basingstoke, London:Macmillan Press Ltd, p.142.

120. Fook, J., White, S., Gardner, F., (2006), Critical reflection: A review of contemporary literature and understandings. In Critical Reflection in Health and Social Care (pp. 3–20). McGraw-Hill Education.

121. Frăsineanu E. S., (2012), Învățarea și self-managementul învățării eficiente în mediul universitar, Editura Universitaria, Craiova.

122. Freeman, S., (coord.), (2014), Active learning increases student performance. PNAS, 111(23), 8410–8415.

123. Friedrich, H. F., Mandl, H., (2019), Self-directed learning in digital environments: A review of current research. Zeitschrift für Erziehungswissenschaft, 22(4), 713–734.

124. Gagne, R., (1975), Condițiile învățării, Editura Didactică și Pedagogică, București, p.27.

125. George, I., (2011), Psychological and Pedagogical Conditions of Preparation Students for Independent Work, in Higher Education Today.

126. Glava, A., (2009), Metacogniția și optimizarea învățării. Aplicații în învățământul superior, Editura Casa Cărții de Știință, Cluj-Napoca.

127. Glenn-Cowan, P., (1995), Improve Your Reading and Study Skills, N.Y., Illinois: Glencoe, McGraw-Hill, pp.85-99.

128. Golu, M., (2004), Fundamentele psihologiei, Editura Universitară, București, p.117.

129. Good, C.V., Dictionary of Education (1959), New York, Toronto, London, Mc Graw-Hill Book Company.

130. Grolnick, W. S., Ryan, R.M.,(1987), Autonomy in children's learning: An experimental and individual difference investigation, Journal of Personality and Social Psychology.

131. Gulikers, J.T.M., Bastiaens, T.J., Kirschner, P.A., (2004), A five-dimensional framework for authentic assessment. Educational Technology Research and Development, 52(3), 67–86.

132. Guțu, V., Darii, L., (2007), Pedagogia invățării individuale în cadrul universitar, Revista Științifică a Universității de Stat din Moldova, 2007, nr.5, Seria Științe ale educației.

133. Haigh, M., (2001), Constructing Gaia: Using journals to foster reflective learning. Journal of Geography in Higher Education, 25(2), 167–189.

134. Hamjah, S. H., Zainab, I., Rasit, R.M., Ermy, A.R., (2010), Methods of Increasing Learning Motivation among Students, Elsevier, Procedia Social and Behavioral Sciences 18, p.147.

135. Hattie, J., & Timperley, H., (2007), The Power of Feedback. Review of Educational Research, 77(1), 81–112.

136. Henter, R., Indreica, E. S., (2014), Reflective journal writing as a metacognitve tool, Scientific Research and Education in the Air Force – AFASES 2014, ISSN – L: 2247 – 3173.

137. Heritage, M., (2010), Formative assessment: Making it happen in the classroom. Thousand Oaks, CA: Corwin Press.

138. Herlo, D., (coord.) (2020), Devenire în profesorat, Editura Presa Universitară Clujeană, Cluj-Napoca.

139. Heywood, J., (2000), Assesment in Higher Education, Philadelphia: Jessica Kingsley.

140. Hmelo-Silver, C.E., (2004), Problem-based learning: What and how do students learn? Educational Psychology Review, 16(3), 235–266.

141. Holec, H., (1979), Autonomie et apprentissage des langues étrangères, In: B. André (coord.) (1989). Autonomie et Enseignement. Apprentissage des Langues Etrangères. Paris: Alliance Française/Didier-Hatier.

142. Holec, H., (1981). Autonomy and foreign language learning. Oxford: Pergamon.

143. Honicke, T., Broadbent, J., (2016), The influence of academic self-efficacy on academic performance: A systematic review. Educational Research Review, 17, 63–84.

144. Houghton, W., (2004), Learning and Teaching Theory for Engineering Academics. Loughborough: HEA.

145. Ifenthaler, D., Yau, J. Y.-K., Mah, D. K., (2020), Utilising learning analytics to support study success in higher education: A systematic review. Educational Technology Research and Development, 68, 1961–1990.

146. Ionescu, M., (2000), Demersuri creative în predare și învățare, Editura Presa Universitară Clujeană, Cluj-Napoca.

147. Ionescu, M., Bocoș, M.D., (coord.) (2017), Tratat de didactică modernă, Editura Paralela 45, Pitești.

148. Ionescu, M., Radu, I., Salade, D., (2000), Strategii metacognitive în procesul învatarii la elevi, Studii de pedagogie aplicata", Editura Presa Universitara Clujeana, Cluj-Napoca.

149. Jacques,D., (1999), When Teaching Becomes Learning, in Teaching Strategies in Higher Education: Effective Teaching, Effective Learning, Ed. Createch Ltd. Szeged, Hungary.

150. Jansen, R. S., Van Leeuwen, A., Janssen, J., Conijn, R., Kester, L., (2020), Supporting learners' self-efficacy in learning analytics dashboards. Computers in Human Behavior, 107, 105512.

