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## HIGH SCHOOL STUDENTS' ACHIEVEMENT MOTIVATION IN THE CONTEXT OF THE END OF THE COVID-19 PANDEMIC – CONTRASTING THE PAST AND THE PRESENT\*

**Introduction:** The article is empirical in nature. Achievement motivation plays a significant role in human life and is defined as the need to carry out activities to raise standards. It is influenced by needs and values and is related to the type of factors that motivate an individual to act in order to achieve a goal.

**Research Aim:** The aim of the research is to learn about the changes taking place during the COVID-19 pandemic in terms of achievement motivation in a group of high school students.

**Method:** The research is quantitative. In order to answer the formulated research questions, the standardised Achievement Motivation Inventory by H. Schuler, G.C. Thomson, A. Frintrup was used, and M. Prochaska in the Polish version. The area of its application is research on personality and motivation, referring to motivational problems.

**Results:** The pandemic had a significant impact on changing the level of motivation for the young people's achievements as a result of distance education, limitation of direct contacts and cessation or limitation of certain activities. Research has shown that the pandemic period and the associated deprivation were important for some aspects of achievement motivation.

**Conclusion:** People who experienced an increase in motivation at the end of the pandemic were characterised by a higher level of achievement motivation before the pandemic compared to people who had a lower level of achievement motivation at the end of the pandemic.

**Keywords:** motivation of achievements, high pupils, pandemic COVID-19

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## INTRODUCTION

Nowadays, much attention is paid to personal development. It concerns different spheres of human functioning, such as work, health, education, interpersonal functioning or recreation. In everyday life, we experience many challenges, the overcoming of which requires not only well-defined goals, but also the development of sufficiently strong motivation to take action. We can, therefore, speak of a special type of motivation, namely achievement motivation.

The theoretical construct of achievement motivation proposed by Schuler et al. (2004) was taken as the theoretical basis for the research undertaken. It refers to the individual differences that occur in people's behaviour, both in situations concerning the challenges of everyday life and in school and work environments, etc. Furthermore, according to the adopted theoretical concept, competence and a high level of development related to future orientation are important for achievement motivation. Achievement motivation is relevant where a person is required to make independent decisions, lead others, anticipate, plan and organise time and manage human resources. For this reason, we considered achievement motivation as a personality variable that may have changed during the pandemic. During this time, sanitary regimes and remote education were implemented. These circumstances posed a number of challenges for young people. One of these became the need to actively participate in remote activities in a situation of greater freedom of action, due to less opportunity for control by the teacher and working parents.

## RESEARCH AIM AND QUESTION

The aim of the research undertaken is to find out how achievement motivation changes in a group of high school students during the COVID-19 pandemic period. For the purpose of the study, the adolescents were asked to estimate their current level of achievement motivation and, at the same time, to refer to their own functioning in the pre-pandemic period on the same dimensions. Thus, the second measurement was retrospective and involved collecting information from respondents about their experiences before the pandemic.

The following research questions were formulated:

1. Are there differences between the retrospective perception of achievement motivation prior to the COVID-19 pandemic and the actual level of achievement motivation at the end of the pandemic in high school students?
2. What is the interaction effect between the pandemic and the individual elements of achievement motivation in pupils depending on the level of achievement motivation obtained at the end of the pandemic?

## RESEARCH METHOD AND SAMPLE CHARACTERISTICS

In order to answer the formulated research questions, the standardised Achievement Motivation Inventory by H. Schuler, G.C. Thomson, A. Frintrup, and M. Prochaska in the Polish version. Its area of application is research on personality and motivation, with reference to motivational problems. It contains 170 items comprising 17 scales, corresponding to seventeen aspects of motivation. These aspects are: flexibility (EL), courage (OD), preference for difficult tasks (PTZ), independence (N), belief in success (WS), dominance (DO), enthusiasm for learning (ZN), goal orientation (UC), compensatory effort (WK), concern for prestige (DP), satisfaction with achievement (SO), commitment (Z), competitive orientation (NR), flow (F), internalisation (IN), perseverance (W), self-control (S).

The research was carried out in a secondary school in Gdańsk. 157 students took part in the survey. Boys were 41% and girls 59%. The age of the high school students remained in the range of 14–18 years. The study started on 10 January 2022 and was completed on 11 February 2022 before the start of the winter holidays, during the remote education period. They were carried out in an online format under the supervision of a school psychologist using the Google Docs platform. This was at a time when the students knew, after a long period of remote education, that they would restart their residential education after the winter break.

## STATISTICAL DATA ANALYSIS PROCEDURE

The *t*-test of statistical significance for dependent groups was used to assess the significance of differences before and after the pandemic on achievement motivation. On the other hand, *k*-means statistical analysis was used to distinguish between a group of students scoring higher and a group scoring lower on the achievement motivation dimensions at the end of the pandemic. Further, to show the interaction effect between the pandemic and the identified two groups (characterised by low achievement motivation and high achievement motivation), an ANOVA test was used. To determine in detail the differences between the identified groups, pandemic and individual aspects of achievement motivation, Scheffé's post hoc test was applied.

## RESULTS

For the purpose of answering the first research question, a comparison was made between the level of achievement motivation before the COVID-19 pandemic and that at the end of the pandemic.

Table 1.  
Average scores before and at the end of the pandemic for each aspect of achievement motivation

	Average before the pandemic	Average at the end of the pandemic	<i>t</i>	<i>p</i>
Flexibility	39.363	40.280	-1.844	0.066
Responsibility	36.146	36.114	0.062	0.950
Preference for difficult tasks	32.248	32.503	0.513	0.608
Independence	40.560	41.331	-1.837	0.068
Belief in success	34.777	35.643	-1.429	0.154
Domination	35.203	36.496	-2.552	0.011
Eagerness to learn	34.25	35.248	-2.274	0.024
Target orientation	35.707	37.031	-2.101	0.037
Compensatory effort	35.471	35.592	-0.202	0.839
Caring for prestige	38.401	39.114	-1.336	0.183
Satisfaction with achievements	42.159	43.783	-2.961	0.003
Commitment	32.038	31.796	0.473	0.636
A competitive mindset	37.133	37.165	-0.057	0.954
Flow	37.477	37.828	-0.748	0.455
Internalisation	43.649	43.605	0.117	0.906
Perseverance	38.420	38.420	-0.289	0.772
Self-control	38.019	37.464	1.2053	0.229
Overall result	631.031	639.579	-1.449	0.149

Source: Authors' own study.

From a comparison of the results on the level of achievement motivation in high school students before and at the end of the pandemic, it can be seen that at the end of the pandemic, high school students scored statistically significantly higher on four aspects of achievement motivation:

- dominance – which indicates an increase in the tendency to influence others and to adopt a leadership attitude,
- enthusiasm for learning – manifested by the desire to expand knowledge and the desire to develop mentally,
- goal-orientation – consisting of a greater propensity to set goals and plan short- and long-term future-oriented actions,
- satisfaction of achievement – which lies in the need to constantly experience feelings associated with success pride in one's achievements.

