

## ANALYSIS OF A LESSON IN THE CONTEXT OF THE ACTIVATION AND MOTIVATION OF STUDENTS

\*VERONIKA NIKODEMOVÁ

Faculty of Education, Constantine the Philosopher University,  
Drážovská cesta 4, Nitra, Slovak Republic  
email: [veronika.nikodemova@ukf.sk](mailto:veronika.nikodemova@ukf.sk)

**Abstract:** Effective management of students' education activities during a lesson is determined by many factors. The motivation and active work of pupils during education belong to those factors that substantially affect its final effectiveness. In this regard, the contribution, by its theoretical part, offers a teacher's view on quality of a modern lesson, through several findings acquired by the method of micro-educational analysis. At the same time, the contribution, by its empirical part, interprets findings acquired on a sample of teachers of higher secondary education about their subjective conception of motivational influence during education.

**Keywords:** motivation and activation, micro-educational analysis, auto diagnosis of a motivational influence of a teacher during the lesson.

### 1 Motivation and activation of students during a lesson

The many views and definitions regarding what motivation means is provided by the literature of educational and psychological orientation. Its ambition is to provide the same principles, fundamentals and theories related to learning, teaching, upbringing and education. It does not aim to provide teachers with finished guidelines and procedures of how to achieve certain cognitive and non-cognitive objectives, or how to specifically motivate students to study (we all know that the teaching situations are too complicated for this), but it rather seeks to cultivate the teacher's thinking about teaching, given the study of these principles, fundamentals and theories that it conceives. If, however, many teachers think of it in respect of either or, despite the long-term interest in the issue of motivation and its elaboration – some students are and others are not motivated, then such simplification further prevents them from using different types of motivation, especially in situations when they fail with a certain type of motivation. According to E. Petlák (2014, p. 61) *"the area of motivation is sufficiently developed in our literature. Unfortunately, in practice, it is not paid the attention it deserves. Years of our own practice in schools and knowledge of the real educational process (observation, qualification and later attestation and testing of teachers) lead us to the finding that mostly just ordinary motivational methods apply in practice, for example, talk, updating of the curriculum, problem as a motivation, but other motivation possibilities are also used but less."*

At this point we do not want to deal with what motivation is. We do not want to draw attention to its essence expressed by the character of the question *Why? Why does a person behave how they do, why does a person do what they do, why do they strive for this and not for something else?*, which is otherwise the most distinctive for it. We do not want to stress either that motivation is a complex of mental processes that produce, direct, and maintain human behavior in a certain direction, that for the school environment it is a "change and movement" situation, which encourages students' learning process..., i.e. what is well known about it through definitions. In regard to the results of empirical studies obtained to date, we rather strive to highlight motivation in the context of the requirements for its appreciation during education. As a matter of fact, the study of the literature convinces us that the very notion of motivation is not only known and widely used, but is also well developed.

The 80s already meant a significant incentive to start drawing attention to the context of its comprehensive mission within teaching. For example, J. Skalková notes at the time that many researches conducted in connection with the issue of failing or poor-achieving students clearly prove that the true and primary cause of failure is often not the intellectual inability of students to master the curriculum, but the deficiencies and faults in the motivational sphere. (In Langr., L., 1984). Motivation, which is currently understood as a way of encouraging and supporting

students to study, to turn learning into a hobby, a factor of personal growth and self-realization, is construed as a clear role for the teacher. In order for the advantages of motivation to be fully demonstrated in the classroom, the teacher is required to be able to involve the students in a variety of active learning activities, or even various ancillary or preparatory activities throughout the lesson. This requirement, clearly intended for the teacher, arises from the following statements: *"The most valuable is the knowledge that the student gains through hard work and effort."* *"The best way to learn is to do something, the worst way to teach others is to speak it."* *"Tell me and I'll forget; show me, and I will remember; let me do it and I will understand."* (In Turek, I., 2014, p. 23). The previously mentioned shows us that teachers, as far as possible, should be fully aware that almost all of their activities carried out in the classroom influence the motivation of students to learning, either in a positive or negative direction. Pedagogical and didactic literature for teachers of all types and levels of education often supplements the significance of motivation and activation of students during lessons by several subjective ideas of the authors or formulations of general principles, what to do and how to achieve a desirable motivating-activating effect.

