THE MOST IMPORTANT MOTIVATION FACTORS FOR KNOWLEDGE ACQUISITION AND SUCCESSFUL LEARNING

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Dragan Cenić¹, Jelena Petrović², Stojan Cenić¹

¹Pedagogical Faculty in Vranje, University of Niš, Serbia
²Faculty of Philosophy, University of Niš, Serbia

Abstract. Learning is a continuous and progressive process which brings changes in the students. During this process, children with different personality respond differently to certain situations, so it is absolutely clear that internal factors drive individuals to act. These internal factors are called motives. This paper is an attempt to discuss some of the important aspects of how motivation affects successful learning, and answer the following questions: why is motivation a key factor in the teaching process, how does the social environment affect motivation, does grading motivate learning, and how does reinforcement affect successful learning? Along with a review of relevant scientific papers which have studied motivation as a factor affecting the teaching and education process, we will discuss various aspects of motivation, the importance of teaching material as a motivational tool and social factors and their effect on students’ motivation to learn. It is very important to focus on students’ intrinsic motivation during the process of knowledge acquisition and successful learning. Intrinsic motivation does not act independently, it is combined with other factors which allow individuals to acquire knowledge, and teacher motivation can be an important ally in achieving this goal.

Key words: motive, motivation, learning, teaching process, reinforcement, grading.

1. INTRODUCTION

Teaching is the most organized type of educational work where learning is a continuous and relatively permanent and progressive process which brings changes in the students, as well as a process of transferring experience between generations through teaching. Students’ attitude towards a certain subject, their interests, motivation etc. depend on teachers teaching style and on curriculum design.
It often happens that the goals and objectives set by the curriculum do not match the goals set by students to themselves. One thing that can engage students in learning is to rely on their existing motives and objectives, and then gradually increase their motivation and set up more complex and abstract goals. Thus, for example, first-grade students are highly motivated to learn during games, so it is preferable to use this as a basis for learning. On the other hand, if the third and fourth-grade students' motivation is aimed at demonstrating their abilities to peers, it means that it has now reached another level and reflects the desire for competition, so it is necessary for the teacher to have that in mind. Basically, our goal here is to discuss some of the more important factors of motivation for successful learning, and to answer the following questions: how do personality traits affect successful learning, why is motivation a key factor in the teaching process, how does the social environment affect motivation, does grading motivate learning, and how does reinforcement affect successful learning?

2. MOTOJE AND MOTOJEATION

There is a trigger or a certain cause behind every behavior and every activity. Whether a person will react at a particular moment and how depends on many factors: on the circumstances and situation, on how that situation is perceived and experienced, as well as on the individual’s usual way of responding to a particular situation, which further implies that individuals are driven and directed by internal factors. These internal factors that drive and direct actions in the course of goal pursuit are called motives (Rot, 1970, p. 212)

The answer to the question “what is the motive” has differed greatly in the course of development of psychology as a science, but the explanations have depended on the then accepted concepts of human nature. However, one thing all these definitions of the motive have in common is that motive is seen as a general term for a broad and heterogeneous group of biological, psychological and environmental factors which all work together in determining human behavior.

With regard to this, the Pedagogical Encyclopedia defines the motive as a “reason for certain behavior, the expected or desired outcome of an action, the conscious purpose of some act” (Potkonjak and Simša, 1989, p. 67). Simply put, the motive is the need or desire coupled with the intention to achieve a certain goal. Bearing in mind that motives are expressions of a person’s needs, but unlike those needs that a person experiences subjectively in the form of desires or impulses, “motives are incentives that induce a person to satisfy a certain need or achieve a certain goal” (Teodosić, 1967, p. 590). Since throughout human history, different cultures have had different conceptions about human beings, this has also affected the views of human motivation. However, modern psychology implies that, “the motive is either (1) an object from the external environment that triggers a specific action in an individual, or (2) this inner tendency that drives, directs, maintains, changes, and stops the behavior of an individual” (Havelka, 1995, p. 78).

