

WHAT MOTIVATES SECONDARY SCHOOL LEARNERS TO STUDY?

SZABÓ-THALMEINER NOÉMI¹

ABSTRACT. School performance is determined not only by the learners' cognitive abilities, but also by several other factors, including learner motivation, which provides the necessary energy for learning (Oroszlány, 1994). Experience has proved that learners equipped with very good learning abilities do not achieve their best possible results, while learners with weaker cognitive abilities but more diligence work hard and do better at school. The phenomenon can be explained with the degree and form of motivation for learning, which, if taken into account and developed, can become a tool for fostering achievement. The research tries to find out the characteristics of grammar and high school learners' motivation, using written surveying methods (Kozéki & Entwistle, 1986), and examines whether there are any typical differences based on age group and gender. The questionnaire analyses learner characteristics along three dimensions: social-affective, cognitive-behavioral and moral-integrative. Based on the research findings, recommendations can be made on how to motivate learners effectively, which teachers of different age groups could use.

Key words: *learner motivation at school, learning achievement, secondary school education, the fields of motivation at school (affective motives, cognitive motives, self-control motives)*

ZUSAMMENFASUNG. Die Schulleistung wird nicht nur durch die kognitiven Fähigkeiten der Schüler bestimmt, sondern wird auch von anderen Faktoren beeinflusst, unter anderem die Motivation der Schüler, die die nötige Energie für das Lernen garantiert (Oroszlány, 1994). Die Erfahrungen bestätigen oft, dass leistungsstarke Schüler oft weniger leisten als erwartet, beziehungsweise lernschwache Kinder durch harte Arbeit und Fleiß in der Schule sehr gute Ergebnisse erreichen. Das Phänomen lässt sich durch das Maß der Schulmotivation und Schulform erklären, durch deren Stärkung und Berücksichtigung der Schulerfolg der Schüler beeinflusst werden kann. Die Recherche (Forschung) unternimmt, daß

¹ Department of Psychology and Pedagogical Sciences, Babeş-Bolyai University Cluj-Napoca, Romania, Email: szabothnoemi@yahoo.com

man durch schulische Befragung (das Instrument Kozeki-Entwistle Motivations-Fragebogen) die Eigenheiten der Schulmotivation der Schüler aus den 5-12 Klassen aufdeckt, ob es typische Unterschiede nach Alter und Geschlecht gibt. Das Fragebogen ergriff auf drei Dimensionen (affektiv-sozial, kognitiv-aktiv, moral-integrativ) die Eigenheiten der Motivation jedes einzelnen Schülers. Aufgrund der Forschungsergebnisse können wir für die Lehrkräfte, die sich mit verschiedenen Altersgruppen beschäftigen, Empfehlungen betreffs der effizienten Motivation der Schüler formulieren.

Schlüsselbegriffe: *schulische Motivation, Lernerfolg, Oberschulbildung, die Bereiche der schulischen Motivation (affektive Szene, kognitive Szene, Selbstkontrolle - Szene)*

1. Introduction

School performance is determined not only by the learners' cognitive abilities, but also by several other factors, including learner motivation, which provides the necessary energy for learning (Oroszlány, 1994). Experience has proved that learners equipped with very good learning abilities do not achieve their best possible results, (Ziellmann, 2002), while learners with weaker cognitive abilities but more diligence work hard and do better at school. One possible explanation of the phenomenon could be the degree and form of motivation for learning, which, if taken into account and developed, can become a tool for fostering achievement at school. (Báthory, 2000).

In the present paper we are looking at secondary-school (year 5-8) and high-school (year 9-12) students' motivation for learning, as by finding out more about its characteristics we could reconsider and further develop the ways and means of motivating children for learning and we would be able to formulate suggestions to teachers and parents on more effective ways of motivation.

According to an outstanding representative of the research of motivation, Kozéki Béla (1980), motivation is an inner tension that triggers action, either to avoid something unpleasant or to achieve something desirable. Owing to motivation, certain actions can make use of a lot of energy to be carried out while others cannot.