For example, M. Boekaerts (In Dvořák, D., 2005) formulates a synthesis of motivation principles that the teacher should have in mind for effective learning. These are:

- Motivational beliefs that may significantly contribute to the creation of favorable pedagogical situations for study by students (unfavorable motivational beliefs hinder learning, i.e. when students expect failure, they are not motivated to learn, while positive motivational beliefs promote and facilitate learning, i.e. students who understand the importance and value of learning activity are less dependent on the teacher's external impulses, incentives and rewards);
- A student's confidence about the objectives they should be focused on (students who are focused on coping with curriculum learn more than students who are focused on themselves – ego orientation);
- The perception of efforts by students affects their approach to learning (students expect that efforts will lead to results);
- Defining objectives and evaluating them (so that the students can develop their own motivational strategies, they need to be guided to it and informed about how they are doing - feedback);
- Deployment to achieve goals and willpower (students need to be guided to the development of willpower and also need the surroundings to provide feedback on how they are doing);
- The need to reconcile diverse objectives (students learn with more commitment at a time when learning objectives in harmony with their personal goals).

The author B. Blackburn (2005, pp. 88-93, In Nikodemová, V., 2014) argues that a lesson will be optimally efficient, motivating-activating only when teachers are freed from myths about motivation. On examples of school practice she attempts to explain the most common forms of misconceptions about the motivation that the teacher may acquire through experience and years of teaching. These are:

- Myth 1: The student is just not motivated;
- Myth 2: You can motivate someone;
- Myth 3: You cannot motivate someone;
- Myth 4: You cannot deprive someone of motivation.

Other authors who define and explain some recent views on laws affecting student motivation for learning during lessons, also include K. Kruszewski (1991, p. 263-267). According to him, the following principles apply to improve motivation:

- The effort to complete the task is stronger in the student the more strongly convinced they are that the content of the tasks, the conditions for its implementation and the decision on its meaning depends on them.
- Motivating a student toward activities increases a positive relationship and a positive attitude to the task, which is easily applicable in any element of the situation.
- Motivation and student efforts raise tasks that stimulate curiosity, interest and real possibilities to satisfy them.
- An important factor in motivating student learning may be the need for subordination, adaptation to teachers, parents or classmates, rather than the need of acceptance, which is considered the main source of motivation at all.
- Motivation to action is increased if the student considers the fulfillment and performance of the task to be a success. However, the following may also apply: If the student perceives the non-fulfillment of the task to be a "failure", the motivation to complete the task increases.
- Motivation to fulfill schoolwork depends on the duration and intensity that the task creates, or the accompanying circumstances.
- Not only in light of the level of the task's fulfillment, but also due to the general, broad learning objectives, it is necessary to try to transform student motivation from the outside to the inside.

Since multiple approaches and proposals to improve the presence of motivation in teaching have been appearing in literature for quite a long time, let us assume that the area of motivation is certainly no novelty for teachers. That presumption moves us to search for answers to the question: *Is the student motivation toward learning activities a weakness of the educational process?* Partial answer is found by examining the quality of the lesson's management by the teacher, shown in the next part of the text.