According to Krec and Crutchfield (Kreče i Kračfeld, 1976, p. 286), human motivation can be seen as the driving force to achieve the following four goals: life preservation, desire for security, experiencing changes and novelty seeking. This means that human motives do not include only the search for food when we are hungry, sense of security when we are scared, shelter when we are cold, but also include the tendency to
achieve positive goals and acquire new knowledge. Krech and Crutchfield provide a more appropriate classification of motives, which in their opinion can relate to 1) nature, measurement, and formation of attitudes and attitude change; 2) relationship with society - the social and cultural habitat of man; 3) relationship with other people - how group is organized, the nature of group leadership, what makes a group effective, and the impact of the group on the individual; and 4) one’s own personality, especially three basic psychological factors - cognition, motivation, and interpersonal response traits.

Other authors classify motives based on a number of criteria, for example: based on the origin (congenital, acquired), function (biological, personal, social), psychological status (conscious, unconscious), impact on behavior (general, specific), source of satisfaction (external, internal), duration (continuous, periodic, situational), based on individual’s potentials (inborn, acquired), based on the field and type of behavior (existential, work, cognitive, cultural, creative, political, educational, recreational), etc. (Potkonjak and Šimleša, 1989, p. 67).

For the purposes of the topic we are dealing with, we are interested in the social factors that influence motives, and psychological factors which affect the development of motives and motivation.

3. PRECONDITIONS FOR SUCCESSFUL LEARNING

In order for learning to be as successful as possible, certain preconditions have to be met, and this depends on many factors. These preconditions can be classified into several large groups: physical, physiological, socio-economic and psychological (Vučić, 1996, 46). Physical learning preconditions relate to the physical environment that might include even atmospheric conditions, while physiological preconditions include health and normal functioning of sense organs. With regard to socio-economic preconditions, the most important ones are family and school. Regarding family related preconditions, they imply a level of education, cultural and pedagogical background, financial and living conditions, the relationship between parents and children, etc. School environment includes teachers, curriculum and organization of school activities and life. Psychological preconditions for successful learning include factors relating to the student. These factors are the goal or the intention to learn something, the interest, liking or disliking learning materials, tendency for cooperation or competition, experiences of success and failure, students’ level of aspiration, etc.

In addition to the above-mentioned preconditions for successful learning, some authors (Nešić, 1996, p. 68) claim that the following personality traits influence successful learning: 1) intelligence, 2) strong superego, 3) risk-taking and courage, 4) high levels of self-confidence, 5) patience, practicality, tolerance, 6) independent achievement, dominance, 7) extraversion, 8) achievement and curiosity motive.

After examining the preconditions for successful learning, some authors (Vučić, 1996; Wigfield and Eccles, 1999, p. 75) believed that it must be taken into account that at every stage of their development, children perceive and explain the world around them in very specific and different ways, and so their motivational orientation changes. Therefore, the main goal of teaching is to be able to present the conceptual structure of a certain subject to children of any age, based on their way of perceiving the things that surround them. Which is why additional factors that influence successful learning are also physical, intellectual, social and emotional maturity, previous experience and motivation to learn.
4. MOTIVATION IN TEACHING

It is well known that motivation is actually a system of motives that act as a driving force for numerous intellectual, emotional, social and other activities. The activities students perform in the process of learning and teaching also depend on motives. B. Zlatković (Zlatković, 2014, p. 79) defines motives in the learning process as follows: “As the driving force for action, motives encourage students to study and make it a high-quality activity and of duration necessary to achieve the goal set (desired grade, knowledge in the area of interest, good reputation in the peer group)”

The didactic importance of motivation for the learning process can be best understood by analyzing its function. Motivation represents students’ readiness to perform a given action in order to solve a problem. In a state of mental exertion, the student puts more effort into the process, the released energy is directed towards solving the problem, the body is ready to make even greater efforts than usual, and yet the student learns easily. However, if a student is less motivated to learn, the same workload and effort lead to fatigue, and the learning effect decreases proportionally. Moreover, intellectual readiness to learn can be impeded by tiredness, hunger, inadequate teacher actions, etc. Positive reinforcement leads to better learning outcomes than it is the case with negative reinforcement since it increases the level of aspiration and develops readiness for efforts which should lead to success in learning. On the other hand, negative reinforcement can lead to frustration.

