

Motivational Background of the Attitudes to Academic Cheating with the Use of the Internet Resources *

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Abstract

The article presents the results of the study aimed at analyzing motivational prerequisites for the attitudes to academic cheating with the use of the Internet resources among university students (n=305). The research program included the method of vignettes and the Academic Motivation Scale. The results show that students often consider academic cheating with the use of Internet resources as an acceptable way to solve educational problems. At the same time, none of the types of academic motivation determines the protection against the use of this form of cheating in educational activities, but introjected motivation contributes to the actualization of negative emotions associated with it.

Keywords: *academic cheating, electronic academic cheating, university students, academic motivation, regression analysis*

1 Introduction

Nowadays, academic cheating with the use of the Internet resources is a routine form of students' behavior. The development of information and communication technologies, as well as the increased functionality and availability of gadgets for Internet access, have created opportunities for the growth of academic cheating around the world. The problem of academic deception with the use of the Internet became relevant since the 1990s [Genereux & McLeod, 1995] [Graham et al., 1994] when students got free access to the Internet content which is allowed for easy copying and sharing with other users [Balbay & Kilis, 2019], [Jereb et al., 2018]. The evidence suggests that the magnitude of academic cheating has increased significantly in recent decades due to the proliferation of digital educational tools, involving up to 70% of students in [LaDuke, 2013]. In this context, the term "electronic academic dishonesty" was proposed to identify differences from traditional forms of academic cheating which is the use of the Internet services for academic deception [Namlu & Odabasi, 2007]. In 2020, the problem of electronic academic cheating has become particularly important in connection with transition to Covid-19-Emergency-Remote Teaching [Radu et al., 2020], [Gamage et al., 2020], [Daniels et al., 2021].

Academic cheating is now understood as providing or receiving assistance to students in creating works to be submitted for academic evaluation in ways that are not authorized by the teacher (deception), as well as presenting other people's ideas as their own (plagiarism) [Hard et al., 2006]. In

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the context of digitalization of education, academic fraud includes, in addition to deception and plagiarism, collusion, manipulation of technology and distortion of information [Mcgee, 2013]. Research data suggest that the most common form of electronic academic cheating is plagiarism which is the use of other people’s materials posted on the Internet as their own [MääÄ et al., 2020]. The spread of such a form of academic deception as the presentation of materials from the Internet for teachers’ evaluation determines the relevance of empirical research aimed at analyzing protective factors that could prevent this behavior. Our study examines the influence of university students’ academic motivation on their attitudes to academic cheating with the use of the materials which were borrowed from the Internet.

2 Literature Review

Among the ethical problems associated with pedagogical interaction in the digital environment, academic cheating takes the leading position today [Ampuni et al., 2020], [Eshet et al., 2021]. Researchers emphasize that the psychological mechanism for the spread of academic cheating in the digital environment is, first of all, a reduction in the amount of “physical” control on the part of teachers [Foch & Caves, 2009], [Steinberger et al., 2021]. There is evidence that the physical presence of the teacher, “face-to-face” interaction with other fellow student and an ethically favorable institutional environment are key factors in the formation of academic integrity, despite the fact that these factors are not represented in the practice of digital education [AbdulHafeez et al., 2016]. At the same time, some studies do not support the hypothesis that the level of academic cheating in the digital educational space is higher than in situations of traditional interaction between teachers and students. A number of researchers argue that academic fraud in the digital space is about as common as in traditional models of pedagogical interaction [Grijalva, 2006], [Spalding, 2009], or even less so than in “face-to-face” learning [Stuber-McEwen et al., 2009], [Watson Sottile, 2010]. Probably, these differences are primarily due to the heterogeneity of the research paradigms and tools. Anyway, the problem of academic cheating in digital environment is relevant for modern higher education. It is of interest both to describe the phenomenology of academic cheating in the digital environment, and to search for psychological and pedagogical factors that determine the risk of cheating behavior or, in contrast, prevent it.

In search for the reasons for the electronic academic cheating spread, researchers analyze the contextual and personal factors that determine the growth of this form of cheating in the educational process.

