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The relationship between dishonest academic behaviour and students' attitudes towards school offences

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The aim of this study is to determine the relationship between academic dishonesty and students' attitudes towards school offences. The research included 347 respondents from primary (the seventh and eighth grades) and secondary (the second and third grades) schools in the Republic of Serbia. The Measurement of Dishonest Behaviour (MDB) was used to assess several types of dishonest behaviour, while the School Offences Scale (SOS) was used to evaluate the attitudes towards school offences. According to the findings, there is a significant positive relationship between dishonest behaviour and students' attitudes towards school offences. The total score of students' attitudes has the highest relationship with the subscale of dishonest behaviour connected to Deception, while the total score of dishonest behaviour has the highest correlation with the subscale Playing Truant. Additionally, there are significant differences regarding cheating in schools between the younger and older students; it was observed that the older students had higher scores on both scales. The findings of canonical correlation analysis, which focused on the relationship between the sets of behavioural scales and attitudinal scales, are also discussed. Additionally, the relationships between the attitudes towards school offence and dishonest behaviour are explained through the Theory of Planned Behaviour, while possible instructions for predicting dishonest behaviours, reducing absenteeism from classes, and other methods of reducing cheating, are outlined in the conclusion.

Key words: attitudes, behaviour, school offences, dishonesty.

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Introduction

There is no widely agreed-upon, accepted definition of academic dishonesty (Schmelkin et al., 2008), but it typically refers to actions such as plagiarising, copying other students' homework and assignments, collaborating with peers without teachers' permission, and cheating on exams or homework tests. Students' behaviours are related to individual's moral identity (Wowra, 2007). A number of behaviours are usually considered to be indicators of student cheating, and they all share the trait of being wrongdoings intended to enhance the student's own or others' achievement in school (McCabe, Butterfield, & Trevino, 2012). In order to get good grades, students copy and cheat on written assignments, as well as whisper answers to other students during oral exams (Peruničić, & Mirić, 2011). Nowadays, students have access to modern technology such as earpieces, mobile phones, tablets, and cheating pens. In the future, the latest technology for cheating could be advertised on the Internet as follows: Contact lenses with cameras are used with the purpose of improving academic achievement. Plagiarism is another type of dishonest behaviour that is highly widespread (Peruničić, & Mirić, 2011). In addition to students copying or transcribing identically and passing off other people's work as their own, plagiarism is also present in primary and secondary school students, since students have access to computers from a very early age, starting from the first grade of primary school.

It is important to distinguish morality from culturally dictated behaviours that fall under the category of social conventions. Conventions are behavioural uniformities that harmonise the interactions of the individual within the social system. They are arbitrary, relative, and variable by consensus (Turiel, 1983). One of the characteristics of conventions is that they are based on people's assent to their validity, whereas morality does not require the same. Morality differs from social conventions in that it is universally applicable to all people, it is impersonal (i.e., not dependent on individual preferences), and obligatory for everyone (Mirić, 2001). When we consider that all the offences against which we evaluate attitudes are a form of cheating, it is evident that we are dealing with morals rather than conventions. The question is: Is cheating considered to be an expected and normal behaviour amongst students (Peruničić, & Mirić, 2011)?

According to social psychologists, the most powerful driver of human behaviour is our need to preserve a stable and positive self-image. In other words, when confronted with the facts that contradict their positive self-image, individuals seeks to maintain a strong view of themselves (Baumeister, 1993; Wicklund & Brehm, 1998). Most people want to believe that we are rational and polite, and that our actions are justified, that we

make sound decisions and do not engage in unethical behaviour, and thus we manage to preserve our integrity (Aronston et al., 2005). Throughout life, we face many challenges which prove that maintaining moral beliefs and a positive image of ourselves is not always easy. However, a later study demonstrated that not all cognitive inconsistencies were equally distressing, but that inconsistency caused high anxiety when people behaved in a way that endangered their self-image. This is alarming because it forces us to confront the discrepancy between our perceptions of ourselves and our actions (Aronston et al., 2005).

The best-known theory on how attitudes predict intentional behaviours is the *Theory of Planned Behaviour* by Icek Ajzen and Martin Fishbein (Ajzen, & Fishbein, 1980; Ajzen, & Sexton, 1999). According to this theory, when people have time to think about the way in which they should behave, the best predictor is their intention to behave, which is determined by three elements: *attitudes towards specific behaviour*, *subjective norms*, and *the perceived degree of control over behaviour*. Firstly, people's *specific attitudes towards the behaviour* they are considering are important, not their general attitudes towards something. According to the Theory of Planned Behaviour, only specific attitudes towards the behaviour can allow for its future prediction. Secondly, it is important to consider *subjective norms*, which refer to people's beliefs about how other important individuals will perceive their behaviour. Lastly, understanding someone's beliefs might be equally as important as knowing their attitude in predicting their intentions. The belief in how easy it is to accomplish a specific behaviour or the *perceived degree of control* over action could influence intentions. If people think that it is difficult to perform a certain behaviour, then they will not have a strong intention to perform it. If they think some behaviour is easy to perform, then they are likely to form a strong intention to do so.

The *Theory of Planned Behaviour* (*TPB*; Ajzen, & Fishbein, 1980; Ajzen, & Sexton, 1999) could explain dishonest behaviour and unethical attitudes towards school offences. When it comes to dishonest behaviour and unethical attitudes towards school offences, the TPB could suggest that individuals who engage in such behaviour have a *positive attitude towards cheating*, believe that it is *socially acceptable*, and feel that they *have the necessary skills to cheat* successfully. These individuals may also perceive that the *benefits* of cheating (e.g., better grades) outweigh the potential consequences (e.g., getting caught and facing disciplinary action). The TPB could explain dishonest behaviour and unethical attitudes towards school offences by suggesting that these behaviours are influenced by attitudes, subjective norms, and perceived behavioural control. By understanding these factors, schools and educators can develop interventions that address the root causes of academic dishonesty and promote ethical behaviour.

