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Citation style: Rodek Violetta. (2019). Learning and its Effectiveness in Students' Self-reflection. "The New Educational Review" (Vol. 55 (2019), s. 112-120), doi 10.15804/tner.2019.55.1.09

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The New Educational Review

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DOI: 10.15804/tner.2019.55.1.09

Abstract

The article presents research on students' independent self-learning. The applied method was an analysis of intentionally prepared documents. While conducting the research, an attempt was made to recognise: the manner of the understanding the notion of "learning" by the students; the manner of learning which they apply as well as evaluation of their own effectiveness in this scope. The participants in the research identify learning mainly as mnemonic acquisition of new knowledge in the situations related to the process of studying. In the majority of cases, they work unsystematically, applying ineffective techniques of learning and express negative judgements on their own learning effectiveness.

Keywords: *self-learning, didactics of institution of higher education*

Introduction

In the world of dynamic changes and unceasing new discoveries, the ability to learn effectively is exceptionally valuable, not only at school but also during the whole life. In the research described in this article, the subject of interest is the issue of students' self-learning. The researcher tried to answer the following research questions: What ways of understanding the notion of "learning" function in the awareness of the surveyed students? What ways of self-learning do the respondents prefer? and What opinions on their own effectiveness of learning do the respondents express?

In the research, the method of analysing intentionally prepared documents was used, i.e., the students' essays on the topic *My self-learning*. The sheet contained instructions with the information concerning the objectives of research and assurance of anonymity of provided assignment and of the researcher's secrecy. The research was conducted in June 2017 at the University of Silesia in Katowice. 210 of deliberately chosen students of the first year of full-time bachelor's degree course in the Faculty of Pedagogy participated in the research. The choice of the research sample resulted from the belief that in academic training addressed to the students who reached the required mental maturity, the learning activity should predominate over teaching. The youth that begins studies enter the period of the highest efficiency of learning. In practice, however, many students have smaller or larger difficulties in this scope. It is particularly clear during the first year of studies, when past experience and adopted habits occur as insufficient to manage the process of learning on one's own. Taking this factor into consideration seemed important to obtain a deeper insight into the issue of students' self-learning.

The process of working on the essays ran in two phases. The first one consisted in an analysis of gathered material with regard to extraction of the most important notions and determination of the research issues that are adequate to the intended subject. The analytical research method was applied in this case. The second phase consisted in a classic analysis of documents that assist in establishing facts and ideas, as well as discovering their sense, in the context of problems in question. In that case, the technique of internal analysis of text was used, the one that enabled, inter alia, isolating prominent components and existing inter-linkage from a context (Łobocki, 2005, 222–225; Lamnek, 1993, 199) The text analysis was complemented by synthesis consisting in the overall view of the subjects of research after recognition of content components.

In further part of the article, the results obtained in the research were presented – due to necessity – in a synthetic manner.

The notion of learning in the surveyed students' awareness

The way of understanding the notion of learning is one of the key determinants in thinking about education – also at the higher level, due to the fact that the kind and functions of activities undertaken by participants in the educational process as well as the role which they credit themselves with during this process depend on it. Analysis of the students' essays allowed for making several interesting conclusions in this matter, despite the fact that there was not a single attempt to

