How Perceptions of Academic Honesty at the University Correlates with Student Engagement:

Conceptualization and Empirical Research Opportunities

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Abstract. Academic dishonesty among university students is a major problem for higher education and has negative economic impacts in many countries including Russia. While exploring why students choose dishonest ways of obtaining good grades instead of getting engaged in the learning process and acquiring as much knowledge and experience at the university as possible, most researchers focus on academically dishonest practices, ignoring the reasons for and factors of honest learning behavior. We regard student engagement as the opposite of academic dishonesty and propose a conceptual model of how academic honesty at the university influences various aspects of student engagement in learning activities. We conduct an empirical study to test the hypothesis on the correlation between the characteristics of honesty at the university and parameters of student engagement suggested as part of the conceptual model. We use data collected by the Monitoring of Student Characteristics and Trajectories carried out in universities included in the Russian Association of Leading Universities in Economics and Management. Having analyzed the data on students of management and economics in eight Russian universities, we conclude that the suggested hypothesis has been largely confirmed, and the proposed conceptual model may serve as a productive basis for empirical research on the correlation between academic environment parameters and student learning behavior.

Keywords: higher education, academic dishonesty, dishonest behavior, learning activities, student engagement, honesty of academic environment.

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1. Academic Dishonesty and Factors of Its Spreading

Academic misconduct is a major problem of higher education in many countries including Russia. Research conducted since the 1940s[1] has shown that dishonest practices are used by a large proportion of students: rates vary from over 50% [Liska, 1978; Singhal, 1982; Hetherington, Feldman, 1964; Stannard, Bowers, 1970; McCabe, Trevino, Butterfield, 2001] to over 70% [Bowers, 1964; Baird, 1980], as reported by foreign universities in various periods of time.

There has been no research in Russia to provide accurate and reliable statistics on academic dishonesty, but the large popularity of the phenomenon in Russian universities can nevertheless be proved indirectly. Thus, for instance, the Monitoring of Education Markets and Organizations revealed that nearly two thirds of students used at least one dishonest practice in their studies in the monitored academic year[2]. Internet plagiarism is the most widespread type of academic misconduct, being used by over one third of students. Nearly one in five students used cheat sheets and one in eight used information downloaded to their cell phones in the monitored year.

The high incidence of academic dishonesty in Russia is fueled by, among other things, the tolerance of the majority of the population for such dishonesty. For instance, the *Kurier* all-Russia survey conducted by the Levada Center in 2013 (ninth wave) revealed that more than half of the respondents found using cheat sheets in school and university to be acceptable. It should be noted that young people appeared to be more tolerant to academic misconduct than those over 30 years old (Fig. 1).

Using someone else's graduation and thesis papers is generally criticized more than using someone else's work or cheat sheets during studies. Yet, one in five respondents finds it acceptable, too. As in the previous case, people under 30 years of age are more tolerant to this type of academic dishonesty (Fig. 2).

Such high rates of academic dishonesty have grave consequences. First, they result in a low efficiency of investment in higher education [Sivak, 2006], which reduces the level of knowledge and skills among graduates and, consequently, the country's economic potential and development rates [Adebayo, 2010]. Additionally, students

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[1] Drake [1941] is considered to be the first to study academic dishonesty.

[2] The analysis was performed based on the database of the 2014 Monitoring of Education Markets and Organizations. The sample included 2,995 university students. The question was stated as follows: "In this academic year, have you ever..." The possible answers were: 1) downloaded reports, essays, papers, etc., from the Internet? 2) copied notes from other student? 3) used cheat sheets or exam answers posted online? 4) used reports, essays, homework assignments, etc., prepared by other students of this university during previous years? 5) used information downloaded to your cell phone during exams? 6) used cheat sheets from other students in exams? 7) paid for term papers, theses, reports, etc., (or bought pre-written works)? 8) none of the above.

Figure 1. **Attitude towards using cheat sheets in school and university** (%)

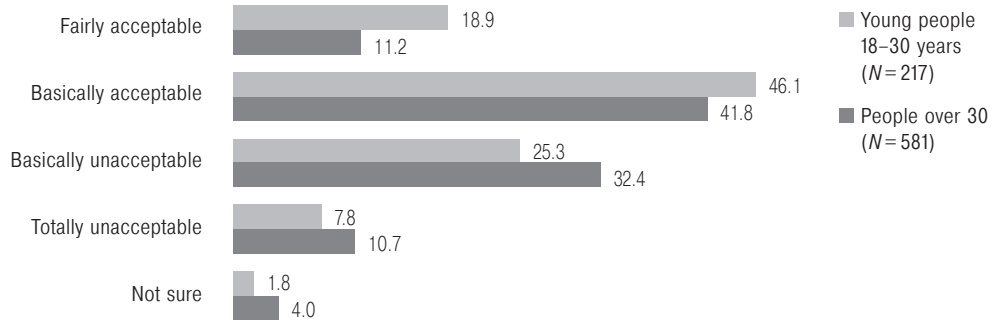
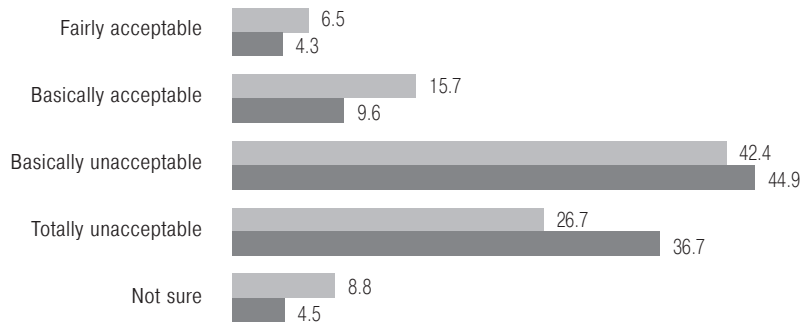


Figure 2. **Attitude towards using graduation and thesis papers written by someone else** (%)



Source: Kurier all-Russia study (Levada Center), 2013, ninth wave (The consolidated archive of economic and sociological data: http://sophist.hse.ru/). Question: «"To what extent is it acceptable to use cheat sheets in school or university?", "To what extent is it acceptable to use graduation or thesis papers written by someone else?"

committing academic dishonesty in university are likely to engage in unethical behavior at work [Sims 1993; Nonis, Swift, 2001; Latova, Latov, 2007]. Moreover, a number of empirical studies have shown that the widespread prevalence of academic dishonesty encourages highly motivated and otherwise honest students to also use dishonest practices [McCabe, Butterfield, Trevino, 2006].