The other measured aspects of achievement motivation did not change over the period under study.

Based on the results obtained regarding achievement motivation at the end of the pandemic, two groups of high school students differing in their achievement motivation profile were identified using the *k*-means method. The first group comprises 85 students and the second group 72 students. The first group is characterised by statistically significantly higher scores in terms of 15 aspects of motivation compared to the second group. We include the following aspects of achievement motivation: flexibility, preference for difficult tasks, independence, belief in success, dominance, eagerness to learn, goal orientation, compensatory effort, pre-occupation with prestige, satisfaction with achievement, commitment, competitive orientation, flow, perseverance and self-control. Accordingly, we will refer to group one as the higher achievement motivation profile group and group two as the lower achievement motivation profile group.

The first group in terms of one aspect of achievement motivation scored statistically significantly lower compared to those in the second group. This variable is courage, which was found to be higher in the group of high school students scoring low on the 15 aspects of achievement motivation listed above.

The lack of differences between the separate groups of high school students was observed only in the area of the 1 studied variable of internalisation.

Table 2.  
*Analysis of cluster variance using the k-means method*

Variables	F	df	p
Flexibility	33.47	155	0.000
Responsibility	4.32	155	0.039
Pref. for difficult tasks	41.74	155	0.000
Independ.	21.12	155	0.000
Belief in success	107.98	155	0.000
Domination	81.04	155	0.000
Eagerness to learn	92.64	155	0.000
Target orientation	111.17	155	0.000
Compensatory effort	141.92	155	0.000
Caring for prestige	104.38	155	0.000
Satisfaction with achievements	171.76	155	0.000

Commitment	87.07	155	0.000
Compatetivemindset	57.29	155	0.000
Flow	100.27	155	0.000
Internalization	0.20	155	0.653
Perseverance	6.34	155	0.013
Self-control	29.11	155	0.000

Source: Authors' own study.

Based on the results obtained characterising the achievement motivation of high school students at the end of the pandemic, two types of students were distinguished. The first type of students belonging to the first group manifested significantly higher levels of achievement motivation in most of the motivation aspects examined compared to the second type of high school students. This means that high school students belonging to the first group are characterised by a higher level of flexibility. This is a dimension that defines the way they take action in new situations and their readiness to change.

These individuals also manifest a higher level of preference for difficult tasks. This is associated with choosing tasks with higher levels of demand and risk compared to the other group. In addition, people in this group are characterised by a higher level on the independence dimension, which manifests itself in greater autonomy when achieving goals.

Another differentiating characteristic of this group is a greater belief in success compared to the other group of high school students. Belief in success is closely related to overall self-confidence. conceptually, this dimension is related to 'hope for success' considered as a component of motivation (Heckhausen, 1963).

Individuals in this group manifest higher levels of dominance compared to adolescents in the other group. According to McClelland (1979), dominance is related to power motivation. Dominance also contains a distinct vitality component and is related to the global trait of extraversion. Individuals in this group also exhibit greater eagerness to learn compared to the other group. Eagerness to learn plays an important role in motivation to learn (Rheinberg, 1998).

High school students in the first group are more strongly goal-oriented. This aspect is taken into account, for example, in the Atkinson model of risk selection, as well as in organisational-psychological achievement theory (Kleinbeck, 1991; Latham and Locke, 1984). Those in the first group also made a greater compensatory effort. This refers to the effort resulting from the fear of failure and of "failing", of letting oneself down, meaning to overcome it constructively, as opposed to the tendency to lower the level of demands or to run away that motivation theory

(Heckhausen, 1963) assumes. This result correlates with the variable courage and allows us to conclude that those in the lower achievement group have a greater tendency to lower the level of demands on themselves or to escape (Heckhausen, 1963). This is a protective mechanism that allows them to reduce the level of anxiety experienced.

In the profile group with higher achievement motivation scores, we observe a greater degree of concern for prestige. These respondents are more status-oriented compared to their peers in the other group. People in this group also derive more satisfaction from achievement than their counterparts in the other group. The source of career and achievement motivation in the group with higher achievement motivation scores lies, among other things, in the need to experience positive emotional states associated with success. Achievement pride reflects the affective consequences of achievement situations and their emotional processing in relation to self-esteem.

High school students in the group with the higher achievement motivation profile also reveal higher levels of commitment. This dimension relates to the willingness to exert effort and the amount of effort.

A competitive orientation is observed in individuals in this group. It can be a motivator of achievement for them and reinforce effort, as winning is important to them (McClelland, 1995).

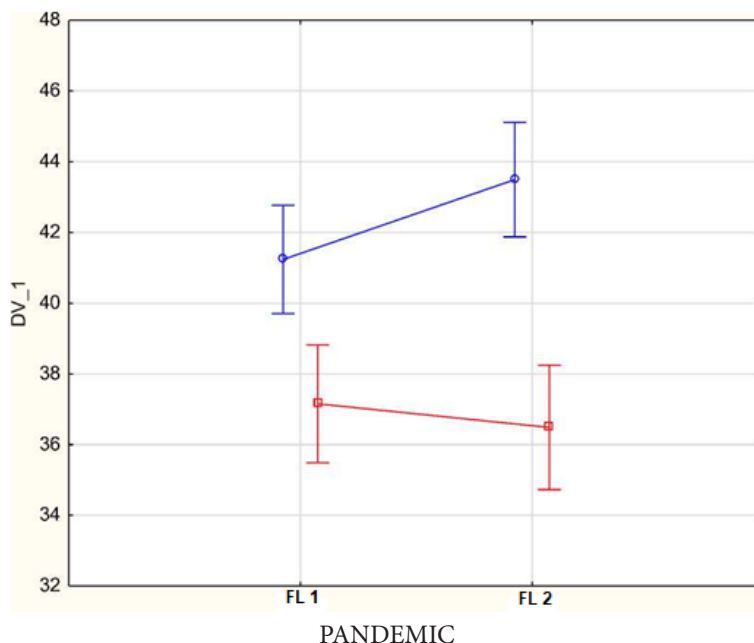
Respondents in the group with a higher profile of achievement motivation factors are additionally characterised by higher levels than their colleagues with a profile with lower scores on the flow dimension. This term refers to the tendency to devote oneself intensely to tasks and problems without any distraction. The concept is derived from (Csikszentmihalyi, 1990) and is a relatively new construct considered within the framework of achievement motivation. People in this group also scored higher on the perseverance scale. Perseverance is understood as endurance and using strength to overcome tasks set by oneself or by others. These individuals work on tasks vigorously and persistently. They respond to difficulties with increased commitment and effort, are able to direct all their attention to what is happening and find it more difficult to dissuade them from completing an important task.

