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Remote and Stationary Examinations in the Opinion of Students

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***Abstract*—The article concerns the opinion on stationary and remote examinations carried out during the COVID-19 pandemic, perceived from the perspective of the assessed students. The study aimed to find out about the students' perspective on remote final and midterm exams at The Maria Grzegorzewska University and to attempt to compare it with the traditional examination. The subject of the research was, among others, the forms of checking knowledge and skills, problems arising during the exams, as well as the way of taking into account the special needs of the exam-takers. The students' opinions on the above-mentioned issues and their preferences regarding the examination situation were taken into account. The research used the method of diagnostic survey. The obtained results indicate that students during remote exams declare a higher level of stress related to potential technical problems, and in the case of stationary examinations the problem is chaos, noise and distraction. Regardless of the form of the exam, a similar percentage of students declare that they do not cheat - 73.53% during full-time exams, 68.49% pass fair during remote exams. The most common form of cheating during remote examinations is the use of previously prepared notes (21.85%), and 2.52% use the help of colleagues.**

***Keywords*—crisis remote education; higher education; distance teaching; distance learning; emergency e-learning; students; exams; assessment; COVID-19; SARS-CoV-2**

I. Introduction

FOR years, teaching with the use of the computer has been recognized as one that increases the independence and responsibility of students for their own learning. It is a very beneficial form for those people who are burdened not only with studying but also with work and family life [1]. During the last two years, as a result of the spread of SARS-CoV-2 at The Maria Grzegorzewska University, there was, at first, a rapid adaptation to the forms of remote work in order to maintain the continuity of education during the pandemic [2, 3], then the focus was on improving the quality of education by implementing the recommendations obtained in the research [4, 5], and finally, it was possible to focus on specific and important issues that repeatedly emerged from the statements of the respondents during subsequent research. An example of such an important topic for the respondents was the examination process, an inherent element of education that had to be carried out remotely [6, 7].

From the first attempts to include remote exams as a form of checking students' knowledge, they were concerned about the possibility of disconnecting from the Internet and the time pressure associated with the necessity to make it within the imposed time limit [8]. Students who pass online exams indicate inequalities in access to good-quality computers, differences in terms of their IT competences, including fast typing. These fears generate prejudices against this form of examination [9]. Supervision and the forms of checking the integrity of candidates and the reliability of the process of checking knowledge used during the examination are the causes of stress for students [10].

Taking online exams raises concerns about the integrity of test-takers as they are considered to have many opportunities for cheating. Thus, these exams may not be the fairest way to reliably verify knowledge and skills [9]. The dishonesty of students is considered to be a significant challenge for e-exams and is also treated as their significant flaw [10]. Research indicates that students cheat more frequently in the case of remote examinations [11].

Most students do not prefer remote exams, although it depends on the field of subject, effort and time spent on preparation for the exam, the adequacy of questions to the material carried out during classes, and the transparency of the exam structure [10]. In the case of remote exams, the specificity of the field covered by the e-exam and the resulting necessity to e.g. draw diagrams, enter equations, etc. is very important. The more elements that require hand-drawing or typing complicated elements, the less enthusiastic the approach to passing this type of exams online [9]. Students list the discrepancy between the questions asked during the exam and the material carried out during the classes as problematic, and the written exams as the least liked form of checking knowledge [10].

Widely used, especially in large groups, time-limited tests and written exams are stressful for students [12]. Oral examinations may provide a solution. The advantages of oral examinations are the reduction of technical difficulties and the adjustment of the examination procedure to special needs. However, they are much more time consuming [13]. This may be the price to pay for a more personalized contact between the student and the examiner and the advantage of positive over negative emotions while taking the exam [14]. The use of online exams may also help students to better diagnose their gaps in the acquired knowledge [15].

In terms of the search for an ideal way of checking knowledge, the pandemic created a dichotomy and added the need to consider the differences between traditional and remote examination not only in terms of its reliability but also social

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effects among students and examiners [16], especially as the introduction of online forms of work increases the longing for the traditional, academic process of education, despite the enthusiasm for technological innovations [17].

