

Self-Regulated Learning. The importance of Motivation in Self-Regulated Learning

RALUCA MARINELA SILAGHI

PhD Student in Philosophy

Babeş-Bolyai University, Cluj-Napoca, Romania

Abstract:

Self-regulated learning presupposes the existence of an autonomously thinking subject, one that always filters information through his own thinking, one that reflects upon the information presented to him. It involves the control of the learning process by control over the learner's own available cognitive, motivational, emotional and attentional resources. The finality of the learning process consists in attaining superior performance, understood as the enrichment of one's own knowledge base and the development of specific competencies that enable the student to become more competent in his activity field.

The present paper aims to analyze the process of self-regulated learning, focusing on the role played by the factor of inherent personal motivation in the engagement and active involvement of the student in the learning task, and also by the role of permanent self-motivation in persevering in the task, in order to achieve the desired purpose. Inherent motivation influences the content and direction of the self-regulated learning process. The starting premise of my demarche rest in the fact that the scholarly success of a student is not determined only by his cognitive abilities, but also by a series of basic motivational components (goals, interests, needs), as well as the correlates of these (the mode in which the subject perceives himself, his level of self-efficacy, his feelings, his expectancies). In this analysis of the process of self-regulated learning I have used Zimmerman's model, elaborated in 1998, completing it with Pintrich's model, elaborated in the year 2000.

Key words: autonomous learning, meta-cognitive strategies, inherent motivation, self-efficacy, competences, active involvement and perseverance in the learning task.

Introduction

The activity of self-regulated (self-conducted) learning presupposes the existence of strategies of control and adjustment of one's own learning behavior, of one's cognitive, emotional and motivational resources, as well as the ability to manage the resources of time and required effort. These strategies help the student to achieve superior performance, to become more competent in his field of activity, to develop his capacity for autonomous learning, to better manage and control his own thoughts and emotions, to plan and monitor each learning activity in function of his priorities and established goals¹, to manage efficiently his time allotted to study, to reflect upon the studied text, to allocate the attentional resources that help him process more quickly and efficiently the information, to use information encoding, elaboration and management strategies - in order that the learned information be available for future re-actualization at any moment -, to be able to self-evaluate his progress by setting realist standards and to develop his sense of self-efficiency.

Phase I: Planning the learning activity and the activation of goals

The process of self-regulated learning has as its starting-point the attentive reading of the requirements for the exam, in order to correctly understand what it implies and what the student

¹ Goals are "the main determinants of the learning behavior and of the cognitive and affective models that pupils/students adopt in school tasks." Mih, *Psihologie educațională*, 63. Goals are internal representations of the objectives we intend to achieve.

has to achieve in order to promote it. In function of the adequate understanding of the task, the student then elaborates a set of specific goals, that have to be operational, achievable and clearly formulated, to which he pledges he will achieve them. Well established goals facilitate focusing the attention, the efficient allocation of cognitive and behavioral resources, and assure the perseverance in the task. The student, as an active participant in the learning task, has interest in broadening his knowledge base, to perfect himself, to become better in his field of activity. The orientation of the goal towards competency development (instead of just demonstrating competency)² imposes the necessity of managing the time and effort of learning, as well as of an active and responsible involvement in the task, which lead to achieving performance and a feeling of self-fulfillment. To achieve this, the student has to elaborate a study plan, systematically identifying every thematically distinct part of the study material (thematic study, the division of the texts into thematic classes) and to plan the allocation of time-resources (time management, assigning study time for each thematic class) in function of the difficulty level of each study material (adjusting the effort in function of the difficulty of the task).³ The establishment of a study plan is important because the student is not a passive subject that memorizes information and summarizes texts without passing the information through his own thought filter. He thinks, analyzes, reflects upon and interprets the information presented him, allocating time, understanding-effort and attentional resources. Attention and concentration are key elements in the elucidation (decoding) and understanding of the meanings involved in the study

² “A person with such an orientation considers oneself competent at the moment in which he surpasses the others and gains cheap successes, investing a minimum of effort.” Mih, *Psihologie educațională*, 107.

