




A Study on Iranian High School Students' Perception of Cheating in Online Assessments

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ABSTRACT

The outbreak of the Covid-19 pandemic has forced many educational institutions worldwide to move from in-person to online classes. Although online technologies do facilitate learning and testing, academic dishonesty in online assessments (OAs) remains an issue of concern since technological devices provide students with ample opportunities to cheat in exams. The purpose of this study was to investigate Iranian high school students' perceptions of cheating in OAs. In addition, the study tried to examine the potential differences between male and female students' perceptions of cheating in OAs. The participants were 214 Iranian high school students. They were asked to answer a questionnaire about academic dishonesty in OAs. The results indicated that more than 80% of the participants had experienced cheating in OAs. "Looking at the teaching materials and copying answers" was mentioned as the most frequent method of cheating. The main reason for cheating was "getting a better score", and the main reason for not cheating was "being morally and socially unacceptable". In addition, almost 70% of the participants did not have a negative attitude toward cheating in OAs. Furthermore, there was not any significant difference between male and female students' perceptions of cheating (Sig.>.05).

KEYWORDS: Iranian high school students, Cheating, Online teaching, Online assessment.

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1. Introduction

Online teaching/learning and thus online assessment have witnessed a fundamental evolution during the past few years due to the Covid-19 pandemic. With the rise of online assessments (OAs), there is concern over the academic integrity of the exams which embraces ethical values, namely honesty, trust, fairness, respect, responsibility, and courage (Fishman, 2014). These values make an educational community committed to learning, meanwhile, they guarantee the quality of learning and the degree granted to students (Holden et al., 2021). These can be guaranteed by safeguarded assessment, meanwhile, it can be very challenging since there is a lack of control over students' behavior in OAs (Noorbehbahani et al., 2022).

With the compulsory transition from in-person assessment to online, the academic integrity of the tests given to students is of paramount importance for the educational institutions due to the reputation they bring forward. Online

technologies do facilitate learning and testing; however, cheating or academic dishonesty in OAs remains an issue of concern since technological devices provide students with more opportunities to take advantage of their technological devices, e.g. wearable devices such as smart glasses and smart watches, hidden cameras, and even scientific cameras (Curran et al., 2011; Lancaster & Clarke, 2017). Similarly, the likelihood of cheating, more specifically getting answers from friends, is higher during OAs compared to in-person exams (Watson & Sottile, 2010) and there are also paid services where they impersonate examinees (Noorbehbahani et al., 2022). Therefore, it is vital to conduct serious actions to prevent students from cheating as well as digital monitoring in order to make OAs valid (Fluck, 2019).

To this end, identifying the incentives which hinder examination security helps us with having a broader view, and these incentives are not significantly different in online and in-person exams (Turner & Uludag, 2013). According to Salehi & Gholampour (2021) students' primary reasons for cheating are "uselessness of materials" and "not being ready". Examination security is also affected by factors beyond the mode of education and assessment like the moral attitudes of examinees, the strictness of examiners, and the features of online infrastructures used for testing (Chirumamilla et al., 2020).

Given the importance of OA and its reliability, more studies should be conducted to examine the incentives, types, detection, and prevention of cheating, especially among K-12 learners in online classes considering the paucity of studies carried out in this area. Almost all previous studies in this area have been conducted with tertiary-level students (Ahmadi, 2012; Chirumamilla et al., 2020; Dendir & Maxwell, 2020; Iskandar et al., 2021), while K-12 learners have been the focus of investigation in few studies (Middleton, 2020; Zuo et al., 2021). To the best of the researchers' knowledge, no studies could be found regarding the investigation of K-12 students' perception of cheating in OAs. Therefore, the focus of this study is to investigate the perception of K-12 students toward cheating in OAs. The following questions guide this study:

1. What is the frequency of cheating in OAs?
2. What is the students' perception of the reliability of OAs?
3. What are the common methods of cheating in OAs?
4. What are the students' reasons for cheating in OAs?
5. What are the students' reasons for not cheating in OAs?
6. What are the students' attitudes to cheating in OAs?
7. Is there any significant difference between male and female students' perceptions of cheating in OAs?