II. Method

The study aimed to find out about the students' opinions on the exams conducted in full-time (stationary) and remote mode. The subject of the research were their experiences relating to the forms of checking the knowledge used by lecturers, problems occurring during the examination in two modes, the way of preparing for exams, using unauthorized assistance during them (cheating) and adapting exams to the special educational needs of students.

The following research questions were formulated: What are the students' opinions about the full-time (stationary) and remote examinations? What differences do the surveyed students perceive in the two examination modes in terms of: workload, assessment of the forms of checking knowledge, using unauthorized help, adapting exams to special educational needs and the level of stress during the exam?

The diagnostic survey method was used. A questionnaire was prepared and sent by e-mail to all students of The Maria Grzegorzewska University in Warsaw (fields of study: pedagogy, special education, psychology, sociology and social work). The questionnaire consisted of six closed and nine open questions, which were specifically related to experiences and reflections relating to stationary and remote examinations. The questions did not concern other forms of checking the learning outcomes, such as partial tests or grades obtained for homework. Responses were collected using the Google Forms. The data was collected in the period from June 15 to July 15, 2021. The statistical analysis of the research results was carried out in the IBM SPSS Statistics 26. The analysis of respondents' statements in open questions was carried out by two competent judges.

III. Results

In the study addressed to students 238 people took part, which constitutes 5.5% of students. The youngest respondent was 20 years old and the oldest was 52 (M = 24.5, Me = 23, Mo = 21). Most of the respondents were women (223 people, 93.7%), and the minority were men (15 people, 6.3%).

Most of the respondents were first-year students (65 people, 27.3%). Second year students constituted 26.5% (63 people), third year 19.3% (46 people), fourth year 16.4% (39 people), and the fifth year 10.5% (25 people). More than two thirds of the respondents (164 people, 68.9%) are full-time students, and almost one third (74 people, 31.1%) are part-time students.

Students were asked to indicate which elements of the exams are more visible in the case of the stationary exams (1) and which in the case of remote exams (5). Students assessed 9 elements, i.e. the amount of work involved in preparing for the exam and taking it, work independence during the exam, the quality of obtained grades, the level of stress during the exam, the quality of the exams, the frequency of using unauthorized help by the persons taking the exam, effectiveness of teachers' methods of controlling the use of unauthorized help by examined and readiness to help the student by the examiner during the examination. (Table I).

The obtained results indicate that, in the opinion of students, many aspects related to the examination are comparable in both examination modes. These include: the workload related to exam preparation and passing, independence of exam passing, grades, exam quality, level of control and assistance from lecturers, and level of dishonesty of students. The exception is the level of stress, which students consider to be much higher during stationary exams.

TABLE I
DESCRIPTIVE STATISTICS
OF THE ASSESMENT OF EXAM ELEMENTS

	M	Min	Max	Me	Mo	Ske	K
Workload needed to prepare for the exam	2,72	1	5	3	3	0,23	-0,47
Workload needed when taking the exam	2,89	1	5	3	3	0,12	-0,54
Work independence during the exam	2,66	1	5	3	3	0,04	0,04
The quality of obtained grades	3,16	1	5	3	3	-0,22	0,58
Stress level during exams	2,53	1	5	2	1	0,47	-0,98
The quality of the exams	2,81	1	5	3	3	0,03	-0,15
Frequency of using unauthorized help by test takers	3,19	1	5	3	3	-0,14	0,53
Effectiveness of methods used by examiners to control the use of unauthorized assistance by exam-takers	2,35	1	5	2	3	0,51	-0,24
Readiness to help the student by the examiner during the exam	2,56	1	5	3	3	0,26	-0,75

A. Method of preparation of students for exams

An open question was addressed to students on how they prepare for stationary and remote exams. With regard to the stationary exams, 12 people (5.04%) did not answer this question at all, and 13 people (5.46%) did not answer because they had not experienced this form of exams. Six students (2.52%) did not give any answers about the remote exams. The list of other categories of students' answers is presented in Table II.

The most important category of preparation for stationary exams is developing and reviewing notes/homework (68.07%) and broadly understood learning (65.55%). These two strategies are also the most important in remote examinations, although a smaller percentage of students mention them (57.14% and 48.74%, respectively). Further, an important activity in both types of exams is the use of reading material, literature on the subject and internet sources (stationary: 21.85%, remotely: 19.33%).