151. Jinca,I., Istrate,E., (coord.) (2008), Manual de pedagogie, Ediția a II-a, Editura All, București p.209.

152. Joița, E., (2006), Instruirea constructivistă – o alternativă. Fundamente. Strategii, editura Editura Aramis, București, p.61.

153. Joița, E., (2007), Profesorul și alternativa constructivistă a instruirii, Editura Universitaria, Craiova.

154. Jonsson, A., (2014), Rubrics as a way of providing transparency in assessment. Assessment & Evaluation in Higher Education, 39(7), 840–852.

155. Jucan, D., (2009), Strategii de activitate intelectuală a studenților, Editura Casa Cărții de Știință, Cluj-Napoca.

156. Kirkwood, A., Price, L., (2014), Technology-enhanced learning and teaching in higher education. Learning, Media and Technology, 39(1), 6–36.

157. Klausmeier, J.H., Ripple, R.E., (1971), Learning and Human Abilities, New York:Harper and Row, pp.10-11.

158. Knowles, M.S., (1970), The Modern Practise of Adult Education: Andragogy Versus Pedagogy, New York:Association Press.

159. Knowles, M., (1973), The Adult Learner: A Neglected Species. Houston.

160. Knowles, M., (1984), The Adult Learner: A Neglected Species (3rd Ed.), Houston, TX: Gulf Publishing.

161. Kohonen, V., (2012), Developing autonomy through ELP-oriented pedagogy: exploring the interplay of shallow and deep structures in a major change within language education. Innovation in Language Learning and Teaching, 6(3), 217–232.

162. Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice Hall.

163. Krajcik, J.S., Blumenfeld, P.C., (2006), Project-based learning. In R. K. Sawyer (Ed.), The Cambridge Handbook of the Learning Sciences (pp. 317–334). Cambridge: Cambridge University Press.

164. Kramar, M., (2002), Psihologia stilurilor de gândire şi acţiune umană, Editura Polirom, Iaşi.

165. Lai, C., Shum, M., Tian, Y., (2016), Enhancing learners' self-directed use of technology for language learning: the effectiveness of an online training platform. Computer Assisted Language Learning, 29(1), 40–60.

166. Landy, J.F., (1987), Psychology. New Jersey, p.198.

167. Langer, A. M. (2002). Reflecting on practice: Using learning journals in higher and continuing education. Teaching in Higher Education, 7(3), 337–351.

168. Lea, S.J., Stephenson, D., Troy, J., (2003), Higher education students' attitudes to student-centred learning: beyond'educational bulimia'?. Studies in higher education, 28(3)

169. Lent, R. W., Ireland, G. W., Penn, L. T., Morris, T. R., & Sappington, R., (2017), Sources of self-efficacy and outcome expectations in engineering students. Journal of Career Assessment, 25(1), 30–44.

170. Lincksman, R.,(2000), Învăţare rapidă, Editura Teora, București.

171. Lindblom-Ylänne, S., Lonka, K., (2000), Students' perceptions of assessment practices. Studies in Higher Education, 25(2), 181–194.

172. Lisievici, P., (2002), Evaluarea în învăţământ - teorie, practică, instrumente, Editura Aramis, Bucureşti.

173. Little, D., (1991), Learner Autonomy: Definitions, Issues and Problems. Dublin: Authentik.

174. Little, D., (2007), Language learner autonomy: Some fundamental considerations revisited. Innovation in Language Learning and Teaching, 1(1), 14–29.

175. Lompscher J., (1971), Psychologie des Lernens, Unterstufe:Volk und Wissen Wolkseigner Verlag, p.24.

176. Lonka, K., Lindblom-Ylänne, S., (1996), Epistemologies and study practices. Higher Education, 31(1), 5–24.

177. Lopez, L.M., Figari,G., (2012), Modelisations de l"evaluation en education, De Boeck Universite, Bruxeles.

178. Lowe H., (1978), Introducere în psihologia învățării la adulți, Editura Didactică și Pedagogică, București, p.33.

179. Lussier, R.N., (1990), Human relations in organization. A skill-building approach, Homewood, Boston:IRWIN.

180. Manolescu, M.,(2010), Teoria și metodologia evaluării, Editura Universitară, București.

181. Manolescu, M., (2015), Referențialul în evaluarea școlară, Editura Universitară, București.

182. Manolescu, M.,(2019), Evaluarea în educație. Meritocrația și mediocritatea, Editura Universitară, București.

183. Manolescu, M., (coord.) (2020), Practica cercetării în Științele educației. Probleme critice. Diagnoză. Acțiune, Editura Universitară, București.

184. Marin, T., Marin M.M., (2023), Pedagogie. Fundamentele pedagogie. Teoria și metodologia curriculum-ului. Teoria și metodologia instruirii. Teoria și metodologia evaluării. Problematica educației contemporane, Editura Pro Universitaria, București.