Considering the level of academic dishonesty in universities, some foreign researchers suggest identifying those university characteristics that can promote or, on the contrary, inhibit the spread of academic misconduct. In particular, it has been empirically proven that dishonest practices are less common in universities with an honor code system [Bowers 1964; Brooks et al., 1981; Campbell, 1935; Canning, 1956; McCabe, Trevino, 1993]. A student's choice of whether or not to cheat is determined by, among other things, their perception of the academic environment [Pulvers, Diekhoff, 1999]. The systemic caus-

es of the high incidence of academic dishonesty in Russian universities are addressed in Rumyantseva and Denisova-Schmidt [2015], Radaev and Chirikov [2006], and Golunov [2010].

A series of studies have been conducted by Russian researchers to explore academic dishonesty among school and university students. Ekaterina Borisova, Leonid Polishchuk, and Anton Suvorov [2013] demonstrated that the probability of a student cheating on an out-of-class exam depends on this student's opinion of the academic honesty of his or her peers. Based on a survey of 11th grade students, Viktor Gizhitskiy [2014] identified groups of learning stimuli that correlate positively and negatively with academic misconduct. He also found that dishonest practices show a significant negative correlation with school performance, but no correlation with Unified State Exam scores.

Most researchers in this field focused on the reasons for academic dishonesty and factors promoting dishonest practices, while ignoring the factors that may encourage *academic honesty*, which is understood as studying and investing one's time and effort in complying with the education program's requirements and acquiring knowledge and skills. Academic honesty is a behavior that implies *student engagement*.

In terms of education policies and reducing the incidence of academic dishonesty, it would be productive to explore how honesty at the university affects *student engagement in honest academic practices*. This paper attempts to conceptualize the correlation between the perception of academic honesty at the university and student engagement, and also to test this correlation in an empirical study based on surveys among bachelor and specialist students of economics and management in eight Russian universities.

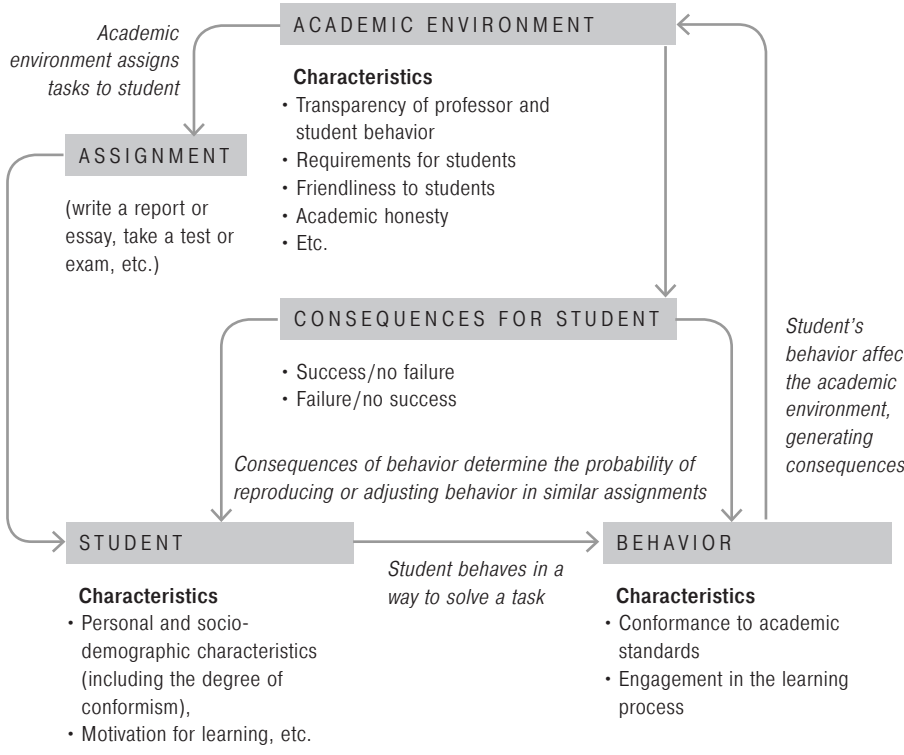
2. Conceptualizing the Correlation between Academic Honesty at the University and Student Engagement

We suggest conceptualizing the correlation between the frequency of cheating and student engagement within the behaviorist tradition, notably using B. F. Skinner's theory of operant behavior and conditioning [Skinner, 2003]. Operant behavior is behavior that influences the outside world through its consequences. It usually occurs when a person faces the need to deal with the challenges of the outside world. A successful response will very likely be reproduced in the future as this is what operant conditioning is about, i. e. consequences may influence the actor his or herself, too [Ibid].

Let us regard academic dishonesty as a variant of operant behavior. To do this, we need to apply Skinner's ideas to explaining academic behavior in general and then narrow our theoretical model down to dishonest practices as an isolated case.