The contextual factors of the spread of electronic academic deception are related, on the one hand, to the peculiarities of the digital environment, and, on the other hand, to the educational policy of universities regarding academic dishonesty. Thus, due to the features of the moral regulation of behavior in the digital environment, students often do not consider academic cheating with the use of the Internet as unethical acts [Coleman, 2012], [Alshehri, 2017], [Chankova, 2020], [Blau et al., 2021]. Moreover, students often are unaware that their actions constitute cheating [Nelson et al., 2013], sometimes due, among other things, to the permanent changes in educational requirements [Childers & Bruton, 2016]. Students can feel that academic permanent is a native and integral aspect of their academic life [Costley, 2019]. At the same time, awareness of negative impact of academic cheating on education quality is not a factor of protection against this behavior: students who declare an understanding of the seriousness of academic cheating, nevertheless deceive teachers in the educational process [Chala, 2021]. Longitudinal study shows that one of the most reliable predictors of academic permanent is students’ assessment of the prevalence of this behavior among fellow students [Shmeleva & Semenova, 2019]. All these facts together point to the normality of academic cheating among university students, which leads to the perception of the permissibility of electronic academic dishonesty. Informing students about the ethical aspects of electronic academic cheating, in turn, leads to a reduction in cases of academic dishonesty [LoSchiavo & Shatz, 2011],

[Annie & Mosha, 2015], [Ard & Ard, 2019], [Stephens et al., 2021]. These evidences suggest that in the context of digital education, it is necessary to pay special attention to the issues of academic ethics as well as to integration of the information about ethical standards in every educational program [Nicolaidis, 2018][Thayan, 2017] and to creation an ethically favorable institutional environment [AbdulHafeez et al., 2016] [Stephens et al., 2021]. In general, the attitude towards academic cheating is an important factor that mediates dishonest behavior in students [Yu et al., 2020], [Lee et al., 2020], [Nagi & John, 2020], [Dewanti et al., 2021].

However, some studies suggest that social norms as regulators of online behavior, including academic cheating, are in complex relationships with student motivation [Daumiller & Janke, 2020]. Motivation is most often studied as a personal factor that determines the propensity for academic cheating. A recent meta-analytical study found that academic cheating is most likely for students with external academic motivation or with amotivation, while its rejection is primarily due to internal motivation for learning and professional development [Krou et al., 2021]. Internal motivation mitigates the impact of impulsivity and intemperance on the propensity for academic cheating, which has been described in several studies [Baran & Jonason, 2020], [Bacon et al., 2020]. The formation of professional motivation contributes to the reduction of academic cheating [Bacon et al., 2020]. External motivation (e.g., motivation for high academic performance or competitive motivation), in turn, increases academic cheating [Anderman & Koenka, 2017]. Probably, this relationship between students' motivation and academic cheating is determined by the important role of involvement in the educational process as a factor in preventing such behavior [Putarek & Pavlin-Bernardić, 2020].

The self-determination theory of R. Ryan and E. Deci [Deci & Ryan, 2000] provides great opportunities for studying the relationship between students' motivation and academic cheating as well as the concept of educational motivation which is based on it. According to this concept, the motivation of educational activities is a complex, multidimensional structure that includes not only conscious and unconscious motives, but also goals, strategies for responding to failures, and cognitive mechanisms. At the same time, internal and external motivation are not opposed. They are understood as different degrees of satisfaction/frustration of the core need for autonomy [Gordeeva et al., 2014]. Research data show that increasing autonomy in the performance of educational tasks helps to reduce academic cheating, while the need to follow strict instructions, on the contrary, increases it. This fact highlights the significance of the satisfaction of the need for autonomy in the prevention of academic cheating [Kanat-Maymon et al., 2015]. The preventive effect of satisfying the need for autonomy is particularly pronounced in the short term, especially for students with internal motivation [Pulfrey et al., 2019].

It should be noted that the empirical data on the relationship between students' academic motivation and academic cheating are obtained mainly in studies of traditional (non-electronic) academic cheating. However, there is evidence that regulators of academic dishonesty in the online environment may differ significantly from face-to-face terms. For example, studies suggest differences in such regulation at the value level [Koscielniak & Bojanowska, 2019]. These facts determine the relevance of comparing motivational prerequisites of electronic academic cheating in contraposition with traditional forms of academic cheating.

3 Current study

The aim of current study was to analyze motivational prerequisites for the attitudes to academic cheating with the use of the Internet resources among university students. We tested the hypothesis about the difference in motivational prerequisites of electronic and traditional forms of academic cheating by the example of academic cheating with the use of the Internet resources (coping ready-made tasks from the Internet) and interpersonal resources (coping tasks which were completed by classmates). According to this aim, the following research questions were formulated:

1. What is the difference between attitudes towards academic cheating with the use of the Internet

resources and interpersonal resources?

2. What is the relationship between students' attitudes toward academic cheating and academic motivation?
3. What aspects of academic motivation influence students' attitudes toward academic cheating with the use of the Internet and interpersonal resources?