During preparation for remote examinations, the use of materials prepared by lecturers is indicated more often (16.81%; in the case of stationary: 6.72%) and technical preparation of the equipment (2.10%; in the case of stationary examinations, no one mentioned such an activity).

TABLE II
METHOD OF PREPARING FOR THE EXAM, DEPENDING ON ITS FORM

Method of preparing for the exam	Stationary exams		Remote exams	
	Number of responses	Percentage of responses	Number of responses	Percentage of responses
Development and reviewing of notes and homeworks	162	68,07	136	57,14
Learning	156	65,55	116	48,74
Use of literature and the Internet	52	21,85	46	19,33
Use of materials prepared by lecturers	16	6,72	40	16,81
Repeating material together with other students	12	5,04	9	3,78
Attending lectures / classes	13	5,46	12	5,04
The same method of preparation as for other exams	8	3,36	55	23,11
Other	6	2,52	8	3,36
Technical preparation of the equipment	0	-	5	2,10

Similarly important for students, regardless of the type of exam, is participation in lectures or other classes (stationary: 5.46%; remote: 5.04%) and learning together with other students (stationary: 5.04%; remote: 3.78%).

In the studied group, good practices of students related to systematic learning were revealed. For example, it is illustrated by the statements "I try to learn systematically after each class. A week before the exam, I work out the requirements or list all the important elements of my class notes. The day before and in the morning before the exam, I repeat everything to refresh my memory." or "I calculate the time needed to assimilate all the material and learn a certain range of material each day, also repeating the material previously learned."

During remote examinations, statements were emphasizing the importance of using the media in the learning process. For example, this is how a student writes about it: “Watching recorded lectures several times (entire subjects, even 5 times) until I know the statements of the lecturers by heart; taking notes on a computer (because I couldn't carry a laptop on stationary exam); reading the materials sent in the form of presentations, etc. group repetitions on MS Teams before the exam (we have our channel and there, a few days before the exams, we gather online and repeat the material)."

B. Problems related to stationary and remote exams

Students were asked to list the most important, in their opinion, problems that accompany taking exams in two modes: stationary and remote. In relation to the stationary exams, 16 people (6.72%) did not provide any answers to this question, and 22 (9.24%) indicated that they did not take part in the stationary exams. As for the remote examinations, 5 people (2.10%) did not give any answer.

34 surveyed students (14.29%) did not experience any problems related to stationary exams, and 24 (10.08%) - related to remote exams.

The list of the remaining categories of responses is provided in Table III.

Chaos, noise and distraction (29.83%) are among the most frequently indicated problems relating to classroom exams. Distraction and stress is caused by lecturers walking around the room and observing students. Stress is also more significant during the stationary exams (22.69%), as are various organizational issues (18.07%) (including, in addition to the general definition of organizational categories, the following were listed: controlling a large group, setting the room and date of the exam, unfavorable conditions related to the dates of meetings) - these categories are significantly less important in remotely conducted exams compared to those led in the stationary mode.

TABLE III
PROBLEMS CONNECTED WITH EXAMS DEPENDING ON THE EXAM MODE

Problems	Stationary exams		Remote exams	
	Number of responses	Percentage of responses	Number of responses	Percentage of responses
Chaos, noise, distraction	71	29,83	10	4,20
Stress	54	22,69	25	10,50
Time limit	53	22,27	103	43,28
Organizational issues	43	18,07	9	3,78
Requirements and grades	38	15,97	63	26,47
Lecturers' attitudes	31	13,03	39	16,39
Presence or absence at the university	19	7,98	2	0,84
Technical issues	5	2,10	207	86,97
Cheating	3	1,26	15	6,30
Student attitudes	0	-	4	1,68

The biggest problem of remote exams are technical issues, which were indicated by as many as 86.97% of the surveyed students, while 2.1% of respondents took this category into account in relation to stationary exams. In addition, almost twice as many students believe that in the remote examination mode as compared to the stationary mode, problems related to time pressure are important (remote: 43.28%; stationary: 22.27%), which is mainly related to the time allocated to writing the exam, and to a lesser extent - waiting for the results. More problematic are also the requirements and obtained grades in the remote mode (remote: 26.47%; stationary: 15.97%) and the possibility of cheating by students (remote: 6.3%; stationary: 1.26%).

