

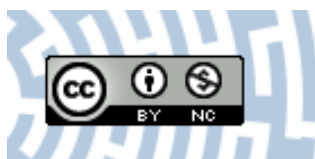


You have downloaded a document from  
**RE-BUŚ**  
repository of the University of Silesia in Katowice

**Title:** ). Motivation for learning and school anxiety among adolescents

**Author:** Joanna Różańska-Kowal

**Citation style:** Różańska-Kowal Joanna. (2007). Motivation for learning and school anxiety among adolescents. "The New Educational Review" (2007, no. 1, s. 159-175).



Uznanie autorstwa - Użycie niekomercyjne - Licencja ta pozwala na kopiowanie, zmienianie, remiksowanie, rozprowadzanie, przedstawienie i wykonywanie utworu jedynie w celach niekomercyjnych. Warunek ten nie obejmuje jednak utworów zależnych (mogą zostać objęte inną licencją).



UNIwersYTET ŚLĄSKI  
W KATOWICACH



Biblioteka  
Uniwersytetu Śląskiego



Ministerstwo Nauki  
i Szkolnictwa Wyższego

## Motivation for Learning and School Anxiety among Adolescents

### Abstract

This article characterizes motivation for learning and school anxiety among pupils of the last two grades of primary school and junior high school students. The research method is the “I and My School” test by E. Zwierzyńska and A. Matuszewski. The research pinpoints low motivation for learning and an average level of anxiety among the tested adolescents. The gender does not diversify the motivation level. Girls are characterized by a higher level of school anxiety than boys. The motivation level rises in junior high school and the level of anxiety decreases. Good students have an equally low motivation level as poor ones but at the same time good students have a higher level of school anxiety. The following factors influence the low level of motivation among the tested students: general reluctance towards learning, low interest as far as the lesson is concerned and the teacher’s behaviour.

**Key words:** *school, motivation, anxiety, adolescent.*

### I. Introduction

According to H. Bee (2004, p.357) in case of adolescents school is not only the place of gaining knowledge but it also gives opportunities for the social skills training, moulding of viewpoints and acquiring practical skills required in the future professional career. The quality of learning in this very period contributes to the shaping of interests and plans for the future, therefore it is utterly important to make adolescents involved in the school life and the learning process. One of the measures of such involvement is the motivation for learning.

The term 'motivation' as used in psychology encompasses 'all possible mechanisms responsible for the triggering, directing, maintaining and accomplishing an activity' (W. Łukaszewski, 2000, p.427). In accordance with the theory of motivation developed in psychology by J. Reykowski (1975) motivational processes are the resultant of the interaction of two basic factors: usefulness of the result and subjective probability of its accomplishment. The usefulness of the result refers to the value ascribed by a given person to the execution of a particular action. The assessment of goal achieving probability is related to the individual's perception of their own abilities (self-esteem). M. H. Dembo (1997) looks into the issue of motivation importance in the learning process. He lists three motivational components related to behaviour self-regulation:

- values, that is the task meaning for a particular child,
- expectations understood as students' convictions concerning their ability to carry out the task,
- Affective component, that is emotional reactions connected with learning.

Value understood as the way of learning goals perception impacts on the triggering of various motivational patterns. M. Dembo differentiates effective and performative goals. The former create inner motivation directed at the achievement of high cognitive and active competences in accordance with personal development standards. Performative goals are related to external motivation dependent on external awards, which is strongly correlated with social comparison and competition. The expectation component consists of the feeling of control over the school learning situation, conviction concerning one's own effectiveness (viewpoint concerning the possessed knowledge and skills) as well as the attributes of the achievement causes.

Motivation to learning also depends on the emotions which the activity of learning in the school environment evokes in a child. The sign of such emotions allows differentiating of two types of motivation:

- Success orientation and failure avoidance (M. Dembo 1997, Tyszkowa 1990).

The second type of motivation is linked to the school fear.

S. Siek (1983, p. 250) claims that fear is a group of emotional reactions triggered by stimuli acting within and outside the organism. The following are characteristic features of such reactions:

- Specific, distressing undertone,
- An individual experiences them as something persistent that is difficult to get rid of,
- The majority of people feel helpless towards them as they perceive them as irrational,
- They are related to or triggered by physiological reactions of the organism.