2. Literature Review

2.1. Academic dishonesty

As mentioned earlier, academic integrity can be described as a set of moral and ethical values which build trust between course instructors and students. Therefore, academic dishonesty, so-called academic misconduct or academic fraud, has been defined as a violation of the ethical rules of academic centers (Dyer et al., 2020). Although cheating and academic dishonesty can be used interchangeably, the latter is an umbrella term to which cheating belongs.

There have been several interpretations for cheating, yet one of the most comprehensive definitions can be doing any misconduct regarding tests or even assignments so that it leads to producing fallacious results (Cizek, 2012). What has been suggested unanimously in the literature is that cheating in OAs is inevitable (Dendir & Maxwell, 2020). There should be, as a result, novel ways of proctoring, including the use of webcams and identity authentication to guarantee a safe exam (Xiong & Suen, 2018).

Obviously, cheating can be done in various ways, however, some of them can be done exclusively in online environments. There is a consensus among scholars over cheating opportunities running high in online classes compared to on-site proctored classes (Kennedy et al., 2000; Rogers, 2006; Stuber-McEwen et al., 2009). Christe (2003) maintained that students' collaboration and using unauthorized materials during submission are of the main ways of violating academic integrity in online classes.

As there was an urge to transit from traditional courses to online courses due to the Covid-19 pandemic, cheating habits of students leading to violating academic integrity have changed as well because of not being able to handle all the pressure they faced with that amount of online classes and exams that they had not experienced before (Holden et al., 2021). Despite the growth of academic dishonesty, institutional policies and regulations can afford to mitigate the chances of cheating. McCabe et al. (2002) reported a remarkable correlation between the perceived codes of honor, by both institution staff and students, and the decreased violation of academic integrity. In other words, when students are well-informed of the penalty they might face in case of academic dishonesty, the chances of academic dishonesty will be relatively low.

2.2. Online assessment

In the literature, it is known as both online assessment and technology-based assessment which is referred to assessing students' performance as well as their learning in an online environment (Iskandar et al., 2021). There is also another definition given by Yoestara et al. (2020) where students' learning can be measured by either a website or an application. Weleschuk et al. (2019) believe that, OAs should have three main features, including the assessment of students' performance, giving feedback, and facilitating students' learning in an online environment. Of studies conducted in this realm, contradictory findings have been found. On the one hand, students preferred OAs to paper-and-pen exams (Howe, 2020; Petrisor et al., 2016). On the other hand, in studies conducted by Amalia (2018) and Khan and Khan (2019), students favored on-site exams due to the technical challenges they faced during online exams.

Jamil et al. (2012) conducted a questionnaire-based study about teachers' preference for online exams and paper exams. Their questionnaire was mainly concerned with affective factors, adaptability, reliability, and practicality. They found out that teachers mostly viewed online exams more positively than paper exams.

Dermo (2009) has also carried out a study at the tertiary level mainly focusing on finding risks in planning online assessments using six factors: 1) affective factors 2) validity 3) practical issues 4) reliability 5) security and 6) learning and teaching. The findings suggest that the most positive aspect of OAs is the contribution they make to students' learning.

There are studies conducted in the Iranian context yielding empirical evidence on cheating. One study has revealed that there are two factors, internal and external, among Iranian students related to the act of cheating (Ahanchiyan et al., 2016). It is also shown in the study of Bahrami et al. (2015) that 45% of students have tried cheating once. Furthermore, Ahmadi (2012) investigated cheating with English Language as a Foreign Language (EFL) students and realized that the most common methods of cheating are "talking to neighboring students" and "copying one's answers" and the most important incentives were either "not being ready for the exam" or "difficulty level of the exams".

Furthermore, Khamesan and Amiri (2011) conducted a questionnaire-based study at the tertiary level, and they came up with the fact that boys cheat more than girls on exams using neighboring students' exam papers. Almost all of these authors called for official regulations to be passed for cheating.