4 Materials and methods

Empirical data collecting were conducted with the vignette method. Two hypothetical situations (vignettes) were presented to respondents. The first vignette described academic cheating with the use of materials posted on the Internet ("Character B downloaded a course paper from the Internet, reformatted the text in such a way that the Anti-Plagiarism program could not detect illegal borrowing, and handed the work over to the teacher. Character A (you) became aware that the course paper of character B was completely downloaded from the Internet"). The second vignette depicted academic cheating through the use of interpersonal resources ("Character A (you) learned that character B was about to hand out homework that he/she did not complete on his/her own but copied from friends").

Respondents were asked to use a 9-point scale to describe the thoughts and feelings attributed to the cheating character ("Do you think character B was happy with what he/she managed to do?"), as well as their own thoughts and feelings:

- "How much does character A (you) feel angry in such a situation?"
- "How much does character A (you) feel anxious in such a situation?"
- "Character A will decide that there is nothing special about this event, because this sometimes happens"
- "Should character B, in your opinion, confess to the teacher about the deception?"

The motivation sphere of the respondents was characterize with a short version of the "Academic Motivation Scale" [Gordeeva et al., 2014]. The Scale is based on the theory of self-determination by R. Ryan and E. Deci. It includes four subscales: learning motivation, achievement motivation, introjected motivation and external motivation.

Statistical data processing was performed with Statistica10.0 software package and included descriptive statistics ($M \pm S$), correlation (r) and variance (F) analysis. Statistical data processing was performed with Statistica10.0 software package and included descriptive statistics ($M \pm S$), correlation (r) and variance (F) analysis.

The study involved 305 students of higher educational institutions of Russia (47.5% of women) aged 18-25 (average age 19.29 ± 1.27 years). The program and protocol of the study was approved by the Ethics Committee of the Herzen State Pedagogical University, protocol no. 14 of July 2, 2020.

5 Results

The results suggest that academic cheating in general and, in particular, academic cheating with the use of resources posted on the Internet does not cause negative ratings among respondents. University students consider every form of academic cheating as one of the potentially acceptable ways to solve educational problems. At the same time, academic cheating with the use materials from the Internet causes more negative emotions in respondents than cheating in the format of coping other students' works. Moreover, it is perceived as more ethically loaded situation, which, however, brings more satisfaction to the cheater (see Table 1). In general, academic cheating with the use of Internet materials is perceived more controversially, in comparison with cheating by traditional cheating.

Table 1: Comparative analysis of academic cheating characteristics

Note: * - $p \leq 0.05$; ** - $p \leq 0.01$; *** - $p \leq 0.001$

Parameters	Academic cheating		<i>F</i>
	traditional, <i>M</i> ± <i>S</i>	electronic, <i>M</i> ± <i>S</i>	
Thoughts and feelings attributed to the cheater			
Satisfaction of the cheater with the achieved result	6.52±2.19	7.85±1.67	9.65***
Own thoughts and feelings as a response to the cheater's actions			
Anger caused by cheating	2.85±2.20	3.12±2.41	2.03*
Alarm caused by cheating	2.31±1.95	2.55±2.12	2.19*
Assessment of cheating as an ordinary, "everyday" situation	7.57±2.12	6.92±2.32	4.39**
Confidence about the need to confess to cheating	3.56±2.52	3.35±2.45	-

Correlation analysis results show that the psychological prerequisites for academic cheating with the use of materials from the Internet are primarily related to introjected and external motivation, while the indicator of learning motivation was not included in the structure of correlation relationships, as well as the indicator of the age of respondents. For academic cheating with coping ready-made tasks completed by classmates, learning motivation is incorporated in this structure as a positive correlate of the indicator "Confidence about the need to confess to cheating", which is also related to age (see Figure 1).

However, analysis of variance confirms the contribution of learning and especially introjected motivation to the students' attitudes to academic cheating, while no significant contribution of external motivation was found (see Figures 2-3).

The results of the variance analysis also demonstrate that in relation to academic cheating with the use of interpersonal resources, academic motivation serves as a regulator of emotions, but does not determine the intention to perform cheating actions. For academic cheating with the use of the Internet resources, such regulator is introjected motivation.

6 Discussion

The empirical study solved the problem of identifying the motivational prerequisites of academic cheating with the use of resources posted on the Internet.