The academic behavioral model is represented schematically in Figure 3. Under this model, the academic environment, which includes all objects and people in the university, assigns tasks to the

Figure 3. **University student learning behavioral model**

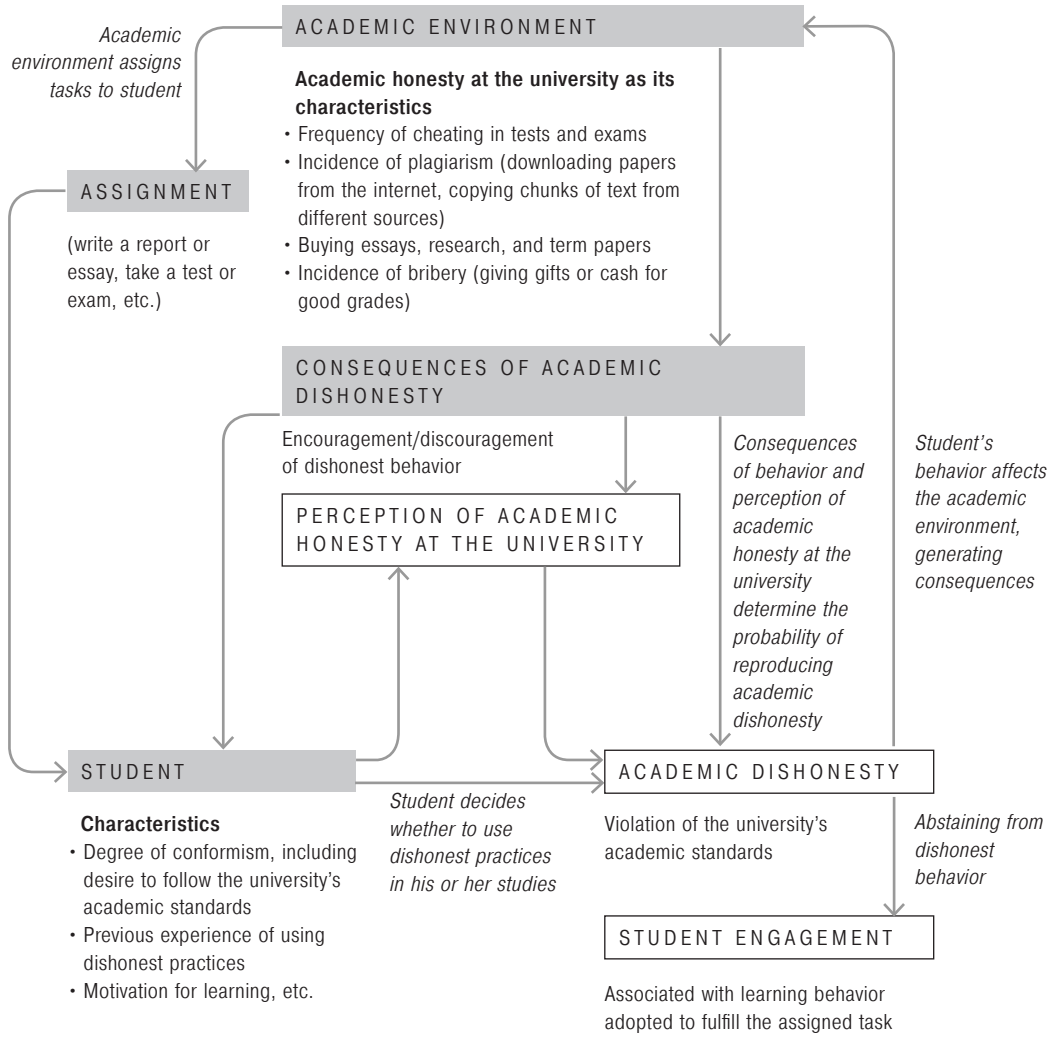


student. These tasks may include essays or papers given by teachers, tests, reports, etc., as well as examinations and final tests provided for by the curriculum. Academic environment has a set of characteristics that may directly or indirectly affect assigned tasks, students themselves, and their behavior. Such characteristics may include the transparency of professor and student behavior, requirements for students, friendliness, academic honesty, etc. For the purpose of this study, we will only dwell on academic honesty and try to describe it using several indicators.

In our conceptual model, student characteristics include motivation for learning, socio-demographic parameters, personal traits (including the degree of conformism), etc. All of this shapes student behavior in solving tasks assigned by the academic environment. We analyze this behavior for conformance to academic standards and the degree of engagement in the learning process. Student behavior affects academic environment by generating consequences that, in their turn, exert influence on the student and on the probability of reproducing certain responses in the future.

In order to conceptualize the correlation between academic honesty at the university, its perception by students, and student engage-

Figure 4. **Relationship between perception of academic honesty at the university and student engagement**



ment, let us turn to the diagram in Figure 4, which is based on the same conceptual model, but instead of academic behavioral patterns, dishonest practices are treated as operant behavior. We are only interested in one parameter of the academic environment, notably academic honesty at the university. It is characterized by the incidence of: 1) cheating in tests and examinations; 2) plagiarism; 3) buying pre-written papers; and, 4) bribery (giving goods or money for good grades). When a student receives an assignment from the academic environment, he or she decides whether to use dishonest practices or abstain from academic misconduct. If they resort to dishones-

ty, the environment responds by generating consequences which may either encourage further academic dishonesty (if it brings the desired outcome) or discourage it (if it brings an undesired outcome). The consequences of dishonest practices have effects on the probability of reproducing them in cases of similar assignments as well as on a student's perception of academic honesty at the university. To avoid complications in the conceptual model, we deliberately excluded those factors that might also influence student perception of academic honesty at the university: consequences of academic dishonesty committed by other students, awareness of such behavior and its consequences, etc. Meanwhile, a student's perception of academic honesty at the university is one of the few available methods of measuring university honesty.