Academic dishonesty, as well as students' attitudes towards school offences, have been the subject of several studies, which concluded that dishonesty increased significantly in the previous 30 years (McCabe, Trevino, & Butterfield, 2001). According to a meta-analysis of academic dishonesty in different nations, 70% of secondary school and college students behave unfairly when they are graded (Whitley, 1998). Likewise, in another study, it was discovered that 75% of interviewed students had engaged in academic dishonesty at least once, according to their personal assessments, and that these same students believed that 91.9% of their peers behaved in this way (Björklund & Wenestam, 1999). In a study conducted in Russia, America, the Netherlands, and Israel, students were asked to solve the dilemma of one student copying from another. Respondents were asked to rate the attitudes of each student. The findings revealed cultural variations, with the Russian students approving of copying to the highest extent, compared to the students from other countries. In addition, this analysis showed that postgraduates and college students approved of copying less compared to secondary school students (Magnus et al., 2002).

According to the results of a study of dishonest behaviour conducted in Croatia (with a sample of 390 secondary school students) and Bosnia and Herzegovina (with a sample of 353 secondary school students), academic dishonesty is fairly frequent. In other words, 93% of students in Croatia and 80% of students in Bosnia and Herzegovina stated that they had cheated at school one or more times. Students' attitudes and opinions are consistent with their actions. Therefore, they believe that dishonesty is a common occurrence since there are no serious consequences and that it is in line with human nature (Šimić Šašić, & Klarin, 2009). In Serbia, there is little research on the emergence of dishonest behaviour and students' attitudes towards school offences. The results of the research conducted by Peruničić and Mirić (2011) indicated that a significant number of students had positive attitudes towards different types of school offences. There is no defined structure in our country for preventing academic dishonesty in schools, and little research has been done on the constructs of dishonest behaviour and students' attitudes towards school offences.

Kohlberg and Candee (1984) pose *questions about the difficulty of the attitude-behaviour relationship*: Is moral thinking a valuable tool in moral situations, or is it just a senseless exercise in reasoning that has no influence on actions? Will the person do what he/she thinks? Will the person be able to endure the pressure that a particular situation places on him/her, and will he/she be held accountable for the actions? Exploring the individual, sociological, and cultural characteristics of an individual could provide us with a better insight into why students cheat. There are several studies that explain students' dishonest behaviour from the aspects of *individual and contextual*

characteristics. According to other researchers, the last two years of secondary school are crucial for the person's moral and ethical growth (McCabeet et al., 1999). Although school cheating is primarily an individual behaviour, closely tied to the person's morality and ethical compass, the propensity to cheat also depends on the *sociological and cultural context* (Day et al., 2007). Research has demonstrated the significance of *school context elements* for transitioning adolescents into adults and addressing undesirable behaviours (Granvik-Saminathen et al., 2018; Teddlie, & Reynolds, 2000). Based on 7,200 university students from 21 countries, one of the few studies that evaluated exam *cheating levels across nations* revealed that the frequencies and perceptions of cheating varied by nation and that the least corrupt countries had the lowest percentage of student cheating (Teixeira, & Rocha, 2010).

The *contextual circumstances* provided by students' schools may also be more or less advantageous to behaving in keeping with these inclinations. It is common knowledge that students are more likely to cheat when they believe there is little chance of being caught and that the penalties for doing so are minimal (Bisping et al., 2008; McCabe et al., 1999; Whitley et al., 2002). For instance, there tends to be less cheating in the institutions that have clearly defined rules (McCabe et al., 2001). It is critical that the institution can identify cheaters and discipline them. Due to the prevalence of cheating in a specific school, students' perceptions of their peers' behaviour are one of the contextual factors that influence cheating (McCabe et al., 2012). According to McCabe et al. (2012), the normalisation of cheating occurs when a liberal culture develops because of a change in the collective attitudes of the students. In the contexts where dishonesty is increasingly viewed as less morally wrong, students more frequently notice that their classmates break the rules. In other studies (Anderman, & Koenka, 2017), schools that place a high value on competition and achievement tend to incite more cheating among their students. In contrast, in schools that place emphasis on the importance of learning itself, students tend to cheat less. Jointly, the school's ideology and culture seem to have a significant influence on students' propensity to cheat.

Many students in Serbia miss out on learning opportunities every school day because they are *absent, play truant or arrive late*. Unjustified student absences can negatively affect the whole class if they are frequent. According to the PISA study for the Republic of Serbia from 2018, students frequently skip school for unjustified reasons other than illness. Teachers are aware of the irregular attendance patterns of students and parents, as well as the falsification of medical justifications (Videnović, & Čaprić, 2018, p. 139). Similarly, in another study (Vesić et al., 2021), the key finding was that, even among lower primary school students, absenteeism was associated with the

lower levels of self-concept, motivation, and math achievement. Additionally, the relationships between math achievement, self-concept, and motivation are moderated by students' absences.

