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IMPACT OF MOTIVATIONAL ORIENTATION ON STUDENTS' SCHOOL ACHIEVEMENTS

INTRODUCTION

Pupils' school achievements are determined by many factors – both external, inherent in the environment, as well as internal ones related to the child's physical and mental development and individual characteristics. They could be included in several categories well recognized in the literature (Bereźnicki, 2007; Boguszevska, 2008; Konopnicki, 1966; Kozłowski, 2013; Kupisiewicz, 2005; Sękowski, 2001, Tyszkowa, 1964). These include a family environment in which an important role is played among others by the participation of parents in child education (Kozłowski, 2013), support shown, as well as socio-economic status, learning conditions and family structure. Another is the school environment, and in it the school climate, the level of teaching requirements, the organization of the education process, but above all the teacher – his/her commitment, the methods of education used, the way of communicating with students, the style of educational management. A separate category is the characteristics of the student him/herself – his/her predispositions, heredity and acquired features, health status, motivation, commitment, educational aspirations, learning style or self-efficacy (Ogrodnik, 2017; Uçar, Sungur, 2017; Zhang et al., 2017). In the present research it was investigated how the achievement of students is influenced by their motivational orientation – task orientation, ego orientation, avoidance orientation – understood as a general tendency to adopt a specific type of achievement goals in school situations (Nicholls, 1989).

Each of these orientations is associated with a different canon of behaviors manifested by students (Ogrodnik, 2006). Task orientation manifests itself in focusing on gaining knowledge and raising own competences. For task-oriented students, learning is a value in itself, it is important for them to understand the content being processed, and competences are assessed according to individual criteria of personal progress, while convincing that success is associated with effort – depends on learning in cooperation, interest in learning, effort and attempts to understand the analyzed content (Archer, Scevak, 1998). However, ego orientation is characterized by a focus on proving to oneself and others one's above-average competences. For

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students so oriented, social reference is essential in taking up tasks, and understanding the content is not important; the only thing that counts is getting the best result.

At the same time, they are convinced that success is associated with competing with peers and depends on the student's abilities and skills (Jagacinski et al., 2001, Valle et al., 2003). The third type of orientation – avoidance orientation – is of an amotivative nature, which manifests itself in minimizing effort, focusing on avoiding engaging in school tasks and being bored with school work. At the root of such behaviors is the belief that success is related to the reduction of effort and is dependent on luck and being cunning (Nicholls, 1989).

These behavioral patterns, characteristic of the three types of orientation, determine the functioning of students at school, because they are guided by different goals in the education process, to which one should learn for self-improvement and achieve mastery in a given field (task orientation), learning to defeat others in school competition and present oneself as a talented student (ego orientation) and avoiding cognitive effort (avoidance orientation) (Covington, 2000). In the undertaken research, it was found out which of these motivational patterns has the most positive impact on students' school achievements.

AIM AND SUBJECT OF RESEARCH

The aim of the research was to determine the effect of motivational orientation of students – task, ego and avoidance – on the level of their school achievements. The following hypothesis was put forward: H: Motivational orientation differentiates the level of students' school achievements. High performance in learning is favored by task and ego orientation, while avoidance goals have a negative effect.

The research was conducted among 615 high school graduates (404 girls and 211 boys) from 6 schools in the Silesian province. A deliberate selection of schools was established: two public high schools, two social high schools and two associated public high schools – one at the Association of Creative Schools, the other at the Active Schools Association, which will be referred to here as associated schools.

The studies used a diagnostic survey method. A self-adopted Motivational Orientation Scale by John Nicholls (1989) was used to diagnose the motivational orientation, the reliability of which was verified in the pilot studies. Statistical analysis showed that it is characterized by a high degree of reliability. Alf Cronbach's coefficients for particular subscales were: for task orientation – 0.74, for ego – 0.74, for avoidance – 0.83. The analysis of the documents was used to assess students' school achievements, in which the average score achieved from the first half of the year was taken into account. Talks with students and teachers were used to recognize the school's climate.