This conceptual model does not cover the reasons for academic misconduct in university. It only explains why the probability of *honest* behavior increases under some conditions of the academic environment and reduces under others. Additionally, this model helps shed light on the correlation between honesty as a characteristic of the academic environment and personal student engagement, assuming that student engagement and academic dishonesty are opposite extremes (students choose between honest learning that engages them and dishonest practices allowing them to obtain a grade with little or no learning effort). These two features of the conceptual model (ignoring the reasons for academic dishonesty and focusing on honest behavior) form its key distinction from previous conceptions: an approach that adapts the ideas of Becker's economic theory [Michaels, Miethe, 1989; Kerkvliet, 1994; Mixon, 1996], as well as using Ajzen's theory of planned behavior [Stone, Jawahar, Kisamore, 2009] and the concepts based around identifying the factors of academic dishonesty, which are scrutinized in Shmeleva [2015].

3. Empirical Research on the Relationship between the Perception of Academic Honesty at the University and Student Engagement

3.1. Data and methods

Research on the relationship between academic environment characteristics and student engagement, as well as student attitudes towards cheating and plagiarism was carried out as part of the Monitoring of Student Characteristics and Trajectories among bachelor and specialist students in management and economics. The project was implemented in eight universities[3] included in the Russian Association of Leading Universities in Economics and Management in 2013–2014, and was designed to yield comparative data with a view to enhance education programs in economics and management. The survey was

[3] The analysis included the results of student surveys from Voronezh State University; Kazan Federal University; the Moscow State University of Economics, Statistics, and Informatics; Novosibirsk State University; Tomsk State University; National Research University—Higher School of Economics; Northern (Arctic) Federal University; and Ural Federal University.

conducted online in all universities. In some of them, students received a link to the questionnaire in their emails, in others online questionnaires were completed in computer classrooms. The response rate was 20% on average, varying from 12% to 44%. The sample covered 3,717 students[4].

3.2. Assessing the incidence of academic dishonesty

The incidence of the four types of academic dishonesty varies greatly across the eight universities. Still, some common patterns can be identified. Plagiarism practices are most widespread in both economics and management majors. Thus, over one third of respondents report that many students in their faculty download papers from the Internet, while about 25% claim their peers have ordered custom papers at least once. Cheating on tests and examinations is another popular practice: 16–17% of respondents pointed out that most exams in their faculty could be passed using this deceitful practice. The type of academic misconduct involving violation of academic standards by both student and professor—namely bribery—is less widespread. On average only 12% of economics students and 9% of management students believe their professors could possibly commit bribery. However, this indicator varies largely across the universities, from 3% to 33%.

The indicator of downloading pre-written works from the Internet is also highly varied (Fig. 5) from 7% to 52%. The incidence of cheating on exams and tests shows the lowest variability, averaging 12% in all universities. This is probably because this type of dishonest behavior is the least controllable by professors. While downloading papers from the Internet can be terminated by using plagiarism checkers, it is much more difficult to ensure academic honesty throughout tests or examinations.

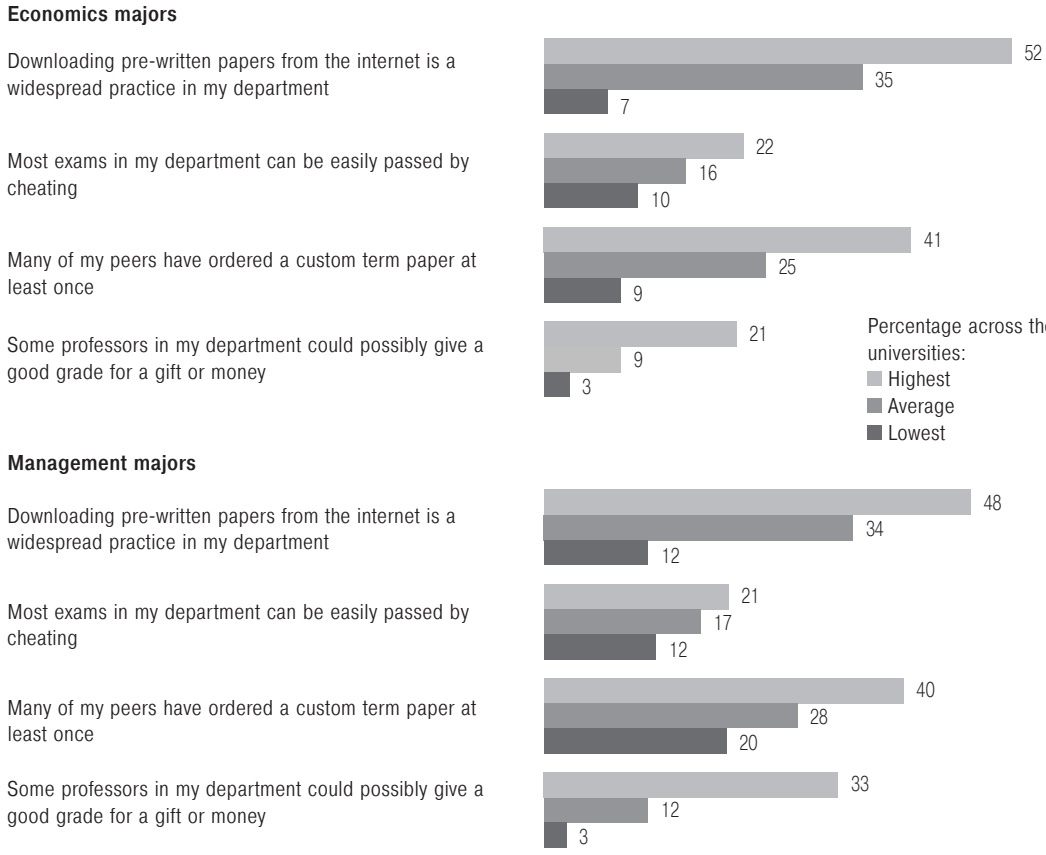
As we can see, plagiarism and cheating are widespread dishonest practices used by economics and management students.

