

# Academic Integrity - The Issue of Tomorrow? Statistical Analyses of Large Survey among University Students

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## Abstract

*This paper presents large survey-based results (more than 300 respondents), revealing the basic behavioural patterns in students' approach to an academic dishonest by admitting or refusing cheating behaviour, by collecting opinions, prejudices, evaluation, and also by reflecting perceptions of cheating among students and its criticism or acceptance. The data were collected within the academic year 2016 by two universities and one high education institution. The leading institution was Charles University in Prague. The information record for each student is represented by 61 variables, of both categorical and quantitative nature, describing 1) basic demographic characteristics, 2) general approach to cheating and its frequency, 3) frequents practice of cheating and their acceptance, 4) cheating scenarios and 5) personal reasons (excuses) for cheating. To ensure the reliability and validity of research design and results, the whole study was conducted manually with questionnaires in a printed form. Their delivery and recollection were anonymous. Statistical analyses revealed three basic behavioural patterns among possible 56. Their frequencies changed with the type and form of study, age, gender and different combinations of above mentioned. Data cross-checking enabled to reveal the level of self-censorship, which was (not surprisingly) highest among the group of in-service teachers.*

**Keywords:** *academic integrity, cheating behavioural patterns, future teachers, in-service teachers.*

## 1. Introduction

Academic dishonesty is a permanently growing problem with an international ethical scope. It is a concern among students and also among teachers and scientist. At one medical school in Europe, 97% of the students (from a sample of 662) admitted some form of academic dishonesty (KukoljaTaradi [8], Taradi&Dogas [4]). According to Murphy [10] at one prominent university in United States about half of the students (from a sample of 250) were caught cheating during an exam.

MIT web (Massachusetts Institute of Technology, 2019 [9]) pays special attention to academic honesty and navigating the students behaviour. "Honesty is the foundation of good academic work. Whether you are working on a problem set, lab report, project or paper, avoid engaging in plagiarism, unauthorized collaboration, cheating, or facilitating academic dishonesty. Follow this advice:

- Don't purchase papers or have someone write a paper for you.
- Don't copy ideas, data or exact wording without citing your source.
- Don't collaborate with another student beyond the extent specifically approved by the instructor.
- Don't copy answers from another student; don't ask another student to do your work for you. Don't fabricate results. Don't use electronic or other devices during exams.
- Don't alter graded exams and submit them for re-grading.
- Don't submit projects or papers that have been done for a previous class.
- Don't allow another student to copy your answers on assignments or exams. Don't take an exam or complete an assignment for another student."

Many studies are trying to explain the problem and highlight the causes (from the latest e.g. Darrin [1]), many are examining the psychological aspects (from the latest e.g. Kolski and Weible in [6]), many are studying cheating behaviour in the narrow context (Tarradi and Dogas [4], Malcik [3]) or broadest context (Pew research institute [7]). Our study is focused on gender, age and background based differences in the students approach to cheating. We tried to reveal basic behavioral patterns, their frequencies and how they vary in time and context.



## 2. Method

Our research is based on a cross-sectional study using an anonymous questionnaire containing 61 questions, including demographic ones, focused mainly on the frequency of cheating, perceived seriousness of cheating, cheating behaviour of peers and on a willingness to report misconduct. More than 300 students from 3 types of higher education institution participated: Economic education, teacher education and technical education. Two most frequent forms of studies were involved: 1/regular daily students and 2/ students, who are working and studying in a combined form. Two primary age groups were identified, students younger than 25, and students between 26 and 60. Some questionnaires contained missing values (missing gender, some answers, year of study). Those were processed separately, and are not included in results, presented in this paper. The complete number of fulfilled questionnaires without missing values was 245.

## 3. Selected results

Outcome measures published in following includes descriptive statistical correlates and identification of basic behavioural patterns among students in general with highlights of differences in subgroups.

