Financial Literacy as a Fundamental Strategy of Effective Learning

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Abstract

Personality development is determined by several factors, we have focused on the effect of financial literacy. Gaining new knowledge and skills not only from mathematics is influenced by class climate and environment in which the educational process takes place.

Finanzielle Grundbildung als grundlegende Strategie des effektiven Lernens

Zusammenfassung

Persönlichkeitsentwicklung wird durch mehrere Faktoren bestimmt, wir haben uns auf die Wirkung von Finanzwissen konzentriert. Das Erlernen neuer Kenntnisse und Fähigkeiten nicht nur aus der Mathematik wird durch Klassenklima und Umwelt beeinflusst, in denen der Bildungsprozess stattfindet.

1   Introduction

Ability of self-knowledge, self-control in interaction of relationships and environment represents lifelong journey of personality development. Family is the source where we acquire first skills in order to form the own identity. The school continues in this influence. As well as we cannot ensure „perfect" conditions for social-emotional development for all parents and families, also teachers have different level of social-emotional competences. Since school is the professional institution, in last years there were prepared many programmes, trainings for development and keeping of social competences of student for teachers.

Mathematics is one of the most difficult sciences, with respect to skills necessary to cope with it. Logic, logical thinking, spatial perception, exact thinking, accuracy and concentration are not always a matter of course in students with mathematical literacy. Therefore, the focus is on the question of primary and secondary school students´ level of knowledge of mathematics. Within the professional circles, the difficulty of the A-level in mathematics and even its change to a compulsory graduation subject is discussed vividly. Understanding the mathematical skills is a prerequisite for study in technical fields.

Mathematics is regarded to be the language of technique. The problem of the decreasing level of mathematical knowledge is transferred not only into higher level of education but also into practice. Weakened mathematical and scientific literacy lately arise as one of the principal obstacles in technical fields´ development. The above mentioned trends are also confirmed by the PISA, TIMSS international research. The specific ability to learn certain activities necessary to human life is regarded to be the general definition of literacy by professionals. Among professionals, this term is often replaced by the term "functional literacy",

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whereas the term refers not only to acquire certain skills and knowledge developing personality of an individual, but also the ability to practically use that knowledge and skills in real life. According to various theoretical perspectives and views, we distinguish between several kinds of literacy, e.g. financial, numerical, mathematical, reading, health, scientific literacy etc. Mathematical literacy can also be found under the term numeracy between the components of functional literacy. The definition of mathematical literacy, according to J. Prucha, E Walterová and J. Mareš (2009, p.147), is based on OECD PISA sources and it is formulated as "the ability of an individual to identify and understand the role of mathematics in the world, to make well-founded mathematical judgments and deal with mathematics in a way that will meet the needs of the present and future life of the individual". According to an older definition it is "the ability to recognise and understand mathematical problems, deal with them and use mathematics in private life, in the employment and in the company of friends and relatives as a constructively involved and thoughtful citizen"(Straková, 2002, p. 11). The most frequently used definition is a formulation laid down for the OECD PISA international research: "Mathematical literacy is an ability of an individual to recognise and understand the role of mathematics in the world, to make well-founded judgements and to penetrate into mathematics so that it helps meet living needs of the individual as a creative, interested and thoughtful citizen." (Learning for Live – OECD PISA 2003 Research Result). The essence of mathematical literacy is, therefore, to understand the surrounding world and to be able to solve various social issues through mathematics.