M. H. Dembo (1997) distinguishes two dimensions of examination fear as a specific kind of school fear. These are emotionality and anxiety. Emotionality refers to unpleasant affective reactions such as nervousness and tension. Anxiety is understood as cognitive aspects of fear evinced in negative, worrying thoughts and convictions as well as incorrect decisions. Anxiety can be identified with fear as a feature and as such it is the proof of a disorder characterized by higher intensity. Emotionality has a less destructive impact on the individual's functioning. When its intensity is not very high, it can prove to play a positive role as a factor increasing the level of stimulation.

E. Husslein, the author of the projective School Anxiety Test (1978) distinguishes five dimensions of school anxiety. They are:

- emotional sensibility,
- body (physical) symptoms of anxiety,
- lowering of I value (lowered self-esteem, self-blame, embarrassment, helplessness),
- social anxiety (disturbance of social contact, the feeling of social unwelcome and compromise)
- the feeling of danger concerning the future.

The first two dimensions relate to anxiety as emotional activation characterized by a negative undertone, the remaining ones relate to fear in the aspect of relatively stable personality tendency.

This is how the theory of motivation is presented in the context of the learning process. How does the motivation for learning render in case of actual school situations? This question is answered by a German psychologist G. Rosenfeld who enumerates eight groups of learning motives among children and adolescents. These are:

- 1) learning for the sake of learning,
- 2) learning in order to gain personal benefits,
- 3) learning due to identification with a group,
- 4) desire to achieve success and avoid failure,
- 5) learning due to tension and pressure,
- 6) feeling of duty,
- 7) practical life goals,
- 8) learning due to social need (B. Hiszpańska, 1992, p. 1–3.).

The two last motives are characteristic of the higher level of education – professional training and additional training. Motives number 2 and 4 are the most independent of the age of the learners. Motive 5 should fade away in the adolescent period whereas motives 1, 3 and 6 should become stronger. The predominance of motives 1 and 6 proves physical and social maturity of a student.

Both G. Rosenfeld and M. Dembo list the affective component of motivation (failure avoidance) which is related to fear. M. Dembo however characterizes fear only in the aspect of individuality. Nonetheless, it seems of crucial importance to answer the following question: which school situations evoke anxiety? In 2000 the author of the present article carried out research among adolescents concerning stress situations and strategies of dealing with the stress among this age group. The research group consisted of 90 high school students and showed that 80% of them see school as the main source of anxiety. The students listed the following stressful school situations:

- bad marks and tests,
- final marks at the end of the school year,
- the teacher's improper behaviour towards students (offensive phrases, ridiculing students' answers in front of the class),
- unconscionable expectations from the parents' side (perceiving students from the perspective of their marks, lack of learning assistance and failing to solve school problems),
- unconscionable expectations from the teachers' side and their indifference towards learning problems (J. Róžańska-Kowal 2000).

The intensification of motivation and school fear therefore depends both on the personality features and situational factors. Diversification of these parameters level depends as well on the sex and age. M. Dembo (1997) claims that as the time spent at school gets longer the motivation for learning gradually decreases and fear goes up. The decrease of motivation is linked with the decrease of self-esteem within the scope of one's own skills and abilities (efficiency evaluation). In accordance with social comparison students come to a conclusion that the fact that they spend more time learning is a proof of their lack of skills. This lowers the motivation and increases anxiety. The level of anxiety is also related to achievement indicators, i.e. school marks.

Motivation for learning is diversified according to sex. In the psychological literature it is emphasized that cognitive activity among girls and boys is undertaken due to different motives. As a result of the socializing training girls learn to take up school activity due to social motives, such as the need for affiliation and acceptance of adults and peers. Girls are also characterized by higher sensitivity towards social acceptance. Among boys the motivation for learning is to a greater extent the result of the motive of individual achievements.

In case of the anxiety of failure it has been proved that girls have a higher level than boys. Additionally such fear coexists with the motive of success avoidance as well as underestimation of one's own abilities. (Obuchowska 1976, Kranas 1995, Dembo 1997).

