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The impact of the COVID-19 pandemic on the education of logistics cadets: a case study

Wpływ pandemii COVID-19 na edukację podchorążych logistyków: stadium przypadku

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Abstract. The outbreak of the COVID-19 caused restrictions on the education process implemented in higher education institutions, including the higher army education institutions. These restrictions were introduced almost over-night. Restraints due to the COVID-19 pandemic strained weak links in the education process implemented in the higher army education institution, on the one hand. On the other hand, it resulted in the emergence of new problem situations in the above mentioned process. This article aims to identify the impact of the COVID-19 pandemic on the management of a higher military education institution (HMEI) and the cadet education process in general and on the education of logistics cadets particularly. It includes the identification of initiating managerial activities aimed at minimizing the negative impact of the pandemic on the process of educating cadets, the impact of coronavirus on mobility, implementation of practical classes - specialist and I.T. laboratories, field exercises, and more. The main research problem was to answer how resilient the HMEI is to disruptions caused by the COVID-19 pandemic in terms of training cadets - military logisticians. The research was conducted using a qualitative

method based on a single case study, including the individual in-depth interviews. The research results indicate, inter alia, that the pandemic did not significantly affect the value of the cadet pass rate compared to its mean value before the pandemic period and the issues of military university management during the pandemic should be approached holistically.

Keywords: COVID-19, education, higher military education, cadets, military logistics

Abstrakt. Wybuch COVID-19 spowodował ograniczenia w procesie kształcenia na uczelniach wyższych, w tym na wyższych uczelniach wojskowych. Ograniczenia te zostały wprowadzone niemal z dnia na dzień. Ograniczenia wywołane pandemią COVID-19 z jednej strony nadwerężyły słabe ogniwa procesu edukacyjnego realizowanego w uczelni wojskowej, a z drugiej strony zaowocowało to pojawieniem się nowych sytuacji problemowych w ww. procesie. Celem artykułu jest określenie wpływu pandemii COVID-19 na zarządzanie wyższą uczelnią wojskową i proces kształcenia podchorążych w ogóle, a zwłaszcza na kształcenie podchorążych logistyków. Obejmuje identyfikację inicjowania działań kierowniczych mających na celu zminimalizowanie negatywnego wpływu pandemii na proces kształcenia podchorążych, wpływ koronawirusa na mobilność, realizację zajęć praktycznych – specjalistycznych i informatycznych, laboratoria, ćwiczenia terenowe i inne. Głównym problemem badawczym była odpowiedź na pytanie, jak odporny jest system szkolnictwa wyższego armii na zakłócenia spowodowane pandemią COVID-19 w zakresie wyszkolenia podchorążych – logistyków wojskowych. Badanie przeprowadzono metodą jakościową na podstawie pojedynczego studium przypadku, włączając wywiad swobodny pogłębiony. Wyniki badań wskazują m.in., że pandemia nie wpłynęła istotnie na wartość współczynnika zdawalności podchorążych w stosunku do jego wartości średniej przed okresem pandemii oraz, że do kwestii zarządzania uczelnią wojskową w czasie pandemii należy podejść holistycznie.

Słowa kluczowe: COVID-19, edukacja, wyższe szkolnictwo wojskowe, podchorążowie, logistyka wojskowa

Introduction

In March 2020, the disease was declared a global pandemic by the World Health Organization, leading to an unprecedented worldwide public health crisis within a very short space-time (Karakose, 2021, pp. 7-12). It was the first material forerunner of the upcoming enormous changes in the functioning of Polish society in all its dimensions, including military higher education as well. Three days later, the act on unique solutions related to the prevention and combating of COVID-19, other infectious diseases and emergencies caused by them was published (https://www.dss.agh.edu.pl/fileadmin/default/templates/css/j/dss/system/2020/D20200374_ustawa_2_03.pdf). The first milestone that announced the upcoming changes in education in Poland was the Regulation of the Minister of National Education of March 11, 2020 (<https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000410> 7). The following updating legal acts also applied to higher education institutions (HEIs) and higher military education institutions (HEMIs) as well.

