

Journal of Applied **Technical and Educational Sciences iATES**

https://doi.org/10.24368/jates.v11i3.271



ISSN 2560-5429

Quality of the Educational Process

István Szőköl ^a, Ondrej Kováč ^b

^a J. Selye University, Komárno, 945 01, Slovakia, szokoli@ujs.sk

^bDTI University, Dubnica nad Váhom, 018 41, Slovakia, kovac@spskn.sk

Abstract

Quality improvement of the teaching process requires teachers to constantly think, analyse and evaluate their own work and try to improve its quality. The paper deals with the introduction of quality management in the teaching process, since one way of improving the quality of education is to build a quality management system at secondary schools, focusing exclusively on schools with Hungarian language of instruction. In the most countries of the world, its trend to create expectations for result of the schools work, we can say standards, which could be regularly controlled. From the most of products it's required to answer for predetermined standards, and these standards or norms are strictly controlled. In schools they don't do it. Nobody guaranteed, that the student of that school in which he learn the knowledge, skills, etc. The goal of the study is to point out why these students are unmotivated and in which domain it is worth planning an intervention.

Keywords: learning process, quality of education, educational process, teaching process, different learning

1. Introduction

The connection between learning and motivation is the key question of efficiency. Educators often ask how students' motivation can be enhanced, respectively how it is possible to learn efficiently (Hrmo & Turek, 2003). Learning motivation is constantly decreasing from the fourth class of elementary school and an especially significant reduction can be experienced during the transitional period from the elementary school to secondary school (Blaško, 2009). So it is not surprising that teachers teaching at secondary vocational training school tend to face a low level of students' learning motivation. Thus, teachers have the task to attract the students' interest in the given subject and enhance their learning motivation.

Nowadays quality has a dominant feature in every aspects of life. After joining the European Union, quality should be based on needs and requirements of the European Union regarding quality assurance.

The primary purpose of each school should be recognized by the customers' expectations and requests on the basis of an accurate data, not just on the basis of teachers' experience and intuition. It needs a regular feedback (students' attitude toward learning, school, assessment of students' talent and ability). One way to increase the quality of education is to develop the system of quality management at secondary schools according to ISO 9000 NORMA and TQM philosophy. Emphasis should be placed on the quality of educational process, so that students after completing their studies would be prepared and meet the requirements of their future employers' expectations.

2. Learning motivation

Learning motivation is to be handled as a multidisciplinary problem by reason of its complexity (Szőköl, 2015).

Motivation is an internal power, which drives the student to find the learning source even if they have not had success yet. Personality develops itself. Everybody strives for a higher level of self. This intrinsic motivation is called forethought or sapiency. Success does not depend on innate abilities, but it depends on efforts, namely hard work (Bilčík, 2018). Learning motivational factors can be various sort: intrinsic, extrinsic, direct, indirect, primer, secondary, general, special, internalized, as well as prestige motives (Marks & Lajčin, 2016).

Self-regulation

The concept of self-regulation has received an emphasized attention as a key factor that predicts students' school readiness.

During the last decade, varieties of concepts were created to conceptualize learners as active seekers of knowledge and skills. These formulations have been labelled as "self-controlled," "self-instructed," or "self-reinforced" learning to draw attention to the importance of self-regulation processes. Explanations have been seeking to explain not only students' abilities to learn on their own but also their motivation to do so. Recently, several theoretical studies have striven to relate various views of self-regulated learning to academic motivation and achievement (Bendíková, 2014). In the present study, the term self-regulation will be used to describe this general theoretical approach.

According to a generally accepted interpretation self-regulation is a multi-component, hierarchically organized process of long- and short-term goal pursuit. It does not work isolated, but it is realized by a number of core psychological components including attention, action, and emotionality, thought, and imagery, physiological responses, and animate and inanimate aspects of the environment (Bilčík, 2018), (Marks & Lajčin, 2014).