The above considerations show that motivation for learning and school anxiety are psychological variables influencing the educational process at every stage of such a process. The present article presents the psychological characteristics of motivation for learning and school anxiety among adolescents.

## **II. Research objective**

The objective of the author's research was to find answers to the following research questions:

1. What is the level of motivation for learning and school anxiety among adolescents?
2. Are there any differences in the intensity of motivation for learning and school anxiety among adolescents due to the kind of school, gender and learning achievements?
3. What are the main components of motivation for learning among the research group?
4. What are the predominant anxiety symptoms among the research group?
5. What are the factors evoking school anxiety among the research group?

## **III. Research group**

The research group consisted of 45 pupils of the 5<sup>th</sup> and 6<sup>th</sup> grades of primary school and all three grades of junior high school. The research was carried out by psychology students in the region of Upper Silesia.

## **IV. Research method**

The research method was "I and my School" questionnaire developed by E. Zwierzyńska and A. Matuszewski (2002). The questionnaire consists of 73 statements which are the basis for two scales: Motivation for Learning and School Anxiety. The questionnaire also includes a 9-position scale of Lie testing the influence of the social acceptance variable towards providing answers in the questionnaire.

The Motivation Scale encompasses the child's relation and attitude towards gaining knowledge and skills in the context of the school institution, in organizational conditions and forms created by the school. Within this scale one can distinguish seven thematic fields:

- 1) General attitude towards the school institution,
- 2) General attitude towards the school learning
- 3) Attitude towards behaviour norms at school,
- 4) Interest in the lesson,
- 5) Interest in the learning understood as an activity based on cognition,
- 6) Attitude towards marks and testing knowledge,
- 7) Attitude towards doing homework.

The Scale of the School Anxiety includes situations which evoke fear and its specific symptoms. Elements of the school situation triggering fear in a child can be classified into two blocks:

related to the lesson and the school understood as an institution.

1. factors evoking fear and related to the lesson, as classified by the authors, are:
  - a) unsatisfactory achievements,
  - b) teacher's behaviour,
  - c) tests,
  - d) oral tests,
  - e) general factors (e.g. nervousness evoked by the thought of the upcoming lesson).
2. Stress evoking factors related to the school are:
  - a) breaking of the school norm,
  - b) graduation to the next grade,
  - c) parents meeting with the teacher,
  - d) general conditions (malaise at school).

Results from the Anxiety Scale allow differentiating of the following fear symptoms:

- emotional sensitivity (fear is understood here as an unpleasant emotional condition expressed in the following emotions: anxiety, inner nervousness, tension,
- physical symptoms of fear (unpleasant physical sensations as main symptoms of anxiety),
- Lowered 'I' valuation (fear revealed by means of the feeling of haplessness, perplexity, guilt, and lowered self-valuation),
- Feeling of danger related to the future (fear becomes visible in predicting future negative states, anticipation of failure and nuisance).

## V. Presentation of Research Results

The key question asked by the author of the article was: what is the motivation and school fear level among adolescents? The answer to this question is presented in Table 1.

**Table 1. The motivation for learning and school anxiety levels among examined adolescents.**

	Motivation	Anxiety
M	27.78	31.76
SD	10.69	15.22

Comparing the average results obtained by the tested learners with the norm for both sexes one should draw a conclusion that the motivation reaches low levels but on the other hand fear reaches average levels. Due to the high result of standard deviations it seems of importance to check the group’s high results, the low and average ones and their relation. Such relation is presented in Table 2.

**Table 2. The distribution of low, average and high results of motivation and anxiety levels among tested groups.**

	Motivation	Anxiety
low	35	14
average	9	17
high	1	14

As shown in Table 2, motivation for learning among the majority of learners is low. Only one person is characterized by a high level of motivation for learning. The level of stress, on the other hand, is average. What seems alarming is such a low level of motivation for learning. The explanation and reasons for such a state will be searched by the author by means of comparison of results obtained by learners of different gender, age and in relation to their learning achievements.