The last dimension on which those in the profile group with higher achievement motivation scored higher is self-control. This dimension describes how tasks are organised and completed. Those with a higher achievement motivation profile only scored lower on the courage scale. Lower levels of courage indicate a greater tendency to experience fear of failure. No differences were observed between the two groups in the area of one dimension which is internalisation. This is a concept derived from the concept of a sense of locus of control (Rotter, 1966) and denotes the generalised belief of a person that the results of an action are caused by him or herself and under his or her responsibility, and are not caused by external causes.

In order to answer the second research question, the interaction effect between the pandemic and individual aspects of achievement motivation was measured in the context of separate groups with lower and higher achievement motivation profiles at the end of the pandemic.

Figure 1.

*The interaction effect of pandemic with the flexibility variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



Source: Authors' own study.

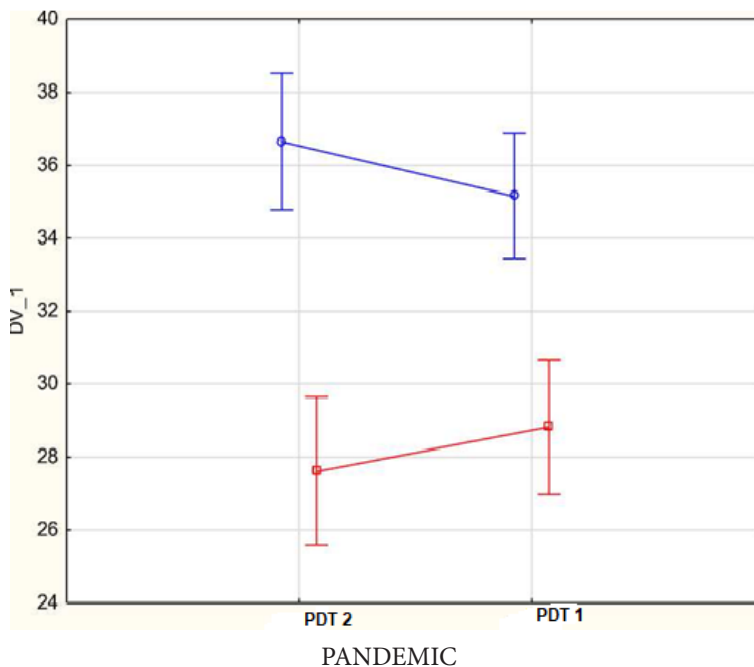
In the first chart there was an interaction effect between pandemic and flexibility before and at the end of the pandemic  $F(1,166,8) = 9.04, p = 0.002, et 2 = 0.05$ . The interaction effect obtained allows us to conclude that the pandemic period significantly influenced the increase in flexibility levels at the end of the pandemic in the high school students studied. The strength of this effect is not high. Scheffe's test indicated the existence of an interaction effect in the group with a profile with an increased level of achievement motivation between the level of flexibility before and at the end of the pandemic  $p = 0.009$ . In contrast, in the second group with a reduced profile of achievement motivation, no interaction was observed between this variable and the pandemic period. From Scheffe's test, it can also be seen that before the pandemic, the two groups differed significantly in their level of flexibility  $p = 0.008$ . Those who were in the group with a higher achievement motivation profile before the pandemic had a higher level of flexibility compared to those



who were in the group with a lower achievement motivation profile at the end of the pandemic. In terms of looking for interactions between the pandemic and the responsibility variable and groups with higher and lower achievement motivation profiles, no relationship was seen.

Figure 2.

*The interaction effect of pandemic with the variable preference for difficult tasks for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



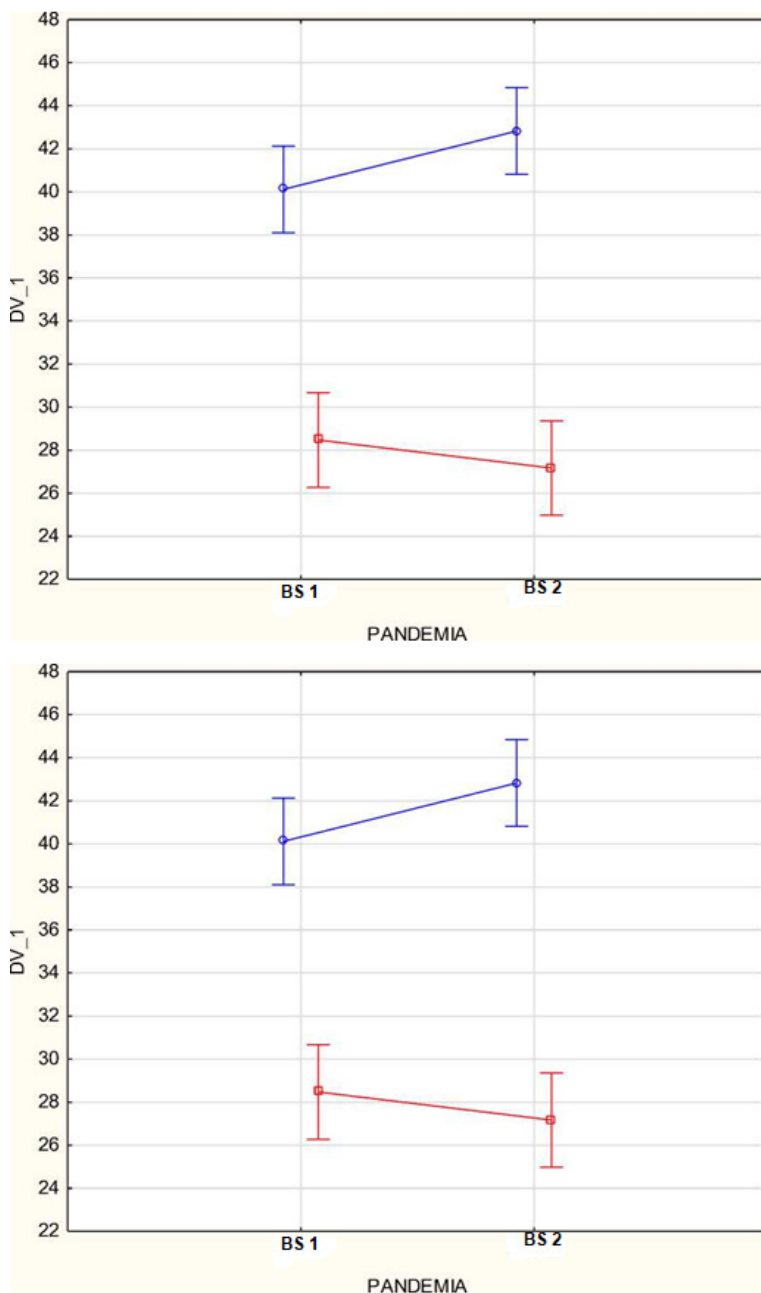
Source: Authors' own study.

