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Academic Malpractice in Tests and Exams from an International Perspective*

<http://dx.doi.org/10.12775/PBE.2022.007>

Abstract

Cheating in exams and other forms of academic dishonesty have been reported to be a serious issue in many countries. A lot of research has been conducted on the topic, but it focuses mainly on the US context. Studies pertaining to the problem in other countries are rather scarce. The existing research considers the issue from different perspectives. Some studies concentrate on the scope of the problem in a particular country, others choose to research individual and contextual factors in cheating, or students' perceptions of and attitudes towards exam malpractice. The surveys are often restricted to selected nationalities, the questions are limited to the frequency of cheating and they rarely include reference to the methods used. In reaction to the rarity of research on cheating methods among students from different cultural backgrounds, an international questionnaire survey was undertaken. Its aim, among others, was to answer two research questions: (1) What methods do students use to cheat in tests and exams? (2) Are there significant cultural differences in the way students cheat in tests and exams? Students from France, Germany, Italy, Spain, Ukraine, the USA and other countries were asked in an online questionnaire about the methods they have used to cheat in tests and exams. The results of the survey conducted on 1309 students show that there are similarities but also differences between the cultures with reference to the scope and to the methods used to cheat.

* This study was supported by the maintenance and development of research potential funding in the discipline of Pedagogy (project no: WPiNH/DS/10/2018-KON).

The findings should be taken into consideration in classroom and high-stakes assessment, but also in any cross-national comparisons of students' outcomes. Teachers, administrators and researchers ought to be aware that the differences in attitudes towards academic cheating between the nationalities may influence test validity.

Keywords: academic integrity, academic dishonesty, cheating, exams, testing.

Introduction

Tests, exams and other kinds of assessment are ubiquitous in teaching at all levels of education. They are also commonly used by all kind of certification bodies to attest candidates' knowledge, skills and abilities. Unfortunately, testing has always been closely bound with cheating and other forms of academic malpractice.

In his definition of *academic dishonesty*, Pavela (1978) enumerates four main types of the phenomenon: cheating, fabrication, plagiarism and facilitating. The two categories which are going to be looked at in this article in more detail are cheating and facilitating academic dishonesty.

Pavela (1978) defined *cheating* as: "intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours." By *facilitating academic dishonesty* he means: "intentionally or knowingly helping or attempting to help another engage in some form of academic dishonesty" (pp. 72–73).

According to Cizek (2001) *cheating* is "any action that violates the rules for administering a test, any behavior that gives an examinee an unfair advantage over other examinees, or any action on the part of an examinee or test administrator that decreases the accuracy of the intended inferences arising from the examinee's test score or performance" (p. 7). This author also notes that a person may use another person to take his or her test and calls such an accomplice a "confederate" (ibid.). *Facilitating academic dishonesty* in this way is also often referred to as *impersonation* (Cambridge Assessment International Education, n.d.).

A lot of reports, both in the popular press (Marsh, 2017; Adams, 2018; Brown, 2019) and in scientific research (McCabe & Treviño, 1996; Cizek,

2001; McCabe et al., 2001; Josephson Institute of Ethics, 2002; McCabe, 2005; Callahan, 2010), show that academic dishonesty is a serious issue and has increased significantly in the last decades. Many observers see the source of this rise in the development of technology and the Internet (Lathrop & Foss, 2000, pp. 10–16; Stogner et al., 2012).

In this article we are going to look into the cheating methods students from different national backgrounds use to try to reach their goals and into the differences in the choice of the methods between different nationalities.

Cheating in tests and exams among students from different national backgrounds – literature review

Publications concerning empirical assessment of academic malpractice and cheating in exams among university students are quite extensive, but they focus mainly on the US context (McCabe & Treviño, 1993; 1996; 1997; McCabe et al., 2001; Whitley & Keith-Spiegel, 2002; McCabe, 2005; Davis et al., 2009; Lang, 2013). Individual and institutional studies conducted over many years on a wide scale in American schools and universities have initiated widespread campaigns supporting and promoting academic integrity (see: International Center for Academic Integrity¹, Josephson Institute of Ethics²). Despite the still very high level of academic malpractice, the implementation of a variety of institutional actions (e.g., policies and procedures, honour codes) seem to be having a positive effect on the reduction of the high rates of academic cheating in the US (McCabe & Pavela, 2000).