Statistical methods were used to analyze the collected research material. The data, which were subjected to statistical analysis, concerned quantitative (measurable) fea-

tures – the level of school achievements and the level of task, ego and avoidance orientation. Two independent tests were compared with the Student's t test – a comparison of arithmetic averages of school grades in the group of girls and boys. For more than two tests, the one-way analysis of variance (ANOVA) method was used. This was done in the case of comparing the average grades of students from six different schools and for comparing the average grades in the subgroups of the three motivation orientations. In the case where the analysis of variance showed significant differences between the averages compared, a post-hoc Tukey test was performed. These tests require that the assumption about normality or at least symmetry of distributions and homogeneity of variances should be met, which is why the normality of distributions was assessed by the Chi² conformance test and the symmetry by the coefficient of skewness.

Correlations of continuous features were estimated by Pearson's correlation coefficient (r). It was used to establish interdependence between the orientation of goals and students' school achievements. A linear regression analysis was also performed to verify the influence of motivational orientation on school performance.

Statistical hypotheses were verified at the significance level $\alpha = 0.05$. The calculations were made using the Statistica 13.1 program.

ANALYSIS OF TEST RESULTS

Analysis of the research results showed that the youth of general public high schools obtains high teaching results. The average score from the first half of the year on a scale of 1-6 in the study group was 4.24, with girls getting better results (4.29) than boys (4.12); however, the difference was small (Student's t test $p < 0.001$).

A significant part of the studied population (42.43%, $n = 261$) was characterized by high school achievements maintained at the average level of 4.0-4.4 and very high values ranging from 4.5-5.5 (34.47) %; $n = 212$). The average scores (3-3.9) were 22.12% ($n = 136$), while below the average 3.0 only 0.98% ($n = 6$) of the subjects (Figure 1).

This means that the majority of high school graduates (76.9%) are good and very good students. Such high school achievements are related in part to the special care at this stage of the assessment, resulting from the desire to receive the best school-leaving certificate.

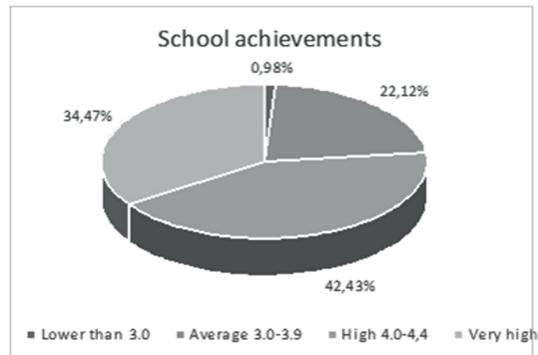


Figure 1. Students in individual performance bands (in percent)
Source: own study.

Students of particular types of schools did not differ from each other in obtained results – at social, public and associated schools, they were at the same level (4.24). However, two high schools emerged whose youth were distinguished by grades (ANOVA $F = 2.9$, $p = 0.01$, Tukey post-hoc test $p = 0.001$). These differences concern two social schools – in one of the schools graduates achieved the lowest average grade (3.92). This is a school in which the good atmosphere and students' satisfaction were overly by limiting didactic requirements and downplaying school achievements. The students of the other high school achieved the best results (4,56). This school has a motivational climate that is particularly conducive to the development of task orientation. The teachers focus on developing students' interests, their creativity, and emphasize the benefits of self-improvement. An important element is also placing high didactic requirements with simultaneous consideration of their independence in solving problems.

The next stage of this research was to verify how motivational orientation of students influences their school achievements. The results of the research show that the task-oriented and ego orientation is the most beneficial for school achievements. Students receiving the best grades simultaneously displayed the highest level of task orientation (3.85 points), high level of ego orientation (3.25 points) and low level of avoidance orientation (2.51 points). Along with the lower average of grades, there was a noticeable decrease in task and ego orientation as well as an increase in the avoidance orientation level. In pupils with low achievement, the level of all three orientations was very similar – task orientation (2.93 points) and ego (2.75 points) decreased, and the avoidance orientation increased (2.9 points) (Figure 2).

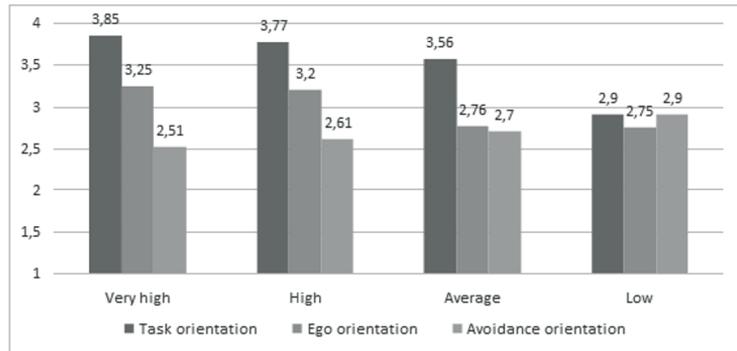


Figure 2. Levels of student goals' orientation depending on their school performance (in points on a scale of 1-5)

Source: own study.