The General Tadeusz Kościuszko Military University of Land Forces (AWL) is one of five higher education military institutions in Poland training candidates for officers and civilian specialists for the Armed Forces, institutions connected to national security for local authorities. The AWL is a public military university educating students in command, management, logistics, I.T., national security and security engineering. The AWL is also a military unit within the meaning of the Act of November 21, 1967, on the universal obligation to defend the Republic of Poland

and carry out security and defense tasks. The AWL is supervised within the scope of its activities by the Minister of National Defense (higher education activities carried out following the Act on Higher Education and Science). Thus, the AWL operates as an HMEI and a military unit.

The research was conducted using a qualitative method based on a single case study and covered the period from March 2020 to September 2021. The main goal of the research was to identify the impact of the COVID-19 pandemic on the management of a higher military education institution (HMEI) and the cadet education process in general and on the education of logistics cadets particularly.

The research hypothesis was formulated as a statement that the COVID-19 pandemic did not significantly affect the effectiveness of teaching logistics cadets at AWL.

The hypothesis formulated in this way required solving the following partial problems:

- to what extent has the COVID-19 pandemic affected the pass rate of logistics cadets?
- has the pandemic significantly affected the social behavior of logistics cadets?
- has the pandemic significantly influenced the personal attitudes of logistics cadets?
- how did participation in anti-COVID tasks affect the attitudes of logistics cadets?

The above-mentioned issues set the following sub-goals:

- how resilient is the education system at AWL as HEMI?
- what actions should be taken in the education process at AWL in order to increase its resistance to various types of interference?

The primary data sources obtained for analysis were: documents, archival materials, interviews, direct observations and participant observations. The original insights gained from this research can provide additional data in research areas on the impact of COVID-19 on HEMIs.

Literature review

To compensate for the losses caused by the disruption of educational activities caused by the COVID-19 pandemic, authorities at universities faced the task of developing and implementing effective strategies to adapt to the „new normality” (Tesar, 2020). The new normality was to introduce complete online learning as soon as possible.

In other words, as the COVID-19 pandemic rapidly reshaped the education style in higher education, universities were also forced to undergo significant change

and develop their management and working systems to meet the rapidly evolving teaching-learning needs of academicians and students. As a result, the COVID-19 pandemic forced the global education community to acknowledge the necessity of adopting online emergency remote teaching as an immediate response to the crises (Karakose, 2021, pp. 7-12). The COVID-19 initiated digital learning as an emergency alternative education system. Looking to the future, more innovative and interactive 'online learning' strategies will make education systems more resilient and better prepared for possible future crises and uncertainties (Johnson, Roberto, Bauhaus, 2021; Noor, Isa, Mazhar, 2020; Pokhrel, Chhetri, 2021).

With the advent of e-learning, academics face challenges in acquiring and implementing I.T. skills for teaching purposes. In the e-learning context, the relevant literature differentiates between two significantly different teaching methods such as "online distance education" and online "emergency remote teaching" involve. As such, as mentioned above, it is perhaps more correct to refer to the online teaching-learning strategy employed during the COVID-19 crisis period as "emergency remote teaching" rather than "online distance education" (Bozkurt, Sharma, 2020; Hodges, Moore, Lockee, Trust, Bond, 2020).

A range of topics emerged in the review of the literature devoted to the impact of COVID-19 on higher education could be grouped into five main thematic groups such as digital learning, e-learning challenges, the digital transition to emergency virtual assessment (EVA), the psychological impact of COVID-19, and creating collaborative cultures. Several studies have proposed suggestions on how educational institutions can move to fully online learning (e-learning), such as training in digital literacy, the use of online flipped classrooms, encouraging students to use peer to peer learning, and building community collaborations (Khan., 2021). Many HEIs delivered content digitally via already established platforms such as Skype, Zoom, Webex, (Dutta, 2020; Mishra, Gupta, Shree, A., 2020.), Microsoft Teams (Agasisti, Soncin, 2020), YouTube, Google Meet and Google Classroom (Chung, Subramaniam, Dass, 2020; Mishra, Gupta, Shree, 2020). Moreover, many open online course platforms such as Udemy, Coursera or edX helped students uninterrupted learning during the COVID-19 pandemic (Mishra, Gupta, Shree, 2020; United Nations Educational).