In contrast to the numerous publications concerning the state of academic integrity in the US, few studies have been published referring to the phenomenon in other countries. Those available consider the problem from a variety of perspectives. Denisova-Schmidt et al. (2019) have chosen to conduct their academic misconduct study in Ukraine, which, according to the Corruption Perceptions Index, regularly published by Transparency International, is one of the most corrupt countries in the world (Transparency International, 2017). The outcomes of their survey show that personal values, perceptions of peer ac-

¹ <https://www.academicintegrity.org/>

² <https://josephsoninstitute.org/>

tions, as well as practical pressures and constraints, all play a role in the student involvement in academic corruption to a different extent. Buccioli et al. (2017), who conducted a study in Italian universities, have found that cheating among Italian students is widespread, with about half of the sample of the respondents (48%) self-reporting cheating in one or two exams, and 13% admitting cheating three times or more. They have also found a positive correlation between students' own cheating and the dishonest behaviour of their classmates and friends. Comas et al. (2011) researched different kinds of academic dishonesty, including cheating in exams and plagiarism, among Spanish students. The results show a significant disproportion between the self-reported and the observed incidence of cheating, with a strong predominance of the latter. Guibert and Michaut (2009) studied individual and contextual factors in cheating at college exams in France. Research among Polish students, includes studies focusing on primary, middle and secondary school students (Tyszko & Hryhorowicz, 2010; Kaczmarczyk & Borkowski, 2011), high school and university level students (Gromkowska-Melosik, 2007), as well as studies by Krzewińska & Przybyłowska (2012) and Sendur (2020), with, respectively, over 800 and almost 1200 responses from higher education students. The studies conducted in Poland prove very high rates of cheating behaviours and naturalization of the cheating phenomenon, as well as a very lenient approach towards academic cheating in educational institutions and in the society.

There have also been some attempts at trying to compare the incidences and attitudes towards academic malpractice across different nationalities. These studies show that there are visible differences in students' opinions about and the scope of exam cheating between nations. Grimes and Rezek (2005) compared the attitudes and the rate of exam malpractice at the secondary school level between the transitional economies (Belarus, Croatia, Kyrgyzstan, Lithuania, Russia and Ukraine) and the USA. Their study also demonstrates that the extent of cheating behaviours can vary dramatically between national settings. Stephens et al. (2010) conducted a comparative analysis of US and Ukrainian undergraduates. The results show a large difference in beliefs and behaviours related to cheating, with the US undergraduates seeming to be more concerned with demonstrating competence than their Ukrainian counterparts, and the Ukrainian students reporting lower judgments about the wrongfulness of cheating and higher levels of engagement in cheating behaviour than the US

students. A study involving high school and university students in Russia, the Netherlands, Israel and the USA was conducted by Magnus et al. (2002). The researchers compared the tolerance of cheating among these groups and found that students have a different attitude towards the phenomenon depending on where they live, with the Russian respondents being the most and the Americans the least tolerant of the malpractice. Opinions about cheating in exams among university students in Switzerland, Poland and Ukraine were studied by Chudzicka-Czupala et al. (2013). These researchers observed a significant difference in the students' perceptions of academic malpractice, with the Polish and Ukrainian respondents judging copying during exams as a positive phenomenon. Cicognani (2019), who conducted an international survey, does not report significant differences between the various groups of her respondents, but the results of this study refer to general geographical locations of the universities taking part in the survey (Central/Southern/Northern/Eastern Europe & the Americas) and not individual countries. She does, however, find differences between the particular regions in the kinds of cheating prevailing (e.g., interactive cheating seems less widespread in Central Europe; the use of illicit material is more common in Eastern Europe). Teixeira and Rocha (2006), who conducted a study among students in Austria, Portugal, Romania and Spain, have found that the propensity to copy is influenced by the countries' educational systems and social factors. They have also indicated the striking numbers and significant country variations in exam cheating (62% Portugal and 94% Romania). Another study by these two researchers (Teixeira & Rocha, 2009) involved 7213 students enrolled in 42 universities in 21 countries, among them some of the countries included in the study described further on in this article: France, Germany, Italy, Spain and the US. The authors reported significant differences in cheating behaviours between (blocks of) countries. Among their other observations is the fact that the cheating 'culture' seems pervasive at the selected universities in Latin America, and Eastern and Southern Europe, whereas it was seldom observed at universities in the Scandinavian countries. Monahan et al. (2018), who compared dishonest academic behaviours between German and American students, have found that the German students exhibited a greater frequency of unethical behaviours.