3.3. Patterns of student engagement

Let us now analyze how the incidence of academic dishonesty affects a student's personal behavioral patterns, particularly their engagement in the learning process. Since student engagement is a multidimensional latent variable, the Monitoring of Student Characteristics and Trajectories assessed it using 18 indicators reflecting various aspects of classroom and extracurricular activities. These indicators were measured on an ordinal scale. To move from ordinal to interval variables and shrink the attribute space, we performed a factor analysis of the data and identified five patterns of student engagement:

[4] The survey, which was conducted as part of the Monitoring of Student Characteristics and Trajectories, involved students from 11 universities, with a total sample of 4,376 students. However, three universities provided low-quality data, so they were dropped from the analysis.

Figure 5. **Incidence of academic dishonesty across the universities under study** (percentage of students who agree to the statements, %)



- active interaction with professors;
- engagement in learning;
- non-compliance with the learning process requirements;
- engagement in classroom discussions;
- attendance.

The factor model of student engagement was built by principal components analysis with varimax rotation. The resulting model explains 61.4% of initial value dispersion. The factor loadings obtained in the analysis are given in Table 1. Let us describe each engagement pattern briefly.

Active interaction with professors. In this pattern, students direct their efforts toward establishing and maintaining interactions with professors. The factor has high factor loadings for the frequency of communication with professors on learning- and non-learning-related issues *(“discussed your grades and course assignments with profes-*

Table 1. **Factor loadings**

	Active interaction with professors	Engagement in doing assignments	Non-compliance with learning process requirements	Engagement in classroom discussions	Attendance
Participated in classroom discussions	0.146	0.291	–0.118	0.800	0.011
Used knowledge from various courses in a classroom discussion	0.219	0.297	–0.095	0.760	0.002
Solved problems on the blackboard or answered the professor's questions	0.097	0.516	–0.155	0.469	0.127
Prepared reports or presentations in seminars	0.061	0.753	–0.103	0.224	0.110
Worked on additional course-related assignments not required to get an excellent grade	0.375	0.578	–0.214	0.072	0.053
Worked on team assignments with peers during seminars	0.082	0.691	0.022	0.173	0.052
Please specify the proportion of lectures you attended in the current academic year (at least approximately)	0.096	0.100	–0.225	–0.041	0.835
Please specify the proportion of seminars you attended in the current academic year (at least approximately)	0.003	0.120	–0.102	0.086	0.885
Late on course-related assignments	0.089	0.092	0.675	–0.202	–0.252
Came to classes unprepared	–0.045	–0.155	0.843	–0.072	–0.195
Attended classes but did not concentrate or listen to the professor	–0.109	–0.175	0.787	0.023	0.031
Discussed your grades and course assignments with professors face-to-face	0.602	–0.076	0.049	0.345	-0.011
Discussed your occupational and career plans with professors	0.737	0.174	–0.045	0.092	–0.017
Discussed course-related questions and ideas with professors out of class	0.757	0.068	–0.071	0.118	–0.005
Received written commentaries from professors on your prepared assignments	0.634	–0.11	–0.011	0.225	0.023

	Active interaction with professors	Engagement in doing assignments	Non-compliance with learning process requirements	Engagement in classroom discussions	Attendance
Received spoken commentaries from professors on your prepared assignments	0.561	0.107	0.030	0.330	0.103
Discussed drafts of written assignments (other than term or thesis papers) with professors	0.728	0.235	–0.018	–0.120	0.041
Worked with professors on a research or creative project (beyond the curriculum) out of class	0.677	0.277	–0.049	–0.145	0.053

sors face-to-face", "discussed your occupational and career plans with professors", "discussed course-related questions and ideas with professors out of class", "received written commentaries of professors on your prepared assignments", "received spoken commentaries of professors on your prepared assignments", "discussed drafts of written assignments (other than term or thesis papers) with professors", "worked with professors on a research or creative project (beyond the curriculum) out of class").

Engagement in learning. The second engagement pattern features a high degree of commitment to learning both in and out of class. This factor has high factor loadings for the following: *the frequency of solving problems on the blackboard or answering the professor's questions; the frequency of preparing reports or presentations; the frequency of doing extra assignments; the frequency of participating in teamwork in the classroom*.

Non-compliance with learning process requirements. The third pattern consists of non-engagement in the learning process. This factor has high factor loadings for *the frequency of late assignments, coming to classes unprepared, and failure to concentrate on the learning material during classes.*

Engagement in classroom discussions. The degree of participation in classroom discussions was singled out as a separate pattern of student engagement*: "participated in classroom discussions", "used knowledge from various courses in a classroom discussion"*.

Attendance. This factor has high factor loadings for *attendance of lectures and seminars.*

Below, we will use the obtained factor values to explore the relationship between the perception of academic honesty at the university and student engagement.

Table 2. **Regression coefficients for the model with a dependent variable of "active interaction with professors"**

	Non-standardized coefficients		Standardized beta coefficient	Significance level
	B	Standard error		
Constant	0.000	0.039		0.994
Predictors				
Downloading pre-written papers from the Internet is a widespread practice in my department	–0.199	0.045	–0.096	0.000
Most exams in my department can be easily passed by cheating	–0.130	0.055	–0.052	0.019
Many of my peers have ordered a custom term paper at least once	–0.053	0.047	–0.024	0.260
Some professors in my department could possibly give a good grade for a gift or money	0.060	0.075	0.017	0.425

Note: R-squared = 0.052, adjusted R-squared = 0.049, standard error of the estimate = 0.98, Durbin–Watson statistic = 0.795. Control variables: form of education (publicly funded), major (economics), gender (male).

