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THREE INFLUENTIAL CONCEPTS ON THE BACKGROUND OF ACADEMIC LEARNING

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Abstract: *The paper introduces the theory of robust knowledge in the context of other two theoretical perspectives underpinning learning in the university context, student approaches to learning (SAL) and self-regulated learning (SRL). Selected theoretical conceptualizations are presented in terms of the main benefits for improving the quality of academic learning and reflections on developments in research and intervention of academic learning quality enhancement are made.*

Key words: *robust knowledge, student approach to learning, self-regulated learning, academic learning, quality enhancement.*

1. Introduction

The quality of education and its increasing is relevant and often mentioned objective of the majority of educators active within the context of higher education. Logically, it brings us to the question of how to define quality so that this effort can have a clear direction and can be handled practically. The area of higher education has its specifics, problems and challenges by which it differs from the learning of individuals at lower educational levels (primary and secondary schools). It is not only about the age of the learners, but also about their developmental tasks, characteristics, educational objectives and current academical conditions. The most significantly and potentially problematic aspects of contemporary higher education undoubtedly include the massification of higher education, resulting in increased student diversity, accountability pressures and the uncertainty about what will graduates need to know for their successful finding employment on the labour market (Baumert et al., 2000).

These trends set new tasks for educators, and their educational objectives stem from them. Even though academic learning is not monitored systematically in all countries (the Czech Republic is not an exception), there are a number of research and theoretical traditions on a global level that reflect on, monitor and evaluate learning in the university context over the long term and that try to enhance it through targeted interventions. The objective of this article is not to provide an exhaustive overview of conceptualisations of effective learning within the context of higher education. Instead, the author of this contribution would like *to introduce a relatively new theory of learning, the theory of robust knowledge, and place it in the context of two additional significant theoretical*

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approaches, emphasising its potential benefits for quality enhancement in higher education. The theoretical conceptualisations behind this empirical research and these interventions represent important frameworks that provide the possibilities and limits for their application in an effort to increase quality in education. Another objective is therefore to express thoughts on development trends in the area of research and increasing the quality of higher education. The following text is structured into three parts, in which (1) the choice of presented theoretical perspectives is described and explained; (2) together with the theory of robust knowledge two long-term established and influential theoretical traditions – student approach to learning (SAL) and selected aspects of self-regulated learning (SRL) – are briefly presented; and (3) all three aforementioned theoretical conceptualisations of academic learning are compared in terms of their role in higher-education learning and in terms of their contributions to increasing the quality in higher education.

2. Method

The new theoretical concept of robust knowledge is presented in the context of two influential theories of academic learning. The selection of concrete theories was led by two criteria: similarly to the newly introduced concept, the theory should conceptualise an important aspect of academic learning and should be sufficiently developed and established in research and practical application. These aspects were fulfilled by two current theoretical traditions, the student approach to learning (SAL) and self-regulated learning (SRL), whose qualitative development since the 1970s is outlined in Table 1. The table contains a number of results found in Web of Science (WOS) in different decades (i.e. 1970-1979; 1980-1989; 1990-1999; 2000-2009; 2010-2016). Search was performed using keywords (for SAL "student approach to learning", the SRL "self-regulated learning" and RK "robust knowledge"), followed by reading through all titles and abstracts and discarding results that did not correspond to out concepts. Although this search method does not provide accurate information about all existing contributions to the issues, it may serve as a brief outline of the compared concepts.

The table shows a quantitative disproportion in the number of results in the Web of Science (WOS) between the two compared concepts and the theory of robust knowledge (RK), whose total number of results in the WOS is almost ten times lower. If we compare the development of SAL and SRL, it is clear that the SAL concept originated a decade earlier, in the 1970s, and from the time of its origin, it experienced its largest development in the 1990s and 2000s. In comparison, the SRL results show its beginnings in the 1980s and its biggest growth in the 2000s and 2010s, with almost twice as many results between 2011 and 2016 compared to SAL. The RK results included in the WOS start appearing only in the 1990s and their increase over the next ten to twenty years is not as dramatic as in the previous two concepts. As we will see later, the reason for this is not the fact that this theory would not develop compared to the selected two, but rather the issue of lacking consensus in the use of terminology.