In the chart above in terms of preference for difficult tasks, an interaction effect between this variable and the pandemic and the separated groups was shown,  $F(1,142.3) = 7.67$ ,  $p = 0.006$ ,  $\eta^2 = 0.04$ . The strength of the effect is quite low. During the detailed analysis between the study groups, a significant difference was noticed in the preference for difficult tasks at the end of the pandemic. In those belonging to the group with a higher achievement motivation profile. The level of this variable increased towards the end of the pandemic and further decreased in those belonging to the group with a lower achievement profile.

In terms of looking for interactions between the pandemic and the responsibility variable and groups with higher and lower achievement motivation profiles, no relationship was seen.

Figure 3.

*The interaction effect of pandemic with the variable belief in success for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*

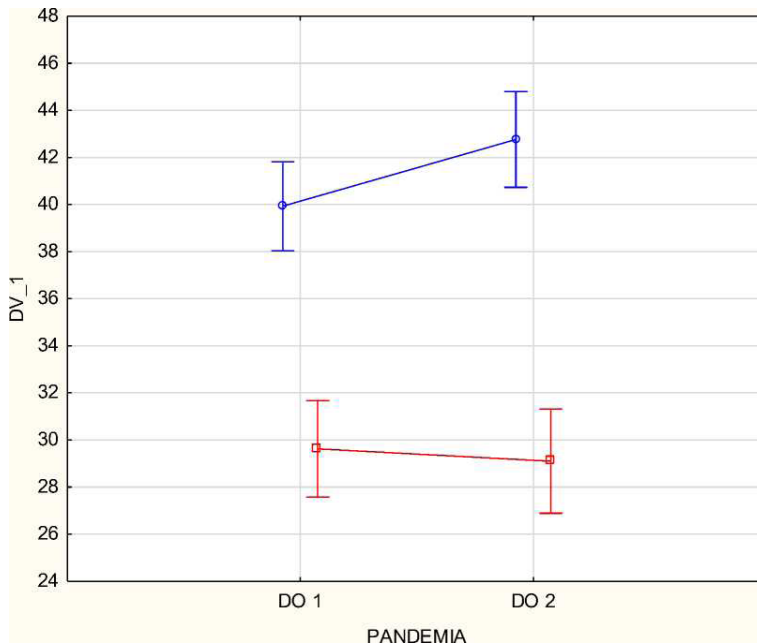


Source: Authors' own study.

As for Figure 3, in terms of the variable belief in success, an interaction effect was shown between this variable and the pandemic and the separate groups at the end of the pandemic,  $F(1,313.6) = 1162$ ,  $p = 0.000$ ,  $\eta^2 = 0.07$ . The strength of the association is low. A close analysis of the differences shows that in the group with a higher achievement motivation profile, belief in success increased significantly until the second measurement taken at the end of the pandemic,  $p = 0.01$ . In contrast, in the group with a lower achievement motivation profile, belief in success did not differ significantly after this time  $p = 0.51$ . The two separated groups differed significantly in the initial outcome of belief in success,  $p = 0.000$ . The group with a higher achievement motivation profile before the pandemic was significantly higher than the group with a lower achievement motivation profile.

Figure 4.

*The interaction effect of pandemic with the dominance variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



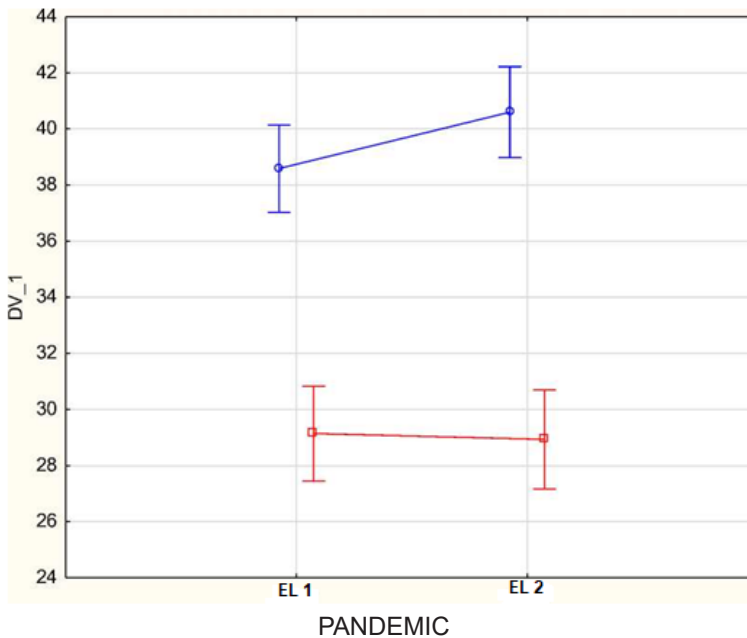
Source: Authors' own study.

In Figure 4, there was an interaction effect between the dominance variable and the pandemic and separated groups with a higher and lower achievement motivation profile,  $F(1,220,4) = 11.69$ ,  $p = 0.02$ ,  $\eta^2 = 0.07$ . The strength of the effect is low. A close analysis of the differences shows that the group with the higher achievement motivation profile had higher dominance scores at the end of the pandemic compared to the pre-pandemic period  $p = 0.000$ . In contrast, the group

with the lower achievement motivation profile did not statistically significantly change their level of dominance. In addition, it can be seen that those who were in the group with higher levels of achievement motivation at the end of the pandemic already had statistically significantly higher levels of dominance compared to those in the group with lower levels of achievement motivation at the end of the pandemic  $p = 0.000$ .

Figure 5.

*The interaction effect of pandemic with the variable eagerness to learn for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



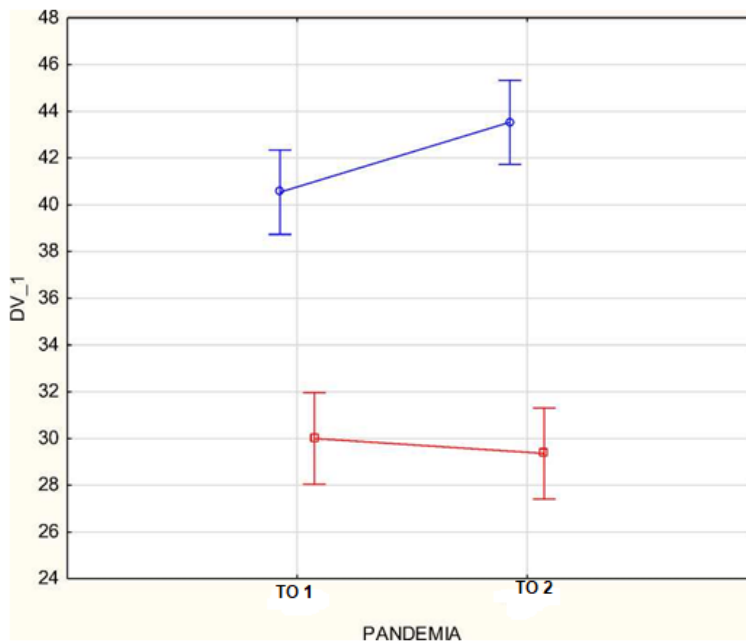
Source: Authors' own study.