The increasing avoidance orientation is of particular importance for the decline in school performance. This is in line with the objectives of the goal theory, according to which uniquely oriented students try to avoid effort and are not interested in the effects of their work. They are limited only to the minimum that guarantees positive grades (Nicholls, 1989).

The conducted regression analysis confirmed that the level of motivational orientation is an important predictor of school achievements. She showed that the motivational orientation of pupils is a factor explaining the variability of the average of grades in 7% ($R^2 = 0.74$, $F(3.611) = 16.318$ $p < .001$; Figure 3, Table 1). A higher level of task and ego orientation and a lower level of avoidance orientation allow predicting the increase in school achievements.

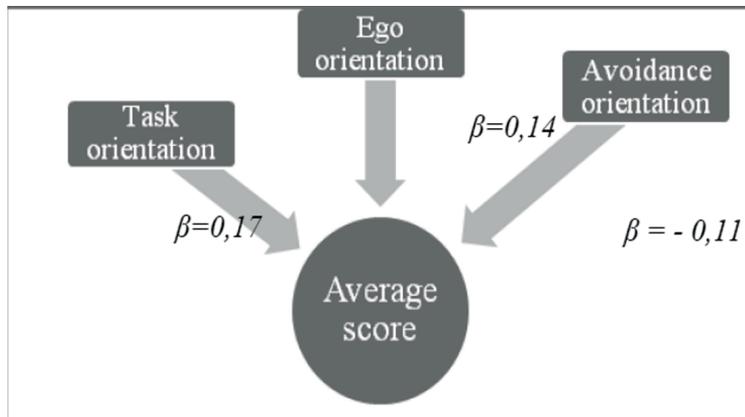


Figure 3. Motivational orientation as a predictor of the average school grades

Source: own study.

Table 1. Results of regression analysis for the variable of the average score taking into account as the independent variable the motivation orientation of students – task, ego and avoidance

| Independent variable: motivational orientation | Dependent variable: average score $R = 0,27$ $R^2 = 0,07$ $F(3,611) = 16,318$ $p < ,001$ | | | |
|--|---|-------|---------|--------|
| | β | b | T (611) | p |
| TO | 0,17 | 0,12 | 4,15 | <0,001 |
| EO | 0,14 | 0,08 | 3,44 | <0,000 |
| AO | -0,11 | -0,07 | -2,69 | 0,007 |

Source: own study.

We already know, therefore, that the levels of individual orientations affect the student's school performance. For pedagogical practice, it is also important to recognize what assessments are obtained by task, ego or avoidance oriented graduates, i.e. those in whom one of the motivational orientations is dominant, although others could be at a similar level. The majority of the students surveyed showed the most optimal task orientation (66.01%, $N = 406$), much less were ego (19.51%, $N = 120$), and the least avoidance oriented students (9.11%, $N = 56$). In some people (5.37%, $N = 33$), the dominant motivational orientation could not be determined and was excluded from this analysis.

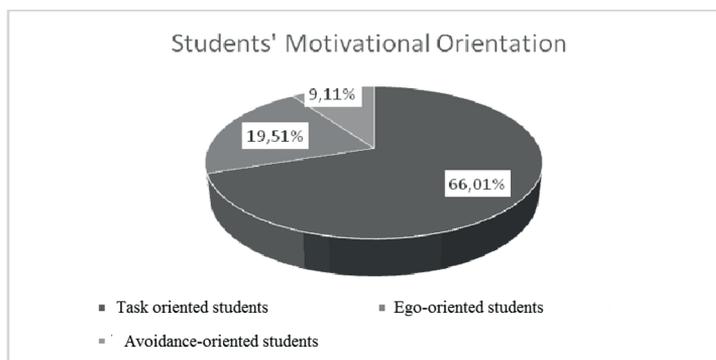


Figure 4. Task, ego and avoidance oriented students (in %)

Source: own study.