Development of Compared Theoretical Concepts Table 1

Theory	**Student approaches to learning (SAL)**	**Self-regulated learning (SRL)**	**Robust knowledge (RK)**
The most frequent keywords in results	Deep, surface approach, intention, understanding, memorisation, perceptions of learning environment, assessment, cognitive workload.	Fear of failure, test anxiety, a/motivational beliefs, self-efficacy, cognitive strategies, metacognition, achievement goals, perceived control, self-monitoring, self-evaluation.	Cognitive strategies, coherent knowledge, connected knowledge, deep knowledge, knowledge representation, semantic network, perception, memory, transfer, problem-solving.
WOS results in the 1970s	**8** (5 book chapters, 3 articles)	**0**	**0**
WOS results in the 1980s	**16** (14 articles, 2 proceedings papers)	**8** (7 articles, 1 book chapter)	**0**
WOS results in the 1990s	**146** (112 articles, 33 proceedings papers, 1 review study)	**92** (80 articles, 9 proceedings papers, 2 book chapters, 1 review study)	**13** (8 articles, 5 proceedings papers)
WOS results in the 2000s	**397** (287 articles, 97 proceedings papers, 13 review studies)	**436** (319 articles, 77 proceedings papers, 25 book chapters, 15 review studies)	**78** (42 articles, 32 proceedings papers, 4 review studies)
WOS results in the 2010s	**571** (420 articles, 110 proceedings papers, 31 book chapters, 10 review studies)	**1066** (745 articles, 277, proceedings papers, 29 book chapters, 15 review studies)	**94** (70 articles, 13 proceedings papers, 7 review studies, 4 book chapters)
Total number of WOS results (from the 1970s until today)	**1138** (836 articles, 242 proceedings papers, 36 book chapters, 24 review studies)	**1602** (1151 articles, 363 proceedings papers, 57 book chapters, 31 review studies)	**185** (120 articles, 50 proceedings papers, 11 review studies, 4 book chapters)

3. Student Approaches to Learning

3.1. Key Ideas

The tradition of the student approach to learning (SAL) began in the 1970s, when a group of Swedish researchers published the results of their research focused on phenomenographic investigations into differences in student learning when reading academic articles. The authors, Marton and Saljö (1976), distinguished two qualitatively different learning procedures which they called approaches to learning (Marton, 1976). These two approaches differed especially in the student's intention in learning and in the involvement of corresponding study strategies. A student with a *deep approach* to

learning is led by an effort to comprehend the text and for this purpose the individual actively analyses concepts and is thus able not only to retain several key aspects in his/her memory, but should also strive to actively explore the relations and context which are the basis of the process of understanding (Marton & Pang, 2006). In comparison, a student with a prevailingly *surface approach* to learning typically employs a strategy of routine and non-reflective memorisation and procedural problem-solving, which originates in the effort to achieve the objective with minimal exertion and leads to limited comprehension. Apart from containing evidence of these two qualitatively different levels of learning, the testimonies of students contained numerous hints at evaluation, and therefore the concept of a strategic approach to learning was distinguished (Marton, 1976; Entwistle & Ramsden, 1983) as a third category following the surface and deep approaches, characterised by the intention to achieve the best possible study results and by the strategic adaptation of learning procedures and strategies to the assessment requirements. This category was also recognized by Biggs (1987) who used the word *achieving* to describe a similar approach, but for a lack of empirical evidence it was not later considered an independent category on the level of the previous two (Kember & Leung, 1998; Entwistle & McCune, 2004).

The approaches-to-learning concept spread quickly. Contrary to learning styles which originate from cognitive and personality differences, approaches to learning represent a behavioural description of the learning process; and contrary to the style expressing inter-individual differences, approaches to learning capture the characteristics of the relationship between the student, the context and the task (Biggs, 2001). This view was understandable not only to psychologists, but mainly to teachers who could focus on increasing the quality of their instruction. This relationship was expressed by Biggs (1993) in his explanatory *3P model* (Presage – Process – Product), which built on the model of Dunkin and Biddle (1974). The 3P model defines the learning process as an interactive system in which all of the components (student, instruction and context, and learning results) affect each other. Therefore, Biggs saw the potential benefit of approaches to learning mainly as quality indicators which '*can emerge as quality indicators on all three levels'* (Biggs, 2001, p. 88): at the process level where students approach the task solution either deeply or superficially; as a result of the learning process, in which poor instruction produces a surface approach to learning and good instruction a deep approach to learning; and as a presage in which students develop their own study pre-dispositions (orientations) to acquire certain processes in accordance with the learning context – i.e. what functions and what does not in a particular instructional situation.