Stable components of the personality (as temperament, traits) determine the direction of the development of self-regulation, but cognitive abilities, emotions and environmental effects have an impact on the functioning of this ability. Parental behaviour plays a determinate role in forming self-regulation properly. Children learn in family environment to control feelings and behaviours, and endorse their will in an effective way. The stable and dynamic factors' joint manifestation can also mean, for example, that if conscientiousness or will as a stable personality feature works at a lower level, parents and later teachers can compensate the shortcomings with correct, consistent behaviour. They can teach children how to handle their negative emotions, develop their thinking, and organise their learning effectively (Belz & Siegriest, 2001).

Self-regulation is the explicability of personal goals, which hangs together with individual needs, and it is also a flexible learning strategy selection ability that serves the solutions of conflicts, which occur along the way. Self-regulation activates the self-reward system, and enhances success by arousing positive emotions (Szőköl, 2015).

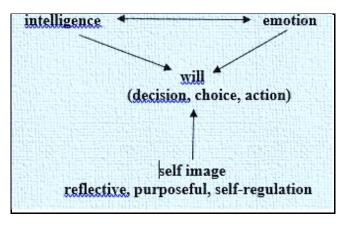


Figure 1: Process of reflective self-regulation (Szőköl, 2016)

During reflective self-regulation the student depends on momentaneous, external circumstances decreasingly. External effects and the earlier experiences are compared, and the received outcomes can be overridden. Thus reflective self-regulation is based on cognitive, motivational, emotional and volition factors, and at the same time it affects forming of the self, which reacts on cognitive, motivational, emotional and volition components, as illustrated in Figure 1 (Szőköl, 2016).

According to Ugrai (2020) two types of self-regulation can be distinguished. Type 1 refers to the temporally extended process of moving toward or away from relevant goals in a relatively flexible and situationally coordinated manner under conditions of conflict, error, or threat. This type deals with self-reflective attempts. Self-regulation type 1 can be defined regulation by the self. Self-regulation type 2 refers to the short-term action of moving toward or away from self-

relevant goals in a relatively inflexible and situationally primed manner under predictable, controllable routine or stable conditions. Type 2 has been variedly called associative, implicit, automatic processing, and is also known as physiological self-regulation. Type 2 self-regulation is the regulation of the self.

Self-regulated learning

Recent research on self-regulated learning has emphasized the importance of both motivational and cognitive components (Benedek, 2015), (Bendíková, 2014)). Self-regulated learning, which is an active, constructive process, plays an important role in the learning process at school, and includes students' goal setting, monitoring, controlling and reflections (Ugrai, 2016). Szőköl (2015) has formulated another definition for self-regulated learning, which says: "a person motivates himself, and plans, structures, manages and controls his activity independently, in a responsible way. Self-regulation is a self-integrative form of control activities, but self-control is the aspect of self-discipline".

Extraversion and introversion relate to a complex package of neurological function, information processing and self-referent knowledge-level cognitions. The more malleable aspects of personality are shown in Figure 2. The Cognitive-Adaptive Model of Extraversion model represents the fact that there are typical outcomes of typical behaviours. Self-regulative factors such as self-efficacy may also motivate the individual to choose activities in which skill is required (e.g., extraverts seek out companions fostering a greater expertise, practice and self-confidence for them) (Marks & Lajčin, 2016), (Szarka & Brestenská & Juhász, 2015).

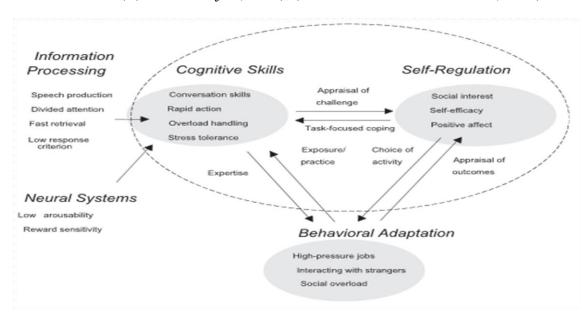


Figure 2: Cognitive-adaptive model of extraversion (Szőköl, 2016)