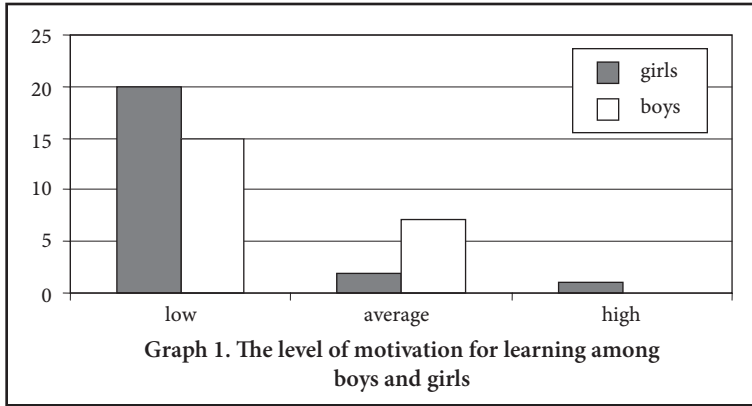
The level of motivation for learning among boys and girls was presented in Table 3 and on the Graph 1.

The research group consisted of 22 boys and 23 girls therefore both groups were similar in number. The above data shows, that motivation for learning among both boys and girls is low. In the research group more girls than boys are characterized by low motivation for learning. Adolescent girls try to achieve social acceptance



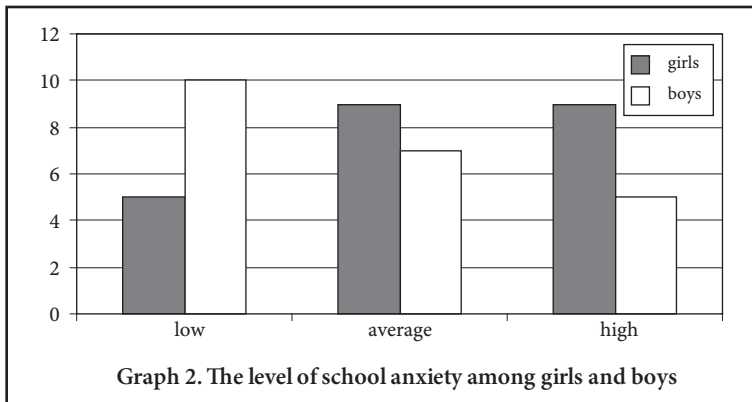
**Table 3. The level of motivation for learning among boys and girls**

Motivation level	Motivation for learning	
	Girls	Boys
low	20	15
average	2	7
high	1	0



**Table 4. The level for anxiety among boys and girls.**

Level of anxiety	Anxiety for school	
	Boys	Girls
low	5	10
average	9	7
high	9	5



in a different way than by achieving success in learning – most probably close interpersonal relations (friendship, love) bring them higher satisfaction. On the other hand, the dominating motive of individual achievement present among boys is not a trigger strong enough to gain knowledge. What they seek is rather self-assurance of their abilities in another field (development of interests, sports, sex life). The above conclusions are hypothetical in nature which the author shall try to confirm and prove in a bigger research group.

The low level of motivation for learning cannot be explained by means of gender differences.

What is the level of anxiety among boys and girls? This question is answered in Table 4., and Graph 2.

Table 4. and Graph 2. confirm the assumptions present in the psychological literature which state that girls are characterized by a higher level of anxiety. Among girls the level of fear is average and high, among boys – average and low. In accordance with the second law by Yerkes – Dodson the optimum motivation is facilitated by an average fear level as weak emotional tension does not mobilize for action and strong tension disorganizes action. Lack of mobilization for action is present more frequently among boys, but disorganization of action due to failure anxiety – among girls.