Many studies have sought cheating and plagiarism in online exams during submitting their exam (Bretag et al., 2019; Kocdar et al., 2018; Owunwanne et al., 2010; Zhang et al., 2018) and on the frequency of cheating and attitude toward cheating in exams at tertiary level (Colnerud & Rosander, 2009; Jamil et al., 2012) but few of them made any attempts to investigate the perception of K-12 students toward OAs. Therefore, this study tries to seek the ideas of K-12 students, both male, and female, regarding OAs.

3. Methodology

3.1. Participants

The participants in this study were 214 Iranian students from public schools in Birjand, Iran. These students belonged to both junior and senior high schools, and their age ranged from 13 to 18 with the mean of 15.75. Out of 214 students, 138 (64.5) were male and 76.1 (35.5) were female. They were chosen based on convenience sampling. The participants were informed of the purpose of the study, and the confidentiality and anonymity of the findings, and their consent was granted before data collection.

3.2. The instrument

The instrument used in this study was designed based on the related literature and interviews with experts. Some items were adapted from Salehi and Gholampour's (2021) study on university students' cheating in onsite exams. The questionnaire was anonymous so the students could answer the items freely. It consisted of 5 parts and 41 items asking high school students' perception of OAs. Part one was about participants' demographic information. Part two, including 2 items, was about the frequency of cheating in OAs. The next part, including one item, asked about the participants' perception of the reliability of online assessment. Part four, which had 6 items, was about the Methods of cheating in OAs. The next part, which includes 18 items, was about Reasons for cheating in OAs. Part six, including 6 items, was about Reasons for NOT cheating in OAs. The last part, which had 8 items, was about Students' attitudes to cheating in online assessments. Below each section of the questionnaire, there was a blank space asking students to add to the items listed in the form based on their opinions or write their own opinions about the item(s). The questionnaire was studied by five experts, and 3 experienced teachers for content validity. The Cronbach's alpha for all the items was .71, which can be considered satisfactory.

3.3. Data collection

Data collection took place at the end of the school year (Spring 2022). The purpose of the study was explained to the teachers and the school principals whose permission was required. Before data collection, the questionnaire was briefly explained to the colleagues on how to collect the data. In addition, students were informed of the voluntary and anonymous nature of the questionnaire, and their consent was granted.

3.4. Data analysis

The obtained data were analyzed descriptively and inferentially. For descriptive statistics, frequencies and percentages were calculated. For inferential statistics, Independent Sample T-test was used.

4. Results

4.1. Descriptive statistics

4.1.1. Frequency of cheating in OAs

The first part of the questionnaire was about the frequency of cheating in online exams. As indicated in Table one, surprisingly, 189 (88.3 %) of the participants indicated that they have cheated in online exams.

Furthermore, as indicated in Table 1, among 214 participants, 183 (85.5%) of them believed that they cheated more in online exams compared with the onsite exams.

Table 1. Frequency of cheating in OAs

Items	never		rarely		sometimes		often		always	
	F	P	F	P	F	P	F	P	F	P
1. I have cheated in my online exams	25	11.7	56	26.2	58	27.1	30	14.0	45	21.0
2. Compared with onsite exams before, I have cheated more in my online exams	31	14.5	39	18.2	38	17.8	44	20.6	62	29.0

4.1.2. Reliability of OAs

In the next part of the questionnaire, the participants were asked about the reliability of online assessments. As indicated in Table 2, 153 (71.5%) participants believed that OA is “often” and “always” less reliable than onsite assessment.

Table 2. Reliability of OAs

Item	never		rarely		sometimes		often		always	
	F	P	F	P	F	P	F	P	F	P
1. I believe that online assessment is less reliable than onsite assessment	17	7.9	18	8.4	26	12.1	32	15.0	121	56.5

4.1.3. Methods of cheating in OAs

In the next part of the questionnaire, the participants were asked about the methods of cheating in OAs. As indicated in Table 3, “looking at the teaching materials and finding/copying answers”, “using notes/summaries written on pieces of paper to find the answers”, and “Talking to my classmates through phone, social media, or other communication devices” were the most frequent methods of cheating in OAs.

