

Journal of Education and Science (ISSN 1812-125X)

www.edusj.uomosul.edu.iq



Applying Remark Office in Higher Education Institutes, Challenges and Solutions: Examination Center No. (9) as a Case

A. A. Thanoon^{(1)*}, S. H. Frahan⁽²⁾, A. A. Jasim⁽³⁾, O. W. Ohmayed⁽⁴⁾

(1,4) College of Law, University of Mosul, Mosul, Iraq

Article information	Abstract
Article history: Received: October 12, 2024 Accepted: January 30, 2025 Available online: April 01, 2025	The study in hand is an attempt to review the most important challenges aroused during the application of the Remark program (OMR), the internationally most famous and broadly used app. This review tackles the pros of the program and its requirements in the process of OMR, noting what the technical committees going agrees. These challenges are enjoyed
Keywords:	bindrenees to achieving the required speed and extreme precision while coming out with the
Auto-correction	desired accurates. This matter is highly consisting consisting and extreme precision while coming out with the
Challenges	desired results. This matter is highly sensitive especially since we deal with so important
Remark Office	results implying the (im)possibility of a student's success. Hence, the researchers focus on
OMR	delimiting these actual obstacles and suggesting suitable solutions and required steps to
OCR	prevent them and overcome such hindrances successfully. The study implies the discussion
ICR	of ultimate solutions to face these challenges and overcome these problematic obstacles,
Correspondence:	adopting the OMR program optimally to give precise results in the shortest time as required
Abeer abdulkhalik Thanoon	and planned for. The research also aims at taking challenges into account while applying
abeeraldoori@uomosul.edu.iq	the program under study in addition to the detailed steps of achieving the exam by students,
	highlighting the mechanism of filling the bobble sheet form so that it can be kept out of
	mistakes, taking practical attempts of OMR applications made by various countries to
	discuss their obstacles and suggested solutions.

DOI: 10.33899/edusj.2025.154438.1509, ©Authors, 2025, College of Education for Pure Science, University of Mosul. This is an open access article under the CC BY 4.0 license (<u>http://creativecommons.org/licenses/by/4.0/</u>).

1. Introduction

During the modern age, technology widely emerged in all life activities, especially the scientific and academic realms. As a result, the auto-correction programs are among the most important features and Remark Office has a crucial role in this domain. This program has been globally used in highly-ranked international institutes. The aims of the study in hand, which are most important here, are to assess the whole and the most significant challenges coming across the correction process. In addition, discussing the suitable ways of management will be tackled so that the ultimate correction process can be easy and competent with precise adopted results in a short time compared to the traditional correction process. This type of correction doesn't have potential mistakes or predicted results. The study is to be realized by its problems and aims in addition to its hypotheses, scope, and limits of technical terms. The study is also characterized by the theoretical part including a literature review with a brief discussion, followed by the practical part thorough discussions of potential challenges in the process of au-to-correction. The paper ends with conclusions concerning the use of the Remark Office program as well as recommendations and suggestions for further research

2. Methodology

2.1 Problems of the Study:

The study calls for the following points:

- 1. The higher education institutes need an integrated correction process with a clear and standardized logical method to correct the ministerial exams.
- 2. Several challenges and obstacles occurred at examination center no. (9) during the correction process. To add, the nature of instant solutions and management conducted by the controlling team should be dealt with.

2.2. Value of the Study:

The study concentrates on two parts. The first part is the practical side involving:

- 1. To enhance the scientific institutes that adopt the Remark Office program and those planning to use it in the future to have a great deal of the program's mechanism in general.
- 2. To provide the scientific institutes with a group of notes, challenges, and solutions that the technical team faced during the correction process, regarding the programs as a globally adopted one with a high level of authenticity.

The practical part, in turn, focuses on applying this program effectively and properly through overcoming the obstacles and obtaining excellent and obvious results.

2.3. Aims of the Study:

The present study aims at the following points:

- 1. Determining the requirements to apply the auto-correction process using the Remark Office program.
- 2. Diagnosing the challenges facing the auto-correction process applied via the Remark Office program.
- 3. Analyzing and discussing these challenges to reach active methods of addressing them with the least time and effort.

2.4. Hypotheses of the Study:

The study in hand hypothesizes the following assumptions:

- 1. The challenges facing the Remark Office program of the auto-correction process affect the obtained correction results.
- 2. These challenges and obstacles hinder the mechanisms of the Remark Office program of the auto-correction process; consequently, the results will not be precise and speedy.