The most common response in European and non-European countries to educational constraints caused by limited access or closure of universities was the introduction of a differentiated learning system. In the initial phase, these systems carried out educational tasks by educating at a distance. In the next stage, they switched to blended education (Chung, Subramaniam, Dass, 2020; Sofia, Manea, Virlanuta, Barbut'a-Mis'u, Sorcaru, 2022).

The pandemic forced higher education institutions, including the military once, to change their approach to distance learning. This resulted in the emergence of „crises-military e-learning (cmel)“ (Chung, Subramaniam, Dass, 2020).

Particularly noteworthy is the fact that the vast majority of studies examining the influence of COVID-19 on educational institutions were conducted using online questionnaires targeted chiefly at students and staff, which seems to be the obvious corollary of the lockdown (Khan, 2021; Karimi, Yazdanpour, Lewis, 2021).

Methodology

The research was conducted using a qualitative method based on a single case study and covered the period from March 2020 to June 2022.

The primary data sources obtained for analysis were: internal documents and organizational regulations, external regulatory documents, archival materials, Individual In-depth Interviews (IDI).

Authorized non-confidential internal documents and organizational regulations, external regulatory documents, archival materials published on the external and internal networks were used in the chronological picture of the executive actions taken in the AWL command and control system. The IDI were used to assess the impact of „COVID” limitations in the social area and to the implementation of student / soldier tasks. The analysis of internal documents was used in the area of the effectiveness of the educational process to determine the pass rates.

Case Focus

The case study has been grouped into two separate but influencing issues. The first one, constituting the COVID-19 of AWL background in which the training of military logistics cadets is embedded. The second one relates directly to the measurable and immeasurable impact of the pandemic on the training of military logistics cadets.

COVID-19 background of AWL

The COVID-19 outbreak found AWL with a distance learning system implemented in the form of the AWL e-learning platform, functioning as one of the e-learning platforms of the Ministry of National Defense. The platform enables remote learning by sharing training (lessons, lectures, multimedia presentations, tests) and records the activity and progress of users (mainly operating in an asynchronous system).

The temporary limitation of the operation of HEMIs supervised by the Minister of National Defense due to the prevention of SARS-CoV-2 virus infection was introduced on March 12, 2020 (Internet System of Legal Acts Homepage [online]).

Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000404>). The limitation consisted in suspending education in studies, postgraduate studies, doctoral students within classes and other forms of education. At the same time, it was allowed to conduct classes using distance learning methods and techniques, regardless of whether it was provided in the curriculum of the modes mentioned above of education, maintaining the appropriate ECTS score. In subsequent regulations (Internet System of Legal Acts Homepage [online]. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000524>; Internet System of Legal Acts Homepage [online]. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000640>; Internet System of Legal Acts Homepage [online]. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000745>; Internet System of Legal Acts Homepage [online]. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000915>; Internet System of Legal Acts Homepage [online]. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200001119>; Internet System of Legal Acts Homepage [online]. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200001476>), the duration of the restrictions were extended with a simultaneous increase in the range of permitted activities. It was allowed to carry out exams and credits at the end of specific classes outside the seat of a military university with the use of information technology ensuring control of the course of the exam and its registration. It was allowed to adopt resolutions by the collective bodies of a military university and the collective bodies of the student government by circulation or using electronic communication, irrespective of the procedure specified in the internal files of the military university. HEMIs, which conducted classes using distance learning methods and techniques during the period of suspension of education, were allowed to continue conducting classes using these methods and techniques after the end of the suspension period, but no longer than September 30, 2020.