### 1.1 Research of motivation – motivation initiated by teacher

When explaining the concept of motivation we focused less on the concept of activation (just implicitly) inherently connected to the lesson. Motivation along with activation during a lesson represents a conscious and energetic attitude that targets the teacher's active physical and mental activity towards the students. If the teacher does not know the ways to properly motivate and activate students, which incidentally M. Zelina mentions to be the key problems of our education, then the teacher's action at the lesson "... is necessary reduced to prescriptive commanding, ordering, which ultimately can lead to the fact that although students know the topic to some extent, the quality of learning the topic and its long-term memorization are very problematic, and particularly questionable is the relationship of students to what they learn." (Zelina, M., 2002, p. 6). E. Petlák agrees with the opinions that say "*good motivation is half of the teachers and students' work*". It is just a shame that more teachers are not able to appreciate this experience obtained by teachers (2014, p. 68). From the study of a number of considerations of functionality and justification regarding the induction and enhancing of students' motivation during lessons, it appears to us that it is still necessary to stress the essential part of the educational process, and indeed there is a tendency that it should appear more in the classroom. We have therefore decided to seek an answer to the question *Is students' motivation to learning activities a weakness of the educational process?*, as well as to express a view on the lesson management quality. We formulate a partial response by some of the research results:

- observation of lessons on different subjects subjected to microanalysis confirmed the presence of motivation during lessons;
- teachers consider the methods for motivating to include, in particular, a conversation, praise, didactic games, narration, demonstration, brainstorming, problem and cooperation method, the most frequently used in practice are input motivational methods in the following order: motivational speaking, motivational interviewing, motivational demonstration;

- teachers applied the ongoing motivation methods in this order: praise – encouragement – rewards, updating the curriculum, motivational appeals, evaluation courts of a critical nature (verbal reactions to student rejections, punishment),
- for teachers, the main approaches to the formation of student motivation were dominated by the approach to boost motivation through evaluation (praise, encouragement, rewards compared to verbal reactions of rejection, criticism and punishments)
- The problem is not that motivation would be lacking, but rather that it is not fully appreciated and implemented so as to effectively contribute to the effectiveness of the educational process. (Petlák, E., et al., 2008).

The numerous research that indicates the presence, knowledge and development of motivation in teaching, includes those that view quality when applying the micro-educational analysis method of the teaching unit via the motivation index (Im). It is the index through which we can express when we are observing a lesson via the analytical category system AS9 scheme (we note that in addition to Im, we can use it to express the development of cognitive functions and the education management style index on a scale of directivity and non-directivity). (Zelina, M., 2006). Specifically, it is the index used to monitor the motivation elicited by the teacher in students in the classroom through their verbal reactions. Based on Im the teacher can be fairly well assessed whether they are the one who positively motivates students, or rather the one who applies criticism, punishment, or exhortation in the process of student activation and motivation.

L. Alberty (2002), who measured the presence of motivation initiated by the teacher through the micro-education analysis method, notes that the measured Im values in elementary school teachers suggest that we cannot talk about a thought-through motivational activity. Category of praise, rewards, positive evaluation practices, did not appear even once for some. Also the category of introducing the learning subject in an interesting way, which completes the code of positive motivation, was not measured in half of the surveyed teachers (N = 25). Another research, which was targeted on the proposition of to what extent teachers use a creative and humanistic style of interaction with students, and which areas of the style structure are developed more and which less, was answered by M. Zelinová (2004). Micro-educational analysis results and the quality of the educational process testified the following:

1. higher index of acceptance, positive motivation in all areas – particularly trust in students, encouragement, interesting introduction of the curriculum, as well as more incentives on the development of cognitive functions; when comparing the values it was found that they were in favor of alternative education.
2. during the standard lesson, teachers speak much more than teachers in alternative lessons. This means that students have fewer opportunities for personal verbal expression.
3. from the monitored structure of the verbal interactions, teachers in standard lessons used a lot more instructions for work, giving orders, explaining the subject, unreasonably talking, lecturing, moralizing or repeating the answers of students. From this finding it can be further assumed that the teacher verbally "floods" the lesson and thus limits the space for expression of students for their independent work and limits the self-organization of student work
4. the results also suggest that students obtained a higher mean score in the areas of criticism and negative student evaluation from experience than teachers from experience.