Going clockwise around the triangle, we can see that actual social skills build positive self-beliefs and social self-efficacy, which encourages more engagement with socially

demanding situations, which leads to greater opportunities to refine objective skill. Counter clockwise, social expertise generates more actual social success, which in turn leads to more positive outcome expectancies, increasing the likelihood of effectiveness of employing skills as strategies for coping with social pressures. Cognitive skills, self-knowledge and behaviours interact continuously. Success requires a skill set, which includes conversation skills, to impress and influence others; speech of response to dominate a conversation and speak before others, and stress management skills to handle any competition that social visibility may attract. In contrast, introverts' abilities sustain attention in monotonous environments. Typical adaptations are for introverts in working in the absence of immediate reward or help from others, supported by skills for sustaining attention, reflective problem solving, and boredom tolerance (Marks & Lajčin, 2017).

Although there is a wide range of definitions of self-regulated learning, three components seem especially important for classroom performance. "First, self-regulated learning includes students' metacognitive strategies for planning, monitoring and modifying their cognition". The second component is students' management and control of their effort on classroom academic tasks. Its third important aspect is the actual cognitive strategies that students use to learn, remember and understand the material (Ugrai, 2020)

Self-regulated learning strategy

Self-regulated learning strategy means actions directed at obtaining information or skill that involve students' activity, goals and instrumentality-based self-perceptions. Based on existing literature, a number of categories of self-regulated learning strategies were identified. Most categories were drawn from social learning theory and research. They involved goal-setting, environmental structuring, self-consequences (self-rewarding and self-punishment), and self-evaluating (Blaško, 2009).

Students and classroom effects

The most important task is to form a students' community, which can promote knowledge acquisition. It also has to be taken into consideration that learning is an individual process simultaneously. Thus, it is about a double process: individual and communal, but the dynamic interactive learning communities whose purpose is to acquire the highest level of knowledge do not always count with individual differences. Their main assumption is namely to make the learning process as interesting as possible in order to enhance the level of intrinsic motivation. It is a problem, on the one hand, that the learning process of new things demands a priori motivation from the student. On the other hand, working with new tasks evokes a sense of success. Making learning tasks exciting cannot only change the learning process but

possibilities as well. Although researches come from different theoretical traditions, they agree that self-regulated learning is basically managed by an effective learning oriented activity (Szőköl, 2015).

These attempts to control or regulate are self-regulated in the respect that the individuals try to focus on controlling or regulating their own cognition, motivation, and behaviour. Of course, other persons in the environment such as teachers, peers, or parents can try to regulate an individual's cognition, motivation, or behaviour as well, by directing or pressuring the individual in terms of what, how, and when to do a task (Ugrai, 2016).

In expectancy-value models (Bilčík, 2018) task value beliefs involve perceptions of the relevance, usefulness, and importance of the task. If a student believes that the task is relevant or important for his or her future goals, or generally useful for him or her (e.g., biology is very important for me if I want to be a doctor; or math is useful because it is necessary for becoming an engineer), then she or he is more likely to be engaged in the task and will probably choose to engage in the task in the future (Ugrai, 2020). The relations between goals and self-regulation may change with age and the growth of expertise. Younger children are less likely to be metacognitive and self-regulating than older children or adults. Most of the models of self-regulation and goals are not explicitly developmental in nature (Szőköl, 2016).

Another behavioural strategy, which can be very helpful for learning is help seeking. It seems clear that good students and good self-regulators know when, why, and from whom to seek help (Szarka & Brestenská & Juhász, 2015). Help seeking can be a strategy for students who wish to solve the school job without much work or who want to complete the task quickly without understanding or learning. This goal of learning and understanding dependent help seeking would be a generally maladaptive strategy, in contrast to adaptive help seeking where the student is focused on learning and is only seeking help to overcome a particularly difficult task (Ugrai, 2016).

Students who anticipate being anxious on tests and worry about doing poorly even before they begin the test can set in motion a downward spiral of maladaptive cognitions, emotions, and behaviours that lead them to do poorly on the exam. In this way, the anticipatory affects such as anxiety or fear can influence the learning process later and set up conditions that require active and adaptive self-regulation of cognition, motivation, and behaviour (Marks & Lajčin, 2017).