Among the accusations against the stationary exams, it is worth mentioning the following: “The oral exams for the entire year have always forced you to wait a long time for your turn, it was stressful and irritating. Written exams with open-ended questions were often inadequate and had to be written without time for thought. I really disliked the written exams with closed questions displayed on the projector, 30 seconds each. Complete lack of adaptation to a different pace of work and inability to return to questions that you were not sure your answer."

In the context of remote exams, the statements regarding the generation of technical difficulties and the lack of fairness of grades are significant: "lack of competences of the teachers in the field of technical service of exams, unfamiliarity with the Teams platform, incorrect setting of the exam time, which

consequently made it impossible to return the exam in the Forms system, high stress and lowering the level of written work"; "People who do not cheat have lower grades than cheaters, so it is more the honesty of the students than their knowledge that is tested."

C. Using unauthorized help by students during exams

Students were asked in an open question whether and how they use unauthorized assistance during stationary and remote exams. 16 students (6.72%) did not answer this question in relation to the stationary and remote exams. Additionally, due to the lack of experience with stationary exams, 9 students did not respond to them.

The list of other categories of responses is presented in Table IV.

TABLE IV
USE OF UNAUTHORIZED HELP BY STUDENTS, DEPENDING ON THE FORM OF THE EXAM

Response Category	Stationary exams		Remote exams	
	Number of responses	Percentage of responses	Number of responses	Percentage of responses
I don't use it	175	73,53	163	68,49
Notes / cheat sheets	14	5,88	52	21,85
Help from colleagues / team work	13	5,46	6	2,52
Smartphone	10	4,20	2	0,84
I cheat	4	1,68	4	1,68
I do not cheat because there is no such possibility	3	1,26	14	5,88
Internet	0	-	4	1,68

The analysis of the answers shows that in the surveyed group, about 70% of students declare that they do not use unauthorized assistance during exams, while the percentage for remote exams is slightly lower (68.49%) than in the case of stationary exams (73.53 %).

During remote exams, a much greater proportion of respondents declare the use of various types of notes, cheat sheets, and prepared files (21.85%) than in the case of stationary exams (5.88%). At the same time, the greater part of students noticed that during the remote examination (5.88%) as compared to the stationary examination (1.26%) there is no possibility of using unauthorized assistance. It is worth adding that a smaller group of students during remote exams uses the help of colleagues (2.52%) and uses smartphones (0.84%) than during stationary exams (5.46%; 4.20%, respectively).

Among the statements of students who declare cheating, there are attempts to justify their behavior. For example, it is illustrated by the words "I use it (unauthorized help) if I feel that my passing the exam is at risk" or "I use it and cheated it in the same way during the stationary midterms earlier, it is inevitable; however, revealing the methods is not convenient for me or other students".

Among those who do not cheat - explanations, for example: "At The Maria Grzegorzewska University people do not and should not cheat, it is a good university. Grzegorzewska and Korczak oblige"; "I can't cheat – I can't withstand such stress. I like to be satisfied with a well-deserved good assessment" or "I don't cheat, studies are for me. This knowledge interests me and I am aware that cheating will not help me."

Concerning remote exams, the inability to cheat is illustrated by the following statement: "There is not always a sufficient time to read the question completely, you have to take into account that the form will be closed and you will have to send it a moment earlier (...). Even if you want to cheat, there is no time to do so, too much risk of not being able to fit in time, too high risk that something will happen to the form in the meantime, too much stress with technical problems to add stress from cheating". At the same time, there are comments, the meaning of which is reflected in the words: "(I cheat) in many ways, cheating has become easier in remote mode."

D. Taking into account special education needs in the examination process

It was investigated how the lecturers take into account the special educational needs (SEN) of students during the exams. This open question was not answered by 15 (6.30%) students and by 14 (5.88%) students who did not participate in stationary exams, while in relation to the remote exams 25 (10.50%) respondents did not answer this question.