According to R. Kvaščev (1980, p. 118), in addition to many other factors, success in learning also depends on personality traits. He classified them into six categories by level of importance and based on teachers’ opinions: 1) motivational features and strong motivation to learn and be successful, good work habits; 2) well-integrated personality (emotionally stable, mature, calm, adaptable); 3) developed character traits; 4) intellectual efficiency, basic creative learning skills, and mastering learning methods and techniques; 5) good self-control, accepting oneself and trusting in oneself, self-sufficiency; and 6) cognitive radicalism.

The authors studying social and emotional aspects of motivation (Locke, 2000; Ryan & Deci, 2000; Suzić, 2001) agree that if people wish to satisfy the social aspect of their biological needs, they have to learn, therefore, everyone should be motivated to learn. However, things are not as simple as they might seem, because students do not have to be motivated to learn in a particular way to satisfy these needs if they have other means available to achieve that same goal. If students fail to accept the adoption of certain course material as their personal goal, then the motivation to learn weakens or disappears. Such attitudes occur in students who believe the things they learn are not their own choice since they view certain curriculum as unnecessary.

Mental activity is stimulated by adequate motivation, which is regarded as a very complex phenomenon that depends on several factors. Some of these factors can change along the way, which means that motivation itself can change as well. For example, if the goals that students need to achieve by learning are made clearer and somehow closer to them, their motivation will increase. Moreover, the students bring to the classroom their „cognitive and motivational propensities such as mental schemes, response sets, knowledge and skill components, heuristic problem-solving strategies, self-regulatory processes, mood and emotion tendencies, and self-perceptions about competence, to name a few” (Kupermintz, 2002, p. 124)
Regarding student motivation to learn for school, psychology and pedagogy references mostly mention extrinsic and intrinsic motivation. The main characteristic of extrinsic motivation is that actions required to reach the desired goal are seen as an asset, a tool, and not as the willingness to reach the goal for its own sake. In the case of extrinsic motivation, students study a particular subject not because they like it or find pleasure in this activity, but primarily in order to get a good grade or a promised reward. On the other hand, when it comes to intrinsic motivation, students engage in activities for their own sake; these activities are personally rewarding and provide satisfaction to the individual performing them, regardless of the consequences (Ryan & Deci, 2000).

Unlike extrinsic motivation, intrinsic motivation is an inborn need to acquire knowledge and skills. Intrinsic motivation exists when the student is active because of the activity itself, when it is not necessary to use rewards or other types of reinforcement, since the activity itself is seen as a reward by that person. External reinforcement can be used only temporarily, until the student is familiarized with the nature of the subject; after that, it is necessary to develop student's intrinsic motivation, their desire to learn, their curiosity, students' need to further develop and manifest their abilities through learning. As they get older, external reinforcement becomes less important for students, while intrinsic motives linked to the goals set become more significant, such as affirmation and self-esteem motive (Ryan & Deci, 2000).

However, it is difficult to imagine any kind of learning without student activity. Learning activities may vary in intensity, and this implies that if the intensity of learning is on a higher level, it is more likely that given information will be adopted more thoroughly and in more detail. And properly acquired knowledge is itself valuable to students. Students’ feelings towards such knowledge become more and more positive. What follows then is the desire to increase and expand such knowledge with new information, which is the sign of intrinsic motivation. Many authors proved that students are more motivated to engage in learning when given the chance to actively participate during the process (Graham and Weiner, 1996; Ryan & Deci, 2000).

4.1. Student motivation

It is well-known that in terms of motivation to learn for school, there are individual differences among students. Each student goes to school with a certain degree of motivation. When it comes to their degree of motivation, there is a difference between extrovert and introvert students, as well as between anxious and well-adapted, stable students. It is also important to know that motivation can develop and improve. As educational institutions, schools can help develop motivation in students. The first step would be to develop positive feelings and attitudes towards school, learning and school work, and to develop curiosity, but also positive communication in class, and active engagement (Graham and Weiner, 1996; Suzić, 2001). This is necessary not only from the aspect of motivation to meet the learning goals but also from the aspect of permanent education.