Similarly, L. Fenyvesiová (2006) focused in her research on identifying the interaction style of teachers in terms of the degree of directivity and the degree of motivation. The measured high directivity index values also indicate a finding that teachers apply such teaching practice and methods, in which their

communication activities dominate (activities of students accounted for only one third of all recorded categories).

In relation to motivation, D. Gogolová (2010) confirmed the several times emerging research fact that teachers (N = 6) with the traditional way of teaching achieved lower values of the motivation index than teachers working in an alternative way.

Regarding these several stated researches using the micro-educational analysis method, we would like to make a conclusion using the words of M. Zelina (2007, p. 13), who says that these, as well as other research, has shown very succinctly that "... our teachers and educators do not know the theory of cognitive function development, and do not use incentives for the comprehensive development of cognitive functions and positive motivation in practice. The directive style of learning process management still prevails, with a few exceptions." It is therefore legitimate to say that "... the implementation of a comprehensive cognitive development theory, the non-directive guidance of students and the introduction of positive motivation can become truly a "silent revolution" in education".

Based on previously mentioned, we decided to carry out research regarding the subjective understanding of creating motivation by teachers to achieve universal student needs on a sample of higher secondary education teachers. The results are interpreted in the following passage.

## 2 Self-diagnostics of motivational influence of the teacher in the classroom

As it is generally known about motivation that it is a challenging category, requiring a higher level of researcher's knowledge for its deduction (recording motivation in teaching requires an estimate of a further context decryption) and it is known that with its presence it is a desirable category at every stage of the lesson. If the teacher wants to motivate their students in the classroom, it is correct. But it is not correct to assume that it is enough to make the students interested just at the beginning of the lesson and then it will work by itself. Also, relying only on the application of activating methods of teaching is not the best way to achieve motivation during the lesson, because not every method must address and attract all students. It is therefore appropriate and correct if the teacher focuses initially on the application of the universal needs of students, i.e. creating curiosity, cognitive uncertainty, the need to think freely, etc. From this perspective, it will be motivational for the student, if they: "may proceed freely and independently in learning; may be successful; is valued and honored for progress in learning; can collaborate in learning; can express disagreement, resist, argue and evaluate." (Rötling, G., 2002, p. 9).

Our research aimed to use on a sample of secondary school teachers with a pedagogical focus (PaSA teachers teaching pedagogy and psychology) to identify the extent of their motivation initiatives in the application of the universal needs of students. The given type of schools was chosen deliberately, as these schools prepare their graduates in particular for the activity of the teacher and educator in an educational environment, and is therefore a type of school in which alternative teaching approaches are much more clearly promoted and established, and for which the graduates of these schools should be prepared by their teachers, as well as other conditions brought to the attention of teachers to achieve educational professionalism. We expect from the teachers of this type of schools to have good self-knowledge arising from self-reflection during the lesson and adequate self-critical approach in an effort to improve their motivational effect during the lesson. Teachers (N = 61) were given the Teacher Motivation Self-diagnosis (AMU) questionnaire, whose authors are Rötling – B. Sihelsky – J. Valocký. The questionnaire consists of 20 items (motivational incentives) oriented on the application of the universal needs of students, and also create incentives for the self-regulated learning of students. The results of the questionnaire are interpreted through the following areas: the area of questions **S** relates to motivation through the provision of freedom to the

student in their thinking and acting when learning in the classroom; the area of questions **U** focuses on the motivation conditioned by the student's experience of success in learning in the classroom; area of questions **O** relates to the need for student appreciation and recognition for their results in learning activities; the area of questions **K** relates to the satisfaction of social needs (cooperation, communication) in learning; the area of questions **M** is aimed at creating a space for the development of higher and critical thinking in students. If the teacher reaches the score of 10 and 12 points in any part, it means that they create very good motivation incentives in the relevant area. Upon reaching 8-9 points, they create a good measure of motivational incentives. With the number of points at 6-7 they create poor motivational incentives, and if they reach 4-5 points, the result shows that in the given area the teacher does not create motivational incentives.

