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The mismatch between student educational expectations and realities: prevalence, causes, and consequences

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ABSTRACT

This article aims to answer three questions concerning (1) the prevalence of the mismatch between student expectations and real university life, (2) factors influencing this mismatch, and (3) the effect of the expectation-reality mismatch on academic performance during the first year of study at university. The results of this study suggest that a large share of first-year students overestimate their future academic experience. However, this mismatch cannot be predicted by personal background characteristics and motivation at the beginning of study. According to the findings, three mismatch characteristics affect students' academic outcomes: (1) a mismatch between expected and real grades, (2) a mismatch between expected and real levels of interest in studying, and (3) a mismatch between expected and real time for extracurricular activities at university.

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Educational expectations; high school-to university-transition; first-year university students; longitudinal study

1. Introduction

The period of transition from high school to university and the first months of study at an institution of higher education are characterized by a high level of stress and uncertainty for students (Pancer et al. 2000; Brinkworth et al. 2009). In Russia, for a large share of first-year students, the process of entering an institution of higher education is accompanied with a change in place of residence. This fact leads to the emergence of additional difficulties for entrants, who must not only adapt to the new educational environment but also to new physical and social conditions. University life requires first-year students to demonstrate greater levels of independence, self-regulation, and initiative compared to high school (Bryde and Milburn 1990). Moreover, this transition is a period when expectations about 'what a university is like' and 'how students should behave at a university' are formed. The mismatch between these expectations and actual experience can lead to difficulties in adaptation to university life, dissatisfaction with study, and, finally, to withdrawal (Lent, Brown, and Larkin 1984; DeWitz, Woolsey, and Walsh 2009). Therefore, the analysis of educational expectations and their (in)consistency with real student experiences is a topic of great concern among scholars who are interested in examining the

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transition from high school to university (see, for example: Upcraft, Gardner, and Barefoot 2004; Smith and Wertlieb 2005; Brinkworth et al. 2009).

A large number of research projects in this field focus on solely measuring the (mis)-match between expectations and real behaviour of students (or its perceptions) (see, for example: Baker, McNeil, and Siryk 1985; Cook and Leckey 1999; Nelson, Kift, and Clarke 2008). Other studies have sought to investigate the pre-requisites (gender, age, nationality, parental socioeconomic status, motivational orientations and so forth) that can form educational expectation and determine the level of their (in)congruence with actual behaviour (see, for example: Crisp et al. 2009). A third group of research projects has examined the effect of expectations and their (in)congruence with realities on learning outcomes, student satisfaction and certain psychological characteristics such as optimism (Chemers, Hu, and Garcia 2001; Mainardes, Alves, and Raposo 2014). Very few studies have developed a complex approach to understanding the role of pre-university expectations in transition to university and first-year student experience (Smith and Wertlieb 2005). These studies include the following analyses: (1) background factors that can influence entrants' expectations, (2) a (mis)match between expectations and reality, and (3) outcomes of (in)congruence between educational expectations and actual experience. Most of these studies have focused on the role of educational expectations in the process of student attrition.

In this article, we explore how (in)congruence of student pre-university expectations with actual experience affects academic performance. In our analysis, we also consider a larger number of pre-university data that include not only social and demographic characteristics (gender, parental socioeconomic and educational levels) and motivational attributes but also data about entrants' school grades. The empirical base for the research was derived from a longitudinal survey entitled 'Trajectories and Experiences of Russian Universities Students' in which participants were 257 first-year students at the National Research University Higher School of Economics (NRU HSE).

The purpose of this article is to examine how mismatches between educational expectations and estimates of real experience at an institution of higher education are linked with entrants' background characteristics and how these mismatches influence their academic performance during the first year of study. Specifically, we investigate the following three research questions:

- Do educational expectations of entrants meet their perceptions of actual experience during the first year of study?
- What pre-university characteristics of first-year students can be used as predictors of expectations-reality mismatches?
- Does (in)congruence between first-year students' educational expectations and their perceptions of actual experience impact their academic performance?

2. Theoretical background

The majority of research on educational expectations and the expectations role in the process of transition to a university and on student experience during first year of study has focused solely on understanding how pre-university expectations correlate

with actual behaviour and its perception. Thus, a number of studies demonstrate that entrants' expectations are more positively toned than a real first-year experience (Stern 1966; Berdie 1968; Buckley 1971; Herr 1971; Pate 1970; Schoemer 1973; Watkins 1978; Baker, McNeil, and Siryk 1985; Keup 2007). This empirical fact has been called the 'freshman myth'. G. Stern, the author of the term, explained that a student 'brings with him to college a naive, enthusiastic, and boundless idealism' (Stern 1966, 411). He argued that such expectations rarely meet reality because a university experience in most cases is more challenging than was anticipated, especially in the first period.