2.5. Limits of the Study :

- 1. The Topic limit: the challenges emerging while applying the Remark Office of auto-correction.
- 2. The spatial limit: the examination center no. (9) at the College of Law / University of Mosul.
- 3. The Time limit: the second semester (the evaluation exam) for the academic year 2023-2024.
- 4. The subjects' limit: students of all law colleges in Mosul City (University of Mosul; University of Nineveh; Al-Hadbaa University College; University of Al-Noor).
- 5. The Scientific Curriculum: as limited by the Ministry of Higher Education and Scientific Research for law specialization in these colleges in the aforementioned year.
- 6. Version of the program: 11.4.0.13

2.6. The subjects:

The study involves the following subjects:

The students of 2nd, 3rd, and 4th years who are admitted to law colleges in Mosul City (University of Mosul; University of Nineveh; Al-Hadbaa University College; University of Al-Noor) and undergo the exam at the center no. (9).

3. Procedures of the Study:

In this research, the field and survey study of center no. (9) have been tackled since the nature of the subject requires standing at the whole challenge in addition to analyzing and discussing the method to be conducted while addressing them.

3.1. Technical Terms of the Study:

Auto-correction: as mentioned by Isma'eel, Shahata, Mohamed, and Ahmed (2020), it is a process of scanning the bobble sheet containing the student's reply and evaluating them via using the scanner device of the Remark Office program. The mechanism is done by entering the data of typical answers to the program and then starting the auto-correction process by corresponding the student's reply to those previously entered in the data of the program. Remark Office (the auto-correction program): it is a program prepared by the US Company 'Gravic' for conducting the auto-correction to the tests via adopting the electronic way of correction after scanning the students' replies and then comparing them to the typical answers that have been already entered to the program. This way is to give us thorough results and reports about tests and replies from students.

3.2. The Theoretical Part:

The theoretical part involves an introductory description of the auto-correction program of 'Remark Office'. This program is issued by the US company 'Gravic' which has been attempting to develop auto-correction processes for tests and analyze results since 1991. It issued 10 versions of this program to be used at remarkable and competent academic institutes in the USA, Europe, and the Arab World. It has a good reaction and a positive impression concerning the quality of education (Nasr, 2019).

3.3. Advantages of the Remark Office:

Generally, this auto-correction program has many advantages and pros consisting of the speed of the correction process and its objectivity and preciseness concerning reports that illustrate various aspects. In addition, it has great value because of its essential tasks in record times (Sen et al., 2010). The Remark Office program is the optimal solution and the best option in the realm of auto-correction, especially for the following aspects:

- 1. It is compatible with all various scanners used in the data entry of bobble sheets.
- 2. Adopting this program prevents any case of cheating via designing various samples for the same test.
- 3. Conducting this way eliminates the students' objections since the results are exact and the typical answers can be accessible to all.
- 4. It achieves the process of correction in the best quality.
- 5. The program can save the students' replies safely.
- 6. The academic goals for test samples are highly accurate in general and for each question in particular since all the test questions are connected to the extent of achieving the education goals to evaluate the proficiency level of the test and its ability to fulfil these goals.
- 7. 7. It has several techniques which facilitate the correction process, including:
- a. The technique of Optical Mark Recognition (OMR).
- b. The technique of Optical Character Recognition (OCR).
- c. The technique of Intelligent Character Recognition (ICR).
- 8. The speedy correction process for so many bobble sheets within a short record time so that detailed relevant reports can be obtained.
- 9. The Remark Office participates in skipping the common human mistakes in the correction process.
- 10. It is easy to evaluate the student's rank and the test level simultaneously through reports that determine the extent of question difficulty in addition to various significant aspects used in uncovering the general level of the test.

3.4. Features of the Remark Office:

- 1.It saves a copy of lists of examinees' names during the correction process (RMX).
- 2.It can achieve the correction process in a very short time.
- 3.It gives detailed reports to students (150) (152).

4. Its results of correction are so precise; the typical answers while carefully entered do not deviate.

3.5. What can the technical team of Remark Office provide?

- 1. The team can provide support to the users of the Remark Office and illustrate all the inquiries concerning the program.
- 2. The team runs training courses for most academic institutes that endeavor to use the Remark office, especially those who want to try it for the first time.
- 3. It provides a detailed guideline and illustrative videos.
- 4. It starts and keeps on updating the program and developing its features in addition to issuing new versions. It also prevents and overcomes problems faced by the users (examinees) to submit an optimal, easy, and speedy attempt.