define the notion of learning in the research sample. The way in which this notion functions in the respondents' awareness may be indirectly concluded on the basis of other threads provided in essays. In the majority of cases – 146 assignments – we found a colloquial, superficial understanding of learning, resulting from past school experience and consisting in identifying this process only with acquiring new knowledge, the necessity of memorising a multitude of educational content, most frequently in the situations imposed by the process of studying – before tests, passing classes, or examination session. It is not without reason that terms pointing to some kind of constraint were used above; many respondents treat learning as fulfilling unpleasant obligations related to the role of a student, and some of them directly state that they do not like to study: *"Self-study is a very tough art, to force oneself to do something that one does not like and in fact, does not want to do."* It is just an example of such a statement, in which thoughts about studying do not go beyond the framework of acquiring knowledge and seem to be very far from the idea of deep learning, desirable in academic education, resulting from autonomous needs of a learning person, based on engagement and self-reflection and extending beyond assimilation of knowledge. In addition, in other essays, there was a clear tendency to divide learning into school obligations and – in the meaning of increasing knowledge – learning for oneself, for *"pleasure"*, in accordance with one's needs, as well as learning in terms of developing one's interests and passions. Only in three analysed texts, learning was perceived in a wider perspective, as an activity qualifying development of the whole personality of the human being and/or a factor that simplifies functioning in constantly changing reality. In this meaning, learning ceases to be closely related to institutional education: *"It may be said that I've been learning for my whole life, and thanks to that I constantly learn about myself, so I can work on myself, for example, I became more courageous when it comes to doing developing things that I used to be afraid of… I think that without the ability to learn, the development of a human being would not be possible at all."* Notwithstanding the way in which students understand learning itself, attention is attracted to their individualistic approach and, at the same time, omission of the social aspects of learning. Only in the assignments where the authors consider learning in the wider perspective, there are some short references to significant people – parents and grandparents – jointly responsible for shaping a certain attitude towards learning and peers, thanks to which knowledge, acquired earlier in the process of self-study, may be strengthened as well as one's interests and passions developed. Modern media are often used by the respondents mostly to gain, broaden and master certain knowledge. Another interesting fact is almost complete lack of reflection on the role of the academic teacher in the process of

students' learning. In the analysed texts, a learning person in most cases is rather "a lone searcher," who is aware of the importance of self-activity, however, often forced and not really liked – and the sense of responsibility for the process of self-learning and its effects. Perhaps that is why the most elaborated thread in the essays concerned ways of learning preferred by the respondents and consideration of their effectiveness.

The ways of learning and their effectiveness in respondents' assignments

The students' activity, related to self-learning, turned out to be varied in terms of the understanding of the notion. In the group that identifies learning primarily with the acquisition of knowledge, one can distinguish – as it seems – two main ways of learning based on the degree of commitment to self-learning, namely: systematic learning during the study period and, definitely occurring more frequently, unsystematic learning, including episodes of learning. The students that systematically prepare for classes, credits and exams and spend a lot of time studying distinguish themselves by planning skills and ability to organise their own learning process, especially in the scope of phasing the tasks over time. Additionally, they are characterised by determinedness in learning, consistency, ability to focus for the long period of learning (usually they study the whole day with short breaks), as well as a strong sense of responsibility for their own learning process and obtained results. The respondents are generally satisfied with their own effectiveness of learning, they feel satisfaction if they manage to pass an exam or classes, the awareness that they did everything to learn gives them pleasure. However, not always can their effort be translated into obtained grades, which is demotivating for many. Let us have a closer look at the techniques of learning that are preferred by systematically learning students. They find attending all classes and lectures, making notes and preparing all of the needed materials to learn earlier as factors that simplify learning in the sense of memorising certain contents. Their learning flows in a similar way and consists in reading notes, printed texts or passages of books, highlighting – necessarily in colour – information to memorise, alternatively writing it with hyphens at the beginning on separate pieces of paper. It is an initial stage of learning, then students read highlighted and written parts a lot of times, repeat them in thought or aloud in order to *"acquire better,"* in the sense of memorising. A variation of the presented technique is dividing the text into parts and learning each of them separately, and then repeating the