2 Achievement of positive results of educational activity of teacher and learning of students is the primary objective of high school students

Then term climate comes from Greek and means "prevailing weather conditions". The term climate is not used only in this context. We use this term also to describe the particular environment, "prevailing conditions" of the environment. In pedagogy, the terms class climate, school climate and school environment climate are often used (Petlák, 2006, p. 15). The notions of school and class climate are very closely related to the terms of school and class environment and atmosphere. The learning environment is beyond the social-psychological aspect and refers to the physical environment as well (class lightning, class equipment, wall colours and other), whilst the class atmosphere is current, it is a short-term condition in the class, often changing, sometimes even during a teaching unit (Gavora, 1999, p.239). There are various factors affecting school or the class climate (teachers, students, parents, environment and others) but also interactions between teachers and students or between the students themselves. Just because school or class climate are affected by several factors, we cannot talk about universal climate. The group of students in a class can, however, act differently with different teachers. The experience shows that whilst one teacher experiences a rather negative class climate, another teacher perceives it as non-problematic. It means that a variety of factors participate in the class climate (Petlák, 2006, p. 18). Teacher acts as a co-creator of the climate in the classroom. In the beginning of the compulsory school attendance, he carries it and he plays a fundamental role in social climate shaping in the classroom. He supports socio-moral development of children through: 1. adoption and acceptance of basic psycho – social values, which are necessary for human coexistence. This includes:

- *Self-determination of a person* – it is possible only based on freedom from fear, coercion and control,
- *Respect* – relationship to mental and physical integrity. Respect and equality of people,
- *Mental and physical functioning support* – it is expressed in the mediation of relevant knowledge. It includes help and individualization of approaches for the benefit of learning,
- *Social order* – it is built based on social life and social cooperation.

2. meeting the needs of pupils related to motivation and learning:

- Pupils in the learning process have a possibility of a choice and possibility of a free creative space allowing them to do a self-controlled learning.
- They have a possibility to gain information feedback about their learning.
- Teachers accept them, there is a friendly atmosphere in the class.

3. discipline survey in the classroom, identifying various forms of frequency and severity of symptoms of inappropriate behaviour. Systematic management of prevention and correction of undesirable behaviour in the classroom.

Pupils perceive the climate in the classroom as supportive, when the teacher can focus on the issues, whether he is fair, honest, fair but also whether he can respond positively to pupils. Various researches aimed at determining signs of a good class climate and good results achieving say that the emphasis should be put on:

- *Support* – a pupil has positive feelings in the classroom, he enjoys searching and finding new things, is not afraid of mistakes, he is happy when being successful.
- *Order* – there are sensible rules in the class connected to the way of behaviour of pupils and observance of these rules.
- *Participation* – pupil has an opportunity to communicate, is engaged in activities in class and can decide on his own.
- *Standards* – a pupil's collection of norms is clearly defined, what aim should be reached, not only by execution, but also by his attitude
- *Sensibleness* – it is important to emphasize sensibleness, meaningfulness of the curriculum and learning activities.
- *Responsibility* – sense of responsibility for his own learning, fulfilling hiss tasks, participation in school tasks, achieving success.
- *Interest in learning*
- *Success expectation* – the pupil can solve tasks, to go beyond his limits of publicly declared expectation.
- *Impartiality* – partiality and injustice, to emphasize absence of favouritism, reward for a well-done job.
- *Safety* – it is a testimony about the absence of mental or physical violence. Removing of stressful factors and knowledge of procedures that are necessary to deal with these situations and how to fix them.

The features defined by pupils mentioned above are prerequisites for a positive change under the influence of a teacher that with its increased efforts can affect educational activities, evaluation and management of educational activities the most, as well as communication with students, but mainly positive attitude towards students. Good relationship between teachers and students is characterized by understanding the social point of view of each child. The teacher must understand individual opinions of students in the group and consequences of these must be respected in its proceedings and in the learning process. The quality of the relationship is expressed by the fact that the teacher prefers in his actions, reflection and permanent interaction such values that are to be communicated to pupils and to be expected from them. His relationship with the students and all his qualities are expressed through good and sensible communication.