3.6. Disadvantages and Pitfalls of the Remark Office:

- Below are some negative points and obstacles that have been mentioned and determined:
- 1. The process of preparing questions is a bit difficult; therefore, a long time is required for preparation in the humanities branch of academic studies.
- 2. To some extent, the question forms imply guesswork.
- 3. Students and supervising teams need to undergo training courses to learn how to bold the correct option and how the examinees can keep the bobble sheet safe and clean.
- 4. The program activation requires a highly organized preparation at all levels.
- 5. In case, bolding the option(s) is done by mistake, the examinee may lose the mark and time and be confused.

In addition, some other pitfalls are observed in the auto-correction program including the Remark Office. For instance, this type of correction is made for a certain kind of reply, namely the MCQs. In certain specializations, such a question is unsuitable for evaluating the examinees' levels (Palmer, 1989). Moreover, there are many constraints, including the high cost of devices used in this correction and the necessary expertise of controllers' and user's teams (Zaitoon, 2005). This type of mechanism also requires a bank of questions rich in knowledgeable items. Many sophistications and challenges may emerge as the auto-correction process is achieved. Such challenges are to be tackled in the practical part of this study.

3.7. Requirements of Auto-Correction Programs for Tests:

Below are a group of requirements that should be available as the auto-correction program is used:

- 1. The file of examinees' replies can be accessible and shown to all.
- 2. It is possible to save a backup copy of all sheets scanned by the device (including the students' replies, the typical answers, marks, reports, and statistical results).
- 3. The correction process should be clear to the examinee(s) so that this type of correction can be more transparent.
- 4. Reports about some correct and incorrect replies, the left-out questions, and those having double or more than one answer.
- 5. The program to be adopted should supply a report about the competence of options used in the questions in addition to the description of questions including the level of difficulty/ease.
- 6. Reports are important to be exported to the complementary office programs.
- 7. Information and data of each examinee should be filled in suitable places (Jasmeen Nassr, 2020).

As for the Remark Office Program, it requires the following points:

- 1. High-description computer devices.
- 2. A real copy of the program should be purchased; this costs too much money and approval documents from officials.
- 3. Each template requires a certain form of bobble sheet for each college in our university.
- 4. The adopted version of the Remark Office program requires Windows 10 (it does not work with Windows 7 or the other old versions).
- 5. The internet services should be available to setup the required updates and to have up-to-date versions of the application.

3.8. Stages and Steps of Electronic Correction Process Made by the Remark Office Program:

- Open the program and make a new template corresponding to the page size of the bobble sheet used in the exam.
- Scan the examinees' sheets and save them to a file in 'pdf' format.
- Download the typical answers in the program, after opening the new template.
- Review all the examinees' sheets to ensure reading them by the program.
- Click on the button "Advanced Correction" and select the typical answer previously downloaded.
- Start the correction process by clicking on the button "grade" and then export the result to a file in 'Excel' format.
- Save the file on the computer's memory.



Figure 1: Steps of Controlling the Evaluative Exam

4. Previous Studies:

1. Zidan (2022) submits a study aiming to display the impacts of the Remark Office on developing the curricula of 'descriptive contents' in the Dept. of Libraries and Information / College of Arts / University of Karf Al-Sheikh. It depends on the subjects of the department in 2020-2021. The procedure follows the case study methodology. It concludes that the Remark

Office influences developing tests and participates in improving the students' level in addition to developing the educational goals[3].