Despite the attempts to measure, describe and compare the issue of academic dishonesty in various cultural settings, the subject is still underin-

vestigated. The mentioned surveys are restricted to selected nationalities, the questions are often limited to the frequency of cheating and they rarely include reference to the methods used (Shon, 2006, p. 130). In some of the studies, the limited numbers of respondents do not allow for very extensive conclusions. The studies refer to different aspects of the problem and so the results cannot be directly compared, but they all show that the scope of academic dishonesty is a serious issue that might influence the validity and reliability of all kinds of assessment results.

The Academic Integrity Survey

Attempting to collect further evidence on the rate of the phenomenon afflicting higher education and to gather data from a variety of countries, the cross-national study described in this paper was undertaken. The Academic Integrity Survey was an individual research project conducted by the author of this article. The main goal of the research was to compare the attitudes of students from various cultural backgrounds towards academic integrity, the scope of the dishonest behaviours reported by these students, their arguments justifying the malpractices and the methods used to cheat in exams. This article concentrates on a small portion of the gathered results by addressing two research questions:

1. What methods do students use to cheat in tests and exams?
2. Are there significant cultural differences in the way students cheat in tests and exams?

Some of the results pertaining to Polish higher-education students have already been described in a separate publication (Sendur, 2020). Other data is yet to be published.

The method

The survey was conducted using an online questionnaire in eight languages: Polish, English, French, German, Italian, Portuguese, Russian and Spanish. The link to the online form was sent to universities and other tertiary education institutions in different countries over a period of four months at the turn of 2018 and 2019.

The instrument was based on *Survey on Academic Dishonesty*, originally designed by McCabe and his team, which, together with its later modifications (DuPree & Sattler, 2010), was widely used in the USA and Canada to conduct numerous studies on student and teacher integrity in American schools and colleges. The original questions were updated to include new technologies and questions concerning exam cheating methods were added. The questionnaire was constructed simultaneously in English and in Polish. Then, the forms were translated into the other languages.

The form addressed to students based in Poland included more questions and a considerably larger section referring to the respondents' demographic data. Due to much easier access to students studying in Poland, this part of the survey received a significantly larger number of responses (N = 1220) than the questionnaires in other languages. Because of the large disproportion in participant numbers, the Polish part of the survey and its results are not taken into account in this text.

The complete questionnaire included a number of questions which go beyond the topic of this article (e.g., questions referring to the number of instances the respondents were engaged in certain illicit behaviours, the perceived seriousness of the individual misbehaviours, the circumstances that could justify cheating in an exam; cf. Sendur, 2020) and are not going to be referred to here. The part of the survey which will be discussed is based on the question: *If you have EVER cheated in a test/exam, what methods did you use?* Respondents were presented with nine options and could tick all the statements that they found applicable (Figure 1). They could also add their own comment in an open-ended item.

Survey participants

The survey was completed by a total of 1309 participants from different countries (excluding Poland). Out of the 20 countries whose names were provided in the form of a selection list, six gathered enough responses to be regarded as significant for research purposes. These are: France, Spain, Ukraine, Germany, Italy and the USA. All the respondents who were not brought up in any of these countries have been included in the category *OTHER* for the purposes of data analysis. The exact numbers within each country category are presented in Figure 2.