In accordance with the first research question, we noted that students tend to perceive academic cheating (both electronic and traditional) as the native side of their educational activities and do not give it an ethical meaning. This data supports previous evidence that academic cheating in the student environment is assessed as a habitual component of everyday educational activity [Coleman, 2012], [Alshehri, 2017], [Chankova, 2020]. At the same time, academic cheating with the use of materials from the Internet is perceived by students as more contradictory form of activity, in comparison with the traditional copying of tasks completed by classmates. On the one hand, this form of cheating brings students more satisfaction, but, on the other hand, it is accompanied by more pronounced

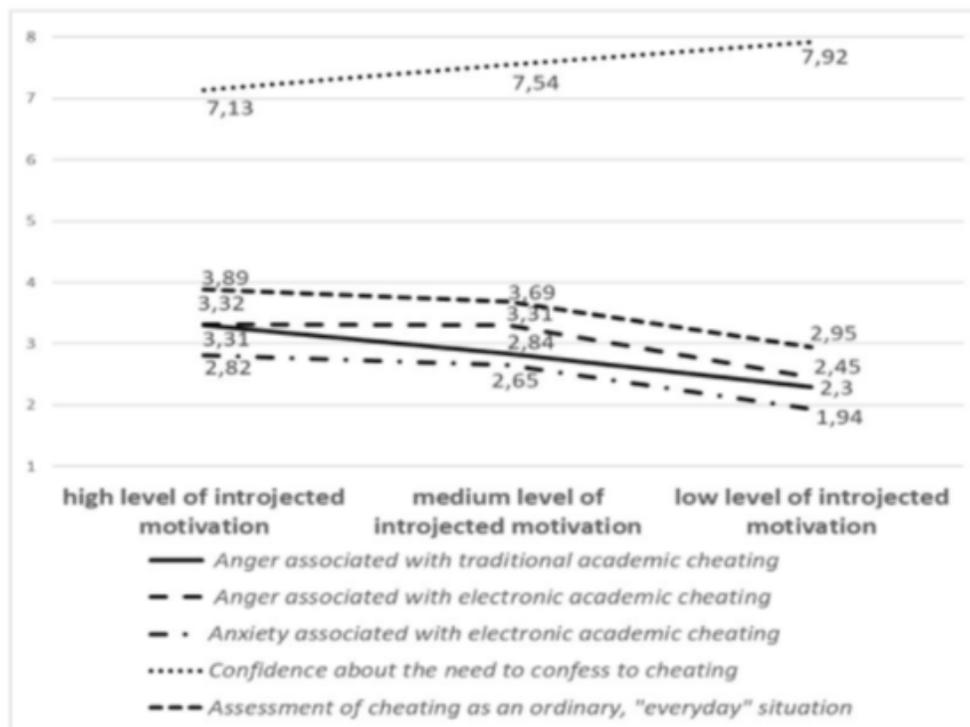
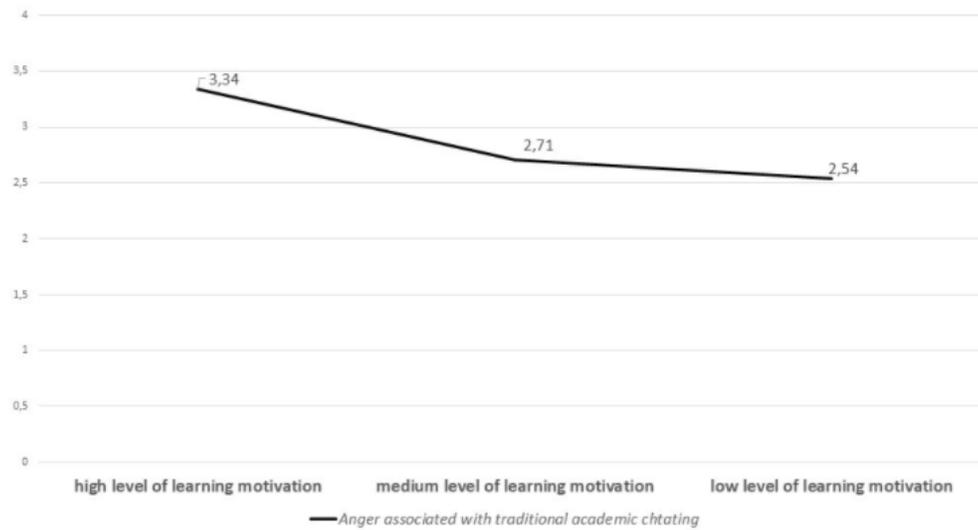


Figure 1: Correlations between characteristics of academic cheating, motivation and age
 Note: light gray background – characteristics of cheating; dark gray background-motivation; solid line – positive relationship, $p \leq 0.05$; dottedline – negativere-relationship, $p \leq 0.05$

negative emotions. We assume that these differences are determined by the peculiarities of using materials posted on the Internet in comparison with materials prepared by classmates: the access to