185. Marshall, L., Rowland, F., (2003), A Guide to learning independently, Buckingham: Open University Press, p.194.

186. Martin, A.J., Marsh, H.W., (2006), Academic resilience and its psychological and educational correlates. Educational Psychology, 26(2), 227–247.

187. Martin, A.J., Marsh, H.W., (2009), Academic resilience and academic buoyancy: Multidimensional and hierarchical conceptual framing of causes, correlates and cognate constructs. Oxford Review of Education, 35(3), 353–370.

188. Marton, F., Säljö, R., (1976), On qualitative differences in learning. British Journal of Educational Psychology, 46(1), 4–11.

189. McCune, V., Entwistle, N., (2011), Cultures of learning and personal development. Higher Education, 61, 565–583.

190. McLaughlin, M., Vogh, M., (1996), Portofolios in Teacher Education, USA: International Reading Association.

191. McMillan, J.H., Hearn, J., (2008), Student self-assessment: The key to stronger student motivation and higher achievement. Educational Horizons, 87(1), 40–49.

192. Meinbach, A.M., Fredericks, A., Rothlein, L., (2002), The complete guide to thematic units: creating the integrated curriculum (ediția a II-a).Norwood:Christopher-Gordon Publishers, Inc.

193. Meyer, G., (2000), De ce și cum evaluăm, Editura Polirom, Iași.

194. Meyer, J. H. F., Land, R., (2005), Threshold concepts and troublesome knowledge (2). Higher Education, 49, 373–388.

195. Mincu, M., Desire, J., (2015), Dezvoltarea de materiale didactice specifice pentru educația universitară, suport de curs, Editura Waldpress, p.70.

196. Minder, M., (2001), Didactica funcțională, Editura Cartier, Chișinău.

197. Mitton-Kükner, J., Nelson, C., Desrochers, C., (2010), Pre-service teachers' experiences with literacy learning. The Alberta Journal of Educational Research, 56(3), 308–323.

198. Moenikia, M., Zahed-Babelan, A., (2010), A study of simple and multiple relations between mathematics attitude, academic motivation and intelligence quotient with mathematics achievement. Procedia Social and Behavioral Sciences, 2.

199. Moldovanu, G., (2018), Consideraţii privind conceptul de învâţare autonomă în didactica limbilor moderne, în Competitivitatea şi Inovarea în Economia Cunoaşterii. Culegere de articole selective ale conferinţei Ştiinţifice Internaţionale, vol. 2. Chişinău: ASEM.

200. Moon, J.A., (2006), Learning journals: A handbook for reflective practice and professional development (2nd ed.). Routledge.

201. Moon, J.A., (2006), Reflective learning workshop from Learning journal- a

handbook for reflective practice and professional development. Routledge. Londra.

202. Mogonea F.R., (2010), Pedagogie pentru viitorii profesori. Sinteze teoretice, sarcini, modele, instrumente aplicative, Editura Universitaria, Craiova.

203. Moreau, A., (1999), Putere, autonomie, vindecare, Editura Astrobios, București.

204. Murray, G., Gao, X., Lamb, T., (2011), Identity, motivation and autonomy in language learning. Bristol: Multilingual Matters.

205. Neacsu, I., (1990), Instruire și învățare, Editura Științifică, Bucuresti.

206. Neacșu I., Stoica A., (1996), Ghid general de evaluare și examinare, Editura Aramis, București.

207. Neacşu, I., (2006), Învăţarea academică independentă.Ghid metodologic, Universitatea din Bucureşti, Facultatea de Psihologie şi Şiinţele Educaţiei, Bucureşi.

208. Neacșu, I., (2006), Învățarea academică. Strategii de autoformare și dezvoltare personală, Editura Didactică și Pedagogică, București.

209. Neacșu, I, (2010), Introducere în psihologia educației și dezvoltării, Editura Polirom, Iași.

210. Negovan, V., (2005), Introducere în psihologia educației, Editura Curtea Veche, București, p.118.

211. Negovan, V., (2007), Psihologia învăţării, Editura Universitară, Bucureşti.

212. Negovan, V., (2013), Psihologia învățării. Forme, strategii și stil, Ediția a III-a, Editura Universitară, București.

213. Nicol, D. J., Macfarlane-Dick, D., (2006), Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. Studies in Higher Education, 31(2), 199–218.

214. Nicol, D., (2020), The power of internal feedback: Exploiting natural comparison processes. Assessment & Evaluation in Higher Education, 45(5), 664–677.

215. Nicola, I., (2003), Tratat de pedagogie școlară, Editura Aramis, București.

216. Nicu, A., (2007), Strategii de formare a gândirii critice, Editura Didactică și Pedagogică, București.

217. Nunan, D., (1997), Designing and adapting materials to encourage learner autonomy în Autonomy and Independence in Language Learning, P. Benson şi P. Voller (eds.). London, Longman, pp. 192-203.

218. Oprea, O., (1992), Didactica nova.Teoria instruirii, Partea I, Lumina, Chişinău.

219. Oxford, R. L., (2017), Teaching and researching language learning strategies: Self-regulation in context (2nd ed.). New York: Routledge.