- 2. Ismaeel and Shahata (2020) aim their research to introduce the degree of satisfaction of the academic staff and the students concerning the auto-correction system adopted at Zaqazeeq University. It also aims at determining the extent of satisfaction according to gender (male/female). The study is both practical and applied. The obstacles tackled in the research belittle the activation of applying the auto-correction system; therefore, several suggestions concerning the mechanisms of the system activation are given. The subjects are (364) students in addition to (45) teachers. The study uncovers that the degree of satisfaction of the academic staff is so high compared to that of the students. In addition, the study uncovers that no differences are found among the students' degree averages according to gender; although significant comparisons are observed among the academic staff's degree averages according to gender (i.e. the males got higher degrees than females). The study also shows that some statistical differences are attributed to the model adopted (i.e. theoretical and practical). Certain hinders that delimit the activation of the auto-correction system are fixed[1].
- 3. Al-Ghamidi (2021) gives a study aiming to uncover the real auto-correction application on socio-studies at a secondary school in Riyadh and its impact on the educational qualification of the subjects including (34) supervisors and (40) teachers of sociology. The study concludes with the supervisors' approval of this application. In addition, students do not undergo the required and adequate training on this correction method, and the supervisors and teachers highly accept the requirements for applying this method. They also agree upon delimiting some obstacles that imply significant influences on the student's educational qualification[4].
- 4. Musa et al. (2020) submit a study aiming to uncover the attitudes (or perceptions) and students and academic staff's satisfaction toward auto-correction and electronic tests at the College of Education in Damanhour University, pre-adopting and post-adopting the application. It also shows the differences between male and female students as well as the college members. The subjects are (44) of the academic staff and (203) of the students (including males and females). The results show that the attitudes of both students and academic staff members are moderately positive toward auto-correction, while the academic staff's attitude concerning the electronic tests is positive. No significant differences are found between the attitudes of males and females concerning the auto-correction and electronic tests. However, there are significant differences between the attitudes of students and college members toward auto-correction and electronic tests with the favorable attitude of the college academic staff. Additionally, satisfaction levels and attitudes improve after the first implementation of auto-correction and electronic tests[5].

4.1. Discussion of the Previous Study:

Having reviewed many studies concerned with auto-correction and the Remark Office as a method of analysis for the resulting data, the following points have been listed as far as the scope of the study is concerned:

- 1. It extremely participates in developing and improving the test since it determines in detail all matters related to the test like the power of alternatives, the prevention of difficulty and ease, ... etc.
- 2. It also participates in improving the students' levels.
- 3. It helps to develop the educational goals.
- 4. It has a significant satisfaction of the academic staff and the supervision boards. Through their study, Musa et al. (2020) prove that the academic staff have a positive attitude to some extent; the satisfaction level is increased and the attitude towards the auto-correction improves after the first attempt.
- 5. Some obstacles are preventing the activation of the auto-correction system, Al-Gahmidi (2021) asserts that these obstacles influence the level of education qualification.
- 6. It hypothesizes providing the requirements of achieving the system and training the teams, staff, and students before applying it and considering enough time.

4.2. Challenges of The Remark Office:

Concerning the practical part, the study observes some challenges related to the examinee, the examiner, the examining committee, and the technical committee member who controls the steps of test and correction. They are as follows:

 Challenges of Designing the OMR Template: Among the most important points to be initially taken into consideration is the design of the OMR template since the precision of the reading process depends directly on the precision of the design. In this concern, the template columns may be incorrectly sequenced or the areas or reading bobbles can be interrelated. Hence, this may be negatively reflected in reading the replies; consequently, the program will not give accurate results. as in Figure(2)



Figure 2. Designing the OMR Template

The examinees may bold their examining number erroneously or incompletely. They may bold two options (bobbles) for the same question within one column. Thus, the student's name will not appear in the list of results, as in Figures (3) and (4):

	> × √ مراجعة														
	id	الجوابا	الجواب۲	الجواب	الجواب٤	الجواب٥	الجواب٦	الجواب٧	الجواب٨	الجواب٩	الجواب-١	الجواب11	الجواب ١٢	الجواب"ا	.واب1
1	ابراهيم مخلص فارس يوتس	8	c	ε	A	E	8	8	8	8	8	D	D	8	с,
2	ابراهيم مخلص فارس يوتس	8	c	D	A	E	8	E	с	8	8	E	D	A	D
3	2704044-	ε	c	D	A	E	8	с	A	8	A	8	D	c	D
4	عمر محمد شريف غانم علي	B	D	8	A	E	с	ε	A	8	D	8	D	8	D
5	غازي سيف الدين بايج برجس	в	D	D	A	E	в	ε	D	A	D	8	D	A	D
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

Figure 3. Bolding the Student's Serial Number Erroneously

	حميد عبدالله 🗸 🖌 مراجعة	ريبر رشاد					
	id	الجواب۱	الجواب۲	الجواب۳	الجواب٤		
1	غسان حازم منصور عبدالله	с	E	в	A		
2	22*772481	A	в	E			
з	**2	с	E	A	A		
4	2244818*	A	с	в	E		
5	2*7561*	A	E	BLANK	ANK E		
6	حسين علي ابراهيم علي	D	A	в	D		
7	حقي اسماعيل احمد موسى	A	E	в	E		
8	نازك بركات مراد مشكو	A	A	E	A		
9	يوسف ابراهيم محمد سليمان	A	в	в	A		
10	هیثم درویش زندین حسین	с	A	в	E		
11	محمود خالد محمد طه	с	A	в	E		
12	فراس ابراهيم الياس رجب	D	E	в	E		
13	تذبار جاسم سلمان محمد	A	D	в	D		