³ “Self-regulation presupposes abilities of independently establishing the learning goals, of cognitive action preparation (planning, strategy selection),

material. By reading during the course of the semester the texts selected for the final exam, and by being present at the courses (and not just physically), the student should be able to judge the difficulty of every text and to establish for himself a time schedule for the learning process.

The quality of the student's acquisitions (the measure in which the new knowledge was understood and integrated into his own knowledge base, in the long-term memory, being therefore accessible anytime and being transferrable to other future learning tasks) and the behavior adopted during the learning process are triggered and sustained by inherent motivation for studying and by constant self-motivation⁴ during the ongoing of the learning process (I shall elaborate further on self-motivation at a later point of this paper, during the analysis of the second phase of self-regulated learning).⁵ There are certain factors that bear influence upon the student's personal motivation for studying and these can act either as enhancers (facilitators) or as inhibitors of the active involvement in the learning process. These factors may be classified as: internal (the knowledge base already acquired, the self-image, the feeling of self-efficacy, beliefs regarding personal control, interests, value and principle systems) and external factors (family, educational, cultural and social influences). Both the internal and the external factors may become either facilitators or inhibitors of the student's involvement in the learning process. It all depends on the mode in which the student relates to them, on their meaning for his educational development.

of performance self-evaluation and self-reinforcement of valid responses." Sălăvăstru, *Psihologia învățării. Teorii și aplicații educaționale*, 184.

⁴ Self-motivation that may take on the form of verbal intrinsic reinforcement of the student, that facilitates the involvement with the task, controlling anxiety, bad mood and negative emotions, strengthening the student's trust in his own potential and efficacy.

⁵ "There is no magical switch for motivation, that would determine a pupil/student to desire to learn, to involve himself more into studying, to act in a more responsible manner." Mih, *Psihologie educațională*, 56.

The mode in which the student relates to himself, to the image he has of himself and of his abilities and competencies (the level of self-efficacy)⁶ bear influence, either positively or negatively, on the inherent motivation, on the degree of involvement in the task and on the adopted behavior.⁷ Trust in one's own powers, in one's own resources that are necessary for the successful realization of the learning task, in order to achieve the proposed goal, influence positively the student, enhancing his self-esteem and sustaining his personal motivation with regard to the active involvement and perseverance in the learning task.⁸ Students that trust in their own abilities and potential, that have a positive self-image, detain an active control over their learning activities, permanently monitoring their level of understanding and of processing information.

The perceived usefulness for the student and his interest for a certain subject or discipline also have a positive effect on the intrinsic motivation for learning and on active involvement both during courses and in his preparation for seminars and exams (as triggers; if these lack it may lead to the emotional inhibition of his involvement). The student will involve himself actively into the learning task and new knowledge will be more easily stored in the long-term memory if the student is passionate about what he has to learn and if he considers that the study material contributes significantly to his professional development, if it enriches the knowledge base and the competencies that he seeks to acquire. The student's own goals

⁶ Self-efficacy is defined as "a person's trust in one's capacities to mobilize one's cognitive and motivational resources in order to successfully fulfill the given tasks." Mih, *Psihologie educațională*, 67.

⁷ "Sometimes to consider ourselves competent may motivate us, even in conditions in which our competencies are doubtful. On the other hand, to perceive ourselves as incapable may undermine our motivation, and implicitly the management of personal resources, even when we have at our disposal real competencies." Mih, *Psihologie educațională*, 86.

⁸ "The basic axiom of personal mediation is that a strong belief pertaining to one's own abilities that are needed to act efficiently increases the successful performance." Mih, *Psihologie educațională*, 96.

and interests mediate the efficient access and use of knowledge in all learning tasks.