3. CLASSROOM CLIMATE RESEARCH

In the school year 2019/2020 we conducted a research with the aim of gaining information about the classroom climate at secondary schools. In these survey four classes have participated: the 2nd and 3rd grades (2.C., 2.D., 3.C., 3.D.) from Secondary Vocational School of Trade and Services in Komárno, i.e. 100 students, including 87 boys and 13 girls.

The aim of the survey: Identify classroom climate on the lesson of physics

Sample method: Available sampling, because the school does not have multiple parallel classes *Method survey*: Questionnaire

In the research, we used the "Questionnaire survey on the social climate in class" according to Belz, 2001. The interview was taken over and modified by Ugrai (2020). The questionnaire investigated the state of the social climate of the subject of physics. It contained 24 questions which were divided into the following six dimensions:

- 1. Students' interest in learning.
- 2. Relationships between pupils.
- 3. Teacher's support for pupils.
- 4. Students' orientation on the task.
- 5. Order and organization for teaching the subject.
- 6. Clarity of class rules.

In each dimension the arithmetic average was counted successfully. In the questionnaire pupils *circled 'yes' or 'no'* answers to questions on the basis of what they really thought. In the questionnaire none of the answers were considered correct or incorrect, good or bad.

Table 1. Evaluation of the questionnaire for social climate in the classroom

Classroom dimension (%)	2. C.	2. D.	3. C.	3. D.
1. Students' interest	60,5	50,9	55,3	61,3
2. Relationships between pupils	79,7	76,6	71,2	87,1
3. Teacher's support for pupils	70,3	80,4	59,8	80
4. Students' orientation on the task	48,9	47,4	54,5	71,6
5. Order and organization for teaching the subject	60,5	52,8	56	73,3
6. Clarity class rules	89,1	86,2	64,3	87,5

As it can be seen from the chart above, in each class the smallest percentage of success is received in the following three areas:

- Pupils' interest in learning,
- Students' orientation on the task,
- Order and organization for teaching the subject.

Factors, forming the classroom are different. We cannot draw specific conclusions and greater reflections, but we can determine the current status in various classes.

4. Discussion

This study focused on examining what factors affect learning motivation and how the efficacy of education can be enhanced, since students' motivation is the most important factor for learning success.

There are several factors that affect and influence the individuals' learning attitudes; the degree of efforts they can and are willing to make, in order to learn the given subject. Furthermore, it is affected by cognitive abilities as much as by parental expectations. Thus, teachers do not have an easy job if they want to motivate all the students present in the classroom.

Research results reveal that self-regulation of students' learning in vocational training school is at a medium level (average M = 36.08). It entails their self-efficacy, which is at a middle level too. Self-regulation works better at girls than boys. This is due to the fact that girls are usually more hard working and more conscientious.

Conclusion

The educational process analyses play an important role in the process of improving the quality of the school. The qualitative teaching should lead to exploring the pupils' best abilities, which eventually increases their chance to be successful in the labour market. Considering that the quality assurance is a complex process, therefore we cannot achieve quality improvement in every phase of the educational process at once. Introducing some innovations will lead to improving the educational process. Attention should be paid to the importance of the class atmosphere. We need to analyze and optimize the improvement of educational work for the sake of the cause.

The success depends on effort, namely hard work. Effort and persistence are two of the most common indicators of motivation.

What can the teachers do when the students are not motivated enough? They can compensate the shortcomings of conscientiousness, effort, persistence with correct, consistent behaviour. Making learning tasks exciting can change the learning process. Frontal teaching methods need to be transformed, so new methods could spread in the classroom practice. Children have to learn how they can study more effectively. Parents have the task that they develop a positive self in their children who will be able to reach high goals in their life later.

In this study it was not examined how self-regulated learning strategies change in the case of extraversion at vocational training school. Another research can answer the question if extravers persons have less test anxiety and better self-efficacy than introvert individuals do.