The original meaning of the word motivation supports the above mentioned, as the Latin word 'movere' means moving. (Estefánné Varga M. et al) While in action motivation has four phases according to Nagy József (2000) in the first phase we perceive the changes of the inner and outer environment, with a

view to the second phase, in which we decide upon being interested in a situation. (eg. if one needs to relax because they are very tired, they will go to sleep while watching their favourite programme.) The third phase consists in signalling the decision of being interested, and the fourth is the drive to carry out an action. Motivation consists of several motives, among which we can distinguish primary ones, urges characteristic to both animals and humans (needs, homeostatic urges, drives, feelings, desires), as well as higher order motives, which are only characteristic to humans (intentions, wills, competence motives and performance motivations) (Balogh, 2006, p. 19-22).

Maslow presents in the form of a pyramid the hierarchy of needs, which foster certain behaviour in people, and determine their trains of actions. Starting at the base of the pyramid he enumerates the following needs: physiological needs (hunger, thirst, etc.), security needs (feeling secure, far from danger), need for love (belonging to a group, being accepted), need to feel esteem (being competent, achieving your goals, being appreciated by others), cognitive needs, (need to know, understand, comprehend), aesthetic needs (need for symmetry, order, beauty), need for fulfilment (achieve fulfilment, seize opportunities) (Atkinson et al, 1995, p. 402). The hierarchy is based on the assumption that certain needs must be taken care of before others, thus Maslow presumes that one tends to cater for basic human needs, those related to life support, first, before higher order ones, those on top of the pyramid: cognitive, aesthetic and self- esteem. Nevertheless, Maslow's views can be easily disproved as one can see that our curiosity or need for fulfilment can get ahead of the primary, life supporting needs.

Murray classifies 27 needs into six groups, providing us with one of the most exquisite motivation systems. The six groups comprise: ambition (achievement motivation), clinging to objects (possession), protecting status, power (dominance), relationships, exchanging information (cognition). (Estefáné Varga et al)

Starting from the present day reality in pedagogy, the question arises as to what motivates children to learn, what are the motives that drive them to acquire knowledge, to achieve school performance, how to model a stable learning motivation pattern that define learner personality in the long run?

Tóth László divides motives in three groups that particularly influence learning at school. The first group connects to learners' need for self-esteem and includes sustenance and growth of self-confidence. Anxiety and motivation to achieve belong to this group. The second group of motives is that of curiosity, which stems from the need for cognition and comprehension and stands at the basis of research and discovery. The third group is that of social motives, which aims at the realisation of affectively fulfilling interpersonal relationships. (Tóth)

Learning performance is greatly influenced by self-image and self-esteem. Self-image is modelled by feedback from the environment, as compared to the expectations set by ourselves, as well as our social environment (teachers, parents, peers), to the degree in which they all accept us. During school work self-esteem is mostly modelled by anxiety and motivation to achieve. Anxiety can be a demotivating factor that can prevent the learners from performing as well as their abilities would allow. Anxiety is closely related to motivation to achieve, which can be found in the striving for success, as well as in trying to avoid failure. If a task causes anxiety in a learner, that usually leads him to trying to avoid failure. The more failure children experience at school, the less self-confident they will be, the less self-esteem they will possess, the less they will value themselves, and soon, their behaviour will change accordingly. Strong level of anxiety can even lead to children hating school. Nevertheless, children's anxiety levels may change, consequently, teachers must take that into account and interfere accordingly, lowering the level of excitement of those in a high anxiety state, while, sometimes raising the excitement level of those less anxious.

Motivation for learning is highly influenced by the positive and negative emotions felt during the process. It is well known that positive feelings reduce the level of anxiety in children, so they could focus on the learning task more at ease. Csíkszentmihályi (1997, in N. Kollár & Szabó, 2004, p. 188) suggests that the best time for learning is in the state of flow, of total relief, without any distress, when the child is enchanted by the thrill of executing a task. However, that would not happen unless the degree of difficulty of the task correlates with the level of cognitive development of the learner, as a too easy task would be boring, while a too difficult one would lead to anxiety. Negative feelings augment anxiety, which past a certain level could be debilitating, so that the learners would underachieve as compared to their abilities. As a result, it is important to mention the importance of developing the right level of motivation for learning to be efficient. The way we approach a given learning task is an individual characteristic. Motivation for learning fosters progress until the reach of an optimal state, but past that state, it will get in the way. In case children consider, based on their preliminary experiences and memories, that they would be able to execute the task, they will strive for success, feel able to succeed, thus will solve problems easily with just a small input of energy, which will ensure further sense of achievement. In case children had experienced more feelings of failure, the causes of which they attributed to themselves, they will try to avoid failure and will make use of more energy input for learning, the outcome of which will not always be a sense of achievement.