Therefore, if we wish to promote students' great accomplishments, we must assure their frequent attendance at school. Students who are frequently absent without a valid reason and arrive late to school can disrupt the class, so the students who regularly interact with them and are often asked to help may need additional assistance. This situation can negatively affect the overall progress of the class. For students who are often absent, this can also lead to resorting to other measures in order to pass the exams, such as cheating. In addition to that, unexcused absences by students can also lead to animosity among those who consistently attend classes, as well as provoke sympathy from others who may realise that they, too, are capable of skipping courses (Wilson, Malcolm, Edward, & Davidson, 2008). Skipping school days can have a negative impact on student's academic success, as well as on the academic performance of other students at the same school.

In the PISA study (Videnović, & Čaprić, 2018, p. 94), the authors examined students' beliefs about the *importance of education and learning*. The questionnaire included items about students' attitudes towards school. The study indicated that one in four students did not agree that it was crucial to work hard in school, which is fairly concerning, since it may be argued that students did not regard their education as important. Compared to the students from other countries, it is evident that Serbian students substantially less strongly believed that hard work at school was vital (Videnović, & Čaprić, 2018, p. 94). Perhaps a lack of importance placed on education in schools contributes to cheating. If students believe that getting good grades is all that matters and that school is irrelevant, they might resort to cheating to succeed.

The aim of our study is to examine the connection between dishonest academic behaviour and students' attitudes towards school offences. Thus, there are two hypotheses that we examine in our research:

> **H1:** There is a positive correlation between the total scores and subscales of students' behaviour and attitudes towards school offences.
>
> **H2:** There are statistically significant differences between the total scores and subscales of students' behaviour and attitudes towards school offences in relation to students' age.

If there is a positive correlation between students' behaviour and attitudes towards school offences, implying that the increase in the frequency of violations brings about more positive attitudes towards offences, this may indicate that most students approve of different types of school offences. It is

necessary to understand someone's attitudes and actions in order to determine whether they are dishonest. We can assume that dishonest behaviour and students' attitudes towards school offences are common in schools and that such opinions and actions are influenced by a variety of variables, including teachers' lack of rigour in dealing with students' school offences, parenting, peer conformity, and other individual, sociological, and cultural factors. In the end, it is important to find a way to predict those kinds of behaviour and prevent them.

Method

Procedure

Students completed the questionnaires during one school class in the presence of the examiner, while teachers were out of the classroom. The aim of the study and the fact that participation was anonymous were briefly explained to respondents. Questionnaire items were the same for all respondents[2].

Participants

The study was conducted in Serbia, in the city of Šabac, in primary (two schools, "Nikolaj Velimirović" and "Vuk Karadžić") and secondary schools (Šabac Grammar School, Technical Secondary School, and Chemical and Textile Secondary School). The survey included 347 participants, with 57.6% being female (200 respondents) and 42.4% being male (147 respondents). Table 1 presents the sex and grade distribution of the sample.

Table 1
Sample description by sex and grade

Sex	Grade				Total (sex)
	7th grade PS	8th grade PS	2nd grade SS	3rd grade SS	
Female	43	39	52	66	200
Male	40	33	43	31	147
Total (grade)	83	72	95	97	N = 347

*Note: PS – Primary school; SS – Secondary school.

Measures

Peruničić and Mirić (2011) developed the *School Offences Scale* to assess the acceptance of school offences. It consists of 61 items rated on a five-point

2 In the Serbian version of the questionnaires, there was a difference in terms: *nastavnik* - a primary school teacher; *profesor* - a secondary school teacher.

scale, ranging from 1 to 5 (from Strongly Disagree to Strongly Agree), divided into eight subscales. This scale measures attitudes towards school offences.

We will describe the subscales and provide examples of items on the measurement scale. Additionally, the values of the Cronbach's alpha coefficient of reliability are given, obtained by Peruničić and Mirić (2011) in their research:

1. *Copying*: This subscale refers to the extent to which students value copying as a method of obtaining good grades and as an unfair method of acquiring knowledge (example: *It doesn't matter whether someone earned a good grade by copying; what matters is that they are happy about it*). It contains six items (α = 0.75).
2. *Playing Truant*: This subscale examines the attitude that attending classes is an unnecessary waste of time and that one should play truant if the opportunity arises (example: A smart person doesn't attend all classes but manages to justify being absent from a class). It contains 13 items (α = 0.87).
3. *Whispering*: This subscale assesses the worth of friendship and loyalty if a person whispers the right answers during a class, while a negative attitude is developed against the individuals who do not participate in the same manner (example: A friend who wouldn't whisper an answer to his/her friend isn't a true friend). It contains eight items (α = 0.74).
4. *Falsifying School Documents:* This subscale evaluates the way in which individuals justify the cases when they are rewriting grades in a diary, fabricating manuscripts, or fabricating medical conditions (example: *Why not rewrite diary grades if you're sure that you will not be caught?*). It contains five items (α = 0.79).
5. *Rationalising Violence:* This subscale measures the way in which students justify aggressive tendencies towards teachers and the way in which they undermine teacher's authority (example: Every teacher who calls my parents, even for the tiniest detail, deserves to be taught some respect). It contains four items (α = 0.69).
6. Bribery and Corruption: This subscale assesses the way in which individuals rationalise payments and bribes for grades by undervaluing knowledge and projecting immorality exclusively on those who accept bribes (example: Today, people buy university diplomas, so why blame someone who pays for one grade at school?). It contains 10 items (α = 0.84).
7. *Nepotism*: This subscale measures the way in which individuals justify getting good grades through personal contacts and acquaintances with teachers by undervaluing knowledge and rationalising that cheating is the most efficient way to get through school (example: *Nowadays everyone uses their personal connections with teachers to get good grades, and the one who doesn't do that is insane*). It contains seven items (α = 0.80).