References

Bendiková, E. (2014). Lifestyle, physical and sports education and health benefits of physical activity. In European researcher: international multidisciplinary journal. Sochi: Academic publishing house Researcher, 2014. Vol. 69, no. 2-2, pp. 343-348. ISSN 2219-8229.

Benedek, A. (2015). Visuality as a tool for expanding learning. In: António Moreira Teixeira, András Szűcs, ldikó Mázár (szerk.), 2015 Annual Conference. Barcelona: European Distance and E-Learning Network (EDEN), 2015. pp. 3-8. ISBN:978-615-5511-03-5

Belz, H., SIEGRIEST, M. (2001). Klíčové kompetence a jejich rozvíjení. Praha: Portál 2001, 375 s.

Bilcik, A..(2018). Podpora záujmu žiakov a ich spokojnosti s vyučovaním na stredných školách. In: Berková, K, Krpálková Krelová, K. (editors). SCHOLA NOVA, QUO VADIS? Sborník recenzovaných příspěvků 3. ročníku mezinárodní vědecké conference, Reviewed Papers of the 3rd International Scientific Conference. Praha: Extrasystem Praha, 2018. s. 31-36. ISBN 978-80-87570-40-1

Blasko, M., (2009). Úvod do modernej didaktiky I. 2009. (Systém tvorivo-humanistickej výučby). [online]. Dostupné na internete:

http://web.tuke.sk/kip/main.php?om=1300&res=low&menu=1310>.

Hrmo, R., Turek, I. (2003). Kľúčové kompetencie 1. Bratislava: STU, 2003. ISBN 80-227-1881-5

Marks, I. – Lajcin, D.(2017). Anton Štefánek a slovenské školstvo v medzivojnovom období – vybrané problémy. Brno : Tribun EU, 2017. 119 s. ISBN 978-80-263-1362-5.

Marks, I. – Lajcin, D.(2016). Moderná škola v ponímaní Antona Štefánka. In Paidagogos: časopis pro pedagogiku v souvislostech, roč. 2016, č. 2 (2016), s. 125 – 140. ISSN 1213-3809.

Szarka, K.- Brestenska, B. – Juhász, Gy.(2015). Analýza aspektov hodnotenia autentických výstupov a komplexného monitorovania žiackych prác v chémii. In: Didaktika chemie a její kontexty: 24. Mezinárodní konference o výuce chemie. Brno: Masarykova univerzita, 2015, CD-ROM, p. 200-208. ISBN 978-80-210-7954-0

Szőköl, I. (2016): Educational evaluation in contemporary schools. Szeged: Belvedere Meridionale, 2016, 159. p., ISBN 978-615-5372-60-5.

Szőköl, I. (2015). Quality management system in educational process. In. Gómez Chova, L. – López Martínez, I. – Candel Torres, I. (eds.): 8th International Conference of Education, Research and Innovation. Seville (Spain): IATED Academy, 2015, s. 7282-7285. ISBN 978-84-608-2657-6

Ugrai, J.(2016). The Highs and Lows of Reform. The Divergent Development of Public Education and Teacher Training in Hungary. In: Foro de Educación. 2016. (14.) 21. 39-57.

Ugrai, J. (2020). Going on Their Own Way. Protestants' Specific Models of Joining the Cultural Elite in 19th-century Hungary. In: Espacio, Tiempo y Educación. 2020. (7.) 2. 119-133. doi: http://dx.doi.org/10.14516/ete.243

About Authors

István Szőköl. In 2016 at the Eszterhazy Karoly University of Applied Sciences he successfully completed his Habilitation in the education research field. To this day, he has over 120 publications in national and international conferences on various topics, such as ICT use in the teaching process, the introduction of modular teaching in the education process, introducing the educational quality management, pedagogical communication and he is also the author and co-author of three lecture notes and five monographs.

Since 2004 he is the head of the Department of Pedagogy of J. Selye University in Komárno, Slovakia. Since 2011 he is the head of the Methodology and Pedagogy Centre for Komarno, where his main task is to provide supplementary trainings for Hungarian teachers.

Ondrej Kováč. He is the PhD, students at the DTI University in the didactics of Technical Vocational Subjects research field.