### 3.1 General approach to cheating

226 students (92%) admitted having seen others cheating; while cheating themselves was admitted by 196 students (almost 80%). Admonishing other students admitted 49 students (almost 20%), 25 repeatedly (more than once). Reporting other student admitted 7 students (less than 3%), 2 of them repeatedly. Among those, who refused cheating themselves, just one stayed consistent and did not admit any personal reasons for cheating in the last part of questionnaire.

|                | Have seen others cheating | Reporting cheater | Admonishing cheater | /interrupting | Cheated myself |
|----------------|---------------------------|-------------------|---------------------|---------------|----------------|
| never          | 19                        | 237               | 196                 |               | 49             |
| once           | 24                        | 5                 | 23                  |               | 58             |
| more than once | 202                       | 3                 | 26                  |               | 138            |

Table 1. Cumulative results in general approach to cheating

While cheating at least once was largely admitted among future economist and technicians (both groups app. 82%), students at Faculty of education (future teachers) presented better approach. Repeated cheating was admitted by less than 59 percent of them.

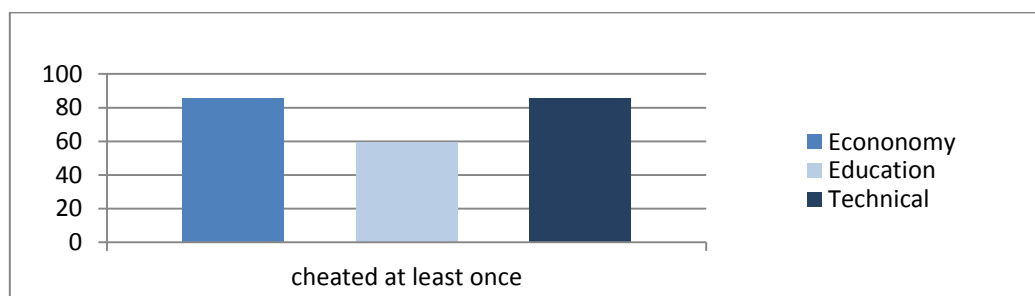


Fig. 1. Cheating among students in different areas of study (different schools)

### 3.2 Basic behavioral patterns (the whole sample)

The basic behavioral patterns reflect perceived seriousness of cheating on the base of self evaluation, cheating behaviour of peers and willingness to correct/interrupt cheaters or report misconduct. Among possible 56 behavioural patterns in general approach to cheating, we discovered 3 most frequent basic behavioural patterns. These patterns are in the following assigned with numbers 3113, 3112 and 3111.

|                            |      |      |      |      |      |      |      |
|----------------------------|------|------|------|------|------|------|------|
| The most frequent patterns | 3113 | 3112 | 3111 | 1111 | 2111 | 2112 | 1112 |
| Respondents (%)            | 43,3 | 18,4 | 7,8  | 5,7  | 3,3  | 2,9  | 0,8  |

Table 2. The most frequent patterns and their frequencies. The first 3 were the most frequent.

Pattern 3113 reflects the behaviour of respondents, who admitted that they have seen cheating students more than once; they themselves cheated more than once, but never reported anybody and never interrupted anybody.

Pattern 3112 reflects those, who have seen others cheating, and themselves did it once. They also never reported anybody and never interrupted anybody.

Pattern 3111 reflects students who admitted they have seen other students cheating many times, but never did it themselves. They also never reported anybody and never interrupted anybody.

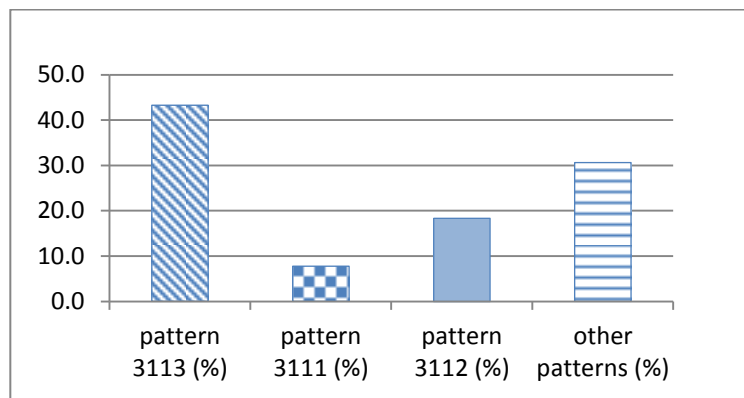


Fig.2. Bar chart of most frequent behavioural patterns relative frequencies.