The restrictions resulted in a functional and organizational response from relevant AWL stakeholders. The first step was to adopt online emergency remote teaching as an immediate response to the crises. From March 16, 2020, remote classes were introduced. The current monthly timetable for military students (cadets) has been invalidated. New (short-term) timetables for cadets were introduced, which made significant changes in the timing of classes and teaching (e-learning). The new timetable was in force on March 16-25, 2020. The following timetable was from March 26 - to April 10, 2020, and the next one until May 24, 2020. From June 2020, the standard terms in monthly class schedules have been returned. The timetable for civilian students remained unchanged (only the form of e-learning courses has changed). It should be mentioned that there are two timetables in AWL. The first - is a semester timetable (for both cadets and civilian students) covering basic and directional subjects (and specialist subjects for civilian students) valid for the entire semester of the academic year. The second - is a monthly timetable (for military

students) supplementing the semester schedule with specialist classes issued for each subsequent month of the semester.

The new timetable's main emphasis was on providing medical information on COVID-19, e-learning training, and consultations with thesis supervisors. Later, online lectures (for the first year of cadets) were introduced, conducted in an asynchronous form using the AWL e-learning platform. Physical education (P.E.) classes were planned for individual implementation (necessary because P.E. is a teaching rigour). A significant limitation in P.E. training was the closure of the swimming pools.

On March 13-25, 2020, telephone subject consultations were introduced.

Training materials for civilian students were delivered using Skype, Zoom, and Webex platforms. In the initial period, classes were conducted mainly in an asynchronous mode. Some academic teachers had problems mastering the essential functions of the platforms mentioned above suitable for use in online education.

The implementation of classes in training centers and military units was carried out according to schedules, although there were occasional cancellations by training centers or military units. In such cases, in order to achieve the assumed didactic effects, the canceled classes were carried out at a later date. The author personally carried out practical classes at the AWL, which did not occur in the training center. For this purpose, he used stands and cross-sections of military vehicles located in the military vehicle operation laboratory as well as operational vehicles.

Classes in the remote system, with cadets, were carried out in two variants. The cadets stayed in their rooms in the dormitories and connected via the Internet. On the other hand, when the implementation of practical classes required the presence of cadets at the AWL site, they stayed in the lecture hall where lectures were carried out remotely (it should be noted that it was held in standard lecture halls). It turned out that the internet connections offered by the AWL net were not always up to the task.

The Erasmus + program has been cancelled. Only classes with international students from the USA, Canada and Belgium were carried out, which were conducted with the use of distance learning methods and techniques.

On March 24, 2020, the guidelines of the Data Protection Officer were communicated to the academic community to process personal data during remote work at the AWL. The concept of remote work has been legally established in the provisions of COVID acts (it should be noted that this concept does not exist in the Labor Code). The above guidelines imposed on academic teachers additional obligations to perform remote work. Remote work was ordered writing or electronically by the employer, or the employer granted the employee's immediate supervisor or consent for remote work based on an application for remote work.

On April 2, 2020, the lecturers' login addresses for the M.S. Teams application were provided to the lecturers, and thus the academic teachers were able to conduct

online classes using this application. Implementing this application for teaching purposes was carried out with varying intensity among lecturers. According to the observations, the application was mastered and used by most academic teachers in the basic scope of its possibilities after about two weeks. Both remote and stationary training in the use of M.S. Teams was conducted. An appropriate tab on the AWL website was established, enabling simplified logging into the application. The MS Teams application has been established as an obligatory tool for implementing e-learning in synchronous mode.

COVID-19 also forced changes in the rules for accounting for the number of teaching hours. The AWL Senate, of course, by voting through electronic communication (on May 21-22, 2020), defined new rules for accounting for the number of teaching hours in the summer semester of the academic year 2019/2020. The resolution specifies the rules for crediting classes, which appeared in the semester and monthly timetables, to calculate the total number of teaching hours (didactic workload). Moreover, during the temporary limitation of the operation of the AWL, i.e. from March 2020, lecturers were obliged to perform „Classroom settlement cards” on a monthly period.

From June 1, 2020, lectures were conducted using only distance learning methods and techniques (via M.S. Teams). Practical classes (exercises, seminars, laboratories) were carried out stationary if the learning outcomes specified in the curriculum were not feasible using distance learning methods and techniques. Practical training in training centers and military units took place in training places.