8. *General Attitude towards School Offences*: This subscale examines a general positive attitude towards school immorality and sets a low value on honesty and knowledge (example: *Honesty is only towards friends, but at school it is completely different story*). It contains eight items (α = 0.80).

Another scale used in this study is the Measurement of Dishonest Behaviour (MDB). The authors of the questionnaire are Baucal, Bojičić and Radosavljević (Baucal, Bojičić & Radosavljević, 2012, according to Radosavljević, 2014). It consists of 40 items that assess the prevalence of dishonesty (A – never, B – once, C – 2–5 times, and D – more than 5 times). There are six subscales in the questionnaire that describe unfair behaviour by type. The reliability of the questionnaire is α = 0.93. The scores on each subscale are calculated as a sum. We will describe each subscale and give an example of an item:

1. *Plagiarism* is viewed as the use or reproduction of the original work of another author (example: *I copied homework from another student*).
2. *Deception* is defined as giving a teacher misleading information concerning school obligations (example: *I pretended that I was not feeling well in the class so that I wouldn't have to answer the teacher's questions*).
3. *Cheating* is described as any immoral attempt to obtain assistance during exams through unethical means (example: *When I responded to the teacher's questions, I relied on the answers that others whispered to me*).
4. *Sabotage* is considered as an attempt to prevent others from carrying out their school responsibilities (example: *I deliberately whispered an incorrect answer to another student*).
5. *Bribery and Use of Connections* is viewed as giving money or gifts to teachers and leveraging acquaintances or influential people to achieve a higher grade (example: *I gave a gift to a teacher to turn a blind eye when grading or to increase my grade*).
6. *Aiding Others* is defined as any unauthorised attempt to help another student during an exam (example: *I whispered answers to another student while he/she was answering during an exam*).

Results

The correlation analysis and canonical correlation analysis were used to determine the connection between dishonest behaviour and students' attitudes towards school offences. Additionally, along with the descriptive statistics and analysis of variance, we present the results on the differences in the types of dishonest behaviour and attitudes of students towards school offences in relation to school age.

Table 2 shows the descriptive statistics of the scales of attitudes towards school offences and dishonest academic behaviour. Most of the scales have somewhat negatively asymmetric distributions. However, the number of respondents with low scores increases for the scales *Falsifying*, *Violence*, *Bribery and Corruption*, *Total score on the Behaviour scale*, *Plagiarism*, *Deception*, *Cheating*, and, especially, *Sabotage and Bribery*. On the other hand, the subscale *Aiding Others* has a slightly positive asymmetric distribution.

Table 2
Descriptive statistics: Attitudes towards school offences and Dishonest behaviour

Variable	N	M	SD	Sk	Ku
Attitudes total	347	158.54	49.57	0.472*	-0.212
Copying	347	19.36	5.47	-0.164	-0.536*
Playing truant	347	32.31	12.27	0.383*	-0.525*
Whispering	347	25.39	7.30	-0.056	-0.624*
Falsifying	347	11.39	5.25	0.644*	-0.463
Violence	347	9.27	3.84	0.598*	-0.224
Bribery and Corruption	347	22.33	8.70	0.778*	-0.212
Nepotism	347	17.44	6.91	0.429*	-0.588*
General Attitude	347	21.06	7.60	0.285*	-0.478
Behaviour total	347	78.14	23.14	1.031*	1.066*
Plagiarism	347	11.54	4.05	1.150*	0.981*
Deception	347	18.24	6.92	0.826*	0.056
Cheating	347	24.38	7.35	0.619*	0.112
Sabotage	347	5.52	2.84	2.040*	3.305*
Bribery and Connections	347	4.18	2.21	1.933*	2.779*
Aiding others	347	14.27	3.58	-0.455*	-0.252

*$p<0.05$

Correlation analysis

On the whole sample, the correlation between the total scores of the School Offences Scale (SOS) and the Measurement of Dishonest Behaviour (MDB) is r = 0.633, p = 0.01. Table 3 (*Correlations between the School Offences Scale (SOS) and the Measurement of Dishonest Behaviour (MDB)*) can be found in the Appendix.

Canonical correlation analysis was used to examine the relationship between sets of behaviour and attitude scores. We focused on two important canonical functions. The first canonical pair has a correlation of 0.678, and the other 0.480 (see Table 4 in the Appendix). The first canonical function of the set of Attitudes is primarily determined by *Playing Truant*, and, to a lesser extent, by *Copying* and the *General Attitude* towards school offences. In the set of Behaviours, the function is primarily determined by *Deception* and somewhat less by *Cheating*. In addition, *Plagiarism* has a high correlation with

the function. On the one hand, the first line of connection between the set of Attitudes and the set of Behaviours is through *Playing Truant* (which entails other high results on the scales of Attitudes), and high results on *Deception* and *Cheating* imply a high score on *Plagiarism*, and, to a lesser extent, high results on other behavioural scales (see Table 5). Thus, high results on the subscale of *Playing Truant* imply high scores on *Deception* and *Cheating*. The first canonical function of the set of Attitudes in its set includes 67.7% of variance and otherwise 26.3%. The first canonical function of the Behaviour set in its set covers 57.3% and otherwise 31.1% of the variance. The first canonical function shows that there is a significant correlation between the subscales of attitudes and behaviour and that the direction is the same for all subscales.