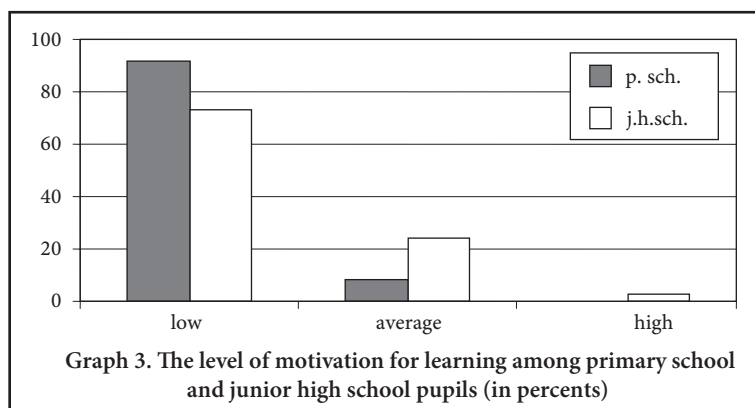
The research discussed above shows that with age the motivation for learning goes down and fear increases. In the author's opinion there is yet another more crucial factor which explains the changes– it is the kind of school. Transition from primary school to junior high school evokes a necessity of adjustment to a new social environment – peers and teachers. That change takes place at an unfavorable development stage. During early adolescence a young person wishes to emphasize his or her individuality, seeks acceptance from the peer group which becomes of greater importance than parents and teachers. An adolescent often gains position and demonstrates their own identity by means of pseudo-mature behaviours (smoking, drinking alcohol, using drugs, using foul language). Many learners believe that the fact of having graduated from primary school and commenced a junior high school entitles them to such behaviours which in turn hinder adjustment to didactic requirements of junior high school. And such requirements are significantly increased and intensified – there are new school subjects and more lessons. It is the increasing requirements and developmental problems concerning the adolescence and not the age of the tested group that are the basic cause of and reason for their motivation for learning decrease and the rise of the fear level. The impact of the school change on the motivation level is presented in Table 5 and Graph 3.

In the table and the graph one can easily see that the level of motivation goes up in the junior high school when compared with primary school. It is in contradiction

**Table 5. The level of motivation for learning among primary school and junior high school pupils (in percents)\***

Level of motivation	Motivation for learning	
	primary school	junior high school
low	92	73
average	8	24
high	0	3

\* the data are given in percents because of the different number of people in groups (primary school – 15 persons, junior high school – 30 persons).

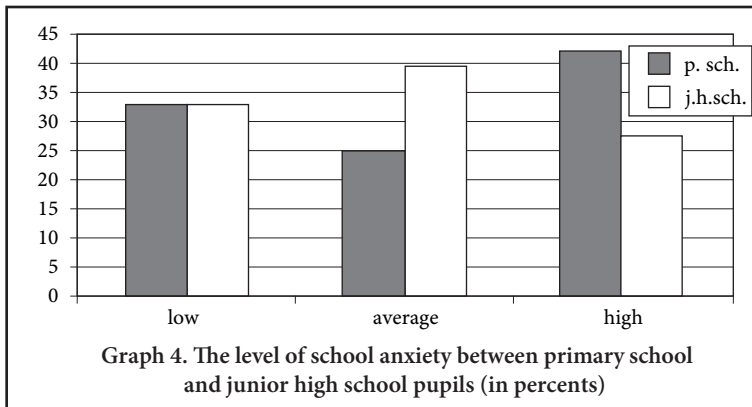


to the earlier presented research. Such an increase of the motivation in junior high school can be explained by the fact that points obtained during the final general junior high school test and the graduation certificate form a basis for the acceptance to renowned high schools. Attending such a high school, in turn, creates bigger opportunities and chances of passing the final exam which is the basis for the acceptance at chosen universities and departments. The introduction of the new final exam and new recruitment system caused a situation where a student via his/her work at school starts to decide about the future. Students are aware of this fact which creates the rise in the motivation level although such motivation is of external character (learning for the sake of marks and points). Motivation for learning among the research group increases after the primary education period. How does the level of anxiety change? This question is answered by means of Table 6 and Graph 4.

Contrary to the expectations and conclusions drawn from earlier research the level of anxiety decreases in junior high school. One can see in Table 6 that adolescents characterized by a low level of fear maintain the same level in junior high

**Table 6. The level of school anxiety among primary school and junior high school pupils (in percents).**

Level of anxiety	School anxiety	
	primary school	junior high school
low	33	33
average	25	39
high	42	28



school. Nonetheless, in case of some students characterized by a high level of anxiety this unpleasant condition decreases to an average level. This phenomenon can be linked to the rise of the motivation level which facilitates positive confirmation of one’s abilities increasing self-esteem. The rise in self-esteem triggers lowering of the anxiety level.