From the above chart is clear, that while the pattern 3113 appeared with relative frequency 43%, the rest 53 possible patterns appeared just in 30% of cases. Pattern 1111 (never have seen anybody, never reported, never interrupted, never did it myself) with frequency 14 seems to be problematic and respondents unreliable. The majority of them (13 from 14) admitted, although they have stated “never cheated themselves”, in part 4 of the questionnaire (my personal reasons for cheating) different reasons for cheating, mostly “lack of time and lack of preparation”. Just one respondent with pattern 1111 stayed consistent and did not admit anything (male, technician). Other patterns than mentioned above appeared rarely or never (1113, 3333, 3233, 2332, etc.). One of the most interesting, pattern 3331 (have seen others cheating repeatedly, reported them repeatedly, interrupted them more than once, never cheated myself) appeared just once (female, economy).

### 3.3 Basic behavioral patterns according the area of study

Cheating more than once and seeing other more than once was admitted by almost 67 % of economy students, by more than 40 % technicians and by 30 % of respondents from Faculty of education.. Teacher and future teachers also the most frequently reported “not cheating at all”, although having “seen others cheated more than once”. The cross check of numbers among teachers did not work, so there is a reason to suppose, that in case of future/in service teachers self censorship worked.

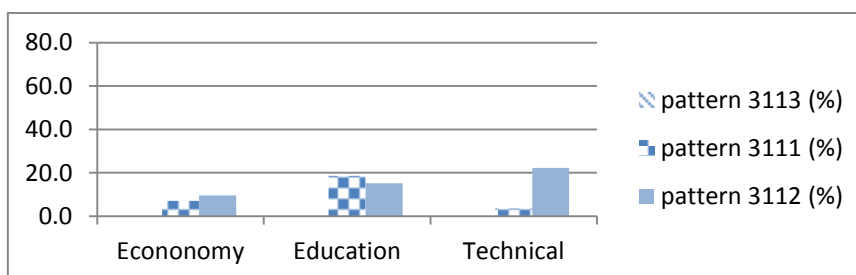


Fig.3. Basic behavioural patterns according the area of study.



Cheating among economy students is more generally accepted according to this research results (as well as many other studies results), all together cheating at least once (patterns \*\*\*2 and \*\*\*3) admitted almost 80%. On the other side among those who admonish other students (20%) was just 1 from economy students (0.4%).

### 3.4 Basic behavioral patterns according to the form of study

Not without interest are differences among regular (daily) students, and those, who studied in different forms of studies. Regular students admitted less frequently repeated cheating, the situation "more than once". On the other side they more frequently cheated just once. Older students sincerely admitted that they cheated at least once. Among regular students were people, who did not admit cheating at all, while among other forms of study this situation did not exist. In other words among non regular students were none with any of patterns \*\*\*1.

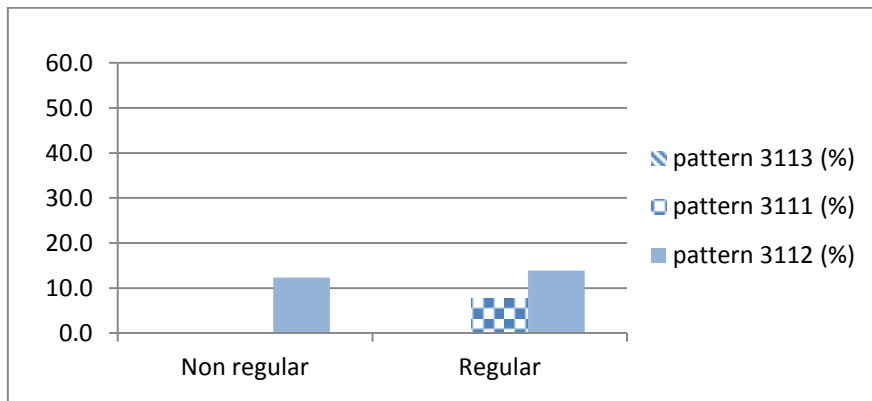


Fig.4. Behavioural patterns according to the form of study (Regulars and Non regulars).