Table 3. Methods of cheating in OAs

Items	never		rarely		sometimes		often		always	
	F	P	F	P	F	P	F	P	F	P
1. Looking at the teaching materials and finding/copying answers	37	17.3	47	22.0	50	23.4	36	16.8	44	20.6
2. Using notes/summaries written on pieces of paper to find the answers	43	20.1	61	28.5	31	14.5	47	22.0	32	15.0
3. Taking the test with my classmates in the same place so we could help each other	132	61.7	17	7.9	23	10.7	14	6.5	28	13.1
4. Talking to my classmates through phone, social media, or other communication devices	78	36.4	45	21.0	21	9.8	25	11.7	45	21.0
5. Sharing the answers with classmates on social media platforms such as WhatsApp, Telegram, etc.	85	39.7	39	18.2	28	13.1	22	10.3	40	18.7
6. Asking others to take the test instead of you	186	86.9	10	4.7	5	2.3	8	3.7	5	2.3

4.1.4. Reasons for cheating in OAs

In the next part of the questionnaire, the students were asked about the reasons for cheating in OAs. As indicated in Table 4, “getting a better score”, “the difficulty of the exam” and “the time limitation in the exam” were mentioned as the most frequent reasons for cheating in OAs.

Table 4. Reasons for cheating in OAs

Items	never		rarely		sometimes		often		always	
	F	P	F	P	F	P	F	P	F	P
1. Not being ready for the test	58	27.1	34	15.9	57	26.6	29	13.6	36	16.8
2. Not having enough time for studying	78	36.4	32	15.0	35	16.4	34	15.9	35	16.4
3. Being stressed at the time of the exam	56	26.2	34	15.9	54	25.2	23	10.7	47	22.0
4. The difficulty of the exam	32	15.0	18	8.4	46	21.5	46	21.5	72	33.6
5. The time limitation in the exam	34	15.9	20	9.3	51	23.8	46	21.5	63	29.4
6. Not having enough motivation to study	121	56.5	21	9.8	20	9.3	26	12.1	26	12.1
7. To enjoy it	157	73.4	17	7.9	11	5.1	8	3.7	21	9.8
8. Pressures or persuasion from classmates	157	73.4	24	11.2	14	6.5	11	5.1	8	3.7
9. No severe punishment for cheating	149	69.6	30	14.0	16	7.5	11	5.1	8	3.7
10. The same behavior with the cheaters and noncheaters	78	36.4	32	15.0	26	12.1	16	7.5	62	29.0
11. The bulkiness of the materials	37	17.3	34	15.9	42	19.6	31	14.5	70	32.7
12. The uselessness of the materials	64	29.9	34	15.9	38	17.8	22	10.3	56	26.2
13. The weakness of managing and organizing the exam	73	34.1	55	25.7	28	13.1	25	11.7	33	15.4
14. Lack of having access to teaching materials	109	50.9	50	23.4	24	11.2	13	6.1	18	8.4
15. Not liking teachers	120	56.1	29	13.6	19	8.9	13	6.1	33	15.4
16. Getting a better score	22	10.3	24	11.2	34	15.9	36	16.8	98	45.8
17. Assuming that everybody else will cheat in the exam	48	22.4	25	11.7	29	13.6	32	15.0	80	37.4
18. Being sure that no one will know about it	81	37.9	56	26.2	17	7.9	24	11.2	36	16.8

4.1.5. Reasons for not cheating in OAs

In the next section, the participants' perception was asked about the reasons for not cheating in OAs. As shown in Table 5, “being morally and socially unacceptable”, and “affecting the rights and scores of other students” were mentioned as the most important reasons for not cheating in OAs.

Table 5. Reasons for not cheating in OAs

Items	never		rarely		sometimes		often		always	
	F	P	F	P	F	P	F	P	F	P
1. Because it affects the rights and scores of other students	75	35.0	28	13.1	30	14.0	40	18.7	41	19.2
2. Because it is not religiously acceptable	86	40.2	21	9.8	41	19.2	33	15.4	33	15.4
3. Because it may bring shame and dishonor	69	32.2	36	16.8	41	19.2	39	18.2	29	13.6
4. Because I am afraid of cheating	102	47.7	27	12.6	36	16.8	31	14.5	18	8.4
5. Because it is not possible to cheat in online exams	65	30.4	36	16.8	35	16.4	34	15.9	44	20.6
6. Because it is morally and socially unacceptable	107	50.0	44	20.6	30	14.0	15	7.0	18	8.4