If you have EVER cheated in an test/exam, what methods did you use? *

- I have never cheated in an exam.
- I have copied from another student.
- I have used paper crib notes.
- I have used a mobile phone (communicating with someone outside the exam room).
- I have used a mobile phone (to use the Internet or notes in the device).
- Someone else took the exam instead of me.
- I took the exam instead of someone else.
- I have used other electronic devices.
- OTHER. Please specify.
- Other: _____

Figure 1. Questionnaire options for the question regarding cheating methods
Source: Author's research.

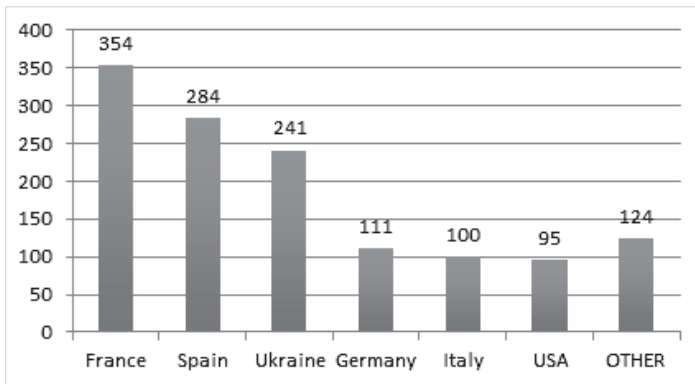


Figure 2. Survey participant numbers with reference to the countries of origin
Source: Author's research.

The information concerning the respondents' specific location within their country, as well as the institution they represent, was intentionally not elicited. As the topic of the survey is very sensitive, it was essential that the students felt assured that their answers would be completely anonymous, would not be in any way associated with their university and with themselves personally. Despite this cautiousness and in spite of the participants being informed about its anonymity, one student group in Italy openly refused to complete the survey for the fear of the possible consequences (information from personal communication with the university instructor). Similar apprehension has been reported by other researchers (Tyszko & Hryhorowicz, 2010).

Results

First, the overall results of the study are going to be presented, then the findings referring to the particular countries will be shown and discussed.

Cheating experience and cheating methods – overall results

The first option to be chosen for the question discussed here differs from all the others in that it indicates a positive behaviour: *I have never cheated in an exam*. The bar presenting the number of respondents who chose this answer has been marked in a different colour in Figure 3. Almost 32% of the respondents (418 students) declared never to have cheated in an exam. But put in other words, this means that over 68% (i.e. 891 students) owned up to cheating.

The methods of cheating that the biggest number of respondents worldwide admitted to was copying from another student (49%/642 respondents), using paper crib notes (39.3%/514) and using a mobile phone (smartphone) to find information on the Internet or notes on the device (26.7%/349). Using a mobile to communicate with someone outside the examination room and using other electronic devices were indicated by considerably smaller numbers of respondents (6.3% and 3.6% respectively/83 and 47 respondents). The two forms of impersonation received only a minor confirmation, with 1.9% (25) claiming to have sat an exam for somebody else and 0.6% (8) hiring a confederate.

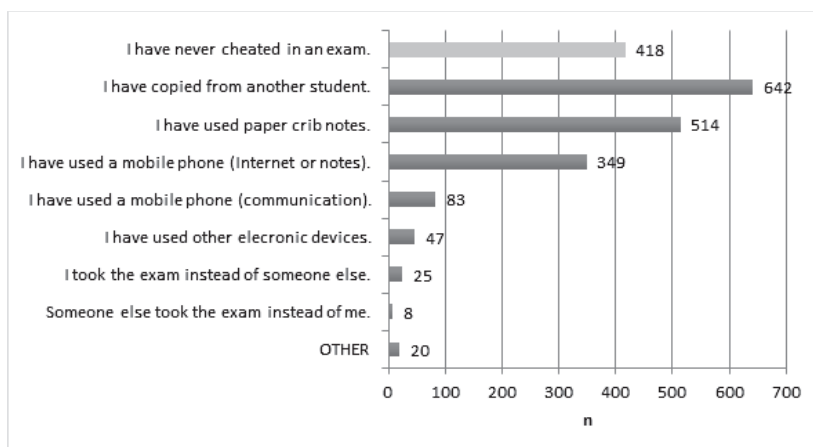


Figure 3. Methods of cheating in an exam – overall results

Source: Author's research.