We processed the statistical analysis of the research results in the statistical program SPSS 20.0 (Statistical Package for Social Sciences). For a description of the sample we used descriptive statistics, the results illustrated in Table 1.

For the statistical processing of data, we further used the analysis of variance - ANOVA, which allows us to verify whether the value of a certain feature that we can observe in an individual, and allows us to detect a difference in the sense of creating motivational action by teachers in different areas of the teaching practice, has a statistically significant effect on the value of the random variable in respect to the given individual in the empirical context. We state the research results in relation to the used research method.

Table 1: Interpretation of descriptive statistics

Factor		N	M	SD	SEM	Min	Max
Area S	up to 10 years	25	9.72	1.838	.368	6	12
	<10, 20]	13	9.69	1.843	.511	6	12
	<20, 30]	12	10.08	1.311	.379	9	12
	<30 and more	11	10.09	1.136	.343	8	12
	Total	61	9.85	1.611	.206	6	12
Area U	up to 10 years	25	10.44	1.557	.311	7	12
	<10, 20]	13	10.23	1.691	.469	6	12
	<20, 30]	12	11.50	.798	.230	10	12
	<30 and more	11	10.73	1.555	.469	7	12
	Total	61	10.66	1.504	.193	6	12
Area O	up to 10 years	25	11.00	1.080	.216	8	12
	<10, 20]	13	11.15	1.068	.296	9	12
	<20, 30]	12	11.25	.754	.218	10	12
	<30 and more	11	10.91	1.300	.392	8	12
	Total	61	11.07	1.047	.134	8	12
Area K	up to 10 years	25	11.28	1.061	.212	8	12
	<10, 20]	13	11.46	.776	.215	10	12
	<20, 30]	12	11.42	.996	.288	9	12
	<30 and more	11	11.09	1.221	.368	8	12
	Total	61	11.31	1.009	.129	8	12
Area M	up to 10 years	25	11.32	1.069	.214	8	12
	<10, 20]	13	11.54	.776	.215	10	12
	<20, 30]	12	11.75	.452	.131	11	12
	<30 and more	11	11.64	.505	.152	11	12
	Total	61	11.51	.829	.106	8	12

The results of descriptive analysis tell us about the good to very good creation of motivational incentives for teaching in any area. Specifically, the achieved points score between 10-12 points, which means that teachers create very good motivational incentives in the area (note that it is still a subjective assessment of motivational action by teachers), corresponds in area S to 39 teachers, in the area U to 52 teachers, in the area O to 57 teachers, in the area K to 58 teachers, and in the area M 60 teachers in the research sample. Upon reaching the score of 8-9 points, i.e. the teacher creates a good rate of motivational incentives during the lesson, the results as follows: the area S is represented by 18 teachers, area U by 6 teachers, area O by 4 teachers, area K by 3 teachers, and area M by 1 teacher. In this case, we have already recorded a slight difference in the

representation of teachers within the perception of motivational action in individual areas. Another category of points is 6-7, which show that teachers create a weak motivational incentive, was represented by teachers in only two areas as follows: in area S by 4 teachers and in the area U by 3 teachers from the research sample. We emphasize that the result of 4-5 points achieved in any area, which indicates the absence of motivational incentives, did not correspond to any research respondent. The results pushed us to the application of the analysis of variance as a statistical method (it is a method for comparing averages), through which we wanted to find out whether and how teachers perceive themselves in different ways based on the length of teaching experience in terms of creating motivational incentives, and which area this difference applies to. The findings are interpreted in Table 2.

Table 2: Comparison of the research group respondents in individual factors

ANOVA	Df	F	P
Area S	3	.252	.860
Area U	3	1.863	.146
Area O	3	.260	.854
Area K	3	.312	.817
Area M	3	.857	.469

df – degrees of freedom; F – ANOVA;  
p – statistical significance level

Table 3: Comparison of the research group respondents in the factor of area U (LSD)

Area U	1	2	.209	.679
		3	1.060*	.045
		4	.287	.592
	2	1	-.209	.679
		3	1.269*	.036
		4	-.497	.414
	3	1	1.060*	.045
		2	1.269*	.036
		4	.773	.214
	4	1	.287	.592
		2	.497	.414
		3	.773	.214

\*. The difference is significant at the level of 0.05.