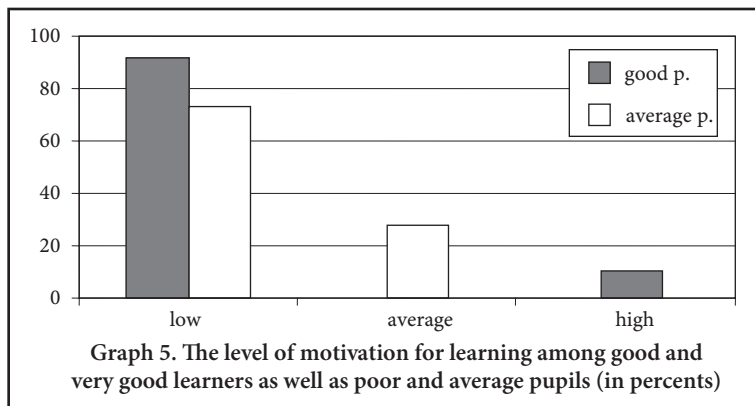
According to general regularities concerning psychological functioning of an individual the moderate level of anxiety and high or average level of motivation should facilitate good learning results. Successes or failures at learning maintained for a longer period of time will backwash motivation for learning and school fear. Verification of such assumptions concerning the level of motivation for learning is presented in Table 7 and Graph 5.

In accordance with the assumptions more than two thirds of poor and average students is characterized by low motivation for learning, and one third – average. There are no learners with a high motivation level. Very surprising is the division of results obtained among good and very good learners – the majority of them declare a low level of motivation for learning. At this point one should eliminate

**Table 7. The level of motivation for learning among good and very good learners as well as poor and average pupils**

Level of motivation	Motivation for learning	
	Good and very good learners	Poor and average pupils
low	92	73
average	0	27
high	8	0

\* data are given in percents because of a different number of people in groups; for the sake of small number of very good and poor pupils the author splitted the examined adolescents into two groups: very good and good learners – 12 persons as well as average and poor pupils – 33 persons.

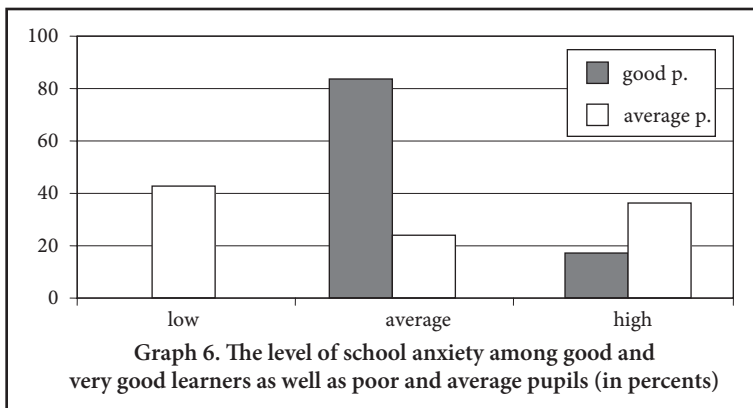


adolescent depreciation of the value of learning in the peer group – research was carried out individually. Most probably part of these students are people with a high intellectual level and an actual low level of motivation for learning, who learn at ‘particular’ periods of time – most generally at the end of each semester in order to improve the final marks. But in case of the remaining students such a low motivation level can result from low self-esteem, the feeling of external control and a high level of anxiety about failure. The impact of the factor is verified in Table 8 and Graph 6.

The above table and graph show that in general good students experience an average anxiety level enabling task approach towards learning and achieving success. On the other hand, poor students have either a high level of fear – paralyzing action, or a low level of fear which is de-motivating in nature. Too high or too low fear level is a factor explaining the low level of motivation among average and poor students.

**Table 8. The level of school anxiety among good and very good learners as well as poor and average pupils (in percents)**

Level of anxiety	School anxiety	
	Good and very good learners	Poor and average pupils
low	0	42
average	83	24
high	17	34



But how to explain the low level of motivation among good and very good students? One can suspect that this group is more diversified as far as personality is concerned. This group consists of talented and intelligent learners who value sport and meeting with friends more than studying, therefore, they put more effort to learning at the end of the semester improving their marks (during adolescence interpersonal activity increases naturally). There are also students with a high level of fear of failure which hinders learning and achieving success lowering motivation for learning. The remaining students probably include learners with low self-esteem or generalized external locus of control, who do not believe in their abilities or are of the opinion that their action has little influence on the activity outcome and probable success or failure is dependent on external factors. Such a way of thinking lowers motivation for learning. Such people may also declare low motivation for learning during a test but may be more motivated in actual action. Such behaviour forms a defensive mechanism against predicted failure and allows better well-being.