On the contrary, some studies (for instance, Cook and Leckey 1999) indicate that students' expectations of the real experience can exceed expectations. The possible explanation for this finding derives from the fact that differences in expectations may not reflect actual mismatch between expectations and real experience but rather changes in the perception of expectations (Cook and Leckey 1999, 168).

At the same time, a number of studies have shown the consistency of expectations and real experience (Kirschner et al. 1993; Nickerson 1998; Kuh, Gonyea, and Williams 2005; Könings et al. 2008). Nickerson (1998) explained this effect as an example of the so-called 'confirmation bias', which refers to the well-known psychological idea that people are prone to treat some evidence in a biased way according to their previous experience and expectations. Könings et al. (2008) distinguished three ways by which expectations can bias perceptions and real behaviour of students. First, expectations can direct a student's attention to the information that is consistent with them. Second, expectations can bias the interpretations of actual experience in a way to be consistent with them. The third way refers to the so-called 'self-fulfilling prophecy' phenomenon, whereby students behave in a manner that is congruent with their expectations.

Another cluster of surveys is focused on the role of students' pre-university background and individual characteristics (as pre-requisites) in forming educational expectations and their (in)consistency with actual behaviour at a university (Cole and McCormick 2009; Cole, Kennedy, and Ben-Avie 2009). For instance, Cole and McCormick (2009) found a larger share of students whose expectations about academic engagement in college were lower than their actual experience among groups of more academically prepared students and female students. They also showed that students with expectations that exceeded real experience are usually characterized by the performance-avoidance type of motivation. Könings et al. (2008) also found a relation between motivation and educational expectations.

Some scholars have examined the consequences of (mis)match between educational expectations and real experience. A number of them indicated that inconsistency between student pre-university aspirations and reality of the first year of study negatively affects the process of adaptation to higher education (Tranter 2003; Smith and Hopkins 2005). In the theoretical model developed by Chemers, Hu, and Garcia (2001), academic expectations were considered as moderator variables through which academic self-efficiency and optimism indirectly influence classroom performance, stress, health, and overall satisfaction and commitment to remain in university. Mainardes, Alves, and Raposo (2014) considered the extent to which a university meets student expectations as an indicator of its efficiency, which is measured by the level of student satisfaction. According to these authors, educational expectations are a main prerequisite for satisfaction with study. They found a correlation between student expectations and overall

satisfaction and that this relationship depended on the institutional characteristics. For example, it was observed that the link between expectations and satisfactions was stronger for smaller-scale universities (Mainardes, Alves, and Raposo 2014).

However, few works have suggested a complex view on the role of expectations and their (in)consistency with reality in the process of the transition to university and the experience of students during their first year of study. One of the most theoretically developed and complex approaches was proposed by Tinto (1975, 1986), who argued that expectations and motivational attributes of university entrants along with their individual characteristics, family background and pre-university schooling experience (which to some extent form expectations) influence the process of academic and social integration, and that these expectations are directly related to a student's academic achievements and satisfaction as well as his or her continuance at a university. In addition, Tinto emphasized that the impact of educational expectations should be analyzed longitudinally: both pre-university expectations and their congruence with real experience should be taken into account.

Braxton, Vesper, and Hossler (1995) empirically verified Tinto's assertions and showed that academic and social integration is strongly affected by the extent to which entrants' expectations meet real experience. The greater the extent to which expectations meet real experience, the greater the degree of academic and social integration. To measure student expectations Braxton, Vesper, and Hossler (1995) used 16 items that referred to three categories: expectations for academic and intellectual development, expectations for a collegiate atmosphere, and expectations for career development. Significant effects on academic and social integration were found for two categories (expectations for academic and intellectual development and expectations for career development). At the same time, the (in)congruence of expectations for a collegiate atmosphere with real experience had a reliable effect on institutional commitment.

While Tinto's model and its empirical application provided by J. Braxton, N. Vesper and D. Hossler present a complex approach to understanding the role of entrants' expectations in the process of transition to a university and student experience at an institution of higher education, they focus mainly on such outcomes as student engagement (or integration) and attrition. In this article, we propose a model that explores another factor that can be affected by pre-university expectations and their (in)congruence with actual experience – student academic performance. Moreover, we include in our analysis a larger number of pre-university data that include not only social and demographic characteristics (gender, parental socioeconomic and educational levels) but also data about students' school performance. We hypothesize that these factors can also have a significant impact on forming educational expectations and attitudes towards higher education in general and at certain institutions in particular.