increasing number of parts until the whole material is learned. Similar techniques of learning may be observed among the group of students that learn unsystematically or only during an examination session, before exams or passing classes. In addition, they apply other ways that simplify memorising of large amounts of material in a short period of time; that applies especially to people who have a tendency to *"put everything off until the last minute"*, have problems with *"mobilisation to learn"*, or deficiencies in skills related to planning their own cognitive activity. These ways can include: searching for keywords in a text and restricting learning only to mechanical memorising of sentences in frames and bolded contents; creating colourful mind maps (with content or only with drawings); creating short stories for a certain text, poems, songs – *"not every kind of knowledge can be memorised in this way"*; searching for animations on the Internet, reportages that illustrate given terms and simplify memorising, e.g., certain definitions, and also writing the most important words on notes stuck to a refrigerator, room door, or wall. Sometimes tedious rewriting notes for a few times is helpful, as well as repeating the acquired knowledge with peers during a break or before an exam. Some of the students that learn unsystematically apply *"the strategy of learning by a shortcut,"* the only aim of which is to allow them to survive during the studies. To illustrate, we use a particular fragment of a student's assignment: *"I learn at most 30 minutes before classes, I search for knowledge in my phone, I have never borrowed any book from a library, during the classes I usually pretend that I read notes for different classes. I make use of lecturers' gullibility; they had never checked if I was prepared for the classes. If I study on my own, I usually make short notes from a given text before I go to bed, I read them in the morning when I'm on the bus to university. Before classes, I ask other people, and in that way, I memorise the information. My method works no matter what is the subject and amount of material (…) I learn only to obtain credits and pass exams…"*. There are also statements that studies impose mnemonic acquisition of knowledge, due to lack of time for attempts to understand it, basically, it is all about surviving an examination session. This view seems to be especially characteristic of people who divide learning into learning due to obligations and learning for themselves, for pleasure. As they noted: *"I can study for many hours for myself", "If an issue is interesting for me, I spend a lot of time to find out more about it."* Unfortunately, the respondents did not elaborate on this thread, maybe due to the fact that their cognitive activity is directed primarily by gaining knowledge *"given"* in terms of fulfilling *"school"* obligations. However, the examination of one's own effectiveness made by the students that learn unsystematically seems to be interesting. In general, they think that their learning process is not very effective due to lack of systematicity. They blame mostly themselves for

this state of affairs, their own limitations related to, e.g., laziness, lack of concentration, inability to withdraw other activities in favour of self-learning: *"it's a pity to spend time studying when friends go out together. I don't have the heart to divest myself of a pleasure in favour of duties, which I really dislike in myself."* In spite of the need to change the existing state of affairs, make an effort to change themselves, they have the feeling that they *"are not able to change anything."* This "hopelessness" seems to be supported by past experience, gained during studies: *"despite lack of systematicity I do manage to pass exams"*; *"I do everything right at the last minute, but I'm lucky, I've studied only for two hours before the exam and that was enough"*. In the analysed assignments, the problems with the stability of acquired knowledge that may be perceived as one of the reasons for learning just before the assessment and exams seem to be more visible. The respondents are convinced that they could start to learn earlier, but they are afraid that they will quickly forget the *"learned contents"*. On the other hand, it is worth noting that *"time pressure"* is a motivating and mobilising factor for those students who actually learn unsystematically, but they have planning skills, especially in the scope of phasing the leaning material over time. Their own effectiveness was also positively examined by the students who divide in their thinking obligatory learning during the studies from others, *"more pleasant kinds of learning"*. Within the framework of obligatory learning, they apply similar learning techniques to those that were described above and they show varying levels of commitment to self-learning. However, it is difficult not to notice that their whole attention and activity is directed to developing their own interests and passions, which *"gives them happiness", "gives satisfaction", "is like a drug, that's why sometimes it is hard to find time for studying."* Developing interests and passions, the respondents often apply the trial-and-error technique on the basis of previously *"acquired"* knowledge on their own (e.g., painting with oil paint on canvas, learning computer graphics) or use the assistance of recognised authority (ballroom dance lessons "under the eye" of a known instructor, mini-course of cross-stitching for beginners, voluntary care). Additionally, they use modern media in the greatest scope, and appreciate contact with people of similar interests, who *"may be inspiring for new experience"*. In turn, in the assignments of three students, concentrated on conscious, often systematic work on themselves, learning was subordinated to personality-forming purposes: *"Due to the fact that developing of my mind is equally important for me as physical fitness, I decided to take care of my health. Then I started to learn a bit about human organism, nutrition, plants that may do good for our skin, herbs."*; *"During the studies I decided to tackle my lack of assertiveness (…) firstly, I read a lot about this subject and I searched for examples of assertive statements, and later on I exercised with a friend, e.g., the art*

of assertive refusal (…) lately, I've learned about psychological courses of assertiveness during my classes, and I wonder if I should use the offer". In the analysed texts, no references to specific techniques of learning could be found, references that were typical of other students, and also there was no directly expressed evaluation of the effectiveness of their activity. In their work on themselves, the respondents apply mainly self-discovery by introspection and the method of planning their own development.