Low motivation for learning may result both from personality factors and environment ones. The influence of school environment on motivation for learning is presented in Table 9

**Table 9. The influence of school environment on motivation for learning\***

	General attitude towards the school institution	General attitude towards the school learning	Attitude towards behavior norms at school	interest in the lesson	interest in study	attitude towards marks and testing knowledge	attitude towards doing homework
M	5.03	1.71	4.94	2.06	2.40	5.17	5.06
SD	2.61	1.38	2.55	1.94	2.09	2.22	3.10
Max.**	10	8	8	8	6	12	12

\* In the table there are results only those 35 pupils, who have a low level of motivation for learning

\*\* maximum- highest result one can get in the test

Table 9 shows that a low level of motivation for learning mainly results from a negative general attitude towards learning and a lack of interest in the lesson. Students do not like learning, many other things interest them more. Many adolescents claim that lessons are very boring and new lessons do not motivate them for learning. They also do not attach much importance to learning understood as an activity based on cognition. Learners do like reading books from which they learn new information non-existent in the course books but solving difficult tasks does not please them. They also do nothing more than what their teachers expect them to. In the remaining categories the results are below the average as well. The most positive is the attitude towards behaviour norms at school. A general attitude towards learning may result from personality and developmental factors but a lack of interest in the lesson depends greatly on the way in which a lesson is presented by the teacher. It is the family as well as school that are responsible for making the learner interested in the lesson. Students with low motivation for learning mainly come from big cities and towns; education of their parents is varied (mostly high school and basic education). Reluctance towards learning may be reinforced by the stereotypes present within families concerning the lack of correlation between learning results and the child's future and a lack of parental guidance and assistance learning from overworked parents. With the recent changes in the education system, different style of course books what happens quite frequently is that parents are unable to help the child. All these factors influence the lowering of the motivation level.

Therefore, there are several reasons for the low motivation level among adolescents. One of them is a high level of anxiety present in one-third of the group. The table below presents the main factors evoking anxiety.

Among all the factors related to a lesson the highest level of anxiety is evoked by the teacher and general factors. Learners get nervous when the teacher explains

**Table 10. The elements of school situation releasing anxiety\***

	Factors evoking anxiety related to the lessons					Factors related to the school			
	Unsatisfactory achievements	Teacher's behaviours	Tests	Oral tests	General factors	Breaking of the school norm	Graduation to the next grade	Parents meeting with the teacher	General conditions
M	5.64	5.00	9.50	15.64	1.36	1.14	1.07	1.14	7.93
SD	1.50	1.04	2.21	2.92	0.84	0.95	1.00	1.03	1.94
Max	8.00	6.00	12.00	20.00	2.00	2.00	2.00	2.00	10.00

\* In his table are results of those 14 pupils who have high level of anxiety

new material too quickly, walks in the classroom and watches their hands. General factors are nervousness evoked by the upcoming lesson. Fear-evoking situations related to school as listed by the research group are general factors. Adolescents very often feel bad at school; at home the thought of school haunts them frequently. Many of the fear evoking factors are related to anxiety, predicting negative events which result from low self-esteem, low motivation or lack of knowledge. Recurring negative experiences reinforce and fossilize anxiety. A high level of fear is related to the teacher's behaviour, his/her lack of communication skills as far as passing knowledge is concerned and not checking if learners have understood the new material.

Such anxiety evoking situations are listed in Table 11.