In the summer session of the 2020 academic year, the exams were conducted remotely and stationary, and the defense of diploma theses (end of September 2020) - was stationary, in compliance with sanitary rules.

In the winter semester of the 2020/2021 academic year, a new procedure for the organization of the education process in the AWL was adopted. As part of this procedure, four forms of carrying out the classes were established: Stationary (S), stationary mixed (S.M.), remote mixed (R.M.) and remote (R). Under these procedures, all classes in the first-year military studies were conducted in the S model, in lecture rooms adapted to the size of the groups. The remaining years of military studies conducted classes in the S.M. mode. Only classes in the group of specialist classes and P.E. were carried out in the S. Classes in civil studies, in all fields of study, for the first year, were held in the S.M. mode, with the proviso that all lectures in October and November were held in the S model. In the following months, remotely. The remaining years of civil studies conducted classes in the Z.M. mode, with the proviso that the first lecture commencing the subject (introductory) was conducted in the mode S.

Logistics cadets under the influence of a pandemic

The education of military logisticians cadets began at the Department of Logistics of the AWL in the academic year 2014/2015 in the general material specialization at the bachelor's degree. This year, 20 cadets started their education. By the end of the academic year 2021/2022, 164 logisticians cadets were studying. Out of this number, 72 officers, military logisticians had graduated from the university. Logistics cadets in AWL are educated in two fields. The first degree of higher education (bachelor's degree) is carried out in the field of Logistics (specialization - command of sub-units). The second degree of higher education (master) is carried out in the field of Management (specialization - command of sub-units).

The outbreak of the pandemic found 87 logisticians cadets studying at all years and levels of education at AWL, including 15 cadets for the 1st year. A significant fact is that all cadets who started their education in the field of logistics at that time obtained a bachelor's degree.

The influence of COVID-19 on the education of logisticians cadets, was grouped into three areas. The first is related to the impact of „COVID” limitations in the social area. The second, related to the implementation of student / soldier tasks. The third, in the area of the effectiveness of the educational process. The first two areas were assessed based on the IDI analysis. The third area was determined on the calculation of the pass rate - Z. The pass rate was calculated as the ratio of the number of cadets (a given year, logisticians) who completed the summer session of a given academic year (in the basic period) to the number of cadets studying in a given year (logisticians).

$$Z = \frac{S_z}{S_o} 100\% \quad (1)$$

where: Z - pass rate,

S_z - number of cadets who completed the summer session of a given academic year within the main deadline,

S_o - the number of logisticians cadets studying in a given year.

The IDI research took into account two dimensions, within which two research dispositions were specified:

1. Determining the opinions of cadets on the impact of COVID restrictions on their social life.
2. Determining the opinions of cadets on the implementation of their soldier / student tasks. As a result of the IDI analysis the report was prepared. The main findings of which were presented below.

In the first area, „COVID” limitations, the opinions of cadets of all academic years were ranked according to the following order of importance:

1. Increased the longing for direct contacts with relatives and intensification of general discouragement.
2. Feelings of uncertainty both on the near and distant scales.
3. Lack of possibility of free de-stress (e.g. friends outings or individual fitness training, in the gym or swimming pool).
4. Decreased willingness to act.
5. The fear of contracting the SARS-CoV-2 virus and the isolation (not health) consequences.
6. The deterioration of personal relations, as well as with mates, superiors and lecturers.

In the second area, the implementation of student / soldier tasks, the opinions of cadets of all academic years were ranked according to the following order of importance:

1. The enormous degree of unpredictability in the near future. It was associated with frequent changes in the plans for the implementation of activities and the performed tasks related to the participation of cadets in the activities mitigating the effects of the pandemic in the society.
2. Lowering the motivation to learn. The reasons indicated were the monotony of „MS teams drudgery” over the computer, mental fatigue and decreased efficiency.

The above mentioned activities were for example: operation „Resilient spring”, help for veterans, sick and lonely people (action „Help from AWL for a Hero”), support for the Territorial Defense Forces (TDF) soldiers, action „PoraNaPchora” or response to the appeals of the Regional Blood Donation and Blood Treatment Centers by organizing blood donation campaigns, thanks to which over 300 liters of blood were collected (<https://www.gov.pl/web/obrona-narodowa/wojsko-polskie-caly-czas-zaangazowane-jest-w-walke-z-COVID-19>).