The task of the teacher is to provide the children with as many experiences aimed at feeling a sense of achievement, which can be realized by changing the individual tasks and requirement levels on the one hand, while, on the other hand, by changing the children's ways of thinking, from a pursuit of avoiding failure towards setting up a sense of achievement behaviour pattern.

The second group of motives refers to curiosity and the need to acquire and understand knowledge. Humans possess an inherent tendency to explore, a need to discover their environment. That need, however, similarly to the level of anxiety, varies with every individual. Thus, in a class, too, we can observe that some learners are more exploring, curious and inquisitive than others. During the learning process at school we should try to arouse curiosity, pose realistic problem situations, as tackling those problems could be intriguing in itself for the learners.

In the case of motivation for learning we can distinguish intrinsic motivation (self-rewarding motivation), that appears in the form of curiosity, interest and quest for knowledge motivated by the joy of carrying out a task, as well as, in case the intrinsic motivation doesn't happen, either owing to the subject matter studied, or because of the existence in parallel of other needs, intention will step in, that is willpower, which can be enforced with the help of other means of extrinsic motivation, various forms of rewarding and punishment. (Báthory & Falus, 1997, p. 491). While managing learning learners who are internally motivated should not be rewarded with external means, as by combining the two types of motivation the same task that the learner fulfilled for the joy of performing it will later be carried out only in expectation of some external reward. Vallerand (2004) distinguishes between three types of intrinsic motivation: (1) motivation to know, acting for the joy of learning, for acquiring knowledge, (2) motivation to develop and create, based on the desire to create, to surpass ourselves, (3) motivation to feel stimulated and live through experiences, when one is looking for pleasure.

The third big group of motives consists of the motives of social acceptance, the need of the individual for acceptance by the peers, esteem, attention, recognition, care. Younger learners tend to crave for the recognition, acceptance, praise of the teacher, the recognition from peers is not yet a strong motivator. Older learners, on the other hand, tend to be motivated by the competition among peers, to achieve the best social status, and as a consequence learners seek more peer acceptance than teacher recognition. Thus cultivating teacher-learner relationship and creating a safe affective environment in the classroom becomes very important.

Children who are asked whether they like learning, finding out about new things, or whether they like going to school, might not give similar answers.

It might happen that the children would want to gather more knowledge about the world but are not able to or don't want to meet the school requirements all the time, which will also affect their motivation for learning. That realisation was, in the last century, at the origin of the researches of motivation at school, as well as of those factors that affect motivation at school, which scholars consider of a larger scale than the concept of motivation for learning. While analysing the concept of motivation at school we base our assumptions on Kozéki (1990), who defines it briefly as the motivation to meet school requirements

Kozéki Béla (1990) considers that environmental factors play an important role in the development of motivation at school, as they will affect the development of children's character through the different means of reinforcement. The chart below presents his system of motivation styles that children develop alongside social environment and motive types, thus pointing out the great importance of parents, educators and peers in the development of motivation at school in children, incidentally that of motivation for learning, and that motivation is also influenced by affective and cognitive experiences, as well as the belief system of children.

Table 1. The fields of motivation at school (Kozéki, 1990, p. 102)

Motives / Environment	Affective – personal relationships	Cognitive – Physical environment	Self-control – own value system
Parents	Friendliness/ warmth	Independence / Pursuit of own way	Self-esteem and confidence / Conscience
Educators	Identification	Competence / Acquiring knowledge	Meeting requirements / Imitating values
Peers	Sociability	Interest / Shared activity	Responsibility

Based on the two dimensions nine motives are distinguished, which, in different combinations, structures, result in different motivation styles.

1. Friendliness/warmth – children can be motivated to learn by having a good relationship with their parents, as they would want to make them happy getting good results at school.
2. Identification – good relationship with the educators can also be a motivating factor, children strive to meet the educators' requirements, then build those requirements into their own personality, pursuing them as personal goals.