3. Methodology

3.1. Data collection and sample

The longitudinal study was conducted on the Moscow campus of the Higher School of Economics. The first wave of the survey (Survey 1) was carried out during the period 1–15 September 2014 (first two study weeks). The link to a web survey was mailed to

first-year students. The sample includes 283 respondents (RR1 = 30%) and consists of 42% male and 58% female students enrolled in undergraduate programmes in Economics (27.6%), Psychology (10.1%), Sociology (20.2%), Political Science (9.7%), Software Engineering (9.8%), and Applied Mathematics (22.6%). The second wave of the longitudinal survey (Survey 2) was conducted during the period 8–30 April 2015. The panel sample after the second wave of the study consisted of 257 respondents. All participants were paid 300 Russian rubles for participating in both surveys. The first survey was dedicated to exploring student's expectations concerning their learning activities, time allocation, grades in the first semester, difficulties during study, input characteristics, and motivation. The second survey contained questions about their activities in the first year of study; these questions were similar to the questions about educational expectations and about students' satisfaction with learning. The data on grades in the first semester were derived from the university statistical dataset.

To assess the differences between student educational expectations and reality, we employ multiple indicators that refer to the following aspects:

- Expected and real estimates of university activities that lead to high achievement (eight items);
- Expected and real estimates of grades in the first semester (one item);
- Expected and real estimates of time allocation (spending time on curricular and co-curricular activities, work and education outside the university) (five items);
- Expected and real estimates of learning activities at university (six items);
- Expected and real estimates of difficulties during study at university (10 items);

3.2. Profile of the Higher School of Economics

The Higher School of Economics (HSE) is a four-campus university with 18,720 undergraduate and 5679 graduate students currently enrolled. HSE campuses are located in four Russian cities: Moscow, Saint Petersburg, Nizhniy Novgorod and Perm. It is a highly selective university; in 2014, the number of applications for state-funded and fee-paying places (undergraduate education) was 13,237, and only 5505 applicants were admitted to the university (about half were enrolled in state-funded places). On the Moscow campus, about half of HSE students come to the university from other regions and live in a dormitory. The university has 46 undergraduate programmes in Moscow and 41 programmes in other cities in Economics, Management, Public Administration, Mathematics, Computer Sciences, Social Science, Humanities, Engineering, Mass Media, Design, and others.

At the end of their secondary school education, students take the United State Exams (USE). These exams serve as entrance examinations at HSE. The academic year at HSE begins on 1 September and ends in June; it includes two semesters, each of which lasts from four to five months. At the end of each half of semester, students have a week of examinations. HSE recognizes the importance of a student introductory week as an effective means of managing student adaptation and transition from high school to university life. The goal of this introductory week is to provide information about the university, departments, university rules, student services and university events. In addition, it incorporates elements of required academic skills and the student honour code.

4. Results

4.1. Students' expectations of time allocation

At the beginning of the academic year, students were invited to estimate the percentage of time per week they expected to devote to study, extra-curricular activities, job, outside learning courses and other activities. In addition, they were asked to report on the study practices that they planned during the first academic year (Survey 1) and what actually did or are doing during this year (Survey 2). The results are presented in Tables 1–4.

In the first survey, students expected to spend an average of 61.2% of their time on curricular activities and 14.3% on extra-curricular activities at university (see Table 1). In reality, they spend 51.9% and 9.5%, respectively. Only 2.6% of students planned to have a job during the first academic year, and 4.5% reported that they in fact attained employment. In addition, most students expected to devote a small share of time to learning courses outside the university. In the second survey, they estimated that they spent on average 4.2% on this type of activity. To sum up, average incoming students expected to spend 75% of their time at university; however, in reality, they spent approximately 61%.

According to data derived from Survey 1 and Survey 2, almost all students who participated in the study expected to participate and really did participate in university classes (lectures and seminars) and accomplish homework assignments. Approximately 90% of respondents expected to read course literature, though only 74% actually did. The difference between the share of students who planned to engage in additional learning activities or participate in research and those who actually did so was approximately 20% (see Table 2). Consequently, students' expectations related to obligatory learning activities corresponded with reality more often than their plans about optional university learning experience.

By tracking the match between expected and real time allocation of every student, more significant differences between responses to the first and second surveys were found.