In Figure 5, an interaction effect was observed between the pandemic and eagerness to learn and separated groups with a lower and higher achievement motivation profile,  $F(1,155) = 6.64$ ,  $p = 0.01$ ,  $\eta^2 = 0.027$ . A close analysis of the differences between the groups showed that those in group one, i.e. those belonging to the profile with higher achievement motivation are characterised by higher eagerness to learn at the end of the pandemic compared to the pre-pandemic period,  $p = 0.000$ . In contrast, those in the lower achievement motivation profile group remain at the same level of eagerness to learn at the end of the pandemic compared to the pre-pandemic period. At the same time, it is important to point out that, in the pre-pandemic period, individuals belonging to the group with higher levels of achievement motivation at the end of the pandemic were char-

acterised by significantly higher levels of eagerness to learn before the pandemic compared to those belonging to the group with a lower achievement motivation profile,  $p = 0.000$ .

Figure 6.

*The interaction effect of the pandemic with the target-orientation variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*

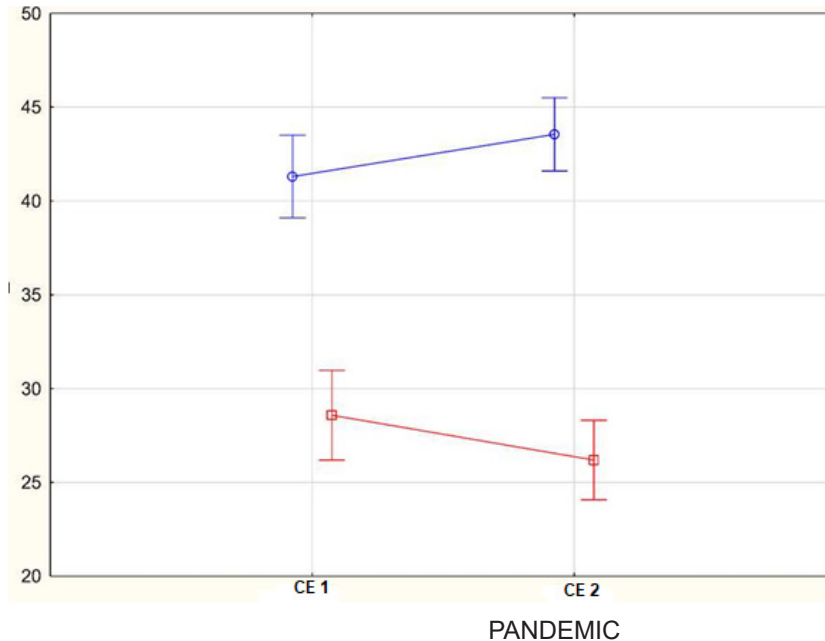


Source: Authors' own study.

In Figure 6, an interaction effect was observed between pandemic and goal orientation and distinguished groups with lower and higher achievement motivation profiles,  $F(1,155) = 8.61$ ,  $p = 0.003$ ,  $eta2 = 0.05$ . A detailed analysis of the differences showed that individuals belonging to the group with a profile with higher achievement motivation at the end of the pandemic have a significantly higher level of goal orientation at the end of the pandemic compared to the pre-pandemic period,  $p = 0.000$ . In contrast, individuals belonging to the group with a lower achievement motivation profile at the end of the pandemic achieve the same level of goal orientation they had before the pandemic. At the same time, it is important to point out that in the pre-pandemic period, individuals belonging to the group with the higher achievement motivation profile had a significantly higher level of goal orientation compared to those belonging to the group with the lower achievement motivation profile,  $p = 0.000$ .

Figure 7.

*The interaction effect of pandemic with the compensatory effort variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*

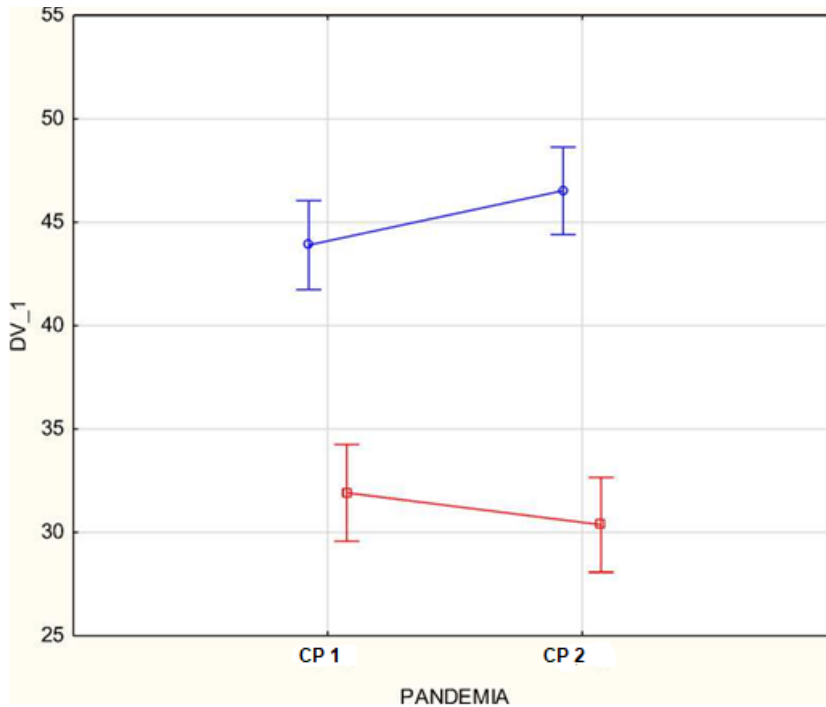


Source: Authors' own study.

In Figure 7, a statistically significant interaction effect was observed between the pandemic and compensatory effort and separated groups with lower and higher achievement motivation profile,  $F(1,155) = 16.40$ ,  $p = 0.000$ ,  $\eta^2 = 0.1$ . The strength of the effect is low. Individuals in group one with a higher achievement motivation profile at the end of the pandemic are characterised by higher compensatory effort compared to the pre-pandemic period,  $p = 0.041$ . In contrast, individuals in the group with a lower achievement motivation profile are characterised by lower levels of compensatory effort at the end of the pandemic compared to the pre-pandemic period,  $p = 0.048$ . At the same time, those in the group with a higher achievement motivation profile before the pandemic period were characterised by significantly higher levels of compensatory effort compared to those in the group with a lower achievement motivation profile,  $p = 0.000$ .