220. Pachef, R.C., (2008), Evaluarea în învăţământul superior, Editura Didactică și Pedagogică R.A., Bucureşti.

221. Panadero, E., Jonsson, A., Strijbos, J. W., (2016), Scaffolding self-regulated learning through self-assessment and peer assessment: guidelines for classroom implementation. In D. Laveault & L. Allal (Eds.), Assessment for Learning: Meeting the Challenge of Implementation (pp. 311–326). Springer.

222. Panadero, E., (2017), A review of self-regulated learning: Six models and four directions for research. Frontiers in Psychology, 8, 422.

223. Panadero, E., Andrade, H. (2018). A review of self-assessment in higher education: Practice and implications. Assessment & Evaluation in Higher Education, 43(4), 541–564.

224. Panadero, E., Broadbent, J., (2018), Developing evaluative judgment through self-assessment. Assessment & Evaluation in Higher Education, 43(3), 482–497.

225. Panadero, E., Andrade, H., (2022), A review of self-assessment in higher education: Practice, benefits, and challenges. Assessment & Evaluation in Higher Education, 47(7), 984–998.

226. Panadero, E., Broadbent, J., Boud, D., Lodge, J. M., (2022), Using formative assessment to support self-regulated learning: A review of reviews. Assessment & Evaluation in Higher Education, 47(5), 769–785.

227. Pantelimon, G., (2001), Psihologia învățării și dezvoltării, Editura Humanitas, București, p.22.

228. Papuc, I., Bocoș, M., (2017), Psihopedagogie. Suport pentru formarea inițială și continuă, Editura Cartea Românească Educațional, Iași, p.60.

229. Paulino, P., Lopes da Silva, A., (2011), Knowing how to learn and how to teach motivation: Contributions from Self-Regulation of Motivation to more a effective learning. Elsevier Procedia - Social and Behavioral Sciences.

230. Paulson, F. L., Paulson, P. R., Meyer, C. A., (1991), What makes a portfolio a portfolio? Educational Leadership, 48(5), 60–63.

231. Petrache, A.D., Mara, D., (2023), Mentorat de carieră didactică, Editura Universitară, București, p.51.

232. Petre, A.L., (2014), Stimulating Learning Motivation of Early Education and Primary School Students through Alternative Methods of Assessment, International Conference „Perspectives of a Higher Quality Level of the Training of Specialists for Early Education and Primary Schooling".

233. Phan, H. P., Ngu, B. H., (2021), Flow, self-efficacy, and academic learning: A conceptual and empirical review. Frontiers in Psychology, 12.

234. Piccione, V.A., (2015), 'Part 1: Setting the Context. A short Introduction. Didactics and the Impact of Change on Learning'. In V. A. Piccione, T. Burns and S. Sinfield (Eds.) Workbook: First Module. Didactical and Psycho-Pedagogy University Module, pp. 5-89.

235. Pieron, H. (2001), Vocabularul psihologiei, Editura Univers Enciclopedic, București.

236. Pintrich, P.R., (2003), A Motivational Science Perspective on the Role of Student Motivation in Learning and Teaching Contexts, Journal of Educational Psychology, Vol. 95, No. 4.

237. Pintrich, P.R., (2004), A conceptual framework for assessing self-regulated learning. Educational Psychology Review, 16(4), 385–407.

238. Popa, M.E., (2015), Evaluarea formativă a competențelor în ora de limba și literatura română în licee, Editura Paralela 45.

239. Popescu-Neveanu, P., (1978), Dicționar de psihologie, Editura Albatros, București.

240. Postareff, L., Lindblom-Ylänne, S., Nevgi, A., (2007), The effect of pedagogical training. Teaching and Teacher Education, 23(5), 557–571.

241. Postareff, L., Virtanen, V., Katajavuori, N., Lindblom-Ylänne, S. (2017). Academics' conceptions of assessment and their assessment practices. Studies in Educational Evaluation, 55, 123–131.

242. Preda, M., (2006), Comportament organizaţional, Editura Polirom, Iaşi, 107.

243. Radu,I.T., (1981), Teorie și practică în evaluarea eficienței învățământului, Editura Didactică și Pedagogică, București.

244. Radu, I.T., (2000), Evaluarea în procesul didactic, Editura Didactică și Pedagogică, Bucureşti.

245. Radu, I.T., (2004), Evaluarea în procesul didactic, Editura Didactică și Pedagogică R.A., București.

246. Radu, I.T., (2008), Evaluarea în procesul didactic, Ediția a IV-a, Editura Didactică și Pedagogică, R.A., București.

247. Rampillon, U., (1996), Schuler beurteilen sich selbst. Ein Zugang zum selbstgesteuerten Lernen.Prufen und beurteilen. Zwischen fordern und Zensieren, Koln:Friedrich Jahresheft XIV.

248. Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., Koole, M., (2021), Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. Postdigital Science and Education, 3(3), 923–945.