The second canonical function is determined by the high score on the Bribery and Corruption, as well as a high but negative correlation with the function of the scales of Copying and Whispering. In the second set, the function is determined by a high score on Bribery and Connection, and Sabotage, as well as a low score on Aiding Others. Thus, high scores on the scale of Bribery and Corruption imply high scores on Bribery and Connections, but also low scores on the scale of Aiding Others (see Table 5). The second canonical function of the set of Attitudes in its set covers 10.1% and otherwise 4.9% of the variance. The second function of the Behaviour set in its set includes 21.5% and otherwise 2.3% of the variance. In the second canonical function, there is a more permissive attitude towards Whispering and Copying, and a negative one towards Bribery and Corruption, which are correlated with a tendency to Aid Others but do not relate to Bribery and Connections. This factor reveals a propensity to cheat in order to help others in school.

Table 5
Canonical coefficients and factors

	I canonical function		II canonical function	
Variable	coefficients	factor	coefficients	factor
Copying	-0.251	-0.761	0.555	0.446
Playing Truant	-0.587	-0.966	0.025	-0.113
Whispering	0.131	-0.689	0.421	0.447
Falsifying	-0.194	-0.850	-0.059	-0.257
Violence	0.064	-0.715	-0.172	-0.253
Bribery and Corruption	0.111	-0.795	-1.044	-0.491
Nepotism	-0.099	-0.850	0.072	-0.145
General Attitude	-0.237	-0.916	0.224	0.026
Plagiarism	0.112	-0.795	-0.093	-0.282
Deception	-0.742	-0.964	0.011	-0.138
Cheating	-0.547	-0.938	0.341	-0.060
Sabotage	0.233	-0.555	-0.292	-0.628
Bribery and Connections	-0.022	-0.634	-0.673	-0.640
Aiding Others	0.046	-0.537	0.618	0.618

Differences in students' attitudes towards school offences according to school age

When it comes to attitude scales, it is possible to observe a certain pattern. Namely, in the case of all scales of attitudes, primary school students in the 7th grade have the lowest results. In the 8th grade, the score sharply increases, and then slightly decreases, while in the case of *Whispering*, *Violence* and *Nepotism*, the decrease is more drastic, only to increase again in the 3rd grade of secondary school. The strength of the link between the grades and scales is about 8% for *Copying*, *Whispering*, *Falsifying*, and *Violence*; about 12% for *Bribery*, *Nepotism*, and *General attitude*; and about 15% of the shared variance for the *total score on the scale of attitudes towards school offences* and the subscale of *Playing Truant*.

Table 6
Differences in students' attitudes towards school offences according to school age

Dependent variable	F	df1	df2	p	part. η^2	Group difference[1]			
						Group	M	SD	Associating group[2]
Attitudes total	23.088*	3	184.284	<0.001	0.142	7 PS	126.93	37.28	A
						8 PS	175.61	51.22	B
						2 SS	159.91	43.47	B
						3 SS	171.60	51.19	B
Copying	9.572	3	184.127	<0.001	0.077	7 PS	16.82	5.37	A
						8 PS	20.87	5.62	B
						2 SS	19.41	5.04	B
						3 SS	20.36	5.15	B
Playing Truant	20.940	3	185.377	<0.001	0.155	7 PS	24.02	9.83	A
						8 PS	35.08	11.99	B
						2 SS	33.09	11.02	B
						3 SS	36.56	12.27	B
Whispering	9.397	3	184.389	<0.001	0.076	7 PS	22.58	6.82	A
						8 PS	28.01	7.56	B
						2 SS	24.48	7.24	A, C
						3 SS	26.72	6.66	B, C
Falsifying	11.702*	3	184.759	<0.001	0.081	7 PS	8.86	4.31	A
						8 PS	12.94	5.55	B
						2 SS	11.63	4.92	B
						3 SS	12.16	5.40	B
Violence	12.529*	3	185.045	<0.001	0.083	7 PS	7.58	2.88	A
						8 PS	10.67	3.92	B
						2 SS	9.05	3.66	C
						3 SS	9.91	4.13	B, C

Dependent variable	F	df1	df2	p	part. η^2	Group difference[1]			
						Group	M	SD	Associating group[2]
Bribery and Corruption	29.206*	3	179.200	<0.001	0.127	7 PS	16.87	4.82	A
						8 PS	24.38	9.57	B
						2 SS	23.31	7.82	B
						3 SS	24.53	9.53	B
Nepotism	17.941*	3	186.300	<0.001	0.119	7 PS	13.59	5.65	A
						8 PS	20.28	6.46	B
						2 SS	17.32	6.18	C
						3 SS	18.74	7.50	B, C
General Attitude towards School Offences	14.786	3	185.283	<0.001	0.115	7 PS	16.61	6.23	A
						8 PS	23.38	7.68	B
						2 SS	21.61	7.14	B
						3 SS	22.62	7.61	B

*Welch's test was used. Note: 7 PS – 7th grade primary school, 8 PS – 8th grade primary school, 2 SS – 2nd grade of secondary school, 3 SS – 3rd grade of secondary school.

[1]Based on the Bonferroni's test.

[2]Groups that do not share the same letter do differ.

Differences in students' dishonest behaviour according to school age

For the *total score on the scale of dishonest behaviour*, *Plagiarism*, *Deception*, and *Cheating*, there is a sudden and high increase in the results in the 8th grade, followed by a slight drop in the 2nd grade of secondary school, and an increase in the 3rd grade. The strength of the link between the grades and scales is about 15% for the *total scores on the scale of dishonest academic behaviour* and *Deception*; in the case of *Plagiarism* and *Cheating* this percentage is around 10%. In the case of other behaviour scales, there is a more moderate increase in the results from the 7th grade to the 3rd grade, bearing in mind that the increase between the 8th grade of primary school and the 2nd grade of secondary school is less sharp than usual, and the strength of the effect is around 8%.