Conclusion – recapitulation attempt

On the basis of the analysis of the gathered research material, it may be stated that in the group of the surveyed students, surface learning that is characterised by mindless accepting information and memorising it as isolated facts, predominates. As a consequence, it creates a certain set of logically unrelated information, which is remembered in small scopes and for a short period of time. In surface learning, a student is rather a passive recipient, who expects information, prepared conclusions, and answers for the questions. His/her cognitive and research activity is reduced to a surface curiosity of educational contents conveyed in an attractive way, and motivation to learn is conditioned primarily by fear of failure or receiving an unsatisfactory grade. This attitude towards learning may be a result of past school experience and point to the currency of educational practice, related to theories of behaviourism, which were already negated in the second half of the past century by psychologists and ceased to be preferred in academic education (James et al., 2007). The situation is not improved by changes that are connected to the functioning of universities, such as easy access to academic education, lowering requirement threshold, massification of education, which is a reason for a higher number of students in universities. Moreover, it seems that studying to deepen understanding ceased to be an element of commonly pursued studying customs, which leads, inter alia, to unsatisfactory effects of academic education. Ineffective techniques of learning applied by the surveyed students are related to surface learning, and as a result, the effort involved by them is not translated into expected results (Dunlosky, Rawson, Marsh, Nathan, Willingham, 2013, 4–58). The techniques that the students apply most frequently such as **multiple reading, condensed learning**, and also **highlighting** are perceived as the least effective techniques of learning. Multiple reading of the same content in the form of notes or textbook is time-consuming and does not lead to permanent knowledge memorising, often relates to involuntary deceiving oneself: after acquainting oneself with

a text for a few times, the wrong impression of acquiring its content appears (Callender, McDaniel, 2009, 30–41; Karpicke, Butler, Roediger, 2009, 471–479). That state of affairs may have a connection with a low level of metacognition, which is a necessary condition to learn effectively (Gilovich, Epley, Hanko, 2005, 77–132). Condensed learning is also not a very effective technique, which often occurs in the group of students that study unsystematically, which consists in intensive learning two, three days before credits for classes or exams and multiple repetition of the same educational content. The study shows that this approach – despite quick overloading of the brain – yields worse results and leads to worse memorising than, e.g., phasing exercises over time and having regard to learn a few branches of science simultaneously while planning (Cepeda, Pashler, Vul, Wixted, Rohrer, 2006, 354–380). Similarly, highlighting during reading does not give satisfying results in the process of learning. Moreover, it may narrow the understanding of the content read, because while concentrating on specific fragments, a student forgets about searching for connections between concepts. For the above reasons, highlighting should be only a starting point for further work on the material that is being acquired. Another technique, often used by the students: **summarising**, which presupposes written paraphrasing of the most important ideas indicated in a text, requires long-standing training, often under the control of an appropriately prepared teacher. The research conducted by R.R. Gurung showed extremely low effectiveness of this technique among the experienced students at the academic level and almost complete lack of effectiveness among younger pupils (Gurung, 2005, 239–241). The techniques of **memorising keywords and creating mind maps that represent content that is being acquired** invoked by the respondents rarely simplify memorising of the material. However, research shows that the results of these techniques are of very short duration (Wang, Tomas, Ouellette, 1992, 520–528). There is no doubt that applying proper techniques of learning simplifies this process, increasing chances for educational success. The way in which we learn results, to a large extent, from recommendations of teachers, parents, older siblings and one's own effort in the scope of working out a certain method of work. All of those "inspirations" and attempts are frequently based on incorrect, intuitive beliefs in the effectiveness of a particular learning technique. The situation does not improve due to the fact that the educational framework programmes concentrate on what a student should know, not on the way in which he/she should learn, and academic textbooks promote improper strategies of learning or describe it in a too general and insufficient manner. The obtained results of the research point to the necessity of sharing reliable and current knowledge of the process of learning with students, which leads to dispelling various myths related to learning, e.g.,

the myth about faultless learning (Bjork, Bjork, 1992, 35–67). It is worthwhile not only to teach students effective learning techniques but also provide them with an opportunity to "work them out" in practice during the educational process.

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