Table 1. Mean estimates by incoming students of expected and real percentage of time they would spend on different activities.

	Mean expected percentage (%, Survey 1)	Mean real percentage (%, Survey 2)
Curricular activities at university	61.2	51.9
Extra-curricular activities at university	14.3	9.6
Job	2.6	4.5
Learning courses outside university (except musical courses, creativity etc.)	5.2	4.2
Other activities	16.7	29.9

Table 2. Expected and real learning activities during the first academic year.

	% of students expected to do it (Survey 1)	% of students that doing (did) it (Survey 2)
Attending lectures according to curricular	99.2	94.6
Attending seminars according to curricular	99.6	99.6
Reading according to instructor's requirements	89.5	74.3
Doing homework assignments	98.4	97.3
Additional study related to learning courses	64.2	45.9
Scientific and research activities	35.0	15.6

Table 3. (Mis)match between estimates of expected and real time allocation.

		Curricular activities at universtity	Extra-curricular activities at university	Job	Learning courses outside university (except musical courses, creativity etc.)	Other activities
% of real time more than expected time	more than 50%	0.4	0.4	0.8	0.0	5.3
	from 30% to 49%	2.8	2.7	1.6	1.2	15.8
	from 20% to 29%	4.5	3.1	3.2	2.0	12.6
	from 10 to 19%	8.1	9.3	8.5	9.3	24.3
	from 1% to 9%	4.0	7.4	12.1	7.7	10.5
% of real time equal expected time		17.4	12.5	59.9	41.3	9.7
% of real time less than expected time	from 1% to 9%	8.1	20.2	5.7	15.8	6.9
	from 10 to 19%	23.1	26.5	5.7	17.8	8.5
	from 20% to 29%	13.4	10.9	1.6	3.2	4.0
	from 30% to 49%	14.6	2.3	0.8	1.6	1.2
	more than 50%	3.6	0.8	0.0	0.0	1.2

Approximately 22% of first-year students overestimated the time they would spend on curricular activities by 20% or more (see Table 3). For extracurricular activities this share was 14%. A comparatively large match between expectations and real activities is observed for jobs and courses taken outside the university. More than half of students (58%) spend more than 10% of their expected time on other activities.

At the beginning of the study year, more than a quarter of students (28.8%) had plans to perform additional study work that was related to courses outside of the academic year. However, 35.4% of students had such plans and did follow through on them. Similarly, 35% of students expected to engage in scientific and research work, and only for 7% of their expectations matched reality (see Table 4).

4.2. Expected and real grades

A question was asked regarding students' expectations concerning their academic achievement in the first semester. In Survey 1 students responded about expected grades, and in Survey 2 they reported on the actual grades they received in the first semester.

Table 4. (Mis)match between expected and real learning activities during the first academic year.

	Did not choose the option (%)	Chose the option in Survey 1 (%)	Chose the option in Survey 2 (%)	Chose the option in both surveys (%)
Attending lectures according to curricular	0.0	5.4	0.8	93.8
Attending seminars according to curricular	0.0	0.4	0.4	99.2
Reading according to instructor's requirements	7.0	18.7	3.5	70.8
Doing homework assignments	0.0	2.7	1.6	95.7
Additional study related to learning courses	25.3	28.8	10.5	35.4
Scientific and research activities	56.4	28.0	8.6	7.0

Table 5. Student estimates of expected and real grades in the first semester.

	What your best guess about grades that you will get in the first semester? (%, Survey 1)	What grades did you get in the first semester? (%, Survey 2)
Only excellent grades	8.9	5.7
Excellent and good grades	56.5	39.0
'Excellent' and 'good' grades, and some 'satisfactory' grades	30.8	44.7
'Satisfactory' grades	3.8	10.6

Almost 9% of students expected to receive only 'excellent' grades, and 56.5% expected to receive 'excellent' and 'good' grades in the first semester. Nevertheless, in reality, such grades were only earned by 5.7% and 39% of students, respectively (see Table 5). According to our data, the expectations of first-year grades matched with their real grades for approximately 40.4% of students. Only 16.6% of respondents underestimated their academic performance. For 43% of first-year students, real grades were lower than they expected at the beginning of the academic year.

Additionally, respondents were invited to express their opinion about what students should do at the university to receive excellent grades. The top three activities in Survey 1 were (1) to learn and understand the course well (94.6%), (2) to understand and fulfil the instructor's requirements (82.9%) and (3) to turn in quality papers (81.3%). In Survey 2, students' opinions slightly changed. They began considering active work during the seminars as one of the three most important determinants. According to first-year students, less important activities included attending all lectures and building good relations with instructors (see Table 6).