3.2. Further Development

On the basis of SAL perspective, a number of further concepts were created, directed at achieving a higher quality of learning, in the sense of deep learning. It was both an effort to evaluate approaches to learning as products of a particular study environment and an effort to positively influence various components of the study environment with the aim of achieving a higher quality of learning based on comprehension.

Among the activities that built on this idea, we should mention the *SOLO taxonomy* concept (Biggs & Collis, 1982) in which the authors classify and hierarchically categorise observed study results in terms of their structural complexity and abstractness and which

proves the quality of learning that led to the particular results. Another concept was Biggs' (1999) *constructive alignment* of all aspects of the educational environment with the aim of leading the students towards deep learning. Its basis lies in the appeal to use integrally linked intended learning outcomes, educational activities and methods of verifying learning (i.e. concrete assessment tasks) in the process of instruction.

Further research based on the concept of approaches to learning brought new findings: despite the same conditions of the learning environment, students differ in their approaches. This led to research on the learning environment and its perception by students. In other words, the answer to the origin of inter-individual differences in students' approaches to learning is not in the students themselves, nor in the characteristics of their learning environment, but in the interaction of all of these phenomena. Students choose their approaches to learning in a particular environment according to their own perception of the learning environment, which is the result of the interaction of the concrete conditions of the learning context with their prior experience. Ramsden and Entwistle (1981) found several significant factors of a *learning environment*, in whose perception there were differences within the framework of the same instruction: the clarity of tasks and the level, pace and structure of instruction (lectures). Later, Entwistle (1998) identified three significant factors in relation to deep learning: explanation, enthusiasm and empathy, emphasising the emotional dimension of learning. A further expansion of the 3P model addressed the criticisms of SAL related to the fact that it did not sufficiently answer the question of how to make instruction of higher quality. Within the framework of the characteristics of the study environment, *teacher approaches to teaching* were identified as an important factor (Trigwell, Prosser & Taylor, 1994; Trigwell & Prosser, 1996), that distinguished student-centred teaching and teacher-centred teaching. The 3P model was thus expanded to a *4P model* (Price & Richardson, 2004).

The concept of learning patterns by Dutch psychologist Vermunt (1996, 1998) can be considered another successor to this tradition. In his model of learning components, he included processing strategies, regulation strategies (i.e. metacognitive regulation), conceptions of learning (the life experience of students brought from previous educational institutions), and orientations to learning (motivational aspects).

3.3. Contribution to Educational Practice and Criticism

If we summarise the important notes on SAL, it has its starting point in the constructivist theory of learning, which emphasises the interaction of internal and external influences on the quality of learning achieved. The concept provides a description of quality (i.e. deep) academic learning based on comprehension, and transfers the attention from a student's individual abilities to the characteristics of the study environment that significantly contribute to the process and the results of learning, especially to the intention and approaches of the teacher and to assessment.

Critics of this approach most frequently claim that it does not provide adequate guidelines on how to improve learning (Gibbs, 2003) and why some interventions function while others do not (Hargreaves, 1997). Another complaint is that the approach towards assessing approaches to learning is primarily quantitative (Clegg, 2005) and that there is a need for a more complex view of learning that includes teaching and context (Price, 2014).

3.3. Contribution to Educational Practice and Criticism

The concept of self-regulated learning (SRL) is another influential paradigm applied when considering effective learning within the context of higher education. Despite the non-existence of its uniform conceptualisation, however, one can speak about the accordance of individual views in the definition of SRL as a method in which the learners control their thoughts, feelings and actions in order to manage learning within the academic context (Zimmerman & Schunk, 2001). All authors devoted to SRL emphasise that students' perceptions of themselves as learners and their use of various processes to regulate their learning are critical factors in analyses of academic achievement (Zimmerman, 2001). With regard to the learning context, Zimmerman and Schunk (2001) point out two aspects within the framework of which an individual's SRL is applied in the learning environment – how an individual involves regulation strategies in an effort to improve his/her results and how he/she adapts him/herself to the changing educational context. Woolfolk (2004) views SRL through basic psychological dimensions and considers the following to be the three basic components of SRL: the *student's knowledge* (about him/herself, the subject of education, the particular task, learning strategies, and the context within which learning is taking place); *motivation towards learning* (especially the actual value of learning for the student); and *will-power* (how he/she can cope with obstacles). Zimmerman (2002) adds a view on SRL as a process and describes three phases: *forethought* (task analysis, objective determination, strategic planning, self-efficacy, result expectation, values, and interests), *performance* (self-control, self-observation) and *self-reflection* (self-judgement and self-reaction).