Figure 8.

The interaction effect of pandemic with the variable caring for prestige for groups with a profile with higher achievement motivation and a profile with lower achievement motivation

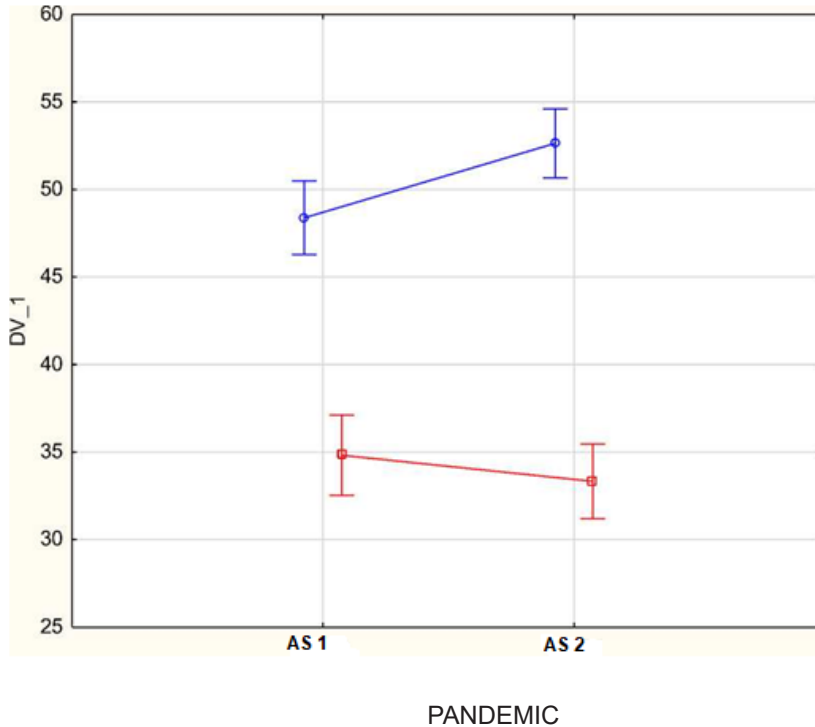


Source: Authors' own study.

In Figure 8, the existence of an interaction effect between the pandemic and the variable caring for prestige and the separate groups with a lower and higher profile of achievement motivation was recognised,  $F(1, 155) = 16.63$ ,  $p = 0.000$ ,  $\eta^2 = 0.1$ . The strength of the interaction is low. A detailed analysis of the differences between the groups showed that individuals belonging to the group with a higher achievement motivation profile at the end of the pandemic are more oriented towards caring for prestige compared to the pre-pandemic period,  $p = 0.004$ . In contrast, individuals belonging to the group with a lower achievement motivation profile remain at the same level of caring for prestige at the end of the pandemic as they were before the pandemic period. It is also worth pointing out that those in the group with a higher achievement motivation profile before the pandemic were characterised by greater prestige caring than those in the group with a lower achievement motivation profile,  $p = 0.000$ .

Figure 9.

*The interaction effect of pandemic with the variable achievement satisfaction for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



Source: Authors' own study.

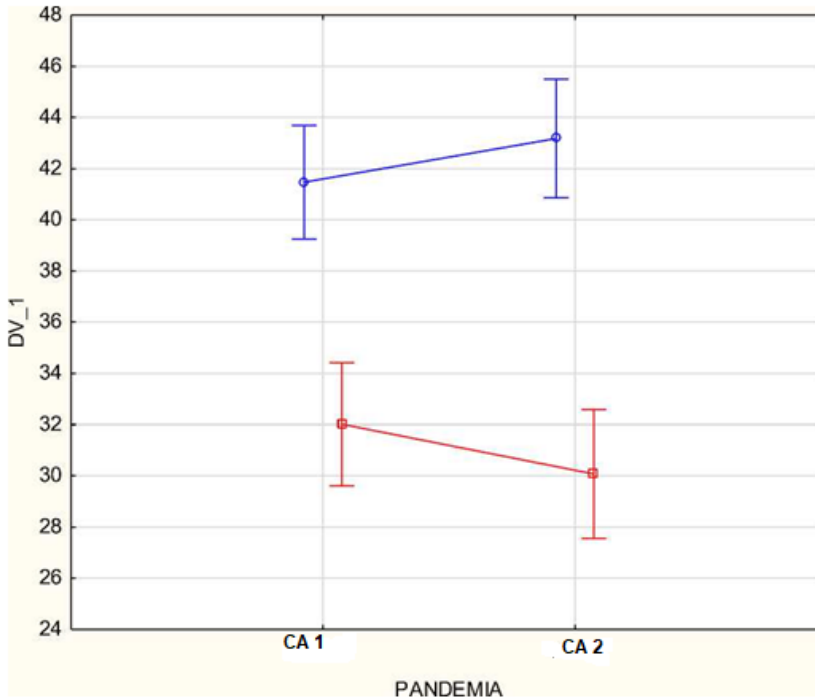
In Figure 9, an interaction effect was obtained between pandemic and achievement satisfaction and distinguished groups with a lower and higher achievement motivation profile,  $F(1,155) = 32.78$ ,  $p = 0.000$ ,  $\eta^2 = 0.17$ . A detailed analysis of the differences between the groups shows that those in the group with a higher achievement motivation profile at the end of the pandemic have higher achievement satisfaction compared to the pre-pandemic period  $p = 0.000$ . In contrast, those in the group with a lower achievement motivation profile at the end of the pandemic have the same low achievement satisfaction as in the pre-pandemic period. It is noteworthy that those in the group with a higher achievement motivation profile before the pandemic had significantly higher achievement satisfaction scores than their peers in the group with a lower achievement motivation profile  $p = 0.000$ .

There was no interaction effect between the pandemic and the dependency variable and separate groups with lower and higher achievement motivation profiles.



Figure 10.