It should be mentioned that cadets perceived their participation in various types of external activities very positively.

Values of the pass rate (calculated using the formula (1)) for the 1st, 2nd, 3rd and 4th year of study of logistics cadets in the academic years 2019/2020, 2020/2021 and 2021/2022 are presented in figures 1-4. The total size of the research sample was 134 logistics cadets. In the first column of each graph, the average value of the passing rate Z is presented, respectively for the 1st year from 2014-2019, for the 2nd year from 2015-2019, for the 3th year from 2016-2019, for the 4th year from 2017 - 2019. For the 5th year, the pass rate in all academic years was 100, therefore not shown in the chart.

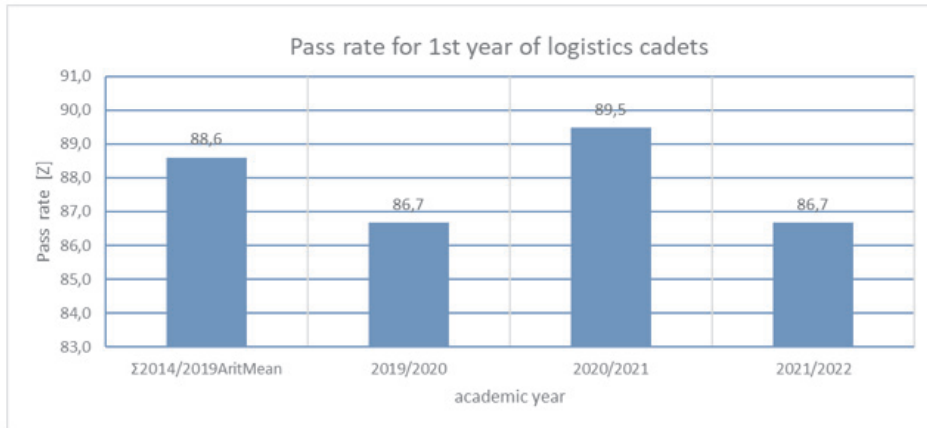


Fig. 1. Pass rate for 1st year of logistics cadets (description in the text)
Source: Own study

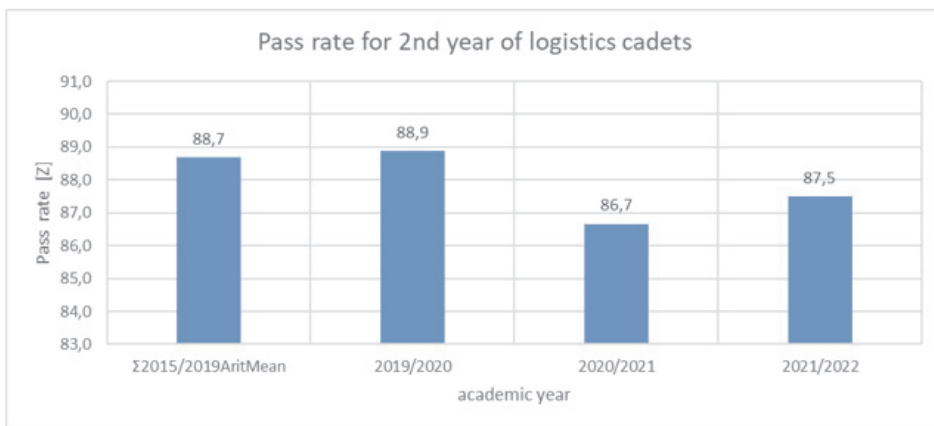


Fig. 2. Pass rate for 2nd year of logistics cadets (description in the text)
Source: Own study