4.1.6. Students attitude toward cheating in OAs

The last part of the questionnaire asked about students' attitudes toward cheating in OAs. As indicated in Table 6, just 30.22 percent of the participants believed that cheating is not right and acceptable in OAs. This percentage was obtained by summing all the percentages for "strongly agree" and "agree" from all 8 items (item 8 had reverse scoring) and dividing the outcome by 8. This means that almost 70% of the participants did not have negative attitudes toward cheating in OAs.

Table 6. Students' attitude toward cheating in OAs

Items	Strongly disagree		Disagree		No idea		Agree		Strongly Agree	
	F	P	F	P	F	P	F	P	F	P
1. Cheating is not right, even if the exam is difficult	58	27.1	47	22.0	44	20.6	30	14.0	35	16.4
2. Cheating is not right, even if there is a chance I might fail	98	45.8	28	13.1	35	16.4	23	10.7	30	14.0
3. Cheating is not right, even if it does not affect other students' scores	83	38.8	49	22.9	38	17.8	24	11.2	20	9.3
4. Cheating is wrong, even if the professor has not taught the relevant materials during the semester	70	32.7	27	12.6	44	20.6	35	16.4	38	17.8
5. Cheating is not the right thing to do, even if the professor is not fair in scoring papers	63	10.0	106	16.9	173	27.5	129	20.5	158	25.1
6. Cheating is not right, even if I do not have enough time to study	75	35.0	48	22.4	38	17.8	23	10.7	30	14.0
7. Cheating is not right, even if all students do it	86	40.2	32	15.0	45	21.0	18	8.4	33	15.4
8. Cheating is acceptable considering the low quality of teaching in my online classes	35	16.4	46	21.5	54	25.2	28	13.1	51	23.8

4.2. Inferential statistics

4.2.1. Gender and attitude toward cheating in OAs

In order to analyze the data inferentially, a T-test was employed to examine the potential differences between male and female participants' attitudes toward cheating in OAs. Table 7 shows the descriptive statistics for male and female answers, and Table 8 shows the results of the T-test. As indicated in Table 8, there is not any significant difference between male and female participants' attitudes to cheating in OAs (Sig>.05).

Table 7. Descriptive statistics for male and female participants

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Gender attitude	Male	140	20.2786	8.26631	.69863
	Female	74	21.2297	8.09794	.94137

Table 8. Independent sample T-test of differences between male and female attitudes

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Gender attitude	Equal variances assumed	-.806	.212	.421	-.95116

5. Discussion

The first research question of the study endeavored to probe the frequency of cheating in OAs. The results are appalling since about 88% of students admitted they had cheated in online exams. Over 85% believed they cheated in online exams more than onsite ones. Only 25 students out of 214 stated they have never cheated in their OAs. The results corroborate the previous studies' results where cheating was showed to be widespread (Saleh & Meccawy, 2021; Salehi & Gholampour, 2021; Sims, 1993).

There might be some reasons for this finding, including lack of supervision, frequent absence in online classes or impersonation, and parents' pressure on students expecting them good grades. As suggested in Watson and Sottile's (2010) study, the Internet plays an inevitable role in giving students more opportunities to cheat while being low-profile. While taking exams, it aids them to open different websites searching for the correct answers, and thus plagiarizing the content and submitting them in the exams. As for the second reason, the students' tendency toward cheating is mainly due to the ease of impersonation and faking their absence in online classes which result in violating academic integrity as reflected in Diego (2017). Everything gets worse when parents' pressure on students for achieving higher grades is added to the aforementioned motives, it pushes students toward cheating in order not to be ashamed before their parents (Saleh & Meccawy, 2021).

The reliability of online exams is the next concern of this study. Almost 71% of students mentioned OA is "often" and "always" less reliable than onsite exams. At the tertiary level, it is because of a different reasons including the lack of safeguarding measures as a result of poor infrastructures such as poor connectivity, hardware, software, power supply, and lack of online and physical systems (Tuah & Naing, 2021), and these factors are available in K-12 classes as well.