The most radical changes in students' responses were observed for such determinants of excellent grades as attending lectures and seminars and building good relations with instructors (see Table 7). After the first semester, about a third of students began to consider the attendance of lectures and building relations with instructors as unimportant in terms of earning excellent marks. The survey results showed controversial opinions regarding seminar attendance, with 24.2% believing that attendance is not helpful for grades and 17.2% believing that it is necessary.

4.3. Expected difficulties in university life

Part of the questionnaires in both surveys related to the difficulties connected with the study process at university. Students were invited to guess the type of difficulties that would occur during the first year of university study. In Survey 2, respondents reported on the type of difficulties that they really faced. The following were the most expected

Table 6. Student's opinions about determinants of excellent grades.

	Survey 1 (%)	Survey 2 (%)
To attend absolutely all lectures	45.9	12.9
To attend absolutely all seminars	58.8	52.0
Actively work during seminars	80.5	82.8
To learn and understand the course well	94.6	84.4
To turn in quality papers	81.3	86.7
To build good relations with instructors	47.9	30.9
To understand and fulfil instructor's requirements	82.9	79.3
I think, that grades is a matter of random circumstances	0.0	4.3

Note: Question: What is it necessary to do at university in order to get excellent grades?

Table 7. (Mis)match between expected and real determinants of excellent grades.

	Expectations match reality (%)		Expectations mismatch reality (%)	
	Didn't choose the option	Chose the option in both surveys	Chose the option in Survey 1	Chose the option in Survey 2
To attend absolutely all lectures	48.0	7.0	39.1	5.9
To attend absolutely all seminars	23.8	34.8	24.2	17.2
Actively work during seminars	6.3	69.5	10.9	13.3
To learn and understand the course well	2.7	81.6	12.9	2.7
To turn in quality papers	4.3	72.7	9.0	14.1
To build good relations with instructors	40.2	19.1	28.9	11.7
To understand and fulfil instructor's requirements	5.5	67.6	15.2	11.7
I think, that grades is a matter of random circumstances	95.7	0.0	0.0	4.3

Note: Question: What is it necessary to do at university in order to get excellent grades?

difficulties: (1) problems with mathematics courses (50.2% expected to experience it); (2) combining work and study (34.6%); and (3) problems with a foreign language (28.0%). In reality, students experienced the following difficulties: (1) problems with mathematics courses (56.6%); (2) attending classes due to a long commute; and (3) study at the university is boring for them (see Table 8).

The most underestimated difficulties that students confronted were as follows (i.e. students did not think that they would have trouble with it, but in reality they found it difficult): (1) difficulties with attending classes because their commute was too long (21.5% did not expect this); (2) difficulties with living in a dormitory (20%); (3) difficulties with mathematics courses (17.2%); and (4) difficulties in paying for study (12.5%). These findings show that approximately 20% of first-year students arrived at university with overestimated expectations about their future student experience (see Table 9).

4.4. Background and motivational characteristics as predictors of (Mis)Match between student educational expectations and realities

Part of the questionnaire in Survey 1 included questions about students' social, demographic and motivational characteristics. Moreover, background information, such as

Table 8. Expected and real estimates of the university life difficulties.

	% of students who expected difficulties	% of students who confronted with difficulties
With mathematics courses	50.2	56.6
With a foreign language	28.0	21.5
With building positive relations with instructors	7.4	11.3
With building friendly relations with classmates	20.2	17.2
With combining work and study	34.6	8.2
With attending classes due to a long commute	19.5	36.3
With living in a dormitory	7.0	10.9
With paying for study	5.4	6.2
Financial difficulties (that aren't related to study fees)	24.0	9.4
It is boring to study at university	3.1	24.2

Table 9. (Mis)match between expected and real estimates of the university life difficulties.

	Didn't choose the option	Chose the option in Survey 1	Chose the option in Survey 2	Chose the option in both surveys
With mathematics courses	37.5	0.0	17.2	45.3
With a foreign language	66.0	12.5	5.9	15.6
With building positive relations with instructors	83.2	5.5	9.4	2.0
With building friendly relations with classmates	73.8	9.0	5.9	11.3
With combining work and study	62.9	28.9	2.7	5.5
With attending classes due to a long commute	59.0	4.7	21.5	14.8
With living in a dormitory	62.0	10.0	20.0	8.0
With paying for study	52.5	15.0	12.5	20.0
Financial difficulties (that aren't related to study fees)	74.1	16.2	2.3	7.4
It is boring to study at university	73.8	2.0	23.0	1.2

the results of the Unified State Exam, was derived from the university statistical dataset. To answer this paper's second research question, a statistical analysis of relations between each expectation-reality variable and the following student characteristics was performed:.