The interaction effect of pandemic with the competitive attitude variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation

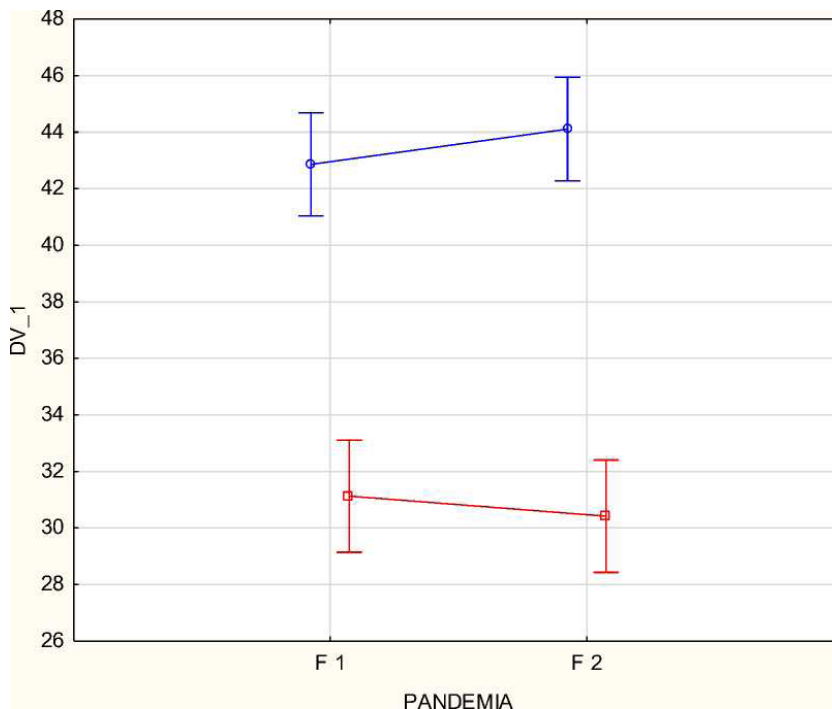


Source: Authors' own study.

Analysis of Figure 10 shows an interaction effect was obtained between the pandemic and the rivalry attitude and two groups were distinguished, i.e. the groups with a profile with a higher level of motivation and those with a lower level of motivation,  $F(1, 155) = 11.47, p = 0.000, \eta^2 = 0.07$ . A detailed analysis of the differences showed that both the first group and the second group did not significantly change their level of rivalry attitude at the end of the pandemic compared to the pre-pandemic period. In contrast, the results showed significant differences at baseline, i.e. before the pandemic, between the two groups,  $p = 0.000$ . Individuals in the group with a profile with higher achievement motivation already had a higher competitive attitude before the pandemic compared to those in the group with a lower achievement motivation profile. At the end of the pandemic, this difference increased statistically significantly, as those in the group with the higher achievement motivation profile raised their level of competitive attitude and those with the lower achievement motivation profile slightly lowered their competitive attitude.

Figure 11.

*The interaction effect of the pandemic with the flow variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



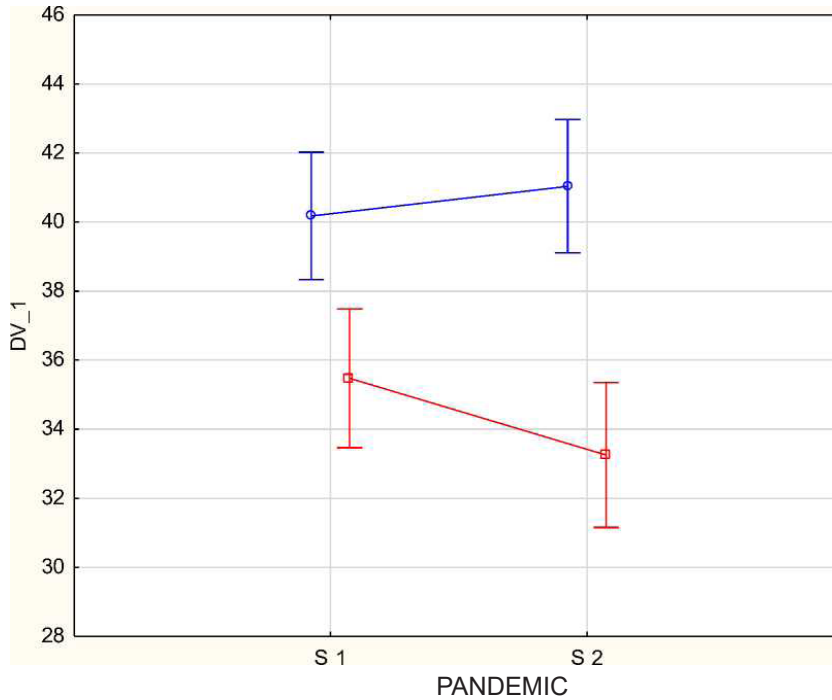
Source: Authors' own study.

In Figure 11, there was a significant interaction effect between the pandemic and the flow variable and the separate groups with higher and lower achievement motivation profile,  $F(1,155) = 4.42$ ,  $p = 0.37$ ,  $\eta^2 = 0.39$ . The strength of the relationship is average. A detailed analysis of the differences between the groups showed that the group with the higher achievement motivation profile before the pandemic had significantly higher flow than their peers in the other group with the lower achievement profile,  $p = 0.000$ . These differences further increased at the end of the pandemic,  $p = 0.000$ .

There was no significant interaction effect between pandemic and internalisation and two groups with higher and lower achievement motivation profiles were identified. Similarly, no interaction effect was seen between pandemic and persistence and the two groups with lower and higher achievement motivation profiles.

Figure 12.

*The interaction effect of pandemic with the self-control variable for groups with a profile with higher achievement motivation and a profile with lower achievement motivation*



Source: Authors' own study.

In Figure 12, there was a significant interaction effect between pandemic and self-control and the two groups with a lower and higher achievement motivation profile,  $F(1,155) = 1.93$ ,  $p = 0.000$ ,  $\eta^2 = 0.07$ . The strength of the relationship is weak. A detailed analysis of the differences between the groups showed that those in the group with a lower achievement motivation profile before the pandemic scored lower on self-control and by the end of the pandemic these scores had further deteriorated,  $p = 0.000$ . In contrast, those in the group with a higher achievement motivation profile both before and at the end of the pandemic had significantly higher levels of self-control compared to their colleagues in the other group (before the pandemic  $p = 0.000$ , at the end of the pandemic  $p = 0.000$ ). At the same time, it is worth noting that the level of self-control in the group with a higher achievement motivation profile before the pandemic and at the end of the pandemic was high but this did not change during the pandemic.

## DISCUSSION

The results show an increase in the levels of four aspects of achievement motivation in high school students at the end of the pandemic compared to the pre-pandemic period.

The first aspect of achievement motivation that was significantly higher at the end of the pandemic compared to the pre-pandemic period was dominance. This means that towards the end of the pandemic the high school students surveyed showed a greater tendency to influence others. According to McClelland (1979), dominance is related to power motivation, so it can be concluded that the respondents became more powerful and ready to take responsibility for others. Dominance also contains a distinct vitality component and is related to the global trait of extraversion. Thus, the results obtained indicate that the high school students surveyed at the end of the pandemic period are more willing to take initiative and take matters into their own hands. In a team, they like to play a dominant role and use others for their own success.