The comparison of school achievements shows that the highest marks were achieved by people with task orientation (4.26) and ego orientation (4.25), while the weakest (4.04) were avoidance oriented students (ANOVA $F = 5.5$, $p = 0.004$). The difference in the average score is visible between task-oriented and avoidance oriented students (post-hoc Tukey's test $p = 0.03$) and between students who are ego and avoidance oriented (post-hoc Tukey's test $p = 0.04$). There is no difference in the average score between task and ego oriented students (Figure 5 and Table 2).

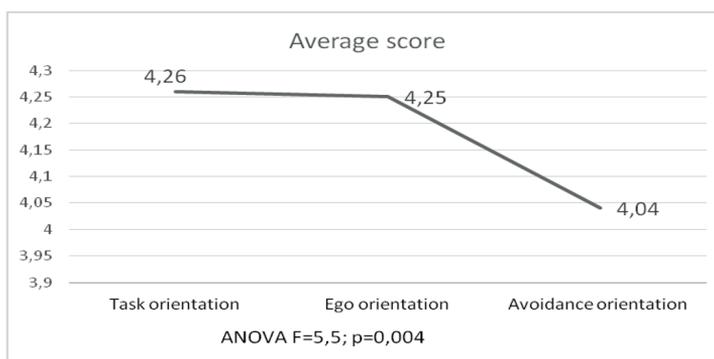


Figure 5. Differences in the average score depending on the motivational orientation of students

Source: own study.

Table 2. Tukey's post hoc test for comparing the average scores depending on the motivational orientation

| Motivational orientation | Task (average score 4.26) | Ego (average score 4.25) | Avoidance (average score 4.04) |
|-----------------------------------|------------------------------|-----------------------------|-----------------------------------|
| | p | p | p |
| Task (average score 4.26) | – | 0.975678 | 0.33914 |
| Ego (average score 4.25) | 0.975678 | – | 0.049433 |
| Avoidance (average score 4.04) | 0.033914 | 0.049433 | – |

Source: own study.

It also illustrates the percentage distribution of students. Among the task-oriented and ego-oriented high-school graduates, the majority were students who achieved good and very good grades (79.3%, N = 417), however, there were fewer of those with low and average school achievements (20.7%, N = 109). The situation has clearly changed in the case of avoidance orientation – nearly half of this group (41.07%, N = 23) scored low and average in the first half of the year. Compared to task and ego-oriented students, fewer were able to demonstrate high learning outcomes (58.9%, N = 33). This means that task orientation (Pearson's correlation coefficient $r = 0.23$, $p = 0.000$) and ego orientation ($r = 0.16$, $p = 0.000$) contributes to higher school performance. The avoidance orientation is related to their decrease ($r = -0.11$, $p = 0.005$) (Table 3, Figure 5).

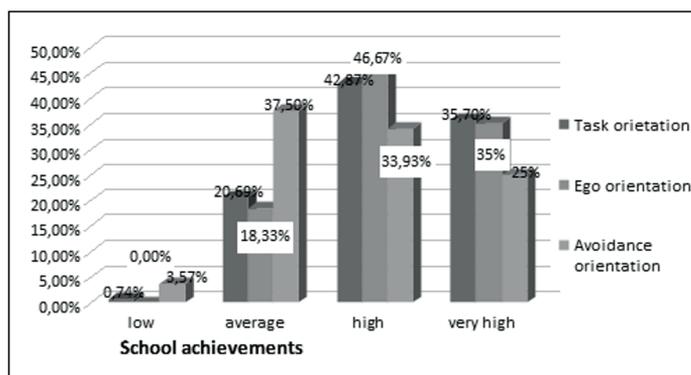


Figure 6. Students in different performance levels depending on the orientation of the goals (in %)

Source: own study.

Table 3. Correlations (r) between the orientation of goals and school achievements of pupils

| Variables | Task orientation | | Ego orientation | | Avoidance orientation | |
|----------------------|------------------|--------|-----------------|--------|-----------------------|--------|
| | r | p | r | p | r | p |
| Average score | | | | | | |
| Total | 0.2264 | 0.0000 | 0.1583 | 0.0000 | - 0.1128 | 0.0050 |
| Girls | 0.1840 | 0.0002 | 0.2584 | 0.0000 | - 0.0509 | 0.3077 |
| Boys | 0.2415 | 0.0004 | 0.0641 | 0.3545 | - 0.1447 | 0.0357 |

Source: own study.