249. Reaboi, V., Şevciuc, M., Aspecte principale ale independenţei şi responsabilităţii academica, în Materialele Conferinţei ştiinţiice naţionale cu participare internaţională „Integrare prin cercetare şi inovare", 10-11 noiembrie 2015, CEP USM, 2015, pp. 186-188, Chişinău.

250. Reber, A.S., (1985) Dictionary of Psychology, London, Penguin Books.

251. Reeve, J., (2016), Autonomy-supportive teaching: What it is, how to do it. In W. Liu et al. (Eds.), Building autonomous learners (pp. 129–152). Springer.

252. Reinders, H., White, C., (2016), Twenty years of autonomy and technology: how far have we come and where to next? Language Learning & Technology, 20(2), 143–154.

253. Rey, B., Defrance, A., Pacearcă, Ș., Carette, V., Kahn, S., (2012), Competenţele în şcoală. Formare şi evaluare, Editura Aramis Print, București.

254. Richardson, J.T.E., (2000), Researching student learning: Approaches to studying in campus-based and distance education. Buckingham: Open University Press.

255. Roman, A., (2014), Evaluarea competențelor. Perspective formative, Editura ProUniversitaria, București.

256. Roman, D., (2006), Modele ale stilurilor de învăţare, Analele Universităţii din Oradea, Fascicula Psihologie, Vol. 10.

257. Rusu, D., (2021), Învățământul centrat pe student – o modalitate pentru mediul academic,https://irek.ase.md/xmlui/bitstream/handle/123456789/1989/RUSU%20Djulieta%20_Conf_September%2024th-25th_%202021_Vol_2.pdf?sequence=1&isAllowed=y.

258. Ryan, R.M., (2013), The pedagogical balancing act. Teaching in Higher Education, 18(2), 144–155.

259. Ryan, R.M., Grolnick, W.S., (1986), Origins and pawns in the classroom: Self-report and projective assessments of individual differences in children's perceptions. Journal of Personality and Social Psychology, 50.

260. Ryan, R.M., Deci, E.L., (2000), Intrinsec and extrinsec motivations: classic definitions and new directions, Contemporary educational psychology, 25.

261. Ryan, R.M., Deci, E.L., (2000), Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development and Well-Being, American Psychologist, 55, 1.

262. Ryan, T., Tilbury, D., (2019), Flexible pathways to learner autonomy in higher education: Designing for self-direction. Teaching in Higher Education, 24(1), 20–38. https://doi.org/10.1080/13562517.2018.1461626

263. Sadler, D. R., (1989), Formative assessment and the design of instructional systems. Instructional Science, 18(2), 119–144.

264. Sava, S., Paloș, R., (coord.) (2019), Educația adulților. Baze teoretice și repere practice, Ediția a II-a, Editura Polirom, Iași.

265. Savery, J. R. (2015). Overview of Problem-Based Learning: Definitions and Distinctions. In A. Walker, H. Leary, C. E. Hmelo-Silver, & P. A. Ertmer (Eds.), Essential Readings in Problem-Based Learning (pp. 5–15). Purdue University Press.

266. Sălăvăstru, D., (2004), Psihologia educației, Editura Polirom, Iași, pp.13-14.

267. Sălăvăstru, D., (2009), Psihologia învățării, Editura Polirom, Iași, p.13.

268. Scallon, G.,(1988), L'Evaluation Formative des Apprentissages: l'Instrumentation, Presses de l'Universite Lavai. Quebec.

269. Scallon, G.,(2000), L'évaluation formative, Renouveau pédagogique, Montréal.

270. Schaub, H., Zenke, K.G., (2001), Dicţionar de pedagogie, Editura Polirom, Iaşi.

271. Schoor, C., Narciss, S., Körndle, H., (2020), Regulation of learning in individual and collaborative learning settings: A comparison of three theoretical perspectives. Frontline Learning Research, 8(2), 1–11. https://doi.org/10.14786/flr.v8i2.520

272. Schraw, G., Dennison, S., (1994), Assessing metacognitive awareness. In Contemporary Educational Psychology 19, pp.171-174.

273. Schraw, G., Moshman, D., (1995), Metacognitive theories. Educational Psychology Review, 7(4), 351–371.

274. Schunk, D. H., Greene, J. A., (2018), Handbook of Self-Regulation of Learning and Performance (2nd ed.). New York: Routledge.

275. Schunk, D. H., DiBenedetto, M.K., (2020), Motivation and social-emotional learning: Theory, research, and practice. Contemporary Educational Psychology, 60, 101830.

276. Scriven,M., (1967), The Methodology of Evaluation, in Perspectives of Curriculum Evaluation, Rand MacNally, Chicago.

277. Siebert, H., (2002), Învăţarea autodirijată şi consilierea pentru învăţare, Institutul European, București.

278. Skinner, E. A., Pitzer, J. R., (2012), Developmental dynamics of student engagement, coping, and everyday resilience. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), Handbook of Research on Student Engagement (pp. 21–44). Springer.

279. Smith, K., Tillema, H., (2003), Clarifying different types of portfolio use. Assessment & Evaluation in Higher Education, 28(6), 625–648.