Cheating experience and cheating methods – country variations

Presented in Figure 3 are the results for the whole survey population. There are, however, significant differences in the results pertaining to particular countries. The detailed results are shown in Appendix 1. The country percentage results for each method of cheating are presented in the table. The chi-square test of independency was used to check whether there is a significant relationship between the students' country of origin and their general propensity to cheat, propensity to copy from another student, to use paper notes and to use a phone to retrieve information. Each of the tests conducted has shown a significant association between the country of origin (among the countries included in the analysis) and the four cheating methods. For the remaining methods, the sizes of the subgroups were not sufficient and the test could not be performed. Therefore, we are unable to state whether there is a significant association between the country of origin and the propensity to use each of the remaining five cheating methods. Some of the most interesting differences between the countries are discussed below.

It is worth looking in slightly more detail at the very first option that was provided for this question. The answer *I have never cheated in an exam*

could be used to show very generally the scope of cheating within a particular group. The average score of those who marked the statement as true for them is almost 32%. But significant variations across nationalities can be observed in relation to this question. Over 48% of American respondents claim not to have ever cheated, which is well above the average for all the nationalities. The other two countries where a significant proportion of respondents have marked this option are Germany (39.6%) and France (39.5%). At the other end of the spectrum are the responses of the Ukrainian students, with a percentage of 20.3. This result, on the other hand, means that almost 80% of the Ukrainian students have in some way cheated in exams and is sustained by Grimes and Rezek's (2005) findings in which over 84% respondents from Ukraine self-reported cheating.

As for methods of cheating, copying from another student turned out to be the most popular one considering all the respondents, although it is not the most prevalent one across all the country categories. The two countries that stand out in using this method are Spain, with almost 60% of the respondents self-reporting such behaviour, and Ukraine with the result of 55.2%. At the other end of the range is Germany with 34.2% and the USA with 34.7%.

Although the general average for using crib notes is significantly lower (39.3%) than the results for the statement discussed above, it is the most popular technique of all those included in the study among the Ukrainian (63.1%) and the Italian (52%) students. This technique also proved quite popular among the Spanish respondents, with over 41% claiming to have used it in their educational career. This result is confirmed by the Comas et al. study (2011), in which over 43% admitted having behaved in such a way themselves and over 86% seeing others do it. Again, a very significant discrepancy can be observed when looking at these figures and the statistics concerning the students from the USA: only 12.6% of the American respondents have used paper cheat notes.

The smart phone can be used during an exam either as a means of communication, or to connect with the Internet or check notes saved on the device. Using a mobile to retrieve information is much more prevalent with an overall average of 26.7%. But again, there is a discernible distinction across the particular countries. The Ukrainian students report using it twice as often as the average (54.8%), whereas the German respondents have used

it to a much lower extent (9.9%). Using a mobile phone to check information is probably easier than for communication purposes in an examination room. This might be the reason why a lower percentage (6.3%) claim to have used a phone with such an intention. The Ukrainian respondents lead in taking this risk (17%), followed by the Italians (10%). This method seems to be the least common among the French and the Spanish students (2.3% and 2.8%). It must be stated, however, that these results were not tested for dependency because of insufficient subgroup sizes and therefore the association between the country and the technique is not confirmed (similarly to the techniques that follow).

The next method in order of prevalence is using other electronic devices. Once again, the responses of the American students (6.3%) differ considerably from those of the other respondents and are significantly higher than the average statistics (3.6%). Visibly higher than the overall mean are also the results provided by the Ukrainian students (5.4%). On the other hand, only 0.7% of the Spanish respondents claim to have used other devices. Again, the result referring to the Spanish students is comparable with that of the Comas et al. (2011) study, in which 0.7% of the respondents admitted using modern technologies five times or more, and another 1.8% using them between 1 and 4 times. It is not explicit, however, what *other electronic devices* are. One can hazard a guess that these might be such gadgets as smart watches, mini cameras, microphones and hidden earpieces – all widely available on the Internet.