The response categories are summarized in Table V.

TABLE V
SUPPORT GIVEN BY EXAMINERS DURING THE EXAMS DEPENDING ON THE EXAMINATION FORM

Response Category	Stationary exams		Remote exams	
	Number of responses	Percentage of responses	Number of responses	Number of responses
Longer time of exam	77	32,35	58	24,37
I do not know	47	19,75	46	19,33
Lecturers do not take into account special educational needs	28	11,76	38	15,97
There were no such situations	24	10,08	19	7,98
Customizing the test format	23	9,66	1	0,42
Adjusting the date of the exam	21	8,82	20	8,40
Organizational adjustments	12	5,04	16	6,72
Collecting and taking into account information about needs	12	5,04	21	8,82
Adjusting the form of the exam	11	4,62	16	6,72
Adjusting the requirements (including assessments)	9	3,78	9	3,78

According to almost 12% of students, teachers do not include SEN during stationary exams, and almost 16% of respondents express such an opinion about remote exams. Almost 20% of the respondents do not have knowledge about such actions of lecturers.

The largest group of students believe that the way examiners support their colleagues with special educational needs is to extend the time of taking exams; it concerns to a lesser extent the remote examinations (24.37%) and to a greater extent stationary examinations (32.35%).

Among other activities undertaken by lecturers as part of stationary exams, students mention: adjusting the test format (mainly the size of the font) (9.66%); adjusting the date of the exam, including the possibility of taking the exam individually (8.82%); organizational adjustments (5.04%), e.g. deliberate choice of a comfortable room, better seating in the room, the ability to write on the computer, write in a smaller group, break during the exam, read questions aloud, help in transferring answers to the exam sheet; collecting information about the needs of students and taking them into account (5.04%); adjusting the form of the exam (4.62%); adjusting the requirements to SEN (3.78%), including the preparation of a separate sheet with other questions and a detailed translation of the instructions.

The examiners during remote examinations hardly use any text format adaptation, as this is a redundant activity. Among other activities, they mainly choose: collecting information on SEN and adapting the examination (8.82%); adjusting the date of the exam (8.40%); adjusting the form (6.72%), including the possibility of taking the exam in the form of an interview, on-call, with a sign interpreter; adjusting the organization of the exam (6.72%), such as taking the exam in separate groups, adjusting the platform to the student's needs, the ability to turn off the camera, the ability to contact the teacher directly, being present at the meeting during the exam to be able to provide support, the ability to ask questions during the exam.

Students notice that the needs of people with dyslexia are not taken into account, but the needs of people with disabilities and pregnant women are taken into account. It was also indicated (but only in one statement) for assistance in obtaining extended exam time.

It is interesting that in the context of the question about SEN, there were statements about the failure of lecturers to take into account the technical difficulties of students during remote examinations, which seems to be more important for some respondents than special educational needs.

E. Other students' reflections on stationary and remote exams

Finally, the students were able to express themselves freely by sharing their reflections on the two examination modes. Among the statements there were statements about the objectivity of stationary oral exams, the necessity to use exams other than tests, calls for extending the time of remote exams, because too short time distracts during the exam and lowers the final grades. More trust in students was also asked, so as not to assume in advance that they were cheating, providing information on the rules of passing the exam in advance, being available during the remote examination. There were also voices for maintaining remote education, which is more beneficial for working students, and for the unification of rules applicable to students and lecturers.

It is worth quoting selected statements of respondents, which are both critical voices, reflections and proposals for changes. These opinions are often contradictory, which proves the persistent polarization of beliefs regarding the forms of examination.

"It seems to me that whether the distance or stationary exam is preferred it depends on the student"

"I think remote exams are a much nicer form because, first of all, we support the environment by reducing the use of paper and the emission of toxic substances to the environment, when we do not have to travel to universities. It is also advantageous in terms of time. We can be anywhere on Earth, without fear of changing plans and the need to be present in a given city. Another advantage is the minimization of stress accompanying students while taking exams. We do much better when we do not have to use extra energy to wake up early, prepare to go out, not eat before the exam because of stress, and then starve until we return home."