Table 7
Differences in dishonest behaviour according to school age

Dependent variable	F	df1	df2	p	part. η^2	Group difference[1]			
						Group	M	SD	Associating group[2]
Behaviour total	23.037*	3	185.444	<0.001	0.140	7 PS	64.13	15.99	A
						8 PS	80.44	21.41	B, C
						2 SS	78.68	20.82	B
						3 SS	87.87	26.07	C
Plagiarism	14.833*	3	183.018	<0.001	0.093	7 PS	9.61	2.62	A
						8 PS	12.06	4.08	B, C
						2 SS	11.36	3.47	B
						3 SS	12.97	4.87	C
Deception	21.429*	3	186.104	<0.001	0.138	7 PS	14.08	5.14	A
						8 PS	19.25	6.40	B, C
						2 SS	18.22	6.25	B
						3 SS	21.07	7.60	C
Cheating	18.533*	3	186.210	<0.001	0.115	7 PS	20.16	5.51	A
						8 PS	25.36	6.92	B
						2 SS	24.82	7.00	B
						3 SS	26.84	7.94	B
Sabotage	12.380*	3	173.846	<0.001	0.073	7 PS	4.47	1.20	A
						8 PS	5.32	2.43	A
						2 SS	5.49	2.83	A
						3 SS	6.59	3.67	B
Bribery and Connections	16.084*	3	170.175	<0.001	0.072	7 PS	3.25	0.91	B
						8 PS	4.18	2.30	A
						2 SS	4.27	2.16	A
						3 SS	4.90	2.68	A
Aiding Others	11.308	3	184.030	<0.001	0.090	7 PS	12.55	3.61	B
						8 PS	14.28	3.58	A
						2 SS	14.52	3.32	A
						3 SS	15.51	3.25	A

*Welch's test was used. Note: 7 PS – 7th grade primary school, 8 PS – 8th grade primary school, 2 SS – 2nd grade of secondary school, 3 SS – 3rd grade of secondary school.

[1]Based on the Bonferroni's test.

[2]Groups that do not share the same letter do differ.

Discussion and conclusion

In our research, we have found that there is a significant correlation between attitudes towards school offences and dishonest behaviour. First, descriptive statistics showed that most of the scales had a negatively

asymmetric distribution. Only in the case of the subscale *Aiding others*, there was a slightly positive asymmetric distribution. The strongest predictor of dishonest behaviour was *Playing Truant*, as could be concluded from the first canonical function. The tendency to whisper and cheat in other ways was found in those students who were inclined to help others and less inclined to sabotage them or use other privileges, like bribery, to their advantage. Therefore, while the strongest predictor of dishonest behaviour was playing truant, there was also another motivation to cheat, namely, to help others. The function of these types of behaviours was to establish stronger cohesion in the class and can even be interpreted as altruistic. Additionally, our results have shown that there were statistically significant differences between the younger and older students in primary and secondary school when it comes to cheating in schools. Older primary and secondary school students have higher scores than younger pupils. Overall, there is a relevant correlation between dishonest behaviour and attitudes towards cheating in schools.

In the Republic of Serbia, there have been few studies that addressed the topic of dishonesty and attitudes towards school offences. The results of one such study that we found are consistent with or similar to those in our study. In the research by Radosavljević (Radosavljević, 2014), Deception, Cheating, and Plagiarism showed the highest correlations with the characteristic of honesty. There were slightly lower negative correlations, however, with Sabotage, and Bribery and Connections, and the least negative correlation was with Aiding Others. In our research, we can conclude that the positivity of views about offences grows as the number of rule violations increases. Students not only hold attitudes and beliefs that unethical behaviour is acceptable and expected, but they also act unethically. Similar findings to those in our study were observed in a number of other studies, conducted in different countries on the relationship between the attitudes towards school offences and dishonest behaviours. One such study was carried out by Bouffard and colleagues (Bouffard et al., 2008), who found that students who held more permissive attitudes towards cheating and academic dishonesty were more likely to engage in these behaviours themselves. The study also discovered that students who exhibited lower levels of moral reasoning were more likely to cheat. According to another study by LaBeff and Clark (2006), students who believed that cheating was acceptable or even required to succeed in school were more likely to engage in academic dishonesty. The study also found that the more frequently students cheated, the less likely they were to feel guilty about it. The findings of our research are further supported by these studies, suggesting that attitudes towards school offences play an important role in shaping students' behaviour.

Additionally, there are a few studies that found differences in cheating behaviour among students of different ages that are similar to our results. For example, study by Rettinger and Kramer (2009) found that there was an overall decrease in cheating behaviour from secondary school to college,

but that the decline was more pronounced for freshmen than for seniors. According to these studies, older students are more likely than the younger ones to participate in academic dishonesty, suggesting that there may be developmental differences in cheating behaviour among students.

The Theory of Planned Behaviour (TPB) suggests that attitudes towards school offences, subjective norms, and perceived behavioural control are significant predictors of behavioural intentions and behaviour. Firstly, individuals who have *positive attitudes towards cheating* and think that it is socially acceptable are more likely to cheat. Similar to this, students are more inclined to cheat *if they believe they have the necessary abilities* for performing that kind of behaviour. Thus, this could explain the significant correlation between attitudes and dishonest behaviour in our study. Secondly, this could explain why the subscale *Playing truant* was the strongest predictor of dishonest behaviour. If a student believes that they have control over their actions, i.e., *perceived control over their actions,* they are more likely to skip classes and engage in dishonest behaviour. And lastly, in our study, the results show that students tend to cheat so that they can help others in school, which could be related to *subjective norms*. Individuals who believe that their peers think of cheating as an acceptable, desirable, and normal behaviour could be prone to cheating themselves, even if they do not have positive attitudes towards school offences. Overall, the TPB may offer a helpful framework for comprehending the factors that lead to dishonest behaviour and unethical attitudes regarding academic offences, as well as for creating interventions that encourage moral behaviour and deter cheating. More specifically, creating interventions that target subjective norms and the perceived control over one's own behaviour could be beneficial and effective in reducing cheating in schools.