The two methods reported least frequently by the respondents in general are connected with using false identities – taking an exam for another student or having a third party take a test in one's place. Interestingly, a bigger number of participants declared they had sat an exam for somebody else (25) than those who had someone else take an exam for them (8).

The last option for this questionnaire item was *OTHER* (cheating methods). The respondents could tick this answer, but were also invited to comment. The option was chosen by 20 students, 14 of whom supplied an open-ended response. The replies included such ideas as writing notes on one's body, on school supplies, communicating with other examinees using paper notes, making all kinds of noises and using sign language.

When looking at the results within each country's statistics individually, the observations presented below come to view. The most common technique

of cheating in exams by the French students is copying from another; the least common method – equalling 0 responses – is hiring a substitute. Among the Spanish group, copying from another student and using crib notes are the most widely used techniques, whereas the least common ones are inviting a confederate and using other electronic devices. Similar observations were reported by Comas et al. (2011). The Ukrainian students most often use crib notes. The method used least frequently by those nationals is having a substitute take an exam. What must be noted here is the fact that this variable is significantly higher for Ukraine than that of all the other nationalities (2.1% for Ukraine as compared to 0.7% overall average). The German students use crib notes most often. None of the German students have marked either of the two options: *Someone else took the exam instead of me* and *OTHER*. For the Italians, using paper crib notes also seems to be the favoured means of illicit help and the least exploited are the two forms of impersonation – both equalling 0 responses. The American students do not differ much from the other nationalities as far as the most common (copying from another student) and the least common (both types of impersonation) techniques are concerned. They differ significantly, however, in the number of responses for using other electronic devices and for other methods of cheating.

Discussion

The main focus of this part of the study was to see what methods students use to cheat in examinations and whether there are cross-national differences in the chosen cheating methods. It is essential, however, to be cautious when making any generalisations, as the study has a number of limitations.

First of all, the results are based on students' self-reported responses. This means that we are in fact looking at what the students claim to be doing and not at what they actually are doing, especially taking into consideration the sensitive character of the questions asked. Secondly, although the whole population of the survey was quite extensive, the respondent numbers within the national groups were relatively smaller and cannot be treated as representative of the whole student population of the country. Another limitation is the lack of knowledge concerning the institutions the respondents represent. This was the price that had to be paid for making the students

feel secure in disclosing such sensitive information as behaviours that might be on the verge of legality. The questionnaire was sent to numerous institutions in different countries, but there is no way of knowing which schools responded and forwarded the survey to their students and which students actually completed it. Therefore, there is a risk that the answers from some countries may come from a limited number of institutions. Judging by the numbers of emails sent, this is not a likely situation, but such a possibility should be taken into account when interpreting the data. Thus, we cannot be absolutely certain whether the results are representative of the nationality or restricted to an institution. Nevertheless, bearing in mind the limitations, there are a few assumptions that can be made.

Firstly, the overall results give us an overview of the cheating methods without reference to particular nationalities. These results supply the answer to the first research question: *What methods do students use to cheat in tests and exams?* The inferences that can be drawn are as follows:

- Cheating in exams is a widespread phenomenon. A majority of students declare having cheated in an exam. This finding confirms other studies which have shown that most college students and graduates have cheated in their academic career (Cizek, 2001; Grimes & Rezek, 2005; Gromkowska-Melosik, 2007; Teixeira & Rocha, 2009; Comas et al., 2011; Krzewińska & Przybyło, 2012; Bucciol et al., 2017).
- The most popular cheating methods are still the traditional ones: copying from another student and using paper cheat sheets.
- Although the use of electronic devices and the Internet is less frequent than that of paper crib notes, a significant number of students claim to have used or to be using such equipment as unauthorised help.
- Using mobile phones for communication purposes during exams is not as common as the aforementioned forms of cheating. The reason for this might be the fact that it is more difficult, probably requires more skill and preparation and poses increased risk of being caught.
- Taking an exam for somebody else or hiring a confederate to take an exam in one's place have both been assessed by a majority of students in the Polish part of the Academic Integrity Survey as much more serious than other kinds of academic dishonesty (Sendur, 2020). This

judgement is likely to be the reason why these offences are committed less frequently than the others.