Social, Demographic and School Background Characteristics:

- Gender;
- Parental educational level;
- Family income (the ranking question: 'Please estimate your family income level.' A scale with four items from lowest to highest was used);
- Results of Unified State Examination (USE).

Importance of the following activities and outcomes at university (a scale with four items from 'Absolutely not important' to 'Very important' was used):

- to increase erudition;
- to become professional in the field of study;
- to improve foreign language skills;
- to develop leadership skills;
- to do research;
- to build a network that will be helpful for career development;
- to have an opportunity to study abroad;
- to acquire knowledge and skills that will help in finding job abroad;
- to find a high paying job;
- to receive an advanced diploma with honours;
- to receive only high grades;
- to build friendly relations with other students;
- to participate in cultural events at university;
- to participate on university sports teams;
- to go to student parties.

Agreement with the following statements:

- I am afraid that I would be expelled from university;
- My parents would criticize me if I get bad grades;
- If I do not know the right response to an examination question, I would prefer to cheat.

A Chi-squared test and one-way ANOVA analysis were employed for the analysis. Significant links were found for twenty one pairs of variables. The links related to expectation-reality mismatch are presented. The other links are also listed.

Pairs of variables related to explanation of the expectation-reality mismatches:

(1) *Agreement with the statement 'I am afraid that I will be expelled from university' and the importance of learning and understanding a course well* (Chi-square = 22.887, df = 9, p-value = 0.006). Students who have a comparatively higher level of anxiety about being expelled from the university tend to respond in both surveys about the importance of this activity. However, respondents who are not afraid of being expelled have a tendency to change their mind during the first year of study. In Survey 1 they characterized it as important, while in Survey 2 they did not choose this option (an interpretation of the significant link is given based on an adjusted standardized residuals analysis).

(2) *The importance of participating on university sports teams and a mismatch between expected and real grades in the first semester* (Chi-square = 15.948, df = 6, p-value = 0.014). Real scores of respondents for whom it was important to engage in sports at university tended to be higher than the grades that they expected. On the contrary, students not oriented towards sports tended to have lower grades than they anticipated.

(3) *The importance of increasing erudition and the difficulties with a foreign language* (Chi-square = 16.060, df = 6, p-value = 0.013) *and financial difficulties* (Chi-square = 22.137, df = 6, p-value = 0.001). Incoming students considered developing erudition to be an important part of study at university. They expected to experience language and financial difficulties more often but did not experience these difficulties.

(4) *Agreement with the statement 'If I do not know the right response to an examination question, I would prefer to cheat' and difficulties with a foreign language* (Chi-square = 19.810, df = 9, p-value = 0.019). Students who tend to cheat more often expected difficulties with a foreign language, which they did not experience. First-year students who were inclined towards honestly more often predicted such difficulties and actually faced them.

(5) *The importance of developing leadership skills and difficulties with study being boring* (Chi-square = 17.336, df = 9, p-value = 0.044). Students for whom it is less important to develop leadership skills more often experienced unexpected difficulties when it came to losing interest in study at university.

(6) *The importance of participating on university sports teams and difficulties with study being boring* (Chi-square = 20.964, df = 9, p-value = 0.013). Sports-oriented students less frequently experienced losing interest in study even if they expected difficulty.

(7) *Gender and reading according to instructor's requirements* (Chi-square = 19.941, df = 3, p-value < 0.001). Male students read obligatory literature less frequently, even if they expected to do so.

(8) *The results of USE in mathematics and match between expected and real grades* (ANOVA analysis, $F = 3.429$, p-value $= 0.018$) *and difficulties with mathematics courses* ($F = 21.258$, p-value < 0.001) *and a foreign language* ($F = 5.552$, p-value $= 0.001$). Students who received grades lower than what they expected had higher USE results in mathematics on average. The lowest average USE score was observed in the group of students who had lower expectations in comparison with actual grades. Additionally, the highest USE results in mathematics are found among respondents who did not expect to experience and who experienced difficulties with mathematics courses and those who expected and faced difficulties with foreign language at university.