Among non regular (elderly) students there is a significant difference between the behaviour (admitted) of teachers and non teachers. But even teachers admitted frequent cheating (more than once) in 43 %, while other non regular students in 57%. All teachers admitted cheating during their studies (actual) at least once (18 %).

### 3.5 Basic behavioral patterns among in service teachers

Among Older students (non regular) no one declared that He/she never cheated (pattern 3111). All of them (including in service teachers) admitted "cheating at least once".

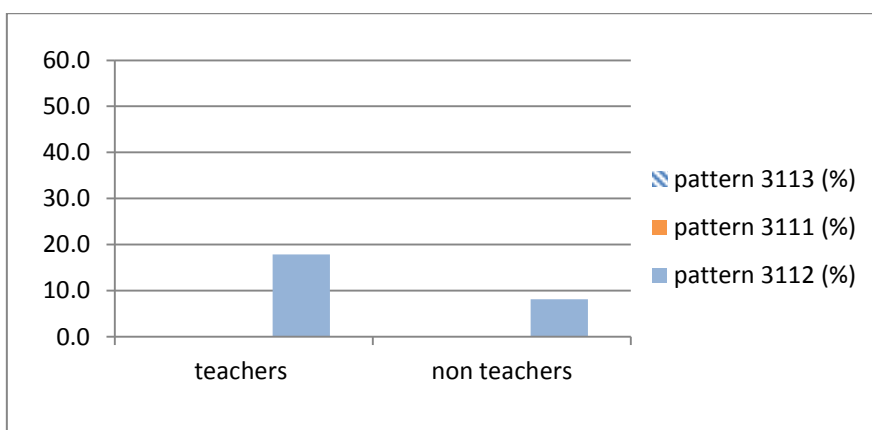


Fig.5. Behavioural patterns distribution among Non regular students (teachers and non teachers).

Other subgroups created on the base of demographic factors, also presented interesting differences in their basic approach to cheating.



## Conclusions

“This may explain a lot: Not only do cheaters apparently prosper; they get graduate degrees in business.” says Richard Morrin in his paper published by Pew research Center in 2006 [7]. According his findings solid majority of future businessman (56%) acknowledged cheating at least once in previous school year, followed by future engineers (technical studies) (54%). Those who less likely overcome the rules (or who less likely admitted that) were students in the social sciences and humanities (39%).

In our study the above mentioned results are confirmed, but percentages are different, higher in case of future businessmen, but lower within technicians and teachers. Cheating repeatedly was admitted by almost 67 % of economy students, by more than 40 % technicians and by 30 % of respondents from Faculty of education.

Cheating at least once was admitted by almost 80% of economy students. On the other side among those who admonish other students (20%) was just 1 from economy students (0.4%).

Teacher and future teachers the most frequently reported not cheating at all, although having seen others cheated more than once. But the cross check of numbers among teachers did not work, the results are probably influenced by higher level of self-censorship.

The age differences (the form of study) influenced the results significantly, too. The older students more likely admitted cheating at least once. No one stated that he/she never cheated.

Students are definitely part of an academic world. Each academic board (in Europe often called senat or senate) consists of students and teachers, usually almost half and half. Many papers, articles and even books are focused on “How boards can ensure Academic quality”. (Ewell [2]). Students and teachers are proud on their active participation, and they both should pay more attention to growing level of cheating, growing number of cheaters and what is worse, and the acceptance of cheating.

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