Figure 4. Recording the Wrong Examination Number

In this case, the program will not read the student's name taking into account that the OMR template has been already connected with the officially accredited database of students. Therefore, the student's name will not be shown. The relevant solution to such a problem is by handwriting the student's examination number as shown in the bobble sheet included in Figure (5) below:



The student may write the examination number of another student, as presented in Figure (6):



Figure 6. Writing the Examination Number of Another Student

While addressing this problem, it is found that the student's name whose examination number has been wrongly used by another student will be repeated. Consequently, the student will have two marks and the student who makes this mistake will have no mark. To solve this error, the technical committee will back to the bobble sheet for both students and correct the recording of the examination number accurately.

3. The technical committee may face the problem of a bit shift of the sheet during the process of scanning it, as shown in Figure (7), or the sheet deviates while being inserted in the scanner device, as shown in Figure (8). Also, the sheet may be up-side-down, as shown in Figure (9), or the sticky note is used so that some answers are hidden, as shown in Figure (10).

من قل قلنان معمر از خلال ۲۰۰ مار المنان علم از خلال ۲۰۰ مار المنان علم معرف المراز المنان علم علم معرف المراز المنان علم معرف ۲۰۰ مار المراز التر من الميلي م ۲۰۰ مار المراز المراز المراز المراز ۲۰۰ مار المراز المراز المراز المراز المراز ۲۰۰ مار المراز المراز المراز المراز المراز ۲۰۰ مار المراز المراز المراز المراز المراز المراز المراز المراز ۲۰۰ مار المراز المراز المراز المراز المراز المراز المراز المراز المراز ۲۰۰ مار المراز المراز ۲۰۰ مار المراز		المراجع ا مراجع المراجع ال
		11 0 0 0 0 0 1
00000		32 0 0 0 0 0 4
• • • • •		33 0 0 0 0 0 5
		34 0 0 0 0 0 6
		17 0 0 0 0 0 0
	34 0 0 0 0 0 6 0 0 0 0	38 0 0 0 0 10
\odot \odot \odot \odot \odot	95 © © • • • • • • • • • • • •	39 @ @ @ @ ● 11
8 8 8 8 8		44 0 0 0 0 0 16
00000	101 0 0 0 0 0 73 0 0 0 0 0	45 0 0 0 0 0 17
0 0 0 0		46
		47 0 0 0 0 0 19
		50 0 0 0 0 0 22
		51 0 0 0 0 0 23
000000		52 0 0 0 0 0 24
\odot \odot \odot \odot \odot	109 0 0 0 0 0 0 1 0 0 0 0	53 @ @ @ @ @ 25
	110 0 0 0 0 0 82 0 0 0 0 0	54 @ @ 🔮 🕘 😳 26
Statement of the statement of the		