Phase II: The control of performance

1. Cognitive control, attentional control, the control of encoding (the control of the learning task), control of physical environment and social control (the control of the learning context)

The student should manage selectively and attentively his cognitive resources (class notes⁹, the individual work on the required reading materials for seminars, his own knowledge base) in function of the relevant information for solving the task pertaining to the exam. During the progress of the learning process other previously acquired knowledge, from within various contexts, gets activated, therefore it is necessary that the student identify and focus only on such remembered knowledge that is relevant for realizing the present task (control of encoding). The realization of a harmonious combination of previously assimilated knowledge that is relevant to the task is a significantly contributing factor to the process of active understanding of the text, in the identification of key-concepts and in the process of independent logical memorization (summarization using his own words) of the information contained in the text. The transfer¹⁰ and the harmonious combination of new and previously acquired knowledge, already present in the knowledge base, facilitate building a mental model of the way in which the study materials relate to one another. This mental model allows the

⁹ Class notes are comprised of the essence of the information transmitted by the professor during his lecture – their role is to help the student remember the explanations given during the lecture, facilitating the comprehension of the text, critical reflection upon it and its interpretation, during the student's preparation for seminars and exams.

¹⁰ "The finality of understanding is represented by the formation of structures of active and flexible knowledge, that may later be easily transferred to other contexts." Mih, *Psihologie educațională*, 29.

student to organize the information logically and coherently (in tables, drafts, schemas or matrixes) so that at the concluding of the learning process, during the exam and afterwards, an effortless re-actualization of the information becomes possible. This possibility of quickly accessing the stored information is the hallmark of the student's involvement during previous learning processes.

Another fundamental aspect of the process of self-regulated learning is the subject's thought autonomy and flexibility, the manner in which he thinks and relates to that what he reads.¹¹ The student's mission is to think autonomously and to reflect critically¹² upon the text, to formulate questions about it, to analyze it by passing it through the filter of his own thinking, by relating it to previously acquired knowledge and relevant bibliographical sources, so that at the end he may reach an understanding of the text and be capable of interpreting it in his own manner.¹³ Autonomy of thought is the hallmark of control over what is to be learned and over the learning process itself. During reading, the student, through the inner dialogue of his thought, conceives a series of his own explanations, a series of inferences based upon

¹¹ "... the one who learns is capable to take over the control of the mechanics and techniques of learning to be used in the thoroughgoing study of a subject, he may select his own objectives and goal of the learning process, he may assume responsibility for it. ... success in learning is measured by the growth of the pupil's autonomy." Sălăvăstru, *Psihologia învățării. Teorii și aplicații educaționale*, 183.

¹² Critical thinking means "to continuously evaluate the plausibility and relevance of available data, to be curious, to ask questions, to seek for answers, to find alternatives to already fixed attitudes, to adopt a position only on the basis of sound argument, and to logically analyze the others arguments." Sălăvăstru, *Psihologia învățării. Teorii și aplicații educaționale*, 204.

¹³ "The fact may be remarked that in the one who learns two persons co-exist. Firstly there is a being that acts: it summarizes, rewards itself, ask for help from others, underlines. This is the implementer. He implements cognitive or affective strategies. Then there is a being that watches itself act: it plans, evaluates, controls, re-organizes. This is the organizer. It is the character that effects the strategies that are called meta-cognitive." Sălăvăstru, *Psihologia învățării. Teorii și aplicații educaționale*, 189.

deductions, in order to confer sense to the text; he will formulate hypotheses, problems, questions, with the goal of monitoring and resolving the confusions and misunderstandings (obstacles to comprehension) he has met, facilitating an adequate understanding of the text and a efficient summarization of its parts. At the end of reading the text in its entirety, the student should return to the notes he has taken during reading, in order to identify the connections between its different parts, re-arranging and ordering the information to be more easily and logically memorable.

Attentional control necessitates reaching also a control of the physical and social environment. This means that in order for the learning process to function effectively, the learning activity must be undertaken in an environment that is favorable to studying, in which the student can concentrate properly, in which he can succeed to involve himself actively in the systematical and logical process of learning, acquiring the information in his long-time memory. He should avoid situations and persons that may distract his attention, endangering the optimal progress of the learning process.