3   Teacher in the process of elimination of stress in educational environment

Using the interventions in the classroom, the teacher can affect its social climate. Every day he cooperates with pupils, encouraging them to participate in the life of the class. He seeks to promote cooperation between pupils and stimulate their skills in solving social problems. The teacher supports their emotional balance, facilitates their mutual understanding. He accompanies them in discovering the world as their friend, advisor and confidant. Fairly evaluates pupils and provides diagnostics. He cooperates with pupils, teach them about respect, equality of all pupils in their rights and obligations. The teacher does not try to control pupils in their personal problems and does not manipulate them, but tries to understand them and tries to regulate them without enforcing his own ideas and practices. They are committed by him to co-decision and responsibility. The teacher influences the social climate through his effecting with the help of guidance of social interaction, emotional state of mind of students and social relations in the classroom.

The teacher his relationship with pupils, his social and cultural models, helps to constitute the social interaction and social relations between them. At the beginning of school pupils accept the authority of the teacher in completely other way, moreover, they even accept their classmates depending on how the teacher accepts and evaluates them. The interpersonal and peer relationships between classmates are still quite volatile. They can become stronger and more positive in case that the teacher cares about all pupils, is receptive to them and has a positive attitude. Pupils come into the daily social interaction with peers, either voluntarily or involuntarily. Their basic social needs are satisfied by sharing their experiences. They experience positive emotions and in

situations with a negative tension they are involved in disputes. Often, they can be very hard, ruthless and merciless to others just because they are different. It comes to behaviours that reflect the quality of relations between them We can observe in the classroom:

- *Sharing* – desire to share common things, desks, water colours, common books, textbooks, etc.
- *Mutual support and assistance* – students help each other with simple tasks, borrow things stood a friend, cooperation among pupils.
- *Imitating* – their example is many times a teacher, as well as a popular classmate because of their positive, but also of their negative qualities.
- *Vaunting and cheating* – it appears by pupils in the case if they want to be the same as the others or if they want to exalt over them. Such a behaviour is used by the pupils to get noticed by the others, because this way is the only one to attract the attention of them.
- *Rivalry and competition*– this is typical for the pupils who yearn for awards, seek for success and want to highlight the mistakes of the others.
- *Sneaking*– this behaviour is typical for younger pupils. They want to attract the attention of the teacher.
- *Taunting* - this expression tends to achieve the degradation of the student, to focus attention to the fact that I am a better now. Sometimes it may also be irony or joking. The pupil should learn to respond appropriately to adulterants behaviours of the classmates.
- *Toadying and obtrusion* – this behaviour is usually chosen by an unsuccessful child who has it as a way of attracting the attention, as integration into a smaller group.
- *Enforcement and an aggressive behaviour* – typical for the pupils who lack a behaviour model.

The emotional state of mind of pupils is greatly influenced by teacher's actions. It depends not only on the learning environment, other factors also to extend to it. It is influenced by family, from which attitude towards learning and to the school itself derive. Each pupil has his life story. How he/she feels and behaves at school, with what courage or concern he/she access to education and the way of building the position in the classroom. Everything has its cause, whether the experiences they gained from home or that from another setting. Many pupils have a lack of courage and they do not trust their skills and have a sense of inferiority. However, from empirical research we know that emotions have a big impact on the learning process. They can block it, support it, but, on the other hand, thinking and action of a good quality focused on the solving of various problems can release it. The teacher knows very well that the emotional issue of their pupils cannot be neglected. It is very difficult for him to examine the emotional processes of pupils. Emotions can be verbalized, but only a small part of it proceeds consciously. Often not even a pupil can say what is happening to him. In the case that his emotion is well-hidden, it can result in reduction of emotional expressions. Perceived mental stress, need to escape and fear of failure are very difficult to identify. The teacher watches them only in the form of expression or physiological symptoms such as sweating, facial expressions etc. Inconsistent treatment of parents and teachers has a decisive influence on the social climate in the classroom. Communication with authoritarian manifestations, excessive overloading on the part of parents and teachers. Pupils evaluate and perceive situations and deal with them in the classroom based on their previous experience. Communication with authoritarian manifestations, excessive overloading on the part of parents and teachers. We can observe the expression of sadness, fear, helplessness, loss of interest in learning, avoidance of certain activities, underestimating themselves, pessimism, expectation of punishment. A consequence of neglect to accumulated anger, hostility, loneliness is created in the class room for the creation of situations in which pupils are concluded together. If anxiety or depression appears by the pupils it is often accompanied by a deterioration in school performance. Victims of bullying have the characteristics of low self-esteem, anxiety or shyness.