As we have already mentioned, we rely on some of the students’ significant personality traits to increase their motivation. For example, curiosity in students is the driving force to achieve new knowledge and to engage in new activities. In those cases when curiosity does not develop, there are crisis situations, unproductive communication, and limited student’s development. Student curiosity should be used as a driving force for
creativity. It should motivate, improve and direct the teaching process as a whole. Similarly, the pursuit of greater achievements is also important for the teaching process. It is also important for acquiring knowledge, improving skills and habits, developing creative thinking. This driving force is not only there to allow individuals to successfully overcome the difficulties, but also to develop a sense of security, audacity, tenacity, and the ability to transform oneself. (Kupermintz, 2002, p. 125)

Relationship with other people and society is also very significant. Mutual trust, respect, and help arise from established relationships and joint efforts to successfully overcome difficulties and achieve optimum results. These increase students' sense of dignity and allow them to show satisfaction with existing relationships and results achieved (Suzić, 2001). Responsibility towards work and work culture in students also act as motives since students gradually become aware of the fact that school learning is the source of their general and professional education and a way they can contribute to their community. Work culture is seen as the driving force behind the creative potential of students, and as the requirement to overcome obstacles and to expand their skill set. Therefore, responsibility towards work and work culture as motives in learning are not equally present in students of all ages nor in all students.

The reinforcement used to support and develop these qualities, including motivation as well, must be properly adapted and used. Praises and rewards for the results achieved are important for the teaching process if they are the result of an individual, group and class effort. Students who are given praise and rewards are more motivated to learn, and they tend to achieve even greater results by working in groups. “Praise should be provided to all students who show progress, and not only to the high achievers; therefore, praise should depend on specific achievements of learning goals. Students should be praised for a wide range of achievements, with the biggest focus on appreciating their effort and progress; it should not be only the major achievements to be publicly praised“ (Bojović, 2017, p. 114). Competition within a group, a team, and a broader community can increase effort, abilities, knowledge, skills and good work and life habits. Competition is based on students' desire to be affirmed by their peers. However, it should be kept in mind that the competitive environment is not equally motivating for all students; for example, introverts will prefer some other type of motivation.

4.2. Teacher motivation

Teachers have always paid attention to the things that affect student behavior and to the factors which trigger and increase learning potential a long time ago, so we can say that they consciously use different methods and techniques to increase motivation. They engage students in learning activities, to make them more active and energetic and keep them focused on a particular goal, and instill in them a sense of responsibility and autonomy as means for strengthening intrinsic motivation (Öztürk, 2012; Ryan & Deci, 2000, p. 56, 58). However, we must not forget that teacher motivation is extremely important as well. Their outstanding and lasting interest in effective and successful education allows them to overcome obstacles which arise in the course of their education process and their teaching career. Those teachers who understand and believe that their efforts to achieve good results regarding their personal development and development of their students are purposeful, end up being more successful.
Same as with students, the need for self-affirmation, the desire to learn and to be responsible towards oneself and the society are the driving forces for teachers and these help them to overcome the accompanying difficulties. These qualities are often rewarded with a well-deserved reputation among students and other teachers, in the community and society as a whole. The desire to acquire new knowledge, skills, and habits and to improve creativity skills is often reflected in the improvement of teaching methods and technology, which consequently improves the quality of teaching and inspires students themselves to do the same. Taking responsibility for teaching and its results are one of the teacher's obligations as an educator. Teachers' awareness of the importance of teaching for student development is the main reason for becoming a teacher and a source of inspiration and effort. (Fox, 1986)

Finally, financial and moral encouragement of teachers to work and achieve good results is an important motivational basis for their development of creativity and the use of such skills. Professional insight and providing good-teaching examples and assistance for teachers can act as driving forces if they are based on pedagogy, on the willingness to change habits, attitudes, skills and other aspects of a professional learning culture. Competition among teachers, whether coming from the same or different subject areas, motivates them to be more successful as well. Therefore, we can conclude that teacher motivation largely depends on the support come from school professional services, school administration, and the entire education system. (Fox, 1986)

4.3. Course materials and positive reinforcement as motivational tools

The development of mental abilities and of the ability to think critically depend on the curriculum, on the way course materials are organized, as well as on the appropriate teaching methods and procedures. Proper course materials, right attitude toward problems and successful mastering of these materials can also motivate students to learn (Kupermintz, 2002, p. 125). This didactic and methodological source of motivation reduces fatigue, boredom and increases the willingness to invest more effort and to pursue new goals.