2. Motivational and emotional control:

There may appear, during an ongoing learning process, moments of boredom, fatigue, perceived difficulty, stress – owed to the emergence of negative emotions, such as the feeling that things don't work out as they should have or that the series of efficient understanding of connections between the distinct information extracted from the study materials was lost. In order to avoid the appearance of such moments, that negatively affect the permanent and sustained involvement in the learning task, it is necessary that the student be capable to control his negative thoughts and emotions (self-regulation, self-reflection upon his thoughts and behavior). This is exactly the reason why I have mentioned initially, when discussing the phase of the planning of learning, the importance of inherent motivation, of

self-trust and of channeling positive emotions towards the realization of the learning task. A permanent self-monitoring of the motivation and of the degree of involvement in the task helps avoid superficial learning and sustain perseverance and concentration on the learning process. Without self-trust, without a good opinion on oneself and one's capacity of solving the respective task, without permanent self-motivation, the learning process will not be finalized successfully, being always threatened by negative episodes, pessimism, continuous stress and inhibition, all these lowering the student's concentration level. Positive feelings (pleasure, happiness, hope) felt during each stage of the realization of a task augment the student's motivation of involvement in that activity, thereby enabling him to concentrate towards obtaining superior performance.¹⁴

Phase III: Reflecting upon one's own performance or self-evaluation

At the end of the learning process the student should be capable to evaluate himself, to figure out how much had he really learned, if the originally proposed goal been attained, if he managed to confine himself within the planned time schedule and if the learning was a superficial or an in-depth process, in which the information was stored in the long-time memory, so that it be readily available at any time and applicable in various contexts. Truthful self-evaluation and responsibility for his own learning behavior enable the student to anticipate in what measure he will be able to succeed at the exam and to anticipate the grade he will receive. The self-evaluation may be performed also during the ongoing of the learning process and it is useful to do so, facilitating the imprinting of information and

¹⁴ "The pupils that realize an efficient management of the self-regulation strategies will better valorize the feelings of respect and satisfaction they experience after a well done task over the obtainment of material rewards." Mih, *Psihologie educațională*, 95.

the logical and comprehensive memorization, thereby lowering the effort required for the final recapitulation before the exam.

The interpretation of the reached performance will either confirm or infirm the stable beliefs about self and external reality, which will further determine the consolidation or ulterior modification of the motivational structures. The explanations or attributions realized by the students on failure or success in learning will influence their motivation and degree of involvement in future learning tasks. Some students become demoralized after a failure, consider themselves incapable and end up avoiding to involve in further learning tasks from the respective discipline. Others, on the contrary, who have a strong feeling of self-efficacy, assume responsibility, attributing the failure to insufficient effort, a deficit in knowledge or habits that are insufficiently consolidated, thereby becoming more motivated in taking up again the learning process.¹⁵

Conclusion

Self-regulated learning presupposes the existence of an autonomously thinking subject, one that always filters information through his own thinking, one that reflects upon the information presented to him. It involves the control of the learning process by control over the learner's own available cognitive, motivational, emotional and attentional resources. The finality of the learning process consists in attaining superior performance, understood as the enrichment of one's

¹⁵ "The pupils characterized by a *locus* of internal control assume responsibility for their own results, have the conviction that their own resources (abilities, knowledge, invested effort) as well as their personal control may influence the results of their own actions, and that their successes/failures are indebted to their abilities and their effort. The *locus* of external control refers to the conviction of the pupils that their personal abilities as well as their personal control have an insignificant bearing on the results of learning, these being caused by destiny, chance or the intervention of other persons." Mih, *Psihologie educațională*, 95.

own knowledge base and the development of specific competencies that enable the student to perfect himself, to become more competent in his activity field. Scholarly success doesn't depend solely on the student's cognitive abilities, but also on the existence of a strong inherent motivation and on constant self-motivation during the ongoing of the learning process. Inherent motivation influences the content and direction of the self-regulated learning process. It also plays an important part in the degree of involvement by the student into the learning activity. Self-motivation assures the perseverance in the task, with the aim of reaching the envisioned goal. Being motivated or having a motivated behavior presupposes preference for a certain activity in detriment of others (the phase of directed orientation of behavior towards reaching certain goals), commitment to the stages involved by realizing that activity (the phase of triggering the targeted behavior) and persistence in the task even if difficulties appear (the phase of sustaining the behavior). The student's motivation for learning is significantly influenced by his self-image, by what he believes about his own abilities and competencies, and also by his interest for the respective theme/discipline and by the usefulness of the study material for his professional development.

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