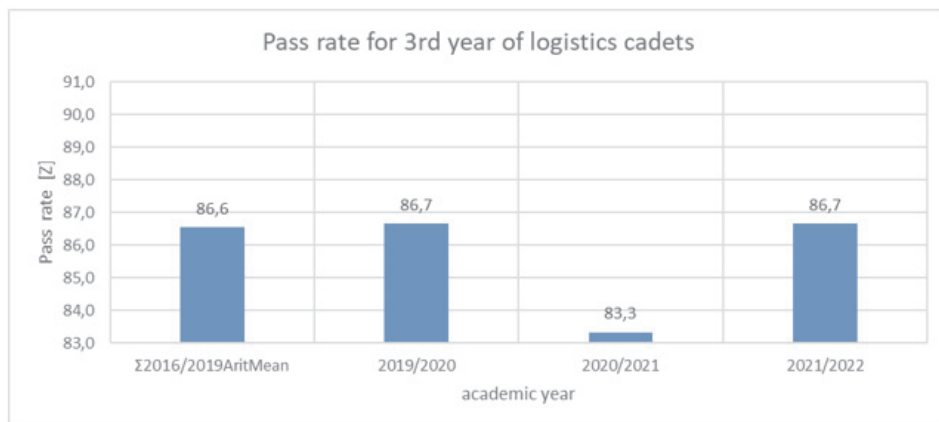


Fig. 3. Pass rate for 3rd year of logistics cadets (description in the text)

Source: Own study

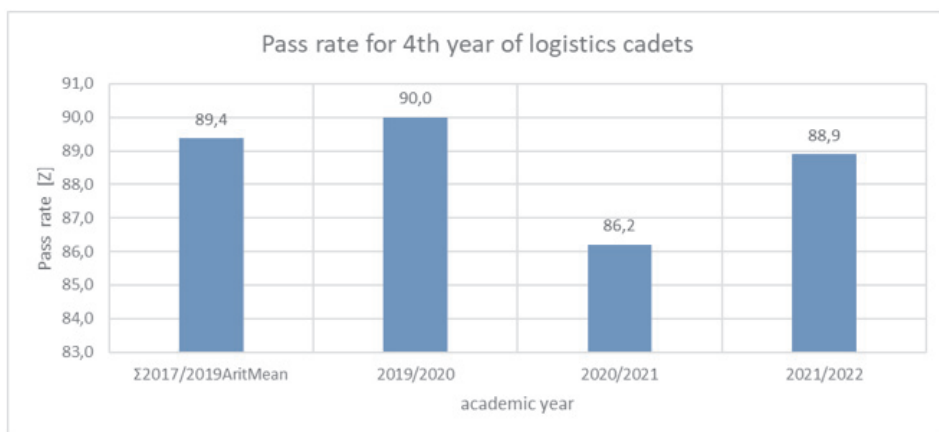


Fig. 4. Pass rate for 4th year of logistics cadets (description in the text)

Source: Own study

The confidence interval for the mean pass rates in the academic years 2019-2022 in comparison with the mean pass rates for selected years of logistics cadets study, before the pandemic period is presented in the figure 5. The confidence interval was set at $\alpha = 0.05$.