Figure 7. Wrongly Read Bobble Sheet because of Page Shifting While Scanning it



Figure 8. Wrongly Read Bobble Sheet because of Page Deviation While Scanning it



Figure 9. Up-Side-Down Bobble Sheet Compared to Other Replies While Scanning it

ان التقويمي تتغيات الدار	and a Westin										الم الملكة الم المكوم المناع الم الم عرفة							
الملك فكورت مكتشم الجاهب											-	- 10		بر شنو ا			المادة طنى ا	
والمسلول الالملاء المطل	the West											100		1.00				
	and a																	
	Asheta Initeda	001																
مان الكان من المانية، الي. الد الكان من طوار - حواك		000	2			-		-1.	0			1			<			
الوارية مراطنة. الالب الو الحمال بور 18	- W -	00	23			-		2	1								÷	
Andre Salar Andre y	4.5.91	00		C	2)	De	22	a_		tra		×	-		-			
	(a) ma ((D) (D)	-								-		00	(10)	-	-		
	846 (•	0	0	200					-2		30	-	0	0	0	0	2
	A 87 4		282	38		50	225	300	Cost	322	-	18.2	- 222	200	28	00	8	
	B9 4		3	6	3	61	8	õ	3	6	-	22	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-	25	(6)	~~~~	
	(A) 90 (0	0	-	62	00	(10)	(6)	6	-	28-6	0	-	0	(10)	602	45
	- 91 (-	(m)	9	49-28	00	-	69.2	002	0	35	-	0	9	0	0	7
	(i) (ii)	35 X			22	6.5	- 285	282	-	- 282	~~	10.00	- 222	382	- 582	382	-	
	(a) 94 ((D) (D)	-		6	GG	0	0	0	0	6	18.65	6	0	6	605	-	30
	(a) 95 4	(1) (1)	0	(10)		67	00	00	(1)	-	0	39	92	(10)	-	(10)	6	2.2
				000	002	0.8		282	002	1992		40	80		GD	000	9	3.2
	(A) (200 (00 00		(m)	-	20	8	00	-	-	~~~~	4.2	- 265		200	- 223		1.0
	(a) 99 (•	0	(1)	0	73	0	-	0	6	6	-8.5	60	60	60	-	See.	3.5
	(a) 100 (0	(-)	0	72	0	-	0	(1)	0	-12-12	0	00	-	6	6	3.65
	(A) 101 4	2	28	100	22	2.4	8	3	300	8	-	4.54	22	-	200	322	-	3.7
	(a) 103 (do do	265	00	-	275	200	-	200		CAD	47	200	-		100	3	1.9
	3 104 0	0	0	0	-	76	0	0	(0)	0	-	-9-03	-	(m)	00	0	6	20
	305 0	(a)	\sim	-	9	22	0	(00)	0	(1)	-	-459	60	-	90		0	21
	106 1	S 38		-	Sec.	28	32		200	98	-	50	- 22	282	922	000	-	32
0 0 0 0	. 108		200	000	20	10	š	8	3	-	6	5.2	3	200	28	-	38	24
0 0 0	(a) 109 (0	00	600	45.3.	00	000	600	00	-	29.38	00	00	00	605	-	25
	(a) 110 (0	0	0	82	0	0	0	(1)	-	54	-	0	0	0	6	26
		CED (CE)	992	000	-			-	000	- 582		25.75	-	- 922	92	000	0	27

Figure 10. Some Replies are Hidden by a Sticky Note on the Bobble Sheet While Scanning it

In these cases, the student(s) will lose his/her marks even if the replies are correct. These problems are addressed by being accurate while scanning the sheets (i.e., entering the replies and converting the concrete photo into a digital image). In addition, we need to make sure of doing the process correctly by checking the replies of the electronic images before starting the auto-correction process.

- 4. During the electronic correction and while copying the students' sheets and scanning them via multiple and different devices, different-sized images will be shown. To put it differently, another important challenge that negatively affected the reading process is to copy the bubble sheets into a specific device and to enter the answers into another device. Consequently, this would directly affect the inappropriate resolution of the sheet, which must be done with high accuracy. As is known, the precise measurements in the Remark program and the precision in the design all play a fundamental role in obtaining an accurate reading of the replies' sheets and ensuring the accurate correction of students.
- 5. Some challenges are related to the process of connection to the database; the technical team may face a problem with connection to the database while working on the Remark Office. This matter needs a high level of accuracy since it is possible to make the connection to another database different from the examinees' database. The crucial point is that the program deals with certain files of databases including Excel79-2003 Work Book which is adopted in applying the auto-correction Remark Office program. That is, any kind of difference in the copy leads to an error in the process of connection.
- 6. Bolding the bobble sheet replies: the process of bolding the replies in the bobble sheet requires a high level of precision since if it is incorrectly done it will negatively affect the mark of the student. In this concern, it is forbidden for students to use certain signs on the bobble sheet such as (+, -, *, /, ...etc.) or even partially color the correct answer. Likewise, it is unacceptable to bold outside the circle (the bobble option) you select because it will be neglected while reading the data.

5. Conclusions:

Throughout what has been reviewed of challenges and their relevant solutions as far as the Remark program is concerned, pretending the correct application of the OMR program to obtain the required results in record time, the following points can be concluded.