We have mentioned that students who are frequently absent from school are more likely to engage in academic dishonesty compared to their peers who attend school regularly. This is because students who miss a lot of school may feel pressure to keep up with their peers and may resort to unethical means, such as cheating, to achieve academic success. Furthermore, absenteeism may also result in lower self-esteem and reduced academic motivation, which can further increase the likelihood of engaging in cheating behaviours. Students who are absent from school may also have less support from teachers and may feel isolated, which can also contribute to a higher risk of cheating (Cohen et al., 2009; McCabe et al., 1999).

It is important for schools to take steps to address absenteeism and promote ethical behaviour in students. This can include interventions such as counselling and mentoring, as well as the policies and programmes that promote academic integrity and encourage regular attendance. One of the other methods to make dishonest behaviour in schools, such as cheating, difficult to perform would be: *Honour codes*. According to research undertaken in American colleges,

honour codes, or codes of ethics, are the most essential factor in counteracting academic dishonesty (McCabe et al., 1999). Namely, in these schools, there are specific norms of conduct that are clearly presented to students, as well as the consequences in the event of a violation of these rules. Academic codes comprise a set of norms, obligations, and ethical principles established by an educational institution and binding on its members. Such documents are mostly used in the education systems of the United States and most Western European countries. Thus, there could be several interventions that could be effective for forming attitudes that would promote more ethical behaviours:

- Educate students about academic integrity: Schools can develop educational programmes that teach students about the importance of academic integrity, the negative consequences of cheating, and the benefits of honest behaviour. This can include workshops, classroom discussions, and informational materials, such as brochures and posters.
- Encourage a culture of academic integrity: Schools can promote a culture of academic integrity by setting clear expectations for honest behaviour and enforcing consequences for cheating. This can include implementing honour codes, creating a culture of honesty and respect in the school community, as well as recognising and rewarding students who demonstrate academic integrity.
- Involve parents and families: Schools can involve parents and families in the efforts to promote academic integrity by educating them about the issue, providing them with the resources and tools to support their children's learning, and encouraging them to reinforce the importance of honest behaviour at home.
- Use technology to detect cheating: Schools can use technology to detect cheating, such as plagiarism detection software or anti-cheating apps that monitor students during exams. This can serve as a deterrent and increase the perceived risk of getting caught, which may discourage students from cheating.
- Provide academic support: Schools can provide academic support to students who are struggling, such as tutoring or counselling services, to reduce the pressure that may lead to cheating.

And lastly, if students do not see the *value and importance of their education*, they may not feel motivated to put in the effort required to study and do well on assignments and exams. Cheating can become an appealing option for these students as a way to achieve the desired outcome of passing without having to put in the effort and time required for legitimate study and learning. It is important for schools to consider the unique needs and circumstances of their students and communities when developing interventions to address

cheating. By implementing effective interventions, schools can help promote a culture of academic integrity and encourage students to succeed through honest means. There are several possible answers to the question of why students behave immorally: students who are dishonest and cheat despite their attitudes that it is morally wrong are probably doing so because they "picked up" this behaviour from their peers, while those who cheat and have no moral restraints are the ones who are more likely to have an "inherent lack of morality", which can be influenced by the *personal, social, or cultural context* (Ramberg & Modin, 2019).

Another view is that, in our society, cheating is not regarded as something that is bad, for instance, it is not considered the same as other types of dishonest behaviour such as stealing. In schools, it is necessary to encourage and nourish relevant moral attitudes and behaviours in order to create reliable, trusted, and dependable future co-workers and life partners. Previous studies have demonstrated that dishonest behaviours like cheating tend to spread to various social contexts (Bower, 1964) and that cheating in upper secondary school is associated with subsequent dishonest behaviour in further schooling, as well as later in life and in the workforce (Whitley, 1998). It is therefore possible that developing dishonest behaviour in one social setting will spread to another (Bowers, 1964).

The negative effects of student cheating can be divided into *two primary categories. The first* is concerned with the way in which cheating undermines school ethics, morals, and social trust, while *the second* is about the way in which it impacts particular student's ability to study. Thus, student cheating weakens credibility of school as an institution for determining future educational chances and employment opportunities (Whitley et al., 2002). *Cheating causes the student's knowledge assessment to be perceived as improper, which has a serious effect on the prerequisites for further education.* It is the *responsibility of educators and parents* to help students understand the value of education and provide support and resources to help them succeed in school without resorting to cheating.

Future research of this topic should undoubtedly include a broader sample, i.e., a larger number of classes of students, including university students, as well as an examination of the frequency of offences in students' daily behaviour. In addition, it would be beneficial to develop a questionnaire that would examine the parental attitudes towards this matter and determine whether there is a correlation between parental and students' opinions towards school offences. It would also be important to evaluate and analyse the relationship with other different variables together with immorality, such as personality traits and psychological characteristics of students, motivation to learn, development of identity, etc. The analysis of the relationships with different variables is highly significant in order to determine the type of personality and set of characteristics possessed by the students who are prone to immoral thinking and behaviour. It is considered important to look at

this problem and explore other variables that could be related to immoral attitudes and behaviours of students, so that we can influence the change not only in the behaviour, but also in the individual's opinion.