Other links:

(1) Agreement with the statement 'My parents will criticize me if I get bad scores' and the importance of attending absolutely all lectures (Chi-square = 27.414, df = 9, p-value = 0.001) as well as learning and understanding courses well (Chi-square = 20.019, df = 9, p-value = 0.018) to receive excellent grades. Students who experienced parental control of academic performance tend to consider attending lectures important for receive excellent marks in the both surveys.
(2) Agreement with statement 'I am afraid that I will be expelled from university' and the importance of attending absolutely all seminars (Chi-square = 17.632, df = 9, p-value = 0.040) and being active during seminars (Chi-square = 19.131, df = 9, p-value = 0.024) to receive excellent grades. Students who have a higher level of anxiety about being expelled from university tend to demonstrate a higher level of importance of attending and being active during seminars in both surveys.
(3) Gender and the importance of actively working during seminars to earn the best grades (Chi-square = 10.478, df = 3, p-value = 0.015). Males tend to think that active seminar work is not as helpful for receiving excellent marks (in both surveys). Females tend to have the opposite opinion.
(4) The importance of having the opportunity to study abroad and the importance of building good relations with instructors (Chi-square = 17.401, df = 9, p-value = 0.043). Students who want to study in foreign educational institutions tend to assign a higher level of importance to good relations with faculty.
(5) Gender and difficulties with mathematics courses (Chi-square = 9.541, df = 2, p-value = 0.008) and foreign languages (Chi-square = 14.276, df = 3, p-value = 0.003). Female students more often expected and actually experienced difficulties with math courses, and they less often anticipated and faced difficulties with foreign languages.
(6) The importance of building a network that will be helpful for career development and difficulties with mathematics courses (Chi-square = 14.701, df = 4, p-value = 0.005). Students who do not consider building a network for career purposes as important less frequently expected difficulties with mathematics courses and confronted with them in reality. Nevertheless, students inclined to build networks more often expected such difficulties and faced them in reality.

(7) The importance of participating on university sports teams and difficulties with mathematics courses (Chi-square = 19.314, df = 6, p-value = 0.004). Sports-oriented students less frequently expected and faced math difficulties.
(8) The importance of getting an opportunity to study abroad and difficulties with foreign languages (Chi-square = 23.244, df = 9, p-value = 0.006). Students oriented towards study abroad expected and faced language difficulties less frequently.
(9) The importance of developing leadership skills and difficulties building friendly relations with classmates (Chi-square = 18.130, df = 9, p-value = 0.034). Students who believed that developing leadership skills is an important element of university study predicted and experienced difficulties in building good relations with classmates less frequently. On the contrary, respondents who were not oriented towards developing leadership skills expected and faced these difficulties more often.
(10) The importance of building a network that will be helpful for career development (Chi-square = 14.214, df = 6, p-value = 0.027), establishing friendly relations with other students (Chi-square = 25.033, df = 9, p-value = 0.003), going to student's parties (Chi-square = 27.157, df = 9, p-value = 0.001) and difficulties in building friendly relations with classmates. As with the finding above, students who considered building a network for career goals, establishing friendly relations with classmates and going to parties as important less frequently expected and experienced problems in relations with other students, and vice versa.
(11) The importance of establishing friendly relations with other students and difficulties with study being boring (Chi-square = 16.913, df = 9, p-value = 0.050). Respondents who consider friendly relations with classmates to be a very important part of university life less frequently predicted and experienced a lack of interest in study.
(12) The importance of increasing erudition and reading according to an instructor's requirements (Chi-square = 24.632, df = 6, p-value < 0.001). Students oriented towards increasing erudition more frequently expected to complete reading assignments and actually did them, and vice versa.
(13) The importance of undertaking research and additional study related to courses (Chi-square = 26.337, df = 9, p-value = 0.002). Scientifically oriented students more frequently expected and engaged in additional study work.

In summary, the mismatch between expectation and reality for grades and the difficulties encountered by students can likely be explained by a few numbers concerning background and motivational characteristics. A mismatch between expected and real grades correlates with the results of the USE in mathematics and the reported importance of participating on university sports teams. The mismatch between expected and real difficulties with foreign languages is affected by the reported importance of developing erudition, the results of the USE in mathematics and an inclination towards cheating. Underestimation of difficulties related to boring study is associated with students who did not have the ambition to develop leadership skills and students not oriented towards sports. The mismatch between expected and real financial difficulties is affected by the reported importance of developing erudition. Overestimation of the importance of learning and understanding a course well is related to the comparatively higher level of anxiety of being expelled. In addition, inflated expectations about completing obligatory reading are more prevalent among male students. At the same time, some background and

motivational variables can explain the difference between expectations and the reality that was encountered.

