



The Attitude Of Students Towards Electronic And Non-Electronic Cheating

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Abstract

Many universities in the world consider cheating of students as the main problem of academic area. Students use not allowed activities to get credits on exam or to achieve better results. Cheating of students includes many methods, techniques and subsequent forms, these fraud activities are referred to as academic dishonesty. Academic dishonesty is divided into cheating, plagiarism and collusion. Very noteworthy is the influence of ICT, students use internet and technical aids for fraud. The aim of the paper is to bring the reader closer to the problem of collusion, as part of academic dishonesty and the role of ICT in cheating methods. At the same time the paper informs about the results of a survey among the first grade students of the Faculty of Materials Science and Technology. We can find in the theoretical sources that students had experience with cheating in the secondary school as well; our priority was discovering this experience of students interested in technical universities studies. The survey showed that the students have experience with different forms of cheating and collusion. According to the results, the possible way to fight against forms of academic dishonesty is through educational influence that develops personal and moral characteristics of students.

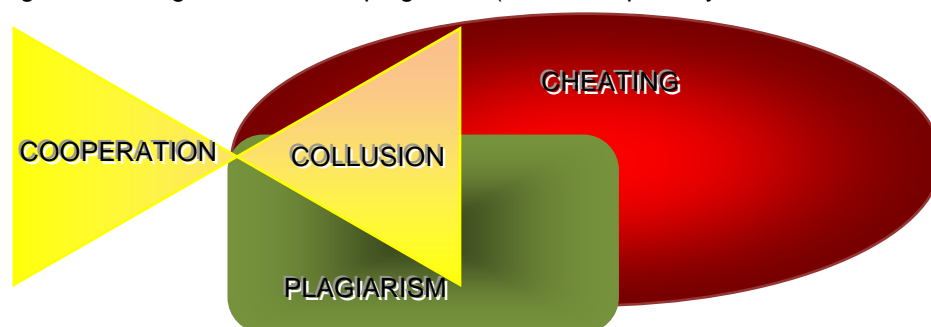
1. Introduction

Currently at universities, the most attention is dedicated to students' cheating. Foreign universities and also universities in Slovakia mostly try to avoid plagiarism in final papers by using the electronic detection of plagiarism with help of special software. But plagiarism detection is limited by the possibility of used sort of software and also by students' innovations.

We can call all the students' cheating activities as academic dishonesty. Moon [1] divides the academic dishonesty into three categories: cheating, plagiarism and collusion. We consider this categorization as initial, but we also realize that cheating, plagiarism and collusion are close related. This relation is shown at figure 2. Mutual attribute of cheating and collusion, showed in figure, is intentional violation in order to acquire illegal advantage or better result. Plagiarism is significant break of rules, but sometimes not intentional, because students sometimes don't have the proper knowledge about the relevant standards of quoting. That is why plagiarism cannot be always considered as cheating. The collusion can head into plagiarism or different forms of cheating. By collusion many students take part in the cheating and often the fraud can have various degrees of organization. Explanation for collusion is provided by Dobrovská and Pokorný [2] as: „collusion means active, intentional and obvious act of cheating done in co-operation with others”.

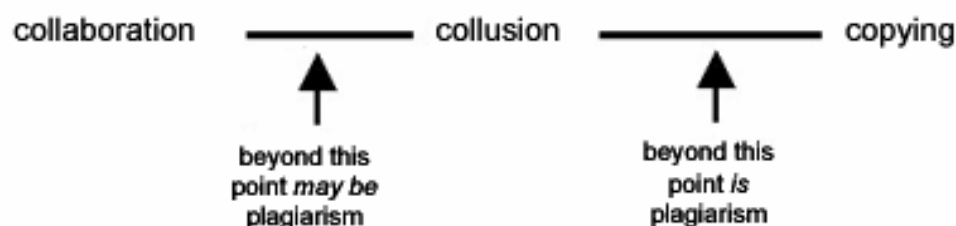


Fig. 1: Cheating, collusion and plagiarism (taken and partially modified from Bassendowski 2005 in[2])



Identifying and proving, if such students' behaviour is an academic misconduct, is in many cases very difficult. Often, it may be only sharing of sources and information, which can be used as an inspiration or for control. The cooperation of students is also necessary and acceptable. Culwin and Lancaster [3] clarify the relationship between the concepts of acceptable cooperation, unacceptable cooperation – collaboration, sharing information and copying as „cooperation is explained as talking about a problem and sharing ideas. Collaboration is explained as showing or sharing material that might be included in a final version. Copying is explained as presenting material that was written or developed by another person, possibly with some disguise”. While cooperation is beneficial and may positively affect student's work, collaboration leads to collusion and to copying and plagiarism. The relationship between these concepts is illustrated by Fig. 2.