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Povezanost nepoštenog akademskog ponašanja i stavova učenika prema školskim prestupima

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Cilj ovog istraživanja je utvrđivanje povezanosti između nepoštenog akademskog ponašanja i stavova učenika prema školskim prestupima. Istraživanje je sprovedeno na uzorku od 347 ispitanika u osnovnim (sedmi i osmi razred) i srednjim školama (drugi i treći razred) u Republici Srbiji. Za procenu nekoliko vrsta nepoštenog ponašanja korišćen je Upitnik za ispitivanje učestalosti nepoštenog ponašanja, a za merenje stavova prema školskim prestupima korišćena je Skala školskih prestupa. Rezultati istraživanja pokazuju da postoji visoka pozitivna povezanost nepoštenog ponašanja i stavova učenika prema školskim prestupima. Najviša povezanost je između ukupnog skora stavova učenika sa podskalom nepoštenog ponašanja koje se odnosi na *Obmane*, a ukupni skor nepoštenog ponašanja ima najvišu korelaciju sa podskalom *Bežanje sa časova*. Nadalje, postoji značajna razlika u pogledu varanja u školama između mlađih i starijih učenika: uočeno je da stariji učenici imaju više rezultate na obe skale. Kanoničkom korelacionom analizom ispitana je povezanost skupova skala ponašanja i skala stavova, rezultati su analizirani u radu. Stoga, putem Teorije planiranog ponašanja objašnjene su relacije između stavova prema školskim prestupima i nepoštenog ponašanja, a u zaključku su date moguće smernice za predviđanje nepoštenog ponašanja, smanjenje odsutnosti sa časova i druge metode za redukovanje varanja u školama.

Ključne reči: stavovi, ponašanje, školski prestupi, nepoštenje.

Appendix

Table 3
Correlations between the School Offences Scale (SOS) and Measurement of Dishonest Behaviour (MDB)

	A.T.	Cop.	Play.	Whisp.	Fals.	Vio.	B.C.	Nep.	G.A.	B.T.	Plag.	Dec.	Cheat.	Sab.	B.Con.	A.O.
A.T.	1	.749**	.944**	.763**	.864**	.798**	.867**	.890**	.923**	.633**	.552**	.641**	.625**	.404**	.441**	.349**
Cop.	.749**	1	.644**	.761**	.511**	.489**	.504**	.584**	.683**	.451**	.360**	.469**	.471**	.150**	.184**	.404**
Play.	.944**	.644**	1	.657**	.817**	.716**	.814**	.809**	.851**	.627**	.542**	.642**	.617**	.404**	.457**	.330**
Whisp.	.763**	.761**	.657**	1	.539**	.517**	.471**	.589**	.700**	.435**	.354**	.430**	.445**	.174**	.177**	.422**
Fals.	.864**	.511**	.817**	.539**	1	.757**	.789**	.759**	.762**	.558**	.471**	.575**	.547**	.415**	.441**	.235**
Vio.	.798**	.489**	.716**	.517**	.757**	1	.720**	.708**	.705**	.494**	.449**	.504**	.461**	.387**	.391**	.216**
B.C.	.867**	.504**	.814**	.471**	.789**	.720**	1	.790**	.753**	.553**	.521**	.552**	.530**	.461**	.498**	.154**
Nep.	.890**	.584**	.809**	.589**	.759**	.708**	.790**	1	.814**	.565**	.510**	.569**	.556**	.386**	.408**	.273**
G.A.	.923**	.683**	.851**	.700**	.762**	.705**	.753**	.814**	1	.588**	.510**	.594**	.592**	.343**	.392**	.349**
B.T.	.633**	.451**	.627**	.435**	.558**	.494**	.553**	.565**	.588**	1	.906**	.943**	.954**	.752**	.798**	.570**
Plag.	.552**	.360**	.542**	.354**	.471**	.449**	.521**	.510**	.510**	.906**	1	.828**	.829**	.692**	.776**	.393**
Dec.	.641**	.469**	.642**	.430**	.575**	.504**	.552**	.569**	.594**	.943**	.828**	1	.869**	.663**	.702**	.481**
Cheat.	.625**	.471**	.617**	.445**	.547**	.461**	.530**	.556**	.592**	.954**	.829**	.869**	1	.656**	.706**	.539**
Sab.	.404**	.150**	.404**	.174**	.415**	.387**	.461**	.386**	.343**	.752**	.692**	.663**	.656**	1	.860**	.122*
B.Con.	.441**	.184**	.457**	.177**	.441**	.391**	.498**	.408**	.392**	.798**	.776**	.702**	.706**	.860**	1	.174**
A.O.	.349**	.404**	.330**	.422**	.235**	.216**	.154**	.273**	.349**	.570**	.393**	.481**	.539**	.122*	.174**	1

*p<0.05

** p<0.01

Abbreviations: A.T. – Attitudes total; Cop. – Copying; Play. – Playing Truant; Whisp. – Whispering; Fals.. – Falsifying; Vio. – Rationalising Violence; B.C. – Bribery and Corruption; Nep. – Nepotism; G.A. – General Attitude; B.T. – Behaviour total; Plag. – Plagiarism; Dec. – Deception; Cheat. – Cheating; Sab. – Sabotage; B.Con. – Bribery and Connections; A.O. – Aiding Others.

Table 4
Significant canonical functions

Function	R	χ^2	df	p
1	0.678	331.041	48	p<0.001
2	0.480	122.990	35	p<0.001