In agreement with Singer and Bashir (1999) who said SRL was a meta-construct, we lean towards the opinion that SRL is a construct composed of several sub-constructs from various domains. Cassidy (2011) considered the following to be its basic components: *learning style* (in the sense of a preferred method to react to learning tasks, including cognitive processes and behaviour); *perception of academic personal control* (belief in one's own ability to affect and predict everyday events); and *student peer-assessment and self-assessment* (self-assessment and assessment of the quality of work of oneself and of one's peers).

Boekaerts' conceptual model (1999) views self-regulation through three layers: the inner layer consists of *regulating the methods of processing* (by choosing cognitive strategies); the middle layer contains *regulation of the learning processes* (for instance by using metacognitive knowledge and skills to manage learning); and the last layer is made up of *regulation of the self* (by choosing tasks and sources).

The context and relationships between individual SRL components have also been a subject of research. For instance, Pintrich and De Groot (1990), similarly to the aforementioned authors (see Boekaerts, 1999), distinguished three basic aspects of SRL – cognitive strategies, metacognitive strategies and motivation – and based on their studies identified self-efficacy as an important link between cognitive and metacognitive strategies and academic results. This is in accordance with the stance adopted by Schunk (2001) who pointed out the social-cognitive view of the SRL concept and emphasised the importance of self-efficacy and result expectations in the process of self-regulation and of other components (self-observation, self-evaluation, environmental influences as the nature of a learning task) that come together in Bandura's triadic model of learning (1986).

4.2. Further Development

This significant and complex concept has numerous followers, many of whom have created new concepts and directions that have appeared in research and interventions. Among the most important ones are, for instance, the already mentioned self-efficacy, metacognition and achievement goal theory. *Self-efficacy* has become a strong concept which captures the importance of a student's assessment of his/her own capacity and which explains how the interaction of social, contextual, motivational and cognitive variables affects learning results (Bandura, 1986).

Metacognition has its origins in the information processing theory that perceives the learning process as the coding of information in the long-term memory (LTM). Learners activate relevant LTM areas and new knowledge is related to existing information in the working memory (WM). The significance of this process lies in the assumption that organised, meaningful information is better integrated into existing knowledge and there is a higher probability that it will be better memorised and used when needed. In this theory, metacognition blends with the term "metacognitive awareness" and means to know oneself in relation to one's personal abilities, interests and stances. According to Schunk (2012), self-regulation requires the learner to have a good knowledge base containing task requirements, personal qualities and strategies for task-solving. Therefore, metacognitive awareness also contains procedural knowledge that regulates learning by monitoring the learning level, by deciding when to use a different approach, and by assessment of one's test-readiness. Winne and Hadwin (1998) developed a model of information-processing in self-regulated learning which is relevant to the context of higher education and which contains three necessary phases (task definition, goal-setting and planning, and study tactics) as well as one additional component – adaptation.

"*Achievement goals*" is an umbrella term for approaches which investigate motivation that has an impact on how students approach learning. It is based on the theory of performance motivation (Dweck & Elliot, 1983; Dweck, 1986), which distinguishes two types of goals: learning goals (effort to increase one's competences, understanding and mastering a task) and performance goals (looking for positive or negative judgements regarding one's competence or the competence of others). In researching this area further, the typology has been expanded to the 2x2 model, which distinguishes mastery-approach goals (development of competences and mastering a task); mastery-avoidance goals (tendency to avoid expected negative consequences in learning); performance-approach goals (tendency to achieve competence in relation to others); and performance-avoidance goals (avoiding the demonstration of a poor performance in relation to others). As appears from an analysis by Richardson and Remedios (2014), mastery-avoidance goals play a key negative role in learning in relation to learning results. The knowledge and monitoring of these goals help explain why some students fail despite the satisfactory quality of their learning environment.