3.4. Correlation between the incidence of academic dishonesty and student engagement

In accordance with the proposed conceptual model, we suggest a hypothesis that academic honesty at the university is related to student engagement. Therefore, we assume that how students perceive the incidence of such dishonest practices as downloading papers from the internet, cheating in tests and exams, buying papers, and bribing is related to the engagement patterns described above.

We used linear regression to analyze the correlation between the characteristics of academic honesty at the university and student engagement. We built six regression models where dependent variables were represented by factor values of student engagement patterns: active interaction with professors (model 1); engagement in learning (model 2); non-compliance with learning process requirements (model 3); and engagement in classroom discussions (model 4). Separate regression models were built to assess the proportion of lectures attended (model 5) and the proportion of seminars attended (model 6). The four indicators of academic dishonesty incidence were used as predictors. Additionally, we added control variables reflecting a respondent's gender, major, and form of education[5].

[5] The variables were coded as follows. Gender: 0—female, 1—male; form of education: 0—commercial, 1—publicly funded; major: 0—management; 1—economics.

Table 3. **Regression coefficients for the model with a dependent variable of "engagement in learning"**

	Non-standardized coefficients			
	B	Standard error	Non-standardized coefficients	Standardized beta coefficient
Constant	0.014	0.038		0.719
Predictors				
Downloading pre-written papers from the Internet is a widespread practice in my department	0.168	0.044	0.081	0.000
Most exams in my department can be easily passed by cheating	–0.184	0.054	–0.074	0.001
Many of my peers have ordered a custom term paper at least once	0.148	0.046	0.069	0.001
Some professors in my department could possibly give a good grade for a gift or money	–0.036	0.073	–0.010	0.624

Note: R-squared = 0.097, adjusted R-squared = 0.095, standard error of the estimate = 0.952, Durbin–Watson statistic = 0.849. Control variables: form of education (publicly funded), major (economics), gender (male).

The first regression model was built for the *active interaction with professors* pattern. The analysis shows that the manifestation of this pattern correlates significantly with two variables reflecting the perception of academic dishonesty at the university: the perception of the incidence of downloading papers from the internet in the department and the perception of the chances of passing an exam by cheating (Table 2). The assessment of the incidence of these dishonest practices correlates negatively with the degree of interaction between students and professors on learning- and non-learning-related issues. Meanwhile, the assessment of the incidence of ordering custom papers and bribing correlates little with the degree of interaction.

The second regression model was built for the *engagement in learning* pattern (Table 3). The perception of the incidence of cheating in exams correlates with the manifestation of this pattern. Also, engagement in learning correlates positively with the assessment of the incidence of buying or downloading papers. This result is surprising and inconsistent with the hypothesized negative effects of the incidence of academic dishonesty on student engagement. Perhaps highly engaged students are more critical about the behavior of their peers and are more likely to answer positively to the question about

Table 4. **Regression coefficients for the model with a dependent variable of "non-compliance with learning process requirements"**

	Non-standardized coefficients		Non-standardized coefficients	Standardized beta coefficient
	B	Standard error		
Constant	–0.119	0.038		0.002
Predictors				
Downloading pre-written papers from the Internet is a widespread practice in my department	0.202	0.045	0.097	0.000
Most exams in my department can be easily passed by cheating	0.147	0.055	0.059	0.008
Many of my peers have ordered a custom term paper at least once	0.147	0.047	0.068	0.002
Some professors in my department could possibly give a good grade for a gift or money	0.008	0.075	0.002	0.917

Note: R-squared = 0.060, adjusted R-squared = 0.057, standard error of the estimate = 0.971, Durbin–Watson statistic = 0.886. Control variables: form of education (publicly funded), major (economics), gender (male).

the incidence of such practices. Additional research is required to ensure more valid conclusions.

From the regression model for the *non-compliance with learning process requirements* pattern, we can see a positive correlation between the dependent variable and an assessment of three academic environment characteristics: the incidence of downloading pre-written papers, the chances of passing an exam by cheating, and the incidence of ordering custom papers (Table 4). Based on the analysis, we can suggest that academic misconduct is associated with a high incidence of student non-compliance with learning process requirements.

Judging by the parameters of the fourth regression model, *engagement in classroom discussions* correlates negatively with the incidence of downloading papers from the Internet and with the assessment of the incidence of bribery (Table 5). Meanwhile, there is a positive correlation between the incidence of cheating and engagement in classroom discussions, which contradicts our hypothesis and conceptual model. It may be that this correlation is also occasional and caused by a high degree of criticism among highly engaged students. As a more complex and detailed analysis (notably, multilevel regression) is impossible with the data at hand, we are unable to provide a more reliable explanation of this empirical evidence.

Table 5. **Regression coefficients for the model with a dependent variable of "engagement in classroom discussions"**

	Non-standardized coefficients			
	B	Standard error	Non-standardized coefficients	Non-standardized coefficients
Constant	0.029	0.039		0.455
Predictors				
Downloading pre-written papers from the Internet is a widespread practice in my department	–0.182	0.046	–0.088	0.000
Most exams in my department can be easily passed by cheating	0.174	0.057	0.069	0.002
Many of my peers have ordered a custom term paper at least once	0.028	0.048	0.013	0.557
Some professors in my department could possibly give a good grade for a gift or money	–0.245	0.076	–0.070	0.001

Note: R-squared = 0,015, adjusted R-squared = 0,012, standard error of the estimate = 0,994, Durbin–Watson statistic = 0,833. Control variables: form of education (publicly funded), major (economics), gender (male).

The fifth and sixth regression models were built separately for *attendance of lectures and seminars* (Tables 6 and 7). Attendance of lectures correlates negatively with the assessment of the incidence of downloading pre-written papers, cheating, and ordering custom papers. Only one significant factor was identified to assess the attendance of seminars: perception of the chances of passing most exams by cheating.