3. Sociability – a good relationship with peers also motivates as children want to be liked by their peers, accepted by their communities, which can be motivating on condition that the community appreciates their attitude.
4. Independence – the wish to discover the world. Children who are independent tend to be motivated by their success to get by on their own in the world. They can become perfect through learning.
5. Competence – the wish for knowledge can be motivating. Knowledge, skills and abilities acquired at school develop competence, which urges children to learn.
6. Interest – pleasure of acting, taking part in interesting activities motivates children.
7. Self-esteem – other people’s appreciation develops self-esteem or the lack of it in children that can motivate them to make an effort.
8. Meeting requirements – the need to meet standards, which pervades in a feeling of duty.
9. Responsibility – acceptance of and behaviour in accordance with social norms, assuming responsibility for own behaviour. Children feel pleased to behave responsibly and meet requirements (Kozéki, 1990, p. 104).

The presented system helps understand the myriad of motives that motivate children to learn and to go to school. Recognising the role of parents, educators and peers in the development of motivation, we are able to make further considerations of the educational means that are able to shape those motives and could be used to boost the learning achievement in children.

In the next part of the paper we are looking at the motivation at school of the pupils of one school based on the nine dimensions presented above. Following, we will analyse the motivation status of schoolchildren of a particular school based on the nine enumerated dimensions and the additional tenth that of the feeling of educators’ pressure.

2. Research Design

2.1. The aim of the research

It is widely accepted and research data supports (N. Kollár & Szabó, 2004) the fact that the older children become, the less they like going to school, they are not enjoying themselves and are less motivated to learn. Obviously, at the basis of the phenomenon there is a wide range of causes that cannot be

presented in our paper exhaustively. Nevertheless, we are trying to find those motives that are the most responsible for influencing children's activities at school, as well as their attitudes to school activities. We are also trying to find those aspects of their social environment that would most affect their learning achievement. Analysing those problem questions has practical usefulness as well, as learning about the motivation of pupils of one the school in the study, enables us to formulate suggestions to the teachers, as well as to the parents of those children, with regard to the possibilities they have in helping to shape and improve motivation in their pupils or children.

2.2. Research hypothesis

Following previous research in the field (Kozéki – Entwistle, 1986; Csibi, 2006; Gömör, 2006; Liptákné Czakó, 2006; Peltekianné Cseke, 2008), as well as considering empirical data, the following *hypotheses* were formulated at the beginning of the research:

- Learners are mostly motivated by the need to meet their parents' expectations
- Learners are the least motivated by the feeling of pressure imposed by teachers on pupils at school
- Importance of motives varies with the age group in which learners belong:
 - In years 6 – 7 at school the motive of belonging to the peer group becomes more important
 - In years 8 and 12, responsibility grows, as both age groups are on the verge of serious examination sessions, entrance examination into year 9, A-level /baccalaureate exams.
- Gender influences learner motivation
 - Girls are motivated more by affective motives
 - Boys are motivated more by cognitive factors at school

2.3. Research tools

The *research type* was *diagnostic*, surveying the pupils in years 5-12 of a school in Satu Mare, Romania with the help of a questionnaire designed by Kozéki – Entwistle, for finding out motivation at school (1986). The questionnaire was added demographic questions to help further analyses, as well as questions about favourite and least favourite subjects at school. The questionnaire on motivation consists of 60 statements that provide the means

to identify the 9 motives presented in the theoretical background (each motive is examined along 6 questions to identify their intensity). We have also added a 10th motive, the feeling of pressure imposed by the teachers. Pupils were asked to mark on a scale from 1 to 5 the degree in which they agree with the statements. In order to process the data, mathematical and statistical methods were used (calculations of mean, frequency and correlation) with the help of the computer programme SPSS.

2.4. The sample of participants

The survey was done during November 2013, with the assistance of the school's education counsellor and its teachers. During the survey pupils from years 5, 7, 8, as well as two classes of year 10 and one each of years 11 and 12 of study were asked to fill in the questionnaires. That meant a total number of 177 respondents, out of which 96 are boys and 81 are girls (see Table 2).

Table 2. The survey group according to gender and age

Gender / Year	Boys	Girls	Total
5	18	11	29
7	19	13	32
8	13	13	26
10	21	20	41
11	12	13	25
12	13	11	24
Total	96	81	177

Owing to the fact that motivation at school is basically determined by the attitudes of the children's parents towards school, we consider it important to present the variation of the survey group according to the parents' qualifications as well. Figure 1 shows that half of the parents of the surveyed group have a university or college degree, one third have A-level diplomas, 17% finished technical schools, only few left school after the first eight years and a few have a PhD degree. If we are looking at the differences in schooling as compared to the gender of the parents, we can see that those are not significant, though a slightly higher percentage of the mothers graduated university than that of the fathers and more of the fathers finished a technical school (differences of 5.5% and 6.4% being insignificant).