**Table 11. Differentiating of following anxiety symptoms**

	Emotional sensivity	Physical symptoms of anxiety	Lowered "I" valuation	Feeling of danger related to the future
M	19.64	8.21	8.5	11.93
SD	3.91	2.75	2.21	2.06
Maks. wynik	26	12	12	14

The data included in the above table confirm the earlier mentioned thesis concerning the existence of anxiety among the research group. The strongest visible fear symptom is the feeling of danger related to the future. The fear becomes visible among adolescents by means of predicting future negative states, anticipating nuisance and failure. At the moment of announcing a test learners are anxious that they will fail it. They get nervous when they know they will be tested orally. During the test they fear they will not finish on time. Going to school they are haunted by the thought of being tested orally by the teacher. If they are ill for a longer time



they are afraid of possible difficulties with catching up. In order to neutralize anxiety it is important to create an atmosphere of assistance and friendliness at school, to motivate adolescents to work systematically and to teach positive thinking and concentration during tests.

## **VI. Conclusions. Answers to research questions**

On the basis of the research one can draw the following conclusions:

1. Motivation for learning is low in the majority of students and the level of anxiety is average.
2. Gender does not differentiate motivation for learning – in the research group slightly more girls than boys have low motivation for learning. The level of school fear is higher among girls than boys.
3. The level of motivation for learning among junior high school students is higher when compared to primary school learners. The anxiety level decreases among junior high school students. These results are contrary to the previous results presented in the literature of the field and are probably related to the changes in the educational system.
4. The majority of poor and average students have low motivation for learning. One third of them are averagely motivated for gaining knowledge. Almost all good and very good students have a low level of motivation for learning. Such a low level among good students may result from the lack of systematic learning and disregard of school duties, low self-esteem or a high level of fear of failure. Low motivation is also influenced by general reluctance towards learning and little interest in the lessons.
5. School anxiety is average (optimum level) in case of good students. The level is high or low among poor students causing paralysis of action or ignoring school duties.
6. Evoking school situations listed most frequently by the students are teachers' behaviours and general factors such as bad mood at school, or fear of upcoming lessons.
7. School anxiety among adolescents is anxiety of expectation. It is visible in predicting future negative states, anticipating nuisance and failure.

**Bibliography:**

- Bee, H. (2004): *Psychologia rozwoju człowieka [Lifespan development]* Poznań: Zysk i S-ka.
- Dembo, M.H.(1997): *Stosowana psychologia wychowawcza [Applied Educational Psychology]*. Warszawa: WSiP.
- Hiszpańska, B. (1992): *Motywacja uczenia się licealistów [Motivation for learning of secondary school students]*. Nowa Szkoła, 1.
- Husslein, E. (1978): *Der Schulangst Test (SAT) [The School Anxiety Test]*. Göttingen–Toronto–Zurich..
- Kranas, G. (1995): Sukcesy kobiet i mężczyzn: ich uwarunkowania i konsekwencje [Women's and men's success: their conditions and consequences]. *Przegląd Psychologiczny*, vol. 38.
- Łukaszewski, W. (2000): *Motywacja w najważniejszych systemach teoretycznych [Motivation in most important theoretical systems]*. In: Strelau J. (ed.), *Psychologia [Psychology]*, vol. 2. Gdańsk: GWP.
- Obuchowska, I. (1976): *Dynamika nerwic. Psychologiczne aspekty zaburzeń nerwicowych u dzieci i młodzieży [Dynamics of neurosis. Psychological aspects of neurosis disturbances of children and youth]*. Warszawa: PWN.
- Reykowski, J. (1975): *Emocje i motywacja [Emotions and motivation]*. In: Tomaszewski, T. (ed.), *Psychologia [Psychology]*. Warszawa: PWN.
- Różańska-Kowal, J. (2004): Szkoła jako główne źródło stresu młodzieży w okresie dorastania. [School as a main source of adolescents' stress] *Kwartalnik Pedagogiczny*, no. 3.
- Siek, S. (1983): *Wybrane metody badania osobowości [The selected methods of personality testing]*. Warszawa: ATK.
- Tyszkowa, M. (1990): *Zdolności, osobowość i działalność uczniów [The skills, personality and activity of pupils]*. Warszawa: PWN.
- Zwierzynska, E., Matuszewski A. (2002): *Kwestionariusz "Ja i moja szkoła" ["I and My School" Questionnaire]*. Warszawa: Centrum Metodyczne Pomocy Psychologiczno-Pedagogicznej.