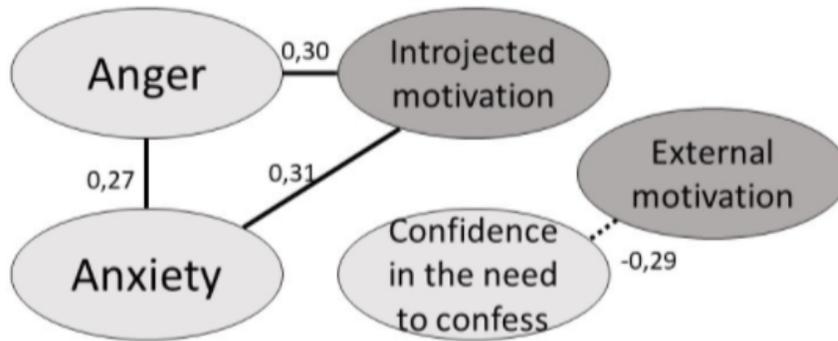


Figure 2: Contribution of learning motivation to the attitudes towards academic cheating

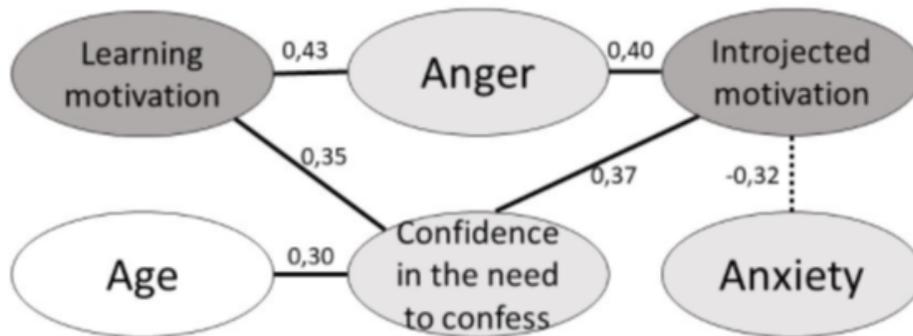


Figure 3: Contribution of introjected motivation to the attitudes towards academic cheating

the Internet materials is much easier but their quality is less certain than in the situations of copying classmates' tasks.

The correlation analysis showed that the structures of relations between attitudes towards academic cheating and students' motivation differ for situations of academic cheating with the use of materials posted on the Internet or copied from classmates. For traditional academic cheating, the relation between negative attitudes and learning motivation has been confirmed, as in other studies [Anderman & Koenka, 2017], [Baran & Jonason, 2020], [Krou et al., 2021]. However, for academic

cheating with the use of the Internet resources, this relation was not found. Thus, we can answer the second research question as follows: the correlations between attitudes towards academic cheating and students' motivation vary for situation of traditional and electronic cheating.

In relation to the third research question, we can suggest that learning motivation, along with introjection, is a factor of protection against traditional forms of academic cheating, but it is not related to the subjective readiness to commit academic cheating through the use of materials posted on the Internet. Introjected motivation, which is an urge to study due to a sense of duty and a sense of shame in a situation of non-fulfillment of the curriculum, can be a factor of protection against academic cheating in both cases. Along with it, in the case of using ready-made materials from the Internet introjected motivation contributes primarily to negative emotions, but does not lead to actions associated with the rejection of cheating, as it happens in a situation of cheating by copying works completed by other students. External motivation aimed at avoiding possible problems in case of failure to meet the requirements, in turn, increases the subjective admissibility of academic cheating with the use of materials posted on the Internet.

Summing up, we can conclude that our hypothesis about the difference between motivational prerequisites of electronic and traditional forms of academic cheating by the example of academic cheating with the use of the Internet resources and interpersonal resources was confirmed. The results of our research strongly suggest that the investigation of electronic academic cheating is a specific problem that needs to be studied separately from traditional forms of academic cheating. Similar evidence was found for value regulation of academic cheating [Koscielniak & Bojanowska, 2019] which supports our conclusions. The prospects of the research are related to the analysis of the motivational prerequisites for other forms of electronic academic cheating, as well as to the expansion of the range of personal factors that can potentially influence academic behavior in the digital environment.

Conclusions

Students evaluate academic cheating with the use of materials posted on the Internet as an ordinary element of educational activity, but perceive it more contradictory, compared to traditional forms of cheating. In contrast to academic cheating based on interpersonal resources, in the case of academic cheating with the use of materials from the Internet, academic motivation (primarily introjected motivation) determines only the emotional component of the attitudes to cheating, but does not provide protection against the use of such actions in educational activity. The further studies should be focused on searching for psychological prerequisites for the attitude to academic cheating with the use materials from the Internet in order to find factors that could contribute to reducing this form of students' behavior in the educational activity.

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