On the whole, the analysis performed allows us to say that the perception of academic honesty at the university may correlate negatively with student engagement in the learning process. Thus, our hypothesis on the correlation between academic honesty at the university and student engagement has received some support. The empirical analysis of the correlation between academic honesty at the university and student engagement described in this paper is preliminary and only aims to empirically prove some of the arguments in this conceptual model. A deeper investigation of the correlation between academic honesty at the university and student engagement requires surveying a higher number of universities and conducting a multilevel analysis to directly assess the effects of the academic environment.

Table 6. **Regression coefficients for the model with a dependent variable of "assessment of the proportion of lectures attended"**

	Non-standardized coefficients		Non-standardized coefficients	Non-standardized coefficients
	B	Standard error		
Constant	85.516	0.653		0.000
Predictors				
Downloading pre-written papers from the Internet is a widespread practice in my department	–2.108	0.828	–0.045	0.011
Most exams in my department can be easily passed by cheating	–5.210	1.057	–0.088	0.000
Many of my peers have ordered a custom term paper at least once	–3.765	0.901	–0.074	0.000
Some professors in my department could possibly give a good grade for a gift or money	2.036	1.368	0.026	0.137

Note: R-squared = 0.034, adjusted R-squared = 0.032, standard error of the estimate = 21.504, Durbin–Watson statistic = 1.239. Control variables: form of education (publicly funded), major (economics), gender (male).

Table 7. **Regression coefficients for the model with a dependent variable of "assessment of the proportion of seminars attended"**

	Non-standardized coefficients		Non-standardized coefficients	Non-standardized coefficients
	B	Standard error		
Constant	92.545	0.484		0.000
Predictors				
Downloading pre-written papers from the Internet is a widespread practice in my department	–0.659	0.614	–0.019	0.284
Most exams in my department can be easily passed by cheating	–1.638	0.785	–0.038	0.037
Many of my peers have ordered a custom term paper at least once	–0.745	0.668	–0.020	0.265
Some professors in my department could possibly give a good grade for a gift or money	–0.338	1.015	–0.006	0.739

Note: R-squared = 0.016, adjusted R-squared = 0.014, standard error of the estimate = 15.956, Durbin–Watson statistic = 1.227. Control variables: form of education (publicly funded), major (economics), gender (male).

Table 8. **Correlation between aspects of student engagement in the learning process and assessment of the four types of academic dishonesty**

Active interaction with professors	Engagement in learning	Non-compliance with learning process requirements	Engagement in classroom discussions	Assessment of the proportion of lectures attended	Assessment of the proportion of seminars attended	
–	+	+	–	–		Downloading pre-written papers from the Internet is a widespread practice in my department
–	–	+	+	–	–	Most exams in my department can be easily passed by cheating
	+	+		–		Many of my peers have ordered a custom term paper at least once
			–			Some professors in my department could possibly give a good grade for a gift or money

4. Conclusion

This paper offers a conceptual model of correlation between academic honesty at the university and student engagement as an indicator of honest learning practices, based on Skinner's ideas of operant behavior and conditioning. The model has two distinctive features: first, it does not consider the reasons for academic dishonesty, but rather focuses on environment characteristics that can increase or decrease the incidence of dishonest behavior; second, it studies not only academic dishonesty, but also academic honesty associated with student engagement in learning activities.

This paper presents the results of empirically testing the hypothesis regarding the correlation between characteristics of academic honesty at the university and various aspects of student engagement. The survey involved students of economics and management in eight Russian universities. It has some restrictions related to differences in the surveying procedure across universities and to the fact that the number of participating universities was insufficient to perform a multilevel analysis and assess the effects of environment characteristics separately from those of the personal characteristics of the respondents.

The analysis provided data proving that a high level of academic honesty at the university may increase the probability of student engagement. Table 7 shows the significant correlations revealed as a result of building six regression models. However, some results were surprising and inconsistent with the proposed conceptual model. These include the positive correlation between a manifestation of the "engagement in learning" factor and positive answers to the

statements “Downloading pre-written papers from the internet is a widespread practice in my department” and “Many of my peers have ordered a custom term paper at least once”, as well as between engagement in classroom discussions and assessment of the incidence of cheating in tests and exams. Such results are most likely possible because highly engaged students assess the incidence of academic dishonesty among peers differently than lowly engaged students. There is also an alternative hypothesis: academic dishonesty at universities that is manifested as a high incidence of plagiarism or cheating may have positive effects on some aspects of student engagement (all other aspects begin negatively correlated), making students adapt to specific university conditions to get good grades.

The results of this study demonstrate that the proposed conceptual model may serve as a productive basis for empirical research on the correlation between academic environment parameters and student learning behavior, including dishonest practices. Additionally, they allow us to contend that educational policies should not only consider measures to prevent academic dishonesty, but also opportunities for encouraging honest behavior and engagement in learning.

References

1. Adebayo S. O. (2010) Correlation between Academic Cheating and Behavior and Achievement Motivation. *Nature and Science,* vol. 8, no 12, pp. 130–134.
2. Baird J. S. (1980) Current Trends in College Cheating. *Psychology in the Schools*, vol. 17, no 4, pp. 515–522.
3. Borisova E., Polishchuk L., Suvorov A. (2013) *Akademicheskaya etika i motivatsiya studentov: istoriya dvukh vuzov* [Academic Ethics and Students' Motivation: A Tale of Two Universities]. Working paper WP10/2013/03, Moscow: NRU HSE. Available at: http://www.hse.ru/data/2014/01/10/1341035082/WP10_2013_03_f_.pdf (accessed 31 January 2016).
4. Bowers W. J. (1964) *Student Dishonesty and Its Control in College*. New York: Bureau of Applied Social Research, Columbia University.
5. Brooks C. M., Cunningham R., Hinson N., Brown S., Weaver B. (1981) Student Attitudes Toward a Medical School Honor Code. *Journal of Medical Education*, vol. 56, no 8, pp. 669–671.
6. Campbell W. G. (1935) *A Comparative Investigation of the Behavior of Students under an Honor System and a Proctor System in the Same University*. Los Angeles: University of Southern California.
7. Canning R. (1956) Does an Honor System Reduce Classroom Cheating? An Experimental Answer. *Journal of Experimental Education*, vol. 24, iss. 4, pp. 291–296.
8. Drake C. A. (1941) Why Students Cheat. *Journal of Higher Education*, vol. 12, no 1, pp. 418–420.
9. Gizhitskiy V. (2014) Uchebny obman kak strategiya psevdoadaptivnogo povedeniya u starsheklassnikov [Academic Dishonesty as Pseudo-Adaptive Behavior Strategy of High School Students]. *Uchenye zapiski Orlovskogo gosudarstvennogo universiteta. Seriya: Pedagogicheskiye nauki*, vol. 58, no 2, pp. 293–299.