1 – up to 10 years of experience; 2 - <10, 20]; 3 - <20, 30]; 4 - <30 and more years of teaching experience

According to the above findings, area U is the one whose value  $p = .146$  is closest to the significance level  $\alpha = 0.05$  and we can therefore consider the presence of differences. In view of this, we have also analyzed the data by the Student's t-test statistical method, which is used to compare quantitative variable levels where the level is identified by the mean. The result is that teachers perceive themselves differently in creating motivational action only in area U (the area is aimed at motivating conditioned by the student's experience of success in learning and during the lesson), since the group of teachers with teaching experience of up to 10 years in relation to the group of teachers with pedagogical practice of <20, 30] years reached  $p = .045$ , and the <10, 20] group of teachers in relation to the group of teachers with pedagogical practice of <20, 30] years reached a value of  $p = .036$ , both of which are smaller than the chosen significance level  $\alpha = 0.05$ . By comparing the averages of these teacher groups, we gain a statistically significant result for teachers with a length of teaching experience being <20, 30]. This is a group of teachers, who although have the highest achieved mean value among the monitored groups in area U, i.e. mean = 11.50, it reaches the value of  $p = .036$  at the significance level of  $\alpha = 0.05$ , which is the evidence of differences in the subjective concept of creating incentive action in the classroom. The final result is that the subjective evaluation of teachers in creating motivational incentives when applying universal needs of students in any area (S, U, O, K, M) is very good.

### 3 Conclusion

According to S. Babiaková et al. (2014, p. 231): "At present, the process of improving the quality of teaching based on improving the quality of the teacher and their work is preferred. We are leaving (in theory, although in practice it is not yet so clear) the control, inspection and external intervention instruments and emphasize the internal evaluation and promotion of teachers' self-evaluation."

Based on the findings of good sides of motivational impact on the self-diagnostics of teachers, we are to consider the issue that arises from the results: *To what extent is this subjective assessment of the motivational impact by teachers actually reflected in the classroom? Is this a subjective assessment of the motivational impact creation by teachers in compatibility with the assessment by their students? Thus, to what extent of compliance would students express their knowledge and opinions regarding the teacher's impact in ensuring that the teaching is of interest to them?* We are convinced that these questions can be answered if the teacher endeavors to obtain and evaluate feedback on the motivational impact during the class from the students, for example, through a questionnaire. Of course, the teacher also has another option, i.e. to use the micro-educational analysis method. Micro-educational analyzes are a tool to identify and improve the quality of school, teaching, and according to M. Zelina (2007, p. 13), these challenging but also most advanced and highest quality methods of learning, quality evaluation of educational work should be used by "... school directors, representatives of class inspections, methodologists in lesson analyses, inspectors evaluating and checking quality, and teachers themselves for self-improvement" in their work and in the analysis of the educational process. Although S. Babiaková et al. is theoretically leaving this method, we believe that it needs to be popularized for use particularly by teachers who can carry out self-reflection of their own work through a deeper penetration into the knowledge of the lesson. The micro-educational analysis method is identified as a tool that can be used to explore and improve the essential phenomena of school quality, and in particular, to make the teacher's self-evaluation not only a confirmation of self-delusion, this method becoming a self-recognition and self-improvement tool for teachers. The interpreted results at this point open up the importance for further research endeavors, i.e. to identify the level of the professional fitness of teachers and see if there is any relationship between the perceived professional competence of teachers and motivation of students, and what is the impact of the perceived professional competence of teachers on student outcomes.

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**Primary Paper Section: A**

**Secondary Paper Section: AM**