CONCLUSIONS

The conducted research confirmed the accepted the hypothesis that motivational orientation differentiates pupils' school achievements – task and ego-based orientation contributes to high grades, while avoidance orientation contributes to lowering school achievements.

Good results of task-oriented graduates become an argument for creating conditions at school that shape the willingness to adopt learning objectives in the didactic process. It is not surprising that they get the highest marks, since their main goal is to improve their skills, improve their competences, understand program content and solve problems (Nicholls, 1989).

The use of complex cognitive strategies contributes to long-lasting and operative knowledge. This in turn results in higher achievements. Ego-oriented students may also boast of good results of their school work. This tendency should be explained

above all by the trend of positive presentation in the group typical of this orientation. With this aim in mind, these students try to get the best grades as they ensure that they get the best possible position in the class. These people, however, are characterized by a lack of perseverance, and retreat in the face of failures and focus on short-term results that provide an immediate effect in the form of victory in intra-competitive rivalry (Maehr, Anderman, 1993). Although the ego orientation motivates to gain high marks, it is based on less valuable motifs. It may, however, be valuable in overcoming the passive attitude of students in the teaching process – learning and becoming a factor mobilizing their cognitive effort. From the point of view of school achievements, both of these orientations are favorable, but taking into account other benefits, such as durability and quality of engagement in learning, task orientation becomes a priority.

However, the avoidance orientation has a definitely negative impact on school grades. Such oriented pupils showed a significantly lower level of school achievement than others. This is due to their lack of willingness to undertake any cognitive activity and a generally negative attitude towards education and school (Covington, 2000). Higher grades of these students always corresponded with simultaneous high task and ego orientation, which somehow minimized the negative effects of avoidance orientation. Thus, the goals adopted by high school students in the education process have a diverse impact on their school achievements. The most promising is the situation in which good grades are not a goal in itself, but a consequence of a student's specific attitude, expressing the willingness to learn. It is characteristic of task-oriented people, for whom high achievements result from cognitive engagement directed towards permanent self-improvement. Meanwhile, learning to gain rewards in the form of good grades is characterized by ego-oriented students. Although they win the desired goal, their interest in learning disappears with leaving school, when they no longer have to strive to maintain the status of a talented student. Accordingly, the concentration of teachers only on the results of teaching is not enough. In the process of education, it is not so much so that students want to participate in the process of learning and get positive grades, but that they want to learn. The stimulation of this second type of motivation contributes to achieving better school results, but above all creates a permanent commitment to cognitive activity regardless of the rewards.

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THE INFLUENCE OF MOTIVATIONAL ORIENTATION ON PUPILS' EDUCATIONAL ACHIEVEMENTS

Keywords: motivational orientation, learning outcomes, task orientation, ego orientation, avoidance orientation

Abstract: This study investigated the relationship between the motivational orientation of secondary school graduates and their educational achievements. 615 pupils from six Silesian schools participated in the study. To assess goal orientations self-adopted Nicholls' Motivational Orientation Scale was used. The results suggest that most pupils receive high and very high marks, which are related to their goal orientations. Task and ego orientations seem to be most conducive to obtain higher marks, while avoidance orientation is related to lower educational outcomes.

WPŁYW ORIENTACJI MOTYWACYJNEJ NA OSIĄGNIĘCIA SZKOLNE UCZNIÓW

Słowa kluczowe: orientacja motywacyjna, osiągnięcia szkolne, orientacja zadaniowa, orientacja popisowa, orientacja unikowa

Streszczenie: Przedmiotem badań uczyniono osiągnięcia szkolne maturzystów oraz ich związek z orientacją motywacyjną. Badania przeprowadzono w grupie 615 uczniów z 6 szkół województwa śląskiego. Do rozpoznania orientacji motywacyjnej zastosowano samodzielnie zaadaptowaną Skalę Orientacji Motywacyjnej Johna Nichollsa. Analiza uzyskanych wyników wskazuje, że zdecydowana większość uczniów uzyskuje wysokie i bardzo wysokie osiągnięcia szkolne, które są zależne od ich orientacji motywacyjnej. Orientacja zadaniowa i popisowa sprzyjają uzyskiwaniu wyższych osiągnięć szkolnych, podczas gdy orientacja unikowa wpływa na ich obniżanie.