The high school students surveyed at the end of the pandemic showed greater eagerness to learn compared to the pre-pandemic period. Eagerness to learn plays an important role in motivation to learn (Rheinberg, 1998). Thus, their propensity to strive to expand their knowledge increased. They enjoyed learning to a greater extent. In addition, high school students became more goal-oriented towards the end of the pandemic. This aspect is taken into account, for example, in the Atkinson model of risk selection as well as in organisational-psychological achievement theory (Kleinbeck, 1991; Latham and Locke, 1984). High school students towards the end of the pandemic began to set both short- term and long-term goals to a greater extent. They have become more future-oriented and have a greater sense of certainty about what they want. They aspire more strongly to high achievement. They know in which direction they want to develop.

In addition, students surveyed at the end of the pandemic derive more satisfaction from achievement than they did before the pandemic. It can be assumed that the source of motivation for educational achievement lies, among other things, in the need to experience positive emotional states associated with success. Thus, at the end of the pandemic compared to the beginning of the pandemic, high school students attending school were characterised by a greater tendency to give their best, as this increased their level of satisfaction with learning. The results also allow us to conclude that they felt greater satisfaction in raising their level of achievement.

Distinguishing two groups of high school students with a profile With a higher level of achievement motivation and a profile with a lower level of achievement allows predicting their further educational and professional career. According to Klinkosz et al. (2006), a higher level of achievement motivation is one of the predictors of success. Achievement motivation has the potential to emerge in indi-

viduals who prefer conditions in which they can make their own decisions about how to learn and where there is no excessive control over action (Klinkosz et al., 2006). The period of the pandemic and the remote education carried out at that time, created circumstances for greater freedom of action, decision-making, lack of strict control over the activities carried out, which was conducive to the emergence of increased achievement motivation in some high school students. On the other hand, for the second group, due to different personal predispositions, less control by tutors and teachers contributed to a weaker level of achievement motivation and stronger avoidance of situations requiring effort and discipline.

By relating the results obtained, which consider achievement motivation to be the tendency to achieve and exceed standards of excellence, related to feeling positive emotions in task situations perceived as challenges (Łukaszewski, 1999), we can conclude that students in the group with a higher achievement motivation profile treated the pandemic situation as a challenge.

If humans learn their needs over time and shape them through life experience (Łukaszewski, 1999), then on the basis of this assumption we can explain why students who had lower levels of particular aspects of achievement motivation before the pandemic coped less well with the pandemic situation and the subsequent return to residential learning compared to students who scored higher on the aspects of motivation tested before the pandemic.

Every difficult situation brings some benefit to a person. Online schooling for students with a motivation deficit was comfortable. They could get up a while before the lesson started or even stay in bed, and they did not have to commute to school. These pupils may find it very difficult to return to school, as they have developed strategies for functioning in school outside of school for the moment. In this way, they avoid stressful or uncomfortable situations related to functioning at school.

According to Nieckarz (2011), citing Herzberg's theory, hygiene factors considered as natural working conditions are important for the correct functioning of motivators. For students with lower levels of achievement motivation, school is probably not a friendly place to learn. They probably feel more comfortable in other places. Hence, those belonging to the group with a lower achievement motivation profile found it more difficult to make constructive use of going back to school as these individuals also had a lower level of achievement motivation before the pandemic occurred.

## CONCLUSION

The pandemic and the associated remote education changed the way the high school students surveyed functioned. It forced them to reduce face-to-face contacts, study remotely or stop or limit certain activities. As the study showed, the

pandemic period and the deprivation associated with it affected some aspects of achievement motivation.

Some of the high school students surveyed at the end of the pandemic experienced a favourable increase in a number of aspects of achievement motivation when they returned to school. These individuals, compared to their peers in the lower achievement profile group, have a greater propensity to climb the educational and professional career ladder despite the pandemic experience. In addition, they display stronger leadership attitudes. They also have a relatively durable ability to perform difficult tasks, to gain mastery not only over people, objects or ideas but also to cope in times such as a pandemic, thus achieving success and recognition towards themselves.

In contrast, for some high school students, the period of the pandemic and the return to school resulted in a significant decrease in the level of achievement motivation or it remained at a low level. This is particularly evident in those who were already characterised by a profile with lower levels of achievement motivation before the pandemic. Thus, these individuals were even more disadvantaged as a result of the pandemic, as they were significantly deprived of therapy, revalidation and rehabilitation due to their specific pre-pandemic needs. It can be considered that some of them are doubly experiencing difficulties in terms of achievement motivation, as not only were they experiencing difficulties in this area before the pandemic, but they were additionally negatively affected by the pandemic period.

## STUDY LIMITATIONS

The study is based on students' retrospective assessments of their level of achievement motivation before the pandemic. Memory may be incomplete or subject to distortion, which may affect the accuracy of the data. The study was conducted in one general secondary school in Gdansk, Poland, which may limit the generalisability of the results to the level of the population of secondary school students nationwide. The online form did not allow for control of the conditions under which students responded.

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## MOTYWACJA OSIĄGNIĘĆ LICEALISTÓW W KONTEKŚCIE KOŃCA PANDEMII COVID-19 – PRZECIWSTRAWIENIE PRZESZŁOŚCI I TERAŻNIEJSZOŚCI

**Wprowadzenie:** Artykuł ma charakter empiryczny. Motywacja osiągnięć pełni znaczącą rolę w życiu człowieka i jest określana jako potrzeba realizowania czynności dla podnoszenia standardów. Podlega oddziaływaniom potrzeb i wartości oraz ma związek z rodzajem czynników motywujących jednostkę do działania zmierzającego do osiągnięcia celu.

**Cel badań:** Celem podjętych badań jest poznanie zmian zachodzących w okresie pandemii COVID-19 w zakresie motywacji osiągnięć w grupie licealistów.

**Metoda badań:** Badania mają charakter ilościowy. W celu udzielenia odpowiedzi na sformułowane pytania badawcze posłużono się wystandaryzowanym Inwentarzem Motywacji Osiągnięć autorstwa H. Schulera, G.C. Thomtona, A. Frintrupa i M. Prochaski w wersji polskiej. Obszarem jego zastosowania są badania nad osobowością i motywacją, nawiązujące do problemów motywacyjnych.

**Wyniki:** Pandemia miała istotne znaczenie w zmianie poziomu motywacji osiągnięć młodych ludzi w wyniku edukacji zdalnej, ograniczenia kontaktów bezpośrednich i zaprzestania lub ograniczenia pewnych aktywności. Badania wykazały, że okres pandemii i związana z nią deprywacja miała znaczenie dla niektórych aspektów motywacji osiągnięć.

**Wnioski:** Osoby, u których zaobserwowano wzrost poziomu motywacji pod koniec pandemii cechowały się wyższym poziomem motywacji osiągnięć przed pandemią w porównaniu z osobami, które uzyskały niższy poziom motywacji osiągnięć pod koniec pandemii.

**Słowa kluczowe:** motywacja osiągnięć, uczniowie, pandemia COVID-19