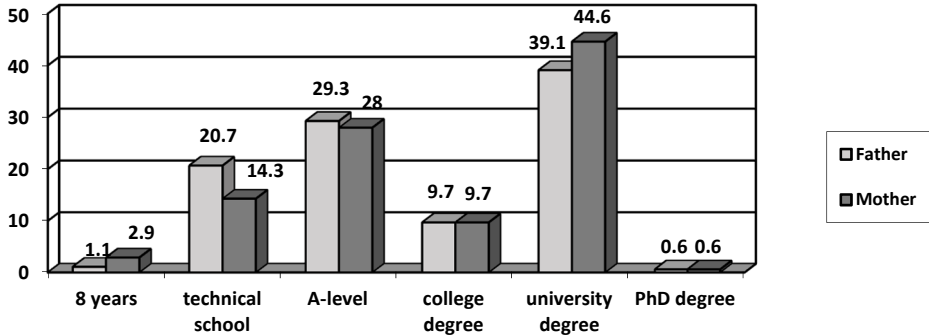


Figure 1. The survey group according to gender and parents' qualifications

2.5. Presentation and evaluation of data

During data processing it became clear that from among social relationships it is the parents and the peers who mostly influence the learners' motivation at school, followed by the influence of the teachers' on the children's system of values. As far as the personality traits are concerned, affective factors and moral values motivate learners most, while cognitive factors seem to motivate them less (see Table 3).

Table 3. Ranking of motivation factors according to total and gender

Motives	Total (rank)	Boys (rank/points)	Girls (rank/points)
Parental affection (Pa - aff)	1 / 23.71	1 / 23.82	2 / 23.59
Conscience (Pa - val)	2 / 23.44	2 / 22.86	1 / 24.13
Responsibility (PG - val)	3 / 22.55	4 / 21.74	3 / 23.51
Peer group adherence (PG- aff)	4 / 22.21	3 / 22.12	4 / 22.32
Following values (E - val)	5 / 21.32	6 / 20.5	5 / 22.29
Need for independence (Pa - cog)	6 / 20.53	5 / 20.59	6 / 20.47
Need for acquiring knowledge (E - cog)	7 / 19.52	8 / 18.99	7 / 20.24
Collaboration (PG - cog)	8 / 19.47	7 / 19.28	8 / 19.73
Parental acceptance (E-aff)	9 / 18.23	9 / 17.79	9 / 18.76
Feeling of pressure	10 / 17.11	10 / 16.66	10 / 17.47

(Abbreviations: Pa-parent, E-educator, PG-peer group, aff - affective, cog - cognitive, val - values system)

Cognitive factors rank on positions 6-8 at this school, which allows us to draw the conclusion that affective, conviction factors have a stronger influence on school motivation of learners than their need for acquiring knowledge. It can be interesting to notice, while evaluating the overall data, that the motives ranking on the last two positions in our table that least influence learners' motivation at school are acceptance by teachers and the feeling of pressure they put on the learners. While comparing our data with other similar researches (Balogh, 2006, p. 211), we may conclude that the motives of warmth/friendliness (parental affection), which stands on top of the list, as well as that of pressure (high standards of requirement that put strong pressure on learners) ranked on the same positions in other studies with a different surveyed group. Nevertheless, there are differences in ranking of the cognitive motives: while in the case of the afore-mentioned study, educators rank higher, in the present study the cognitive motives induced by the parents play a more important role in the development of motivation at school.

While looking at ranking of motivation factors and gender, we can see that there are no significant variations in the motivation of girls and boys. Moreover, the motives of acceptance by teachers and feeling of pressure rank on positions 9 and 10 in both cases. The other factors swap places in pairs: girls are mostly motivated to learn by conscience and duty, while with boys their parents' affection and acceptance by peers is slightly more important. Another conclusion is that girls are more influenced by the status quo of the value system than boys (nevertheless, that is a basic motivation factor in the case of boys, as well), and that cognitive motives rank higher with boys (position 5 as compared to position 6 with girls) (see Table 3).