Fig. 2: The relationship between cooperation, collusion and copying [3]



The relevance of academic dishonesty is obvious, but the violation cannot go unnoticed. Slobogin [4] informs about nationwide research, on the 4500 of American secondary school student, the 75% of respondents admitted the plagiarism of their home works, more than half of respondents admitted, that their works contained some information from other authors found on the internet. It is alarming, that almost 50% of students don't think that marking of questions and answers from exam is cheating. Mareš and Křivohlavý [5] mention collaboration, depreciation and using of cheating sheets as the most common forms of cheating at Czech secondary schools.

We can find these techniques also at the universities. Students at universities are familiar with these techniques, because they used them at secondary schools too.

The impact of academic dishonesty is not only in the area of education, but it exceeds this framework, particularly significant is this impact in the society perception of gained professional qualification. Gained qualification that is expressed by achieved grade of examinations should reflect acquired knowledge of students. Study results received by cheating have also economical impact, which are presented by graduates on the labour market.

Collective of authors King, Guyette and Piotrowski apply the theory of fraud used dominantly in the business economy on academic frauds. They describe so-called "fraud triangle". Fraud triangle is based on three elements, which always appear, when a fraud occurs. These elements are incentive/pressure, opportunity and rationalization/attitude [6]. The potential appearance of these elements in the academic environment is obvious. Incentive/pressure environment of high school provides a focus on results improvement, time save by transferring the working out responsibility to someone else, eventually the pressure caused by perception of overloading or high demands. Environment itself or the climate of the school may provide the opportunity. Cizek (in [7]) states as one of the factors supporting fraudulent behaviour the school environment. This factor also corresponds with the



situational variability of the dishonesty. The focus on high performance and good results at the expense of knowledge and skills, a large number of students in a group or class, benevolent approach of the teacher affect as sustaining. Also the use of information and communication technology provides the opportunity to abuse. Rationalization/attitude becomes an excuse if the belief prevails, that "Everybody is cheating".

Progress and results of the survey

The research methodology used for this paper was a questionnaire. The questionnaire invited students to report a range of different collusion practices. The questionnaire contained closed questions requiring one choice response. The questions were generated from the existing literature on and from the authors' personal experiences and beliefs regarding the academic dishonesty. The questionnaire was distributed among first grade students of the Faculty of Materials Science and Technology in the year 2009/2010 and 2010/2011. In this survey participated 406 students 305 male and 101 female respondents in the year 2009/2010 and 353 students 209 male and 144 female respondents. The questionnaire was anonymous. The questionnaire was distributed at the beginning of first week of the semester. We can find in the theoretical sources that students have experience with dishonesty at the secondary schools as well. Students have experience with the misuse of ICT, plagiarism and collusion and with this experience they are coming to the university.

We were interested in students' attitude towards school cheating; therefore essential questions in the questionnaire were about student's attitude towards using plagiarism and about using electronic and non-electronic sources. At the beginning of the survey, we were interested if students know about cheating, since we are asking on activities, we find inappropriate, we tried to avoid the direct question. Based on students' answers, 64,3% of students in the year 2009/2010 and 67,9 % of students in the year 2010/2011 think, that more than 75% of their classmates is cheating. Student responses are shown in Fig.3:

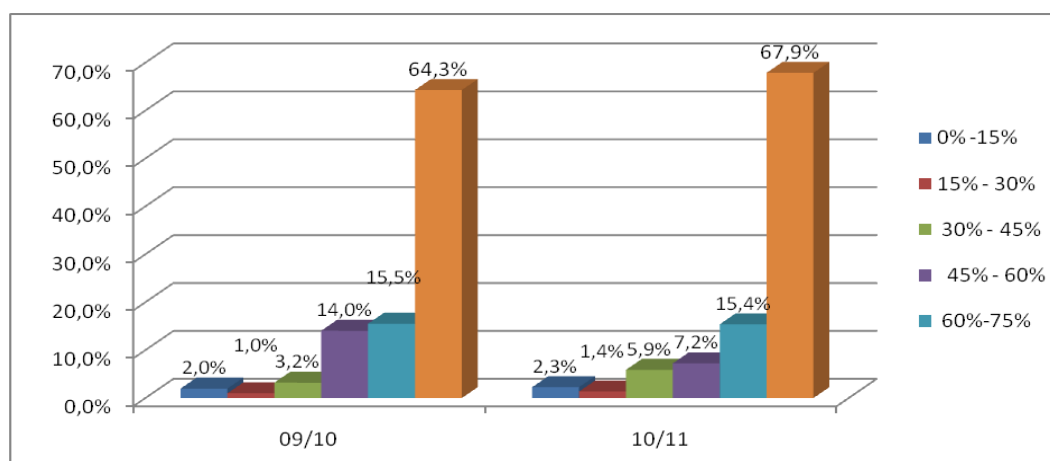


Fig. 3 What do you think, how many % of your classmates were cheating more than once?

We were also interested, if students have experiences with plagiarism. We can claim, that more than half of students confirmed, that during their study, they have committed plagiarism. The expectations, that we were assuming based on foreign source, were confirmed. Student responses are shown in Fig.4.