10. Golunov S. (2010) Studencheskiy plagiat kak vyzov sisteme vysshego obrazovaniya v Rossii i za rubezhom [Plagiarism in Students as Challenge to Higher Education Systems in Russia and Abroad]. *Voprosy obrazovaniya/ Educational Studies. Moscow*, no 3, pp. 243–257.
11. Hetherington E., Feldman S. (1964) College Cheating as a Function of Subject and Situational Variables. *Journal of Educational Psychology*, vol. 55, no 4, pp. 212–218.
12. Kerkvliet J. (1994) Cheating by Economics Students: A Comparison of Survey Results. *Journal of Economic Education*, vol. 25, no 2, pp. 121–133.
13. Latova N., Latov Y. (2007) Obman v uchebnom protsesse [Academic Dishonesty among Students]. *Obshchestvennye nauki i sovremennost*, no 1, pp. 31–46.
14. Liska A. (1978) Deviant Involvement, Associations, and Attitudes: Specifying the Underlying Causal Structures. *Sociology and Social Research*, vol. 63, no 1, pp. 73–88.
15. McCabe D.L., Butterfield K. D., Trevino L. K. (2006) Academic Dishonesty in Graduate Business Programs: Prevalence, Causes, and Proposed Action. *Academy of Management Learning & Education*, vol. 5, no 3, pp. 294–305.
16. McCabe D.L., Trevino L. K. (1993) Academic Dishonesty: Honor Codes and Other Contextual Influences. *Journal of Higher Education*, vol. 64, no 5, pp. 522–538.
17. McCabe D.L., Trevino L. K., Butterfield K. D. (2001) Cheating in Academic Institutions: aDecade of Research. *Ethics and Behaviour*, vol. 11, no 3, pp. 219–232.
18. Michaels J. W., Miethe T. D. (1989) Applying Theories of Deviance to Academic Cheating. *Social Science Quarterly*, vol. 70, no 4, pp. 870–885.
19. Mixon F. G. (1996) Crime in Classroom: An Extension. *Journal of Economic Education*, vol. 27, no 3, pp. 195–200.
20. Nonis S., Swift C. O. (2001) An Examination of the Relationship between Academic Dishonesty and Workplace Dishonesty: A Multicampus Investigation. *Journal for Education for Business*, vol. 77, no 2, pp. 69–77.
21. Pulvers K., Diekhoff G. M. (1999) The Relationship between Academic Dishonesty and College Classroom Environment. *Research in Higher Education*, vol. 40, no 4, pp. 487–498.
22. Radaev V., Chirikov I. (2006) Otnoshenie studentov i prepodavateley k nakazaniyam za plagiat i spisyvanie [Attitude of Students and Professors towards Punishment for Plagiarism and Cheating]. *University management: practice and analysis*, no 4, pp. 77–82.
23. Rumyantseva N., Denisova-Schmidt Y. (2015) Korruptsiya v rossiyskikh vuzakh [Corruption in Russian Universities]. *Mezhdunarodnoe vysshee obrazovanie*, iss. 82, pp. 24–25.
24. Sims R. L. (1993) The Relationship between Academic Dishonesty and Unethical Business Practices. Journal of Education for Business, vol. 68, no 4, pp. 207–211.
25. Singhal A. (1982) Factors in Student Dishonesty. *Psychological Reports*, vol. 51, iss. 3, pp.775–780.
26. Shmeleva E. (2015) Akademicheskoe moshennichestvo v sovremennykh universitetakh: obzor teoreticheskikh podkhodov i rezultatov empiricheskikh issledovaniy [Academic Dishonesty in Modern Universities: A Review of Theoretical Approaches and Empirical Findings]. *Economic Sociology*, vol. 16, no 2, pp. 55–79.
27. Sivak E. (2006) *Prestuplenie v auditorii. Determinanty nechestnogo povedeniya studentov (plagiata i spisyvaniya)* [Crime in the Classroom. Determinants of Student's Cheating Behavior (Copying and Plagiarism))]. Working

paper WP10/2006/06, Moscow: State University Higher School of Economics. Available at: http://www.hse.ru/data/076/590/1239/WP10_2006_06.pdf (accessed 31 January 2016).
28. Skinner B. F. (2003) Operantnoe povedenie [Operant Behavior]. *Istoriya psikhologii:* XX *vek. Khrestomatiya* [History of Psychology: The 20th Century. Anthology], Ekaterinburg: Delovaya kniga.
29. Stannard C., Bowers W. (1970) The College Fraternity as an Opportunity Structure for Meeting Academic Demands. *Social Problems*, vol. 17, no 3, pp. 371–390.
30. Stone T. H., Jawahar I. M., Kisamore J. L. (2009) Using the Theory of Planned Behavior and Cheating Justifications to Predict Academic Misconduct. *Career Development International*, vol. 14, no 3, pp. 221–241.