With reference to research question 2: *Are there significant cultural differences in the way students cheat in exams?*, the survey allowed us to highlight several interesting observations across the cohorts. Bearing in mind the indicated limitations of the representativeness of the sample, the following inferences can be made:

- Cheating in exams is a universal behaviour and it is very common in all the compared countries, but the numbers of students who own up to cheating differ greatly, with the USA and the Ukrainian students on the far ends of the spectrum. These findings correspond with the results of the research performed by Chudzicka-Czupała et al. (2013) on three different nationality groups – Ukrainian, Polish and Swiss – which showed that there is a high consent to cheating among the Ukrainian (and Polish) students. Grimes and Rezek (2005) have also shown a significant discrepancy in the self-reported incidence and perceptions of academic dishonesty between students from the USA and Ukraine.
- The methods used by the representatives of the national groups participating in the study differ and the differences are sometimes quite significant.
- The numbers of respondents who reported using the biggest number of cheating methods is the highest among the Ukrainian students.
- The American respondents' cheating practices seem to differ from those of the other nationality groups. They report to be using modern methods more and the traditional ones less than the other respondents. Whilst traditional methods are still the most prevalent among other nationalities, this national group claims to copy from their peers and use crib notes to a significantly lesser extent. On the other hand, along with the Ukrainian students, they are the most prominent users of other electronic devices. The American respondents also chose the option *OTHER* more often than the other nationalities. *OTHER* might mean anything from notes on the examinee's skin to bribery, which according to Cizek (2001) is not uncommon.

The reasons why students cheat are numerous. A number of studies worldwide point to peer influence as one of the major causes of cheating (McCabe & Treviño, 1997; McCabe et al., 2006; Denisova-Schmidt et al., 2019). Other reasons students give are: the perception that their peers are unlikely to report cheating, that academic integrity policies are not supported by students or faculty, the belief that the material tested is irrelevant for their future careers and that it is difficult and demands too much effort to learn, no clear rules, no time to prepare because of the necessity to earn money and pressure to get good grades/exam results (McCabe et al., 2006; Gromkowska-Melosik, 2007; Davis et al., 2009; Davis, 2016; Sendur, 2020).

Other reasons that might play a role in the state of affairs are such factors as functional deficits at the higher education level, like overpopulation and insufficient financing (Czerpaniak-Walczak, 2013, p. 19). The commercialisation of academia, social consent, examples of unpunished malpractices among prominent representatives of the society or inadequate reactions on the part of the higher education governing bodies are also mentioned as causes of the state of affairs (Brzeziński, 2006). Apart from that, research has shown honesty to be placed rather low in the hierarchy of values among Polish university students with just minor differences depending on the respondents' fields of study (Cybal-Michalska, 2014, pp. 256–262). Although these arguments have been put forward on the basis of an analysis of the situation in Polish higher education, they might also be relevant in other systems of education.

There seem to be differences in attitudes towards cheating among the representatives of different cultures. Such variations can be observed with reference to the numbers of students who self-reported cheating and the prevailing techniques they indicated. The cause of these differences might lie in the differing approaches to exam invigilation, as well as the existence (or lack) of policies and procedures regarding academic integrity in the particular countries. The research described here has shown that among the few nationalities compared, the Americans seem to be the least prone to exam cheating. The reason for this might be the high awareness of the problem of exam cheating brought about by the ongoing research in American schools and universities, and the implemented measures. In American universities there is a long history of honour codes (the first honour code was first insti-

tuted at The College of William and Mary in 1779; Yavorski, 2019). The battle with academic dishonesty was institutionalised in 1992 by the formation of Center for Academic Integrity³ (McCabe et al., 2001, p. 221). Research proves that those institutions which have employed special codes of conduct that include severe penalties experience less cheating (McCabe & Pavela, 2000; McCabe et al., 2001; Callahan, 2010; Perkins et al., 2020), although there are also studies which show that the rules are not always enforced (McCabe et al., 2001; Correa, 2011).