In line with studies already enquiring the cheating methods (Bretag et al., 2019; Colnerud & Rosander, 2009; Kocdar et al., 2018; Zhang et al., 2018), "looking at teaching materials and finding/copying answers", "using notes/ summaries written on pieces of paper to find the answers", and "talking to my classmates through phone, social media, or other communication devices" are of the most common ways of cheating among students.

In terms of reasons for cheating in online exams and the convenience which the Internet offers to students, it is of no surprise that cheating appears to be plausible, especially when it is accompanied by the thirst for getting a better score. The lack of proctorship and the temptation for being better than peers due to the competitive atmosphere in the classroom pave the way for a better score effortlessly (Kennedy et al., 2000; Rogers, 2006; Xiong & Suen, 2018). Similarly, the exams being difficult is the other reason which made students cheat which is most probably due to not being ready for online exams (Ahmadi, 2012). Most students take advantage of the situation where they can do their homework and present it to the teachers without spending much time. Given this, it seems that students are not well-prepared for the exams, hence, they consider their online exams difficult. Similarly, time limitation gives weight to their cheating as it is recommended in the literature for teachers and course instructors to allow students just for one-time attempt for giving response to the questions (Wahid & Farooq, 2020).

As for their attitude toward cheating, the findings are shocking. Approximately 30% of students had a negative attitude toward cheating in online exams. Since we asked them explicitly if they had already cheated in online exams and 88% experienced cheating, it can be implied that students had committed the act of cheating after a fashion. The findings of previous research questions which indirectly probed their attitude also prove the fact of frequent cheating in online exams.

The nominal demographic variable of gender was also found not to affect cheating behavior among students. In other words, students' desire to get a better score in online exams causes them to cheat irrespective of being male or female. The results of this section contradict those of Jensen et al. (2002) as they found out cheating is more prevalent among male students than female ones. They believed this behavior can be because of the risk-taking characteristics of men which is more than women. However, in another study, Ahmadi (2012) investigated the differences between male and female students' perceptions of cheating in OAs, and his findings showed no significant difference between their perceptions.

6. Conclusion

This study endeavored to investigate the perception of the Iranian EFL high school students' perception of cheating in OAs. Due to the findings that prevailed in this study, namely the high frequency of cheating, the poor reliability of online exams, the methods of cheating, the reasons for cheating and not cheating, and the attitude of students to cheating, it is incumbent upon every school and academic institution to publish an easy-to-access ethical guideline explaining dos and don'ts of its online assessments. Cheating is an unforgivable act and there is always the chance of detecting the tinges of cheating in one's submitted response. Students, therefore, should be informed of the penalties that cheating precedes (Ma et al., 2013), and some restrictive conducts such as closing critical ports can be of much help to instructors to safeguard the exams (Rowe, 2004).

Concerning the lack of reliability in OAs, raising teachers' awareness of multiple ways of cheating, obliging students to take their exams in a low-resource setting, and asking them to turn on their webcams are some of the ways which can reinforce the academic integrity of the online exams. Not only does raising awareness help teachers but it suppresses students' tendency toward cheating because of the ethical dilemma it makes so that it will poke their conscience and make them think about the right of others. As Salehi and Gholampour (2021) stated, the weight that social stigma carries is more than any other factor which can persuade students not to cheat, therefore, ethical issues and more specifically the right of others play a more vital role in deterring them from cheating. Alongside other factors mentioned earlier, hence, the right-of-other issue turns up to serve as an influential deterring mechanism.

This study is not free from limitations. As the questionnaire was employed for collecting data, the findings are reliable to the extent that the participants answered the items honestly. In addition, as the sample was selected conveniently, they may not be representative of the population, so it is difficult to generalize the findings. Considering the significance of cheating in OAs, it is hoped that this line of research be continued by future researchers. In particular, identifying effective ways that can reduce academic dishonesty in online classes can be one area for further research. The enduring effect of "e-cheating" culture in online classes on students' perception of cheating in in-person classes can be another area for further studies.

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