280. Song, D., Bonk, C. J., (2020), Motivational factors in self-paced online learning: A mixed-methods study. Educational Technology Research and Development, 68(5), 2715–2736.

281. Speck, M., (1996), Best practice in professional development for sustained educational change, ERS Spectrum.

282. Stăncescu, I., (2017), Metacogniție și motivație în învățarea academică. Repere psihodidactice, Editura Universitară, București.

283. Stiggins, R.J., (1999). Assessment, student confidence, and school success, ProQuest, Phi Delta Kappan. Bloomington: Nov., Vol. 81, Iss. 3; p. 191.

284. Stoica, A., Musteață, S.,(1997), Evaluarea rezultatelor şcolare.Ghid metodologic, Editura Liceum, Chişinău.

285. Struyven, K., Dochy, F., Janssens, S., (2005), Students' perceptions about assessment. Assessment & Evaluation in Higher Education, 30(4), 325–341.

286. Șchiopu, U., (coord.) (1997), Dicționar enciclopedic de psihologie, Editura Babel, București.

287. Ștefan, M., (2006). Lexicon pedagogic, Editura Aramis București.

288. Ștefan, M.A., (2014), Dezvoltarea competenței de învățare autonomă la studenți, Editura Sitech, Craiova.

289. Tai, J., Ajjawi, R., Boud, D., Dawson, P., Panadero, E., (2018), Developing evaluative judgement. Higher Education, 76(3), 467–481.

290. Taciu, R.R., Bocoș, M.D., Chiș, O., (2015), Tratat de management educațional pentru învățământul primar și preșcolar, Editura Paralela 45, Pitești, p.122.

291. Thomas, J.W., (2000), A review of research on project-based learning. The Autodesk Foundation.

292. Tigelaar, D.E.H., Dolmans, D.H.J.M., Wolfhagen, I.H.A.P., Van der Vleuten, C.P.M., (2005), Quality issues in peer assessment viewed through the lens of social constructivism. Medical Education, 39(6), 597–604.

293. Tillema, H., Smith, K., Leshem, S., (2011), Dual purpose portfolios for assessment and learning: A balancing act. Studies in Higher Education, 36(6), 719–733.

294. Tiron, E., Stanciu, T., (2019), Teoria și metodologia instruirii. Teoria și metodologia evaluării, Editura Didactică și Pedagogică S.A., București.

295. Todor, I., (2020), Psihologie generală, Editura Aeternitas, Alba Iulia, p.39.

296. Torrance, H., Pryor, J., (2001), Developing formative assessment in the classroom. Assessment in Education, 8(3), 281–289.

297. Tousignant, R., (1982), Les principes de la mesure et de l'évaluation des apprentissages, Edition Préfontaine, Québec.

298. Trede, F., Smith, M., (2012), Teaching reflective practice in practice settings: Student teacher experiences and perceptions. Reflective Practice, 13(4), 465–478.

299. Trif, L., Voiculescu, E., (2013), Teoria și metodologia instruirii, Editura Didactică și Pedagogică R.A, București.

300. Trigwell, K., Prosser, M., (2020), Exploring university teaching and learning: Experience and context. Palgrave Macmillan.

301. Tsingos-Lucas, C., Bosnic-Anticevich, S., Schneider, C. R., Smith, L. (2017). Using reflective writing as a predictor of academic success. Assessment & Evaluation in Higher Education, 42(7), 1041–1054.

302. Țeican, B., (2019), Studentul profesor. De la evaluare durabilă la competențe durabile, Editura Tritonic, București.

303. Ursu, V., Todor, I., Hațegan, P., Pățan, I., (2008), Elemente de psihopedagogie și didactică pentru adulți.Ghidul formatorului, Editura Altip, Alba Iulia.

304. Usher, E. L., Pajares, F., (2008), Sources of self-efficacy in school: Critical review of the literature. Review of Educational Research, 78(4), 751–796.

305. Van Leeuwen, A., (2023), Learning analytics to support learner autonomy in higher education. British Journal of Educational Technology, 54(1), 1–18.

306. Vansteenkiste, M., Aelterman, N., De Muynck, G. J., Haerens, L., Patall, E. A., Reeve, J., (2020), Fostering personal meaning and self-relevance: A self-determination theory perspective on internalization. The Journal of Experimental Education, 88(1), 30–49.

307. Vermunt, J. D., Donche, V., (2017), A learning patterns perspective. Educational Psychology Review, 29(2), 269–299.

308. Violet, D., (2002), Fondement paradoxal d"une pedagogie dite de l"autonomie, Resonances.

309. Vogler, J.,(2000), Evaluarea în învățământul preuniversitar, Editura Polirom, Iași.

310. Voiculescu, E., (coord.) (2009), Pedagogie și elemente de psihologie școlară, Editura Aeternitas, Alba Iulia, p.427.