In order to prevent students from cheating in exams or at least to diminish the level of dishonest actions Cizek (2001, pp. 7–8) recommends providing clear guidelines regarding permissible and impermissible behaviours before every implementation of high-stakes tests, decreasing reliance on easily-corruptible test formats and limiting the amount of testing. This author also suggests auditing test security procedures and improving test administration conditions. Providing and enforcing penalties for cheating also seems to be a necessary measure.

Conclusion

Cheating in exams seems to be omnipresent and flourishing. Examination malpractice in academia is a worldwide phenomenon, however, it has been shown by this and other research that the rate and the techniques differ between nationalities.

Cheating in tests and exams is a serious problem not only because it is morally and ethically wrong. There is also the problem of test validity, that is the accuracy of the interpretations about examinees based on their test scores. Since the primary purpose of a graded test is to determine what students have learned, cheating interferes with an evaluator's ability to make such judgments (Garavalia et al., 2007, p. 35) and, consequently, the effect of exam cheating are inaccurate and unreliable judgements about the testee's knowledge, skill or ability.

To abate the effects of cheating, teachers and administrators should be made aware of the various ways students cheat and ought to realise that there

³ Now: International Center for Academic Integrity.

might be cultural differences in attitudes towards cheating and the choice of cheating methods. Researchers performing any cross-national comparisons of students' outcomes must be cautious about their inferences if cheating behaviour is not closely monitored (Grimes & Rezek, 2005, p. 42). But this knowledge alone does not suffice. Teachers and institutions should create rules of conduct and procedures concerning academic integrity and make sure to enforce them at every stage of education.

At the time this survey was conducted, nobody had any idea about the changes in education that the COVID-19 pandemic would bring. Although distance education is not a new phenomenon, shifting education completely online as an effect of the global epidemic has brought exam cheating to a new level (Bilen & Matros, 2020; Newton, 2020; Sendur & Kościńska, 2021). The new teaching and learning situation brought about new challenges in assessment, which definitely call for new research.

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Appendix 1.

Methods of cheating in a test/exam by country

		France	Spain	Ukraine	Germany	Italy	USA	OTHER (countries)	OVERALL TOTAL	χ^2 *	Relationship**
TOTAL COUNT		354	284	241	111	100	95	124	1309		
% within country		100%	100%	100%	100%	100%	100%	100%	100%		
I have never cheated in a test/exam.	count	140	73	49	44	26	46	40	418	45.98	1
	% within country	39.5%	25.7%	20.3%	39.6%	26.0%	48.4%	32.3%	31.9%		
I have copied from another student.	count	166	170	133	38	42	33	60	642	37.12	1
	% within country	46.9%	59.9%	55.2%	34.2%	42.0%	34.7%	48.4%	49.0%		
I have used paper crib notes.	count	88	117	152	40	52	12	53	514	124.69	1
	% within country	24.9%	41.2%	63.1%	36.0%	52.0%	12.6%	42.7%	39.3%		
I have used a mobile phone (Internet access or notes on the device)	count	71	57	132	11	29	18	31	349	130.88	1
	% within country	20.1%	20.1%	54.8%	9.9%	29.0%	18.9%	25.0%	26.7%		
I have used a mobile phone (communicating...).	count	8	8	41	4	10	5	7	83	-	-
	% within country	2.3%	2.8%	17.0%	3.6%	10.0%	5.3%	5.6%	6.3%		
I have used other electronic devices.	count	17	2	13	3	2	6	4	47	-	-
	% within country	4.8%	0.7%	5.4%	2.7%	2.0%	6.3%	3.2%	3.6%		
I took the exam instead of someone else.	count	1	6	12	2	0	0	4	25	-	-
	% within country	0.3%	2.1%	5.0%	1.8%	0.0%	0.0%	3.2%	1.9%		
Someone else took the exam instead of me.	count	0	1	5	0	0	0	2	8	-	-
	% within country	0.0%	0.4%	2.1%	0.0%	0.0%	0.0%	1.6%	0.6%		
OTHER (way of cheating)	count	6	7	2	0	1	3	1	20	-	-
	% within country	1.7%	2.5%	0.8%	0.0%	1.0%	3.2%	0.8%	1.5%		

Source: Author's research.