Let us now look at the calculated means along different dimensions for the two genders. Based on the areas of personality we differentiate between follower (affective motives), enquirer (cognitive motives) and productive (moral values) motivational dimensions.

Table 4. Variation of motivational dimensions with gender

Motivational dimensions	Mean values		
	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Follower	63.73	64.67	64.15
Enquirer	58.86	60.44	59.52
Productive	65.1	69.93	67.31

Table 4 shows that girls produced higher motivational values than boys in all the three dimensions, which can lead us to the probability of stronger motivation at school in girls than in boys. The most significant variation with gender is in the case of the moral values. Moreover, in the case of the girls, conscience also ranks first. Although we presumed that in case of the boys cognitive motives prevail in motivation at school, our results show that cognitive motives have the least influence on boys' motivation. Furthermore, their mean is lower than that of the girls'. The slightest variation with gender is found in the case of affective, follower dimension, which, set against the values received in the ranking, leads us to conclude that it is the most influential motivational dimension with boys, especially as far as their relationship with their parents and peers are concerned, while their relationship with teachers interests them less.

Let us now turn to the correlation between motives and school years. In the *follower* motive group the role of the affective factors varies with age as seen in Figure 2, which shows how acceptance by parents, teachers and peers motivate students to learn. Acceptance by peers seems to be consistently important in the case of all years of study, the variations being minimal. On the other hand, the role of parents' acceptance and affection, is decreasing with the children becoming older, their peak value being reached in years 7 and 8 at school. That result may probably be partly explained by the particularities of being a teenager, as teenagers tend to turn against their parents' authority, while, at the same time, it is usually important for them not to lose their parents' affection and their safe family background. Relationship with teachers tends to go along with the relationship with parents, though it becomes less and less important for the secondary school students' to be accepted by their teachers and in year 8 at school that factor has the highest value. Nevertheless, the lowest mean for this motive can be found in year 7 at school. Secondary school students in year 7 seem to value meeting teachers' requirements and having an affective relationship with them the least.

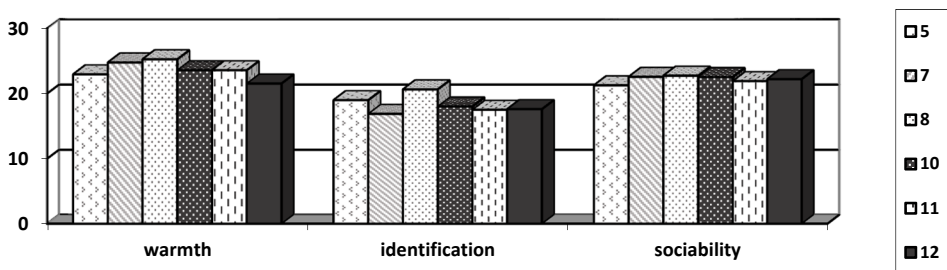


Figure 2. The follower motivational dimension according to school year

The values for the *enquirer* motive group can be followed in Figure 3. It can be noticed that the means for the students in year 7 are mainly lower than those of the other years, cognitive motives do not motivate them as much to learn. As expected, independence, the need to follow one’s own way becomes more and more important with students becoming older and older. Nevertheless, the need to acquire knowledge (competence) shows variation with the years of study. Interest, as motivating factor has the highest importance in years 8 and 12 of study, probably owing to the forthcoming national testing requirements, the high-school entrance examination and the A-level examination sessions.