4.3. Contribution to Educational Practice and Criticism

The concept of SRL is based on the social-cognitive theory of learning, which emphasises the triadic reciprocal causation of learning in the sense of the interconnection of behaviour, environmental variables and personal factors such as cognitions, perceived difficulty, perceived efficacy etc. (Bandura, 1986). Among them, self-efficacy as personal factor has

been proven to influence achievement behaviours such as choice of task, persistence, effort expenditure and skill acquisition (Schunk, 2001; Schunk & Pajares, 2002).

Another important aspect of SRL is that it highlights academic learning as a process in which self-awareness and the student's control of the learning process play a key role. In this regard, the authors speak about *personal agency* (Zimmerman & Cleary, 2006).

As is obvious, SRL as a meta-construct has multiple conceptualisations; however, in the majority of cases, they apply to several mutual aspects: cognitive and metacognitive regulation and motivational self-regulation (Boekaerts, 1999). These two components (in the case of some authors even a higher number of them), affect each other and form the resulting process of self-regulation in learning.

In terms of academic learning, a significant contribution of SRL is primarily its pointing out the importance of motivational aspects and self-evaluating aspects that have an important influence on the application of cognitive and metacognitive strategies in the learning process. It contributes to the clarification of why some groups of students fail to learn effectively despite suitable conditions of the study environment and study pre-requisites, and it provides a basis for an individualised approach.

Critical voices are raised, for instance, by Coffield, Moseley, Hall & Ecclestone (2004), who complain about the conceptual fragility of learning styles; by Bandura (2006), who complains about insufficient conceptual distinctions within the framework of personal control beliefs; and by Boud (2008) and Cassidy (2007) criticising the concepts of student peer assessment and self-assessment.

5. Robust Knowledge

5.1. Key Ideas

The concept of robust knowledge has already been introduced as the youngest and least developed of the compared concepts. This is a relatively new direction, in the centre of whose interest is a thorough description of several aspects of knowledge based on an analysis of expert knowledge. As opposed to contradictory stances emphasising the domain specificity of knowledge (e.g. Bransford, Sherwood, Vye & Rieseret, 1986), this approach supports the ideas of other authors (e.g. Sternberg, 1998 and Nokes, Schunn & Chi, 2010) who promote a view of academic learning as the *developing expertise*. This approach considers expert knowledge as the assessment benchmark. It emphasises the important of across-subject knowledge and describes its main features. The authors consider the existence of hierarchical knowledge structures (schemes) with deep features and connected relationships between variables that support problem-solving behaviour to be pre-requisites for quality robust knowledge. As a consequence of these, the authors then show differences in knowledge, in the approach to problems, and in results (Chi & Ohlsson, 2005; Ohlsson, 1993; Thorndyke, 1984). Within the context of developing expertise, academic learning should deal with students obtaining quality content of the subject knowledge – expert knowledge – and with their obtaining skills for problem-solving – expert behaviour (Chi, 2006). Expertise should be the goal of what should be learned and the indicator of a knowledge structure the students acquire by learning (Richey & Nokes-Malach, 2014).

Within the framework of the approach, expert knowledge is generally described as conceptual and strategic knowledge demonstrated by its more sophisticated and more

abstract planning and in its more effective strategies for problem-solving. Due to the volume and connectedness of knowledge in the existing schemes, students are able to perceive deep features of problems, retain more information in their working memory, and thus perform with high precision and consistency. Based on an analysis of expert behaviour, three key characteristics of robust knowledge have been identified – depth, connectedness and coherence. *Deep knowledge* is made up of the key features necessary for problem-solving and comprehension. This knowledge enables experts to develop forward-working strategies for problem-solving due to the ability to identify natural connections and to develop solutions based on them (as opposed to backward-working strategies used by novices). *Connected knowledge* represents interconnected information. The authors distinguish between connectedness on various levels, e.g. abstract principles with specific problem features, principles with other principles, or problems in one or more domains. Connected knowledge leads to better perception of one's own errors in learning and problem-solving and to the application of procedural skills in new situations. *Coherent knowledge* applies to knowledge without internal contradictions whose origin is seen in inaccuracies, misapprehensions, and in the lack of deep thinking. The existence of contradictions in knowledge is a normal part of the process of learning and their perception and removal is very difficult (Chi, 2008). According to Novick (1998), however, the advantage of coherent knowledge lies in the ability to orient oneself in new information and to choose information that is deep and related to the existing scheme.