311. Voiculescu F. (2010), Metodologia cercetării în şiinţele educaţiei, Editura Aeternitas, Alba-Iulia.

312. Voiculescu, F., (2010), Ghid metodologic de pedagogie universitară, Editura Aeternitas, Alba Iulia, p.221.

313. Vovnenciuc, O., (2013), Dezvoltarea deprinderilor de lucru independent al studenţilor prin mijloacele învăţământului electronic mixt de lucru (prezenţial-distanţă): rezumat la tezade doctorat în pedagogie, Chişinău.

314. Wegmuller, E., (2002), L"autoevaluation pour developper l"autonomie, Resonances.

315. Weinstein, C. E., Acee, T. W., Jung, J., (2011), Self-regulation and learning strategies. New Directions for Teaching and Learning, 126, 45–53.

316. Wiliam, D., Leahy, S., (2015), Embedding formative assessment: Practical techniques for K–12 classrooms. West Palm Beach: Learning Sciences International.

317. Wiliam, D., (2019), Embedded formative assessment (2nd ed.). Bloomington: Solution Tree Press.

318. Winne, P.H., (2005), A perspective on state-of-the-art research on self-regulated learning, Instructional Science.

319. Woolfolk, A.E., (1990), Educational Psychology, Pearson Education Limited Boston. London,Tokyo, p.159.

320. Woolfolk, A.E., (1998), Educaional Psychology. Boston, London, Toronto, Sydney, Tokyo, Singapore: Allyn And Bacon, p.128.

321. Zientek, L. R., Thompson, B., Hodges, L., (2021), Multiple influences on academic self-efficacy: A structural equation modeling approach. Journal of Educational Psychology, 113(3), 486–502.

322. Zimmerman, B.J., (1990), Self-regulated learning and academic achievement:An overview.Educational Psychologist, p.229.

323. Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. Contemporary Educational Psychology, 25(1), 82–91.

324. Zimmerman B.J., Schunk D.H., (2001), Self-regulated learning and academic achievement: teoretical perspectives. - Hillsdale, NJ: Erlbaum.

325. Zimmerman, B.J., (2002), Becoming a self-regulated learner.An overview. Theory into Practice, No.41(2).

326. Zimmerman, B. J., Kitsantas, A., (2005), Homework practices and academic achievement: The mediating role of self-efficacy and perceived responsibility beliefs. Contemporary Educational Psychology, 30(4), 397-417.

327. Zubizarreta, J. (2009). The learning portfolio: Reflective practice for improving student learning (2nd ed.). San Francisco: Jossey-Bass.

Dictionaries:

1. DEX, Editura Academiei Republicii Socialiste România, 1975.
2. Noul Dicționar al Limbii Române, Litera Internațional, București, 2007, pag.119.
3. Dicționar de filosofie, (1978), Politică, București.
4. Dictionnaire encyclopédique de l'éducation et de la formation, (1994).

List of Scientific Articles

Articles published in BDI-indexed journals or in the proceedings volumes of BDI-indexed international conferences.

- Maria Iulia Felea, (2025), Formative Assessment – an objective in University education, în JOURNAL PLUS EDUCATION, volumul XXXVII no.1/March, Arad, pp.245-251, https://www.uav.ro/jour/index.php/jpe/article/view/2282/2064;
- Alina Felicia Roman, Maria Iulia Felea, (2025), Feedback in formative assessment, în JOURNAL PLUS EDUCATION, volumul XXXVII no.1/March, Arad, pp.414-423, https://www.uav.ro/jour/index.php/jpe/article/view/2295/2077;
- Maria Iulia Felea, (2024), Aspects of formative assessment in academic education, în JOURNAL PLUS EDUCATION, volumul XXXVI no.2/November, Arad, pp.176-180, https://www.uav.ro/jour/index.php/jpe/article/view/2058/1886;
- Maria Iulia Felea, (2024), Formative assessment, a factor in full learning, în ANNALES UNIVERSITATIS APULENSIS. SERIES PHILOLOGICA, no. 25/2/2024, Alba Iulia, pp. 411-416, http://philologica.uab.ro/upload/41_485_38.pdf;
- Maria Iulia Felea,(2023), Student learning, în JOURNAL PLUS EDUCATION, volumul XXXII no.Special Issue, Arad, pp.120-130, https://www.uav.ro/jour/index.php/jpe/issue/view/114/121;
- Maria Iulia Felea, (2023), Self-directed learning in students, în Educaţie şi valori în şcoala contemporană, Provocări şi modele, Print-ISBN-13: 978-606-49-1051-6, https://www.ceeol.com/search/chapter-detail?id=1201570 , editura Eikon, București, pp.151-158;
- Maria Iulia Felea, Letiția Simona Muntean Trif, (2023), Învățarea autodirijată, în ANNALES UNIVERSITATIS APULENSIS. SERIES PHILOLOGICA, no. 24/1/2023, Alba Iulia, pp.431-440, http://philologica.uab.ro/upload/40_341_38.pdf;
- Maria Iulia Felea, Alina Felicia Roman, (2022), The motivation of learning in students, în JOURNAL PLUS EDUCATION, volumul XXXI, no.2, Arad, pp.10-20, https://www.uav.ro/jour/index.php/jpe/article/view/1784/1738;
- Maria Iulia Felea, (2022), The importance of autonomy of learning for students, în ANNALES UNIVERSITATIS APULENSIS. SERIES PHILOLOGICA, no. 23, Alba Iulia, pp.413-416, http://philologica.uab.ro/upload/39_284_45.pdf;