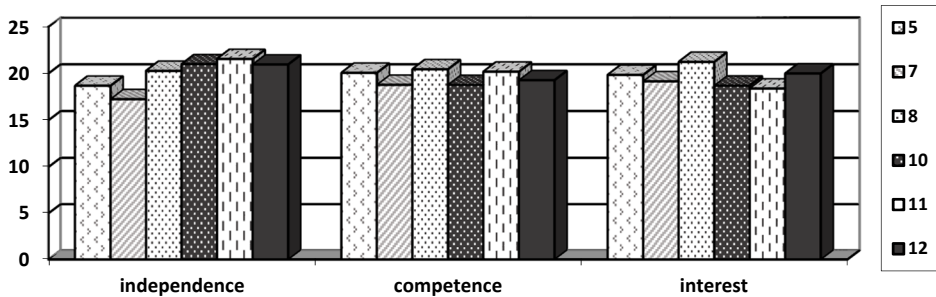


Figure 3. The enquirer motivational dimension according to school year

Lastly, the mean values for the third motive group, the *productive* motivational dimension are presented in Figure 4. The data leads us to the conclusion that conscience and responsibility become more and more involved in motivating students as they are becoming older. This reflects the strength of their moral values, as learning appears as a value in the students’ lives. There are no significant variations of the school requirements factor with the year of study. Nevertheless, in this dimension it ranks lower as compared to the other two motives. It may be worth pointing out that the mean value for year 7 of study is the lowest for this motive from among all years of study, while the mean value of the other years is basically similar to the values of the other two.

Following to the presentation of the mean values let us now look at the rank of the motivational factors according to school years.

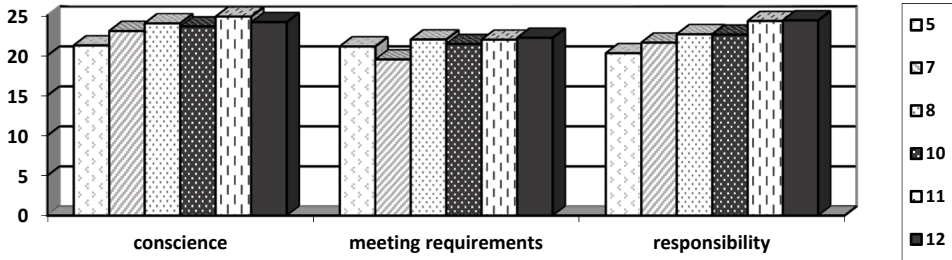


Figure 4. The productive motivational dimension according to school year

Figure 5 clearly shows that cognitive motivational factors can be found all in the second half of the list, in the case of affective factors, acceptance by teachers becomes less important than acceptance by parents and peers, while, moral values prevail in the first half of the list. Pressure is ranked at the bottom of the list, though following each school year separately, it can be noticed that students in year 7 rank this motive 8th and those in year 12 rank it 9th.

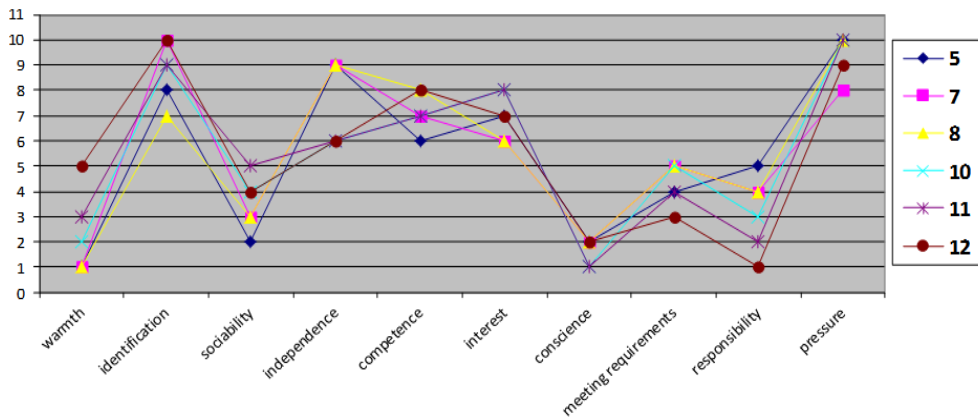


Figure 5. Rank of motivational factors according to school year

Moral values gain importance as students are becoming older. While in secondary school (years 5, 7, 8) parents' acceptance is a basic motivation factor, in high-school, moral values come forth, in years 10 and 11 conscience, and in year 12 responsibility seem to motivate students most to learn. In parallel, we can witness the weakening of affective motives in influencing motivation at school. While in secondary-school warmth, acceptance by parents is the most

motivating factor, in high-school, as students are becoming older, the same motive is becoming less and less influential for learning (it ranks 5th in year 12 of study). In the same way we can witness the weakening of the influence of acceptance by teachers and peers, identification ranking 10th with students in year 12, while relationship with peers remaining in the middle section, nevertheless, moving down from ranks 2, 3, to 4 and 5.

Cognitive motives swap ranks among themselves, occupying higher ranks as compared to each other in turns (on positions 6, 7 and 8): while it is interest in secondary-school, in high-school it is the need to follow one's own way that motivates learners more (see Table 5).