When using the instructional materials, positive reinforcement and the abilities of students themselves should be taken into account. Their curiosity drives them to gain more experience, to explore and observe new and unknown objects, phenomena and events, which further enables them to get to know and discover the world they live in. Students should be allowed to observe, perceive and document the results of their efforts as much as possible. They will be encouraged to do this if subjects and topics that appeal to them are covered and if these topics are presented by using teaching methods that can get students' attention. The leading cause behind students' failure to learn is learning without understanding. A frequent mistake among teachers is to cover a lot of material or assign a lot of exercises. In such cases, students develop ineffective study habits, which deprive them of the opportunity to learn with understanding. If we want to keep them motivated, we must make sure that children understand the meaning behind the learning material itself, and to be aware of how important the topics they learn about are for their future life and the life of the community which they live in. Putting certain topics into a wider context certainly increases motivation to learn more about them.

Moreover, exercises can cause trouble as well. Monotonous exercises cause psychological and cognitive negative effects. Successful adoption of the curriculum is closely linked to the dynamic and systemic connection between teaching modules and
subjects, especially if they are somehow related. One teaching subject cannot be viewed independently of the others. Students become more interested when a teacher presents the topics from two or more teaching modules. This kind of student motivation can be successfully applied not only in social science disciplines but in others as well, thus making learning more interesting and appealing to students, who can then become more actively involved in the learning process (Wigfield and Eccles, 1999).

Finally, as Operant Conditioning Theory claims feedback in teaching acts as positive reinforcement for students’ behavior and sustains their motivation. It serves as reinforcement for students to increase their efforts. In order to be successful at something, such as learning, instructional reinforcement must exist. Positive reinforcement can be in the form of feedback, approval, nodding in affirmation, smile, praise, kindness. If a student's good performance is followed by reinforcement in the form of teacher praise, and after the next one the same happens, then the student will always respond with successful learning. Therefore, positive reinforcement is seen as the most effective motivation technique in some theories. The practice has shown that positive reinforcement often yields favorable outcomes, while negative reinforcement does not meet the expectations, that is, it does not effectively eliminate undesirable behaviors. Some new research studies on motivation focus more on individuals’ beliefs, values and goals as the primary sources of motivation (Öztürk, 2012, p. 40), but they cannot deny the value of positive reinforcement.

Grading is seen as such type of reinforcement. At the beginning of schooling, in the first few grades of primary school, students prefer to be evaluated for their eagerness and effort than to be evaluated for the final achievement. At this age, negative assessment leads to a loss of self-confidence, and consequently, students display resistance toward school and teacher. Numerous studies have confirmed that negative assessment is associated with failure and decreases motivation levels. In order for grades to act as reinforcers for students to study and make an effort, they should believe that it is possible to get all the grades, even the highest ones. However, based on some former studies “the effect of learning increases proportionally with the intensity of motivation only to a certain level. When that level is exceeded, motivation levels decrease. This basically means that a certain level of agitation might have a positive effect on learning, however, if it is caused by fear it will end up blocking learning abilities” (Cenić, 2000, p. 58).

If students are aware of their academic performance and if they are communicated their grades, it can be a good and reliable way to motivate them, however, grades can be seen as positive reinforcement only if they track student progress throughout the learning process. Otherwise, they may lose their motivational potential.