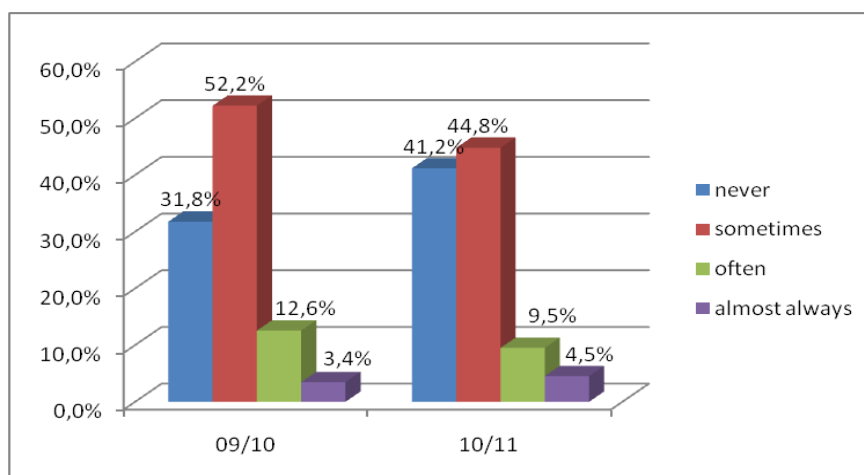


Fig. 4 Did you present someone's work (essay, seminar work, etc.) as your own?

In the next question we were interested in different cheating techniques. We asked students about their behaviour in cheating friendly situation. Multiple choice answers included different traditional and collusion techniques, students could rate at 5 parts scale. Students preferred the traditional techniques of copying from the other classmates and copying from book or own notes to using cheating sheets. From collusion techniques most students would cooperate with other and allow to copy their paper. The results are showed in tab.1.

	copying the answers from other students		cooperating with more classmates to find right answer		contact of other person (with mobile phone or other technology) to find right answers		using open book or own notes		using cheating sheets		allow other classmates to look at your answers		copying the questions and answers		write the test for other classmate	
	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11
certainly not	1,7%	1,8%	2,2%	1,8%	34,0%	26,2%	1,2%	0,0%	3,9%	2,3%	2,7%	3,6%	24,1%	15,8%	50,7%	39,4%
likely not	5,9%	3,2%	2,7%	2,7%	30,8%	29,4%	4,7%	6,3%	4,9%	3,6%	6,7%	5,4%	27,6%	27,6%	26,1%	26,2%
can not rate	14,3%	18,6%	13,3%	10,9%	19,2%	23,1%	18,2%	15,8%	21,4%	17,6%	22,7%	25,8%	23,6%	26,7%	14,5%	19,9%
likely yes	37,9%	34,8%	41,6%	39,6%	9,6%	12,2%	45,3%	39,4%	42,1%	37,6%	39,7%	33,9%	14,5%	24,9%	4,9%	7,7%
certainly yes	40,1%	41,6%	40,1%	45,0%	6,4%	9,0%	30,5%	38,5%	27,6%	38,9%	28,3%	31,2%	10,1%	5,0%	3,7%	6,8%

Tab. 1 Answer on question: Imagine that the teacher leaves the classroom during the exam. Would you do following activities?

We also included self-report question about some conclusion techniques. Most of the students in both years (76.8% and 64.3%) would never copy a home work without owner's permission, students sometimes or often asking about question on exam, copy home works, and cooperating on individual home work. Student responses are shown in tab. 2



	asking classmates about questions at exam		conceal the copying or cheating from other students at exam		copying home work from other student with his permission		copying a home work from other student without his permission		copying an old paper or protocol from other students		cooperation on individual home work	
	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11
never	5,4%	4,5%	13,8%	12,7%	8,9%	10,9%	76,8%	64,3%	53,2%	42,5%	4,2%	7,2%
sometimes	42,1%	38,9%	41,6%	44,0%	41,1%	38,0%	19,2%	24,0%	35,7%	37,6%	38,2%	38,5%
often	37,4%	33,9%	35,7%	34,4%	36,7%	34,4%	3,2%	7,7%	7,9%	15,4%	43,6%	35,7%
almost always	15,0%	22,6%	8,9%	9,0%	13,3%	16,7%	0,7%	4,1%	3,2%	4,5%	14,0%	18,6%

Tab. 2 Answer on question: How often you used following activities at secondary school?

Conclusion

We can find alarming references among universities about the increasing academic dishonesty between students, most discussed is the use of plagiarism in the bachelor and diploma works. The half of the students that applied at technical studies had self-report plagiarism at the secondary school. Survey showed that the students have experience with different forms of cheating and collusion and with this experience they come to the university. The solution of academic dishonesty should not include only methods of finding and punishing fraud, but this issue should be taken from different perspectives, the develop of moral and fair environment and support of acceptable cooperation, that provides prevention. According to the results, the possible way to fight against forms of academic dishonesty is through educational influence that develops those personal and moral characteristics of students. Educational influence and didactic methods shall be the first step in fight against academic dishonesty, which also reflect in quality of education.

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