- Maria Iulia Felea, Alina Felicia Roman, (2022), Disruptive effects in highschool students' assessment, în EDUCATION, REFLECTION, DEVELOPMENT – ERD 2022, volume 6, European Publisher Ltd. ISO London Limited, 293 Green Lanes, Palmers Green, London, United Kingdom, N13 4XS, ISSN: 2672-815X (online), ISBN: 978-1-80296-962-7 (e-book), DOI: 10.15405/epes.23056.54, pp.595-602, https://www.europeanproceedings.com/article/10.15405/epes.23056.54;
- Maria Iulia Felea, Alina Felicia Roman, (2022), Academic assessment from the students' perspective, EDUCATION, REFLECTION, DEVELOPMENT – ERD 2022, volume 6, European Publisher Ltd. ISO London Limited, 293 Green Lanes, Palmers Green, London, United Kingdom, N13 4XS, ISSN: 2672-815X (online), ISBN: 978-1-80296-962-7 (e-book), DOI: 10.15405/epes.23056.49,pp.542-549, https://www.europeanproceedings.com/article/10.15405/epes.23056.4;
- Maria Iulia Felea, (2021), Evaluation and school success:points of view of some teachers from Romania, în ANNALES UNIVERSITATIS APULENSIS.SERIES PHILOLOGICA, no.22, issue. 2, Alba Iulia, 2021, ISSN 1582-5523, pp.433-442, http://philologica.uab.ro/upload/38_233_41.pdf;

Book Chapter, Publisher A:

- Maria Iulia Felea, Alina Felicia Roman, (2023), From classical assessment to formative assessment in academic education, în Students' well-being and teaching-learning efficiency during and post-pandemic period,Peter Lang, Berlin, Berna, Bruxelles, New York, Oxford, Warszawa, Wien, ISBN 9783631901946, DOI 10.3726/b20818, pp.171-175;

Capitole în volume colective:

- Maria Iulia Felea, (2024), Evaluarea formativă, factor în învățarea deplină, în Educaţia din perspectiva valorilor. Modele, dezvoltări, reconsiderări,Editura Eikon, București, pp.60-64, ISBN: 978-606-49-1301-2;
- Maria Iulia Felea, (2023), Caracterizarea stilurilor de învățare, în Tradiție și perspective în didactica modernă, volumul 7, Editura Aeternitas, Alba Iulia, ISBN: 978-606-31-0486-2;

- Maria Iulia Felea, (2023), Caracterizarea stilurilor de predare, în Tradiție și perspective în didactica modernă, volumul 7, Editura Aeternitas, Alba Iulia, ISBN: 978-606-31-0486-2;
- Maria Iulia Felea, (2022), The motivation of learning in students, în Educația din perspectiva valorilor, Editura Eikon, București, ISBN 978-606-49-0414-0, pp.183-186;
- Maria Iulia Felea, (2022), Abordări ale evaluării formative, în Tradiție și perspective în didactica modernă, volumul 6, Editura Aeternitas, Alba Iulia, ISBN 978-606-31-0486-2, pp.9-12;
- Maria Iulia Felea, (2022), Approaches to formative assessment, în Current and Future Perspectives on Teaching and Learning, no.4, Alba Iulia, ISSN 2668-6643/ISSN-L 26668-6643(tipărire), ISSN 2668-6651/ISSN-L 2668-6643(online), pp.40-43;
- Maria Iulia Felea, (2021), Reprezentări ale cadrelor didactice din învățământul primar asupra legăturii dintre evaluare și succesul/insuccesul școlar, în Tradiție și perspective în didactica modernă, volumul 5, Editura Aeternitas, Alba Iulia, ISBN 978-606-613-223-7, pp.38-45;
- Maria Iulia Felea, (2020), Metode de antrenare a școlarilor în activitățile extracurriculare de către cadrele didactice, în Tradiție și perspective în didactica modernă, volumul 4, Editura Aeternitas, Alba Iulia, ISBN 978-606-31-0486-2, pp.306-312;
- Maria Iulia Felea, (2020), Aplicarea jocului didactic în cunoașterea mediului înconjurător aplicat pentru învățământul primar, în Tradiție și perspective în didactica modernă, volumul 4, Editura Aeternitas, Alba Iulia, ISBN 978-606-31-0486-2, pp.313-322;
- Maria Iulia Felea, (2019), Resursele umane în context comunitar.Studiu de caz în comuna Roșia Montană, în Cunoaștere și dezvoltare socială,Editura Accent, Cluj-Napoca, ISBN 978-606-561-205-1, pp.165-171.