4.5. Match between student expectations and realities as a predictor of student outcomes

To test whether mismatch between expectations and reality affect student academic performance, a linear regression analysis was employed. Two regression models were conducted in which the dependent variables were average grades in the first and the second semesters (the method is Enter. R Square equals 0.339 for the first model and 0.424 for the second model.). The independent variables were the 30 expectation-reality characteristics presented above. They have a dichotomous (zero-one) distribution ('0' – if the expectation matches reality or the expectation is lower than real activity and '1' in the case when the expectation was higher than real activity). Control variables are the results of Unified State Examination, gender, educational programme and how education is funded (i.e. either a place is state-funded or fee-paying). The significant relations between student academic performance and a mismatch between expected and real grades were observed only for three variables: a mismatch between expected and real grades, expected and real time spent on extra-curricular activities at university and a mismatch between expected and real interest in study (see Table 10). The first and the second variables positively influence student grades. A greater difference between expected and real grades is related to higher academic performance. Accordingly, low student expectations about grades negatively affect performance and should be managed by the university. Similarly, if students spent less time on extracurricular activities at university than they had planned, a higher academic performance should result. Spending more time on this type of activity than expected decreases student's academic outcomes and

Table 10. Regression coefficients for match between student expectation and reality as a predictor of student outcomes.

	Dependent variables					
	Average grades in the first semester			Average grades in the second semester		
	Standardized coefficient beta	*t*	Sig.	Standardized coefficient beta	*t*	Sig.
(Constant)		2.774	0.006		0.768	0.444
Mismatch between expected and real grades	0.283	3.656	0.000	0.235	3.256	0.001
Didn't expected that study would be boring	−0.125	−1.620	0.108	−0.218	−3.002	0.003
Expected to spend more time on extra-curricular activities than actually did	0.116	1.513	0.133	0.156	2.169	0.032
USE	0.458	4.598	0.000	0.401	4.303	0.000
Males	0.010	0.117	0.907	−0.015	−0.189	0.851
Political science	0.299	3.313	0.001	0.190	2.239	0.027
Applied mathematics	0.103	1.282	0.202	−0.140	−1.857	0.066
Software engineering	0.173	1.966	0.052	0.163	1.966	0.052
Psychology	0.148	1.725	0.087	0.371	4.598	0.000
Economics	0.083	0.892	0.374	0.248	2.868	0.005
State-funded place	−0.041	−0.465	0.643	−0.031	−0.382	0.703

Note: To make presentation of regression model results more compact, the table includes only expectation-reality variables that significantly correlate with indicators of student outcomes.

should be addressed. Finally, the fact that students did not expect that study would be boring for them resulted in declining average grades in the first and the second semesters. The other expectation-reality variables do not significantly correlate with academic performance and were excluded from final regression models.

5. Conclusion and discussion

The descriptive analysis of the longitudinal data showed that the 'freshman myth' is an actual problem that is confirms findings in previous studies (Watkins 1978; Baker, McNeil, and Siryk 1985; Keup 2007) and contradict to Cook and Leckey (1999) results. Russian students expected to spend more time on different types of curricular and extracurricular activities at university than they actually ended up spending. In addition, a large share of students overestimated their future academic performance and underestimated the potential difficulties that can occur during the first year of university study. Moreover, the majority of students did not expect that learning would be boring for them. However, almost a quarter of them reported a lack of interest in study in the middle of the second semester.

To answer the second question, the correlation between background and motivational variables and mismatches between expectations and reality was explored. The significant links for mismatches were found for several variables. To a greater extent, such characteristics explain the difference in expectations that met reality. Our findings contradict with results of Könings et al. (2008). Accordingly, we hypothesize that a mismatch between expectations and reality cannot be predicted by personal background characteristics and motivation at the beginning of study. Other personal and university environment characteristics should be employed in a further analysis. Moreover, to test this hypothesis, this study should be replicated using other samples of first-year students.

Finally, the following three out of 30 expectations-reality variables significantly influenced the academic performance of first-year students: (1) a mismatch between expected and real grades, (2) a mismatch between expected and real level of interest in study, and (3) a mismatch between expected and real time for extracurricular activities at university.

Based on these findings, higher education institutions should manage these expectations during the high school-to-university transition period. First, it is important to form high expectations and self-confidence among first-year students regarding future academic performance. Second, it is important to track the level of student interest in study and determine the possible reasons for its decrease. Third, universities should provide resources on the optimal balance between curricular and extracurricular activities for students. These recommendations can be taken into consideration in university policies related to the adaptation of first-year students to university life.

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