- 1. The necessity for users to be meticulous in applying the Remark program, including the examining committee, technicians, correctors, and examiners who are responsible for submitting the questions as input data which are as important as the output data.
- 2. Saving all the files related to the correction process, containing the students' answers, lists of names, and typical answers so that they can be named and archived in secondary memory devices.
- 3. The necessity of achieving the copies of answers sheet forms and their later scanning task should be made in the same device to avoid nuances which may result in potential problems for the correction process.
- 4. The scanning task should be done carefully to avoid any incorrect way, like setting the sheet incorrectly or moving it suddenly while making the scanning, which can be the reason behind hiding the student's data or part of his/her answers.
- 5. It is necessary to Sort and classify the answers sheets in accordance with the scientific branch and specialization as planned in the examination centers and classes.
- 6. Students are required to undergo a training course before being enrolled in the official process of examination so that potential problems can be prevented and managed.
- 7. Training the watching staff and observers to guide students to follow the correct steps of doing the exam and filling the bobble sheets correctly.
- 8. The examination number can be substituted by the bar code to avoid the potential mistakes of recording the number incorrectly or obscurely.
- 9. Adopting the experimental test will give self-confidence to students in the official test as shown in figure (11) which uncovers the improved level of the official test compared to the experimental test.



a. The students' performance in the mock exam



b. The students' performance in the real exam

Figure 11.a,b. Chart of Student's Performance in the Mock Exam and the Real Exam

6. Recommendations

- 1. Choosing a well-qualified technical personnel staff to run the Remark Office with all the technical aspects like designing the bobble sheet format, printing the sheet data, scanning and correcting the replies, and extracting the results.
- 2. Singing all the replies sheets by the students and the supervisor.
- 3. Copying the replies sheets by the copier machine in addition to scanning them by the same device in order not to have a different reading of the page size.
- 4. Sorting sheets of students into morning and evening studies and ensuring that there are no sticky notes on any of the students' sheets that hide some of the replies while making data entry.
- 5. It is recommended that the student's examination number must be as a bar code since it highly facilitates the challenges of recording it by the student, especially since there are some students with inadequate experience of using the bobble sheet.
- 6. The Remark Office is recommended to be adopted in the academic institutes that conduct the auto-correction process, provided that a complete unit with all its infrastructural equipment should be established to deal with this process by its specialized technical and academic staff.
- 7. Preparing courses and workshops for training the specialized and non-specialized academic staff on the detailed mechanism of auto-correction. The purpose is that those staff may participate in the process of watching the students' performance; consequently, they should be well aware of all details and necessary relevant issues.
- 8. Providing the academic staff and students with guidance showing the details of performing this type of exam and clarifying important points related to the mechanism of recording the bobble sheet and maintaining the sheet with no damage.
- 9. All the challenges and obstacles of performing this process of correction should be known by all scientific departments and centers to build on them.
- 10. Making contrastive studies between the manual correction and the auto-correction processes and discussing the distinctive points.

7. Suggestions:

In the light of the issues discussed in this study, the following points can be suggested:

- 1. Making studies concerned with the results of applying the auto-correction process in the institutes that adopted this approach.
- 2. Conducting intensive studies to uncover the attitudes of the academic staff and students towards auto-correction and clarifying the negative and positive reasons behind these attitudes in addition to discussing them.
- 3. All the studies that specify the challenges and the obstacles against applying this way of correction should be known and their results have to be discussed in order to make use of them all.
- 4. Preparing studies concerned with comparisons between the manual correction and the auto-correction processes to come up with and discuss the relevant distinctive points

8. Acknowledgements

The researchers would like to thank the administration of the College of Law / University of Mosul for providing us with the data that was used to obtain the research results.

9. References

- [1] Isma'eel, Shahata, Mohamed, and Ahmed. Assessing the Satisfaction of the Academic Staff and Students Towards the Actual Application of Auto-Correction System and its Obstacles and Activation at Zaqazeeq University. In: Edu-cational Journal. No. 8, ISSN 2536-9091. DOI : 10.12816/EDUSOHAG.2020.
- [2] Zaitoon, H. H. (2005). New View in Education (Electronic Education), Notion Issues Application Assessment, Riyadh: Al-Sawtiyya Education Publish House.
- [3] Zaidan, I. A. T. (2022). The Influence of Auto-Correction Remark Office Program on Developing the Dept. of Libraries and Information at Kafr Al-Sheikh University. College of Arts, No. 26, pp.: 753-717.
- [4] Al-Ghamidi, F. A. A. (2021). The Actual Application of Auto-Correction and its Impact on the Educational Qualification in Sociology at the Secondary School in Riyadh. In: International Journal for Educational and Psychological Sciences. No. 64, Vol. 46, pp.: 181-226.
- [5] Musa, et al. (2020). Attitudes and Satisfaction of Students and Academic Staff Towards the Auto-Correction Process and the Electronic Test at the College of Education, University of Damanhoor. In: Education College Journal in Banha, No. 121, January (2). pp.: 42-108.
- [6] Matoug, Mohamed A., Fatimah A. Mare, and Kamal M. Alsonosi. "Trends towards the application of electronic systems in the Computer Department, Faculty of Education/Targhen, to achieve quality standards and study the obstacles to their application." Journal of Pure & Applied Sciences 17.1 (2018).
- [7] Nasr, Y. (2020). Electronic Correction: the Most Important Universities that Adopt the Remark Office in the Arab World. http://blog.remarkomrsoftware.com
- [8] Plamer, R. (1989). The Basic of Automatic Identification (Electronic Version) Canadian Data System, 21 (9), pp.: 30-33.
- [9] Sen, D. Patel, R. and Patel, U. (2010). Modern Database Technology Needs.
- [10] Okoye, K., Hussein, H., Arrona-Palacios, A., Quintero, H. N., Ortega, L. O. P., Sanchez, A. L., ... & Hosseini, S. (2023). Impact of digital technologies upon teaching and learning in higher education in Latin America: an outlook on the reach, barriers, and bottlenecks. Education and Information Technologies, 28(2), 2291-2360.