5.2. Further Development

Without a doubt, Koedinger's model (Koedinger, Koedinger, Corbett & Perfetti, 2012) can be considered the next important step in the investigation into robust knowledge. The KLI model (knowledge – learning – instruction) represents a domain-independent theoretical framework integrating findings about knowledge structures, cognitive processes and instruction. In the adapted model by Richey and Nokes-Malach (2014), one can find four components: instruction events, assessment events, learning events and knowledge features. As is clear from their description and the provided examples, their concept factors in concrete instruction techniques and their influence on learning events, acquired knowledge and methods of assessment. In all of the components, it is obvious that the authors' interest is dominated by making the most precise distinctions between the specifics of the individual techniques and related characteristics of learning and the developed knowledge and its assessment. The authors propose this model as a framework for a targeted selection of techniques to develop a concrete type of learning in order to acquire intended knowledge, and in their overview study they summarise the results of empirical studies on proven influences of the individual instruction techniques on the development of partial aspects of robust knowledge (deep, connected and coherent).

5.3. Contribution to Educational Practice and Criticism

The presented theory of robust knowledge has its roots in the investigation of cognitive learning processes. In its view of academic learning, it is based on the research of expert knowledge and emphasises not only declarative but also procedural and conditional knowledge and metacognition (Schunk, 2012). At the centre of its interest are types of learning highly relevant to academic education, e.g. concept learning, which contains

processes of a higher level of mental representations of key categorical features; problem-solving, and transfer. Educators are thus led to a more differentiated view of learning and its objectives, processes, results and development methods. In its connection with instructional techniques, assessment events and learning events, it is also a meta-construct with high practical applicability. It emphasises autonomy in learning, which is of special relevance within the context of higher education. Additional significant contributions of this concept are an interest in transfer in learning and workplace learning, which is also very important in the current concept of education for economically relevant study results.

A criticism was expressed by Schunk (2012), who said that the KLI model was more descriptive than explanatory, i.e. it described the characteristics of expert knowledge rather than explained them. To achieve expertise, it assumes the acquisition of a certain constellation of skills in a certain domain, which does not always correspond to reality. With regard to teaching, Sternberg and Horvath (1995) claim that it is not always possible to identify just one standard and that instead experts agree on a prototype.

6. Conclusion

The objective of the contribution was to present the theory of robust knowledge within the context of two already more established theoretical concepts applied in the approach to academic learning and the possibilities of their use in educational practice. Conceptual vagueness and ambiguity in terminology were stated, which was also the reason for the analysis of the three selected concepts – student approaches to learning (SAL), self-regulated learning (SRL) and robust knowledge (RK) – in terms of their contributions to educational practice.

As is obvious from the text above, each concept has different theoretical starting points and their development in relation to higher education did not begin at the same time. In this connection, the theory of robust knowledge seems to be the youngest concept, even though its foundations, which RK as a meta-construct tries to integrate, lie in the research of memory, perception, problem-solving and transfer, which have been the subjects of investigation for many decades. Despite the different starting points of the concepts presented by us, however, one can find aspects of academic learning in all of them; they share its significance, though each of them does it somewhat differently.

Key components of compared theoretical concepts Table2

Components of interest	SAL	SRL	RK
Cognitive strategies (deep processing, memorisation, transformation)	+	+	+
Metacognitive strategies (planning and goal setting, monitoring, corrective strategies)	+	+	+
Motivational orientations (preferences – interest, task orientation, ego orientation, intrinsic motivation)	+	+	
Assessment events (transfer, problem-solving, concept learning)			+
Learning events (examples include feature alignment, prior knowledge activation etc.)			+

As depicted in Table 2, all concepts share meta-cognitive aspects of learning, while SAL and SRL share motivational aspects of learning. If we look at mutual trends in the

development of all of the presented concepts, then we are unerringly shown that academic learning is not just an issue of cognitive aspects, but to a large extent also of motivational, emotional and metacognitive aspects. In the effort to increase its quality, one needs to perceive it not only as a result; but to emphasise the process and connect it to the assessment and adaptation of other conditions of the learning environment in accordance with the latest findings. A significant contribution thanks to the SRL concept is the emphasis of student responsibility and autonomy and its pointing out the fact that learning within the academic context is not autotelic, but should be transferable to practice.

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