If social climate in the classroom is neglected and it often comes to worsening of pupil behaviour or aggressive expressions. If relationships are not based on values such as empathy, understanding, solidarity, acceptance, then there is room for bullying, aggressive behaviour, in other words for the consequences of failure of social relations. Such a negative behaviour affects the role of pupil's method of communication, interaction, cooperation between pupils and between pupils and teachers. If there are more holders of aggressive behaviour in the environment, good atmosphere, positive expectations, openness decrease in the classroom, and there is a predominance of a disruptive behaviour. The teacher must influence the social climate deliberately so that it contributes to forming an emotionally safe environment in which every student will feel safe. If the pupil is in an environment where trust to the teacher and classmates survives, the teacher has acceptance in the classroom, there is not disparaging, but experiencing a sense of belonging, community and

influence. It is very important for the teacher to increase the quality of classroom climate, well-being to be in the classroom humour, laughter, good mood, praises and compliments. The teacher encourages atmosphere safe environment by observing the students as they come to class. He sees signs of trouble before he starts teaching. If the teacher notices a stormy debate or conflict between students, he should attempt to solve the problem immediately. Nowadays, when there is rising incidence of aggression in the school environment, teachers must deal with communication difficulties in the classroom. When communicating with verbally aggressive students, following principles must be applied:

1. To be calm when communicating with an angry student. Do not act authoritatively, cannot react to a verbal attack in the same way. At first the teacher should leave the pupil to talk about his problems without being interrupted.
2. To listen the pupil carefully and to accept his behaviour. Acceptance does not mean agreement with it, it should only mean accepting the message of aggressive pupil. The teacher accepts what the pupil says as notifications that are important to him subjectively, from his perspective are true, although the educator may not always agree with it. He orients himself by using supplementary questions in a situation and at the same time he should show personal interest in the issue.
3. With active listening and empathy, the teacher tries to realize how exactly the pupils mean the words he says. The teacher must find out the cause of aggression and how the pupil experiences it. It is appropriate to paraphrase shorter sections ending with the question of whether he accurately understands the pupil and after longer sections to summary of what he has said. The teacher indicates so that he reflects the student, and that he tries to understand and understands the reasons which led to his behaviour
4. If it is possible, the teacher should strive to meet the pupil. If not, he would still have to explain his position together with an understanding of his disappointment. The teacher should have to give space to answer his questions and help him to look for solutions.
5. The teacher should verbalize feelings of the pupil he communicates with. "I see that this question excites you. Could you say more about that?"
6. We should support the pupil to debate about the subject of his interest. The teacher must find out what it is and why is the pupil focused on it. To check pupils' interest. What he wants, why he wants it, it is very important for his understanding and communication, then for the negotiations he wants to reach an agreement with.
7. If possible, the teacher tries to cope with aggression using assertive communication. If the attacker tries to provoke the teacher with the aggression and use his failure in his favour. "I understand your excitement. I would perhaps also react similarly. What about talking about everything in peace?"
8. We try to change human relations. Problems are solved better and agreements are stronger when it comes to communication between teachers and pupils, in which they at least partially, if not completely perceive as partners.

Aggression, whether it is at school or in a company exists in manifold forms. From the socially tolerated to the sanctioned ones. Aggression is a departure from the usual social behaviours. Communication with feelings of anger, annoyance, irritation with motivation to hurt someone or to punish someone. The source of aggression are harmful stimuli. It arises and may be transmitted, as well as inhibited. It is often negatively, but also positively socially evaluated. The definition of aggression in the diversity of its expressions is quite varied. Each one definition is beneficial with something. Many times, it determines the important aspect.

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