Table 5. Ranking of motives according to school years

Motives/Years	5	7	8	10	11	12	Total
Warmth	1	1	1	2	3	5	1
Identification	8	10	7	9	9	10	9
Sociability	2	3	3	4	5	4	4
Independence	9	9	9	6	6	6	6
Competence	5	7	8	7	7	8	7
Interest	7	6	6	8	8	7	8
Conscience	2	2	2	1	1	2	2
Meeting requirements	4	5	5	5	4	3	5
Responsibility	6	4	4	3	2	1	3
Pressure	10	8	10	10	10	9	10

The previously presented considerations are supported by the way motive groups change in time. Table 6 presents that follower (affective) motive group in years 7 and 8 is on the highest rank, enquirer motive group in year 7 is on the lowest rank, while the productive (based on moral values) motive group is becoming a stronger and stronger motivating factor with age.

That may probably be a consequence of the educational effect on students as well.

Table 6. The values of motive groups in each school year

	5	7	8	10	11	12	Total
Follower	63.22	64.24	68.65	64.06	63.01	61.37	64.15
Enquirer	58.64	55.22	62	58.49	60.16	60.27	59.52
Productive	62.71	64.21	68.71	67.72	71.17	70.8	67.31

3. Conclusions and recommendations

The hypotheses of the research have only partly been proved. It has been proved that parents influence motivation at school greatly, mainly affectively, as well as by building up the moral value system of which the school and learning must be part. However, we must point out that with age the affective motive loses importance and conscience and responsibility take over the lead. That is why school and parents working together, the supporting presence of parents, becomes utterly important in building up and sustaining motivation at school. Even though on a superficial survey it might seem that teenage students look forward to becoming independent, the reality is that they still need the supporting background and emotional safety that their parents can still provide.

The pressure that teachers put on students with overwhelming requirements does not foster learning. An exceptional case might be that of students in year 7, as in their case, that motive seems to be slightly more important than in the case of students in other years of study. Consequently, it is not advisable to overuse that motive and others, more effective ones should be considered.

As a result of our research we can state that age is responsible for the way motives change in being effective, which leads to the idea that motivation styles should vary with school years. It has been proved that emotional acceptance is specifically important to secondary-school pupils, which parents should be made aware of. Moreover, a feeling of membership of a community and positive reinforcement should be built up in classes, as acceptance by parents and peers has proved to be an important motivating factor for this age group. In the case of cognitive motives we have seen that interest is basic with secondary-school pupils, while with high-school students more freedom should be allowed, more opportunity for personal opinion forming should be created. The fact that cognitive motives have proved less effective in our study may suggest that they should be given more concern to be strengthened. The influence on motivation of moral values (conscience, meeting requirements and responsibility) has also proved to increase with age: while the motivational effect of conscience ranks first and second, meeting requirements ranks fourth and fifth, responsibility moves up from rank 5 to rank 1 from year 5 to year 12 of study.

It has only been partially proved that approaching examinations contribute to the rising feeling of responsibility in students, which has been proved to be influenced more by age instead. Examination has proved a forceful motivating factor in year 12, ranking first, but only partially so in year 8, ranking fourth.

With pupils in year 7 at school peers have an important motivating role, indeed, though not more important than in the case of all other years. A more important variation can be noticed in the case of the pupils' relationships with their teachers, as their affective acceptance by teachers is ranked last place and is preceded by the feeling of pressure as a motivating factor two ranks ahead.

There are slight variations with regard to gender and our hypotheses have not been proved. Contrary to our expectation, both boys and girls are mainly motivated by moral values, with a slightly higher value for the girls. With boys affective acceptance is also an important factor as shown in the figures, acceptance by parents motivating them most for learning. Although the cognitive motives rank higher with boys than with girls, the variation is not significant and, the study of the motive groups shows that the mean values of this dimension are higher with girls than with boys, as it is the case with all other motivational dimensions. That may lead us to conclude that girls seem to be more motivated at school than boys, thus motivating boys for learning should be given more attention.

Following the presented data we may conclude that the level of motives that determine school motivation does not decrease with age, while from among the motive groups, cognitive motives become less important than affective and moral ones. While the follower motive group shows a weakening tendency with secondary-school pupils as compared to high-school students, the productive motive group becomes ever stronger.

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