5. Social Factors Influencing Learning and Motivation

It has long been known that the value and effectiveness of teaching depend on the social environment in which learning takes place. This issue was first noticed in traditional schools. Many studies have shown that better results are achieved if teaching is done with groups of students rather than with the whole class. The climate in the group is different from the one in the class since students are much more active and help each other more. They communicate more frequently and more directly which allows for better understanding and better cooperation between teachers and students. (Suzić, 2001)
Learning in groups can be interesting and exciting. Each group and each individual have the opportunity to develop a sense of responsibility for learning and a sense of satisfaction when a goal is achieved. It is believed that competitive and cooperative feelings impact behavior within a group. Competitiveness can be a driving force for achieving better results, if used properly. When students experience success, it increases confidence in their own abilities, especially when they can also challenge themselves with even more difficult exercises. Studies have shown that students prefer to compete against themselves in an effort to improve their own results. However, if there is no cooperation or competition, students can see learning as monotonous.

In her book, B. Zlatković (2014) talks about the broader social environment and social climate and why these are important for the learning process: "It is necessary that the social climate in the classroom and school allows students to feel that they belong to this group and that the time spent in school is associated with positive emotions. Hungry, scared and rejected children cannot be willing to learn since their energy is directed towards overcoming these deficiencies that threaten them" (Zlatković, 2014, p. 83). Relaxed behavior positively affects personal motivation, while tension and sense of responsibility (seen as a psychological burden), negatively affect motivation. Without a supportive classroom climate, there will be no interest in learning or expressing opinions or a reliable and lasting memory. That is why teachers need to use the exciting techniques to engage students, as well as to give adequate emotional reinforcement in a safe environment.

7. Conclusion

If the learning goals and targets set by the curriculum coincide with the goals set by students themselves, it will lead to the most favorable and effective learning environment. The best way to achieve this is to rely on students’ existing motives and goals, especially by understanding their psychological and socio-emotional needs. It is very important for teachers to rely on children’s curiosity, their understanding of the world, their place in the world, and their attitude towards other people. This can make students feel closer to the curriculum and to the teacher, which further allows them to develop a specific positive relationship toward the course materials and learning process. Such a learning environment triggers the desire to increase and expand knowledge with new information, which is the sign of intrinsic motivation.

It is also important to mention that children learn more efficiently if they are motivated by social engagement if they work in groups and contribute to the community, because they see such engagement as more meaningful, which further leads to more effective learning. This specific factor affecting motivation is also associated with the sense of responsibility and the development of work culture and is very important for the overall development of children, not only for their effective learning.

Besides the curriculum, that is, course materials, school environment includes teachers as well. They are its most important part and asset; therefore, this paper considers teacher motivation an important factor motivating children to learn. Motivated teachers are the ideal role model and they most successfully transfer their experience of learning materials to children.
To conclude, positive reinforcement is seen as a very effective motivation technique. It is believed that students can develop negative feelings toward course materials and learning in general as a result of a lack of reinforcement, or if reinforcement is used rarely and inadequately. Teaching can become dull and student engagement meaningless. Together with adequate positive reinforcement, respect for children's needs and abilities, and sincere teacher engagement, the school can become a learning environment that will positively affect the development of children's motivation.

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Učenje je proces stalnog i progresivnog menjanja učenika. U toku tog procesa ličnost deteta različito reaguje na određene situacije, pa je potpuno jasno da pojedinca na aktivnost pokreću i usmeravaju unutrašnji faktori. Te unutrašnje činioce nazivamo motivima. Ovaj rad predstavlja pokušaj da se razmotre neki od značajnijih aspekata motivacije uspešnog učenja, i odgovori na pitanja: zašto je motivacija ključna u nastavnom procesu, kako socijalno okruženje utiče na motivaciju, gde je mesto ocene kao motiva i kako potsticanje utiče na uspešno učenje. Pregledom značajnih radova u oblasti proučavanja motivacije u nastavnom i obrazovnom procesu vrši se osvrt na različite aspekte motivacije, značaj nastavnih sadržaja kao motivacionog sredstva i na uticaj socijalnih faktora na motivaciju za učenje. U toku procesa saznavanja i uspešnog učenja, veoma je važno usmeriti pažnju na unutrašnju motivaciju učenika. Unutrašnja motivacija ne deluje izolovano već u dejstvu sa drugim faktorima, kojima se ostvaruje proces usvajanja znanja, i na tom polju joj značajnih saveznik može biti i motivacija samih nastavnika.

Ključne reči: motiv, motivacija, učenje, nastavni proces, potkrepljenje, ocena.