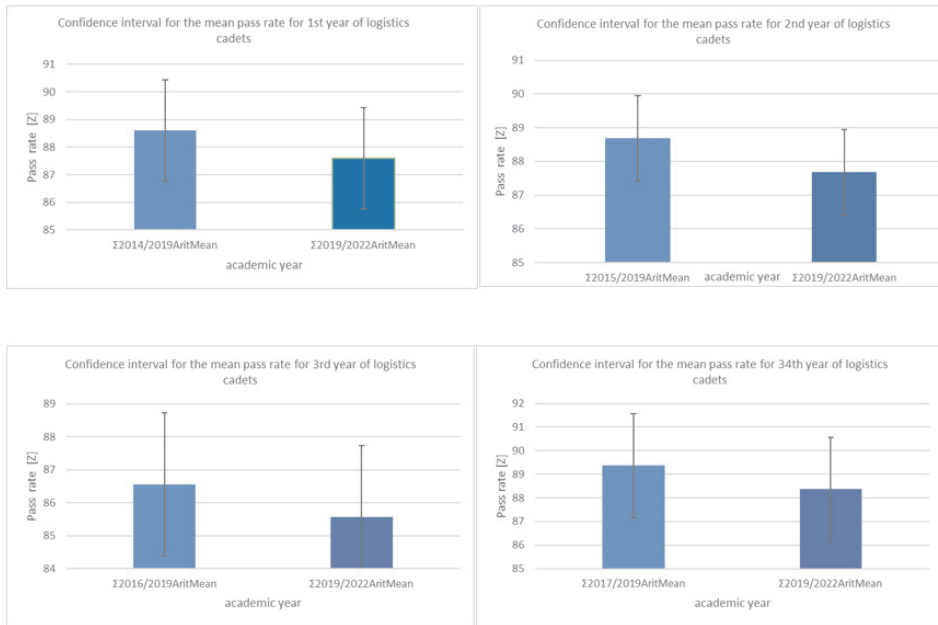


Fig. 5. The confidence interval for the mean pass rates in the academic years 2019-2022 in comparison with the mean pass rates for selected years of logistics cadets study before the pandemic period

Source: Own study

The presented data show that the pandemic did not significantly affect the value of the pass rate compared to its mean value before the pandemic period. All values of the average pass rate for individual years of logistics cadets are within the confidence interval for the means in the „COVID” academic years at the level of $\alpha = 0.05$. From the cited data, a noticeable lower value of the pass rate for cadets of the third year of studies is noticeable. This may be associated with the completion of education at the bachelor's degree.

It should be mentioned that all practical classes, both in the Logistics Training Center and in military units, were carried out as planned. Therefore, it seems that no deviations from the average in this area of knowledge should be expected. On the other hand, there was a significant lack of participation of logistic cadets in theoretical classes conducted on-line via the Teams platform. Lack of participation in the classes was related to participation in anti-COVID activities. Of course, the cadets had the opportunity to read the didactic materials placed on the Teams platform at any time convenient for them. It should be noted, however, that many cadets were able to organize their time in such a way that, despite their involvement in anti-COVID actions, they could take part in on-line classes.

Conclusions

Answering the question „Has the pandemic significantly affected the efficiency of teaching logistics cadets at AWL?“, it should be stated that the pandemic did not significantly affect the value of the cadet pass rate compared to its average value before the pandemic period.

The conducted research shows that the pandemic had a significant impact on the social behavior and personal attitudes of cadets, which influenced their attitudes to a varying degree. It can be clearly stated that the participation of logistics cadets in anti-COVID activities was a very good test of their ability to reconcile learning and responsibility for the tasks entrusted to them. All cadets passed this test successfully. It seems that this skill will pay off in the future professional service as a logistics officer. The authors of the article intend to continue their research by interviewing graduates in order to obtain information about their educational deficiencies caused by the pandemic and affecting their professional activities.

However, on the other hand, answering the question „How resilient are the HEMIs to disruptions caused by the COVID-19 pandemic?“ on the example of AWL, it must be stated that AWL was not prepared to implement „full online distance education“ in almost „zero time“. In a short time, online „emergency remote teaching“ was launched, which turned into „nearly fully online distance education“ after about a month.

The implemented functional and organizational solutions have improved the resistance of the AWL education system to threats similar to COVID-19. The biggest challenges were: quick implementation of a uniform online educational platform, overloading the AWL internet network, inadequate digital skills of the staff, digital transition to emergency virtual assessment, and delegating cadets to perform non-educational tasks under the „Resilient Spring“ campaign. The most outstanding achievement was increasing the possibilities of educational impact on students (variety of didactic forms, greater availability, more accessible contact, variety of con-trol).

There is still room for improvement/changes: the creation of more lecture rooms adapted to online lectures, inclusion in future curriculums of the bimodal education system and the updating of digital competencies, increasing the efficiency of the AWL internet network, legal regulations for remote work (outside AWL's competences).

It should be emphasized that the activities of cadets for the benefit of society (especially by supporting the health care system and elderly lonely people) made it possible to check the attitudes and adaptation of cadets to operating in conditions of limited resources, and stress and time pressure, which is a significant added value.

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