برنامج الريمارك في التعليم العالى التحديات والحلول (المركز التاسع انموذجاً)

عبير عبد الخالق ذنون (1)*، صابرين هاني فرحان (2)، علاء احمد جاسم (3)، عمر وليد احميد احمد (4)

العراق ، جامعة الموصل، الموصل، العراق

الخلاصة:

يسعى البحث الحالي الى استعراض اهم التحديات التي واجهت تطبيق برنامج التصحيح الإلكتروني (الريمارك Remark) الأشهر عالمياً والمستخدم على نطاق واسع يتضمن هذا الاستعراض ايجابيات البرنامج ومتطلبات التطبيق في عملية التصحيح الإلكتروني والوقوف على ما واجهته اللجان الفنية اثناء القيام بعملية التصحيح اذ كانت هذه التحديات بمثابة عوارض في تحقيق السر عة المطلوبة والدقة والوصول الى النتائج المرجوة والتي قد تحول دون حصولنا على النتائج او الحصول على نتائج غير دقيقة وهذا موضوع جدا حساس خاصة واننا نتعامل من درجات مصيرية وامتحانات تحدد نجاح الطالب من عدمه لذا ركز الباحثون على حصر هذه العقبات التي تم لمسها على ارض الواقع ومن ثم ادر اجها وتوضيح الحلول والاجراءات الواجب اتخاذها لاجتيازها بالصورة الصحيحة. تضمن البحث مناقشة الحلول المثلى التي تم لمسها على ارض الواقع ومن ثم ادر اجها وتوضيح الحلول والاجراءات الواجب اتخاذها لاجتيازها بالصورة الصحيحة. لمواجهة هذه التحديات والتي كانت كفيلة لتجاوز العقبات وبالتالي استخدام البرنامج الاستخدام الأمثل والوصول الى نتائج دقيقة لأن الغاية الاساسية من برامج التصحيح الالتي تم لمسها على ارض الواقع ومن ثم ادر اجها وتوضيح الحلول والاجراءات الواجب اتخاذها لاجتيازها بالصورة الصحيحة. تضمن البحث مناقشة الحلول المثلى لمواجهة هذه التحديات والتي كانت كفيلة لتجاوز العقبات وبالتالي استخدام الارنامج الأمثل والوصول الى نتائج دقيقة لأن الغاية الاساسية من برامج التصحيح الالكتروني هو الحصول على نتائج دقيقة ووقت اقل لذا هدفت الدراسة على اخذ التحديات التي واجهت اللجان الفنية والكواد ر التدريسية بنظر الاعتبار في حال الالكتروني والعوال والا مراحي تعلي المول المتلي والوصول الم الفنية والكواد المتل الالكتروني هو الحصول على نتائج دقيقة ووقت اقل لذا هدفت الدراسة على اخذ التحديات التي واجهت اللجابة والكواد والحديات التي واجهت الحول الفنية والكوادر التدريسية بنظر الاعتبار في حال استخدام البرنامج وتفاصيل اداء الامتحان الذي سيصحح بصورة ألية عوضح تفاصيل مهمة نحو ألية ملء منوذج الاجابة والمحافظة عليه وغيرها والوقوف على تجارب الدول المرنامة وتناصيل اداء الامتحان الذي لمعرفة مدى والمعوقات والتحديات التي واجهتها.