"Having stationary classes and exams makes it easier to assimilate knowledge and get to know the academic environment. There is less stress because we know students and lecturers and we know how much we have done, knowledge is easier to assimilate ".

"It is worth (...) considering the assessment method in the form of projects, essays or tasks that allow you to search for information. In my opinion, students should rather be able to think logically and skillfully use the resources available to us, such as literature or the Internet, than memorize facts "by heart" when in our professional life we will have them at our fingertips".

IV. Discussion

Before the pandemic, exams in most universities were conducted mainly in the stationary form. Only a few institutions in Poland implemented online exams, mainly in conjunction with e-learning courses or as an alternative or supplement to the stationary form. The Maria Grzegorzewska University conducted, for example, remote health and safety exams and methodology and statistics exams. The SARS-CoV-2 pandemic caused that universities changed the formula of conducting exams to remote, as a natural consequence of the online education.

The preferences of students regarding the form of the exam (remote or stationary) are related to the effort and time they have to spend on preparing for it. The more time and effort it costs to pass an exam in a given form, the less students prefer this form of taking it. Preferences are also influenced by the grades they receive within individual examination forms but compared to their previous achievements [10]. In the presented research, statistical analyzes showed that the majority of students recognize that both forms of exams generate an analogous effort and similar grades. The only difference relates to the level of stress which, in their opinion, is higher during traditional exams.

The method of preparing for exams may be associated with greater effort in remote exams, due to the multiplicity of sources related to the online mode of conducting classes [10]. In the presented research, the analysis of open questions showed that when preparing for remote examinations, students much more often use the materials provided by lecturers, which may be related to the availability of a repository of documents intended for a specific group of students. By implementing the use of MS Teams or Google Classroom and Meet, universities have created places that allow not only communication but also the storage of documents. This is confirmed by the lower number of student declarations regarding the preparation and use of notes when

preparing for the exam in this mode. However, nearly a quarter declare that they prepare in the same way, regardless of the type of exam, only 2% of students attach importance to the technical preparation of equipment to avoid potential problems.

According to the students, the most bothersome difficulties in the stationary exams are chaos, noise, distraction, stress and time limit. In turn, the most important problem related to remote exams are technical issues, which were reported by nearly 90% of respondents. Unpredictable technical difficulties cause stress and anxiety about the loss of credibility and the need to repeat the exam. Recommendations related to the prevention of this type of problem include the need to familiarize students with the technology that will be used as an examination tool, increasing their access to computers that facilitate smooth passing through the exam [9], and the choice by lecturers or the university of reliable software that will ensure saving automatically at least part of student work [8].

An important finding of the research is the statement that, despite teachers' beliefs that remote examination generates opportunities for students to use unauthorized assistance [18], around 70% of respondents declare that they do not cheat, regardless of the examination mode - while in the case of remote examination this percentage it's a little smaller. Moreover, students do not cheat more often during remote exams because they think they have no chance to do it. The dishonesty of students is mainly based on notes, help from friends, searching for sources in the Internet. It can be assumed that they use such help mainly when preparation for the exam requires a lot of effort and time [10], or they find that the content of a given subject does not contribute anything significant to their education [19].

Measures that, according to students, can reduce the intensity of cheating on exams include the selection of technologies appropriate for the exam, modifying the structure of the exam (various forms of the exam, shortening the time of exam, multiple-choice questions), changing the way of assessment (open book exams, introducing an oral exam), proctoring solutions [10]. The analysis of open questions given by students shows that mainly activities related to the specific structure of the exam, in particular the introduction of time limits, are used in relation to them. At the same time, the respondents' answers to open-ended questions indicate the use of similar, repressive measures by lecturers to limit cheating during the exam, regardless of its mode.

There is also a group among students that has special educational needs. In the opinion of the respondents, some lecturers do not take these needs into account, and the most frequently used support strategy is, regardless of the type of exam, extending its duration, which is in line with the recommendations for teachers [10]. Students notice this strategy more often during stationary exams. During the stationary exams, a noticeable activity of lecturers is adjusting the test format (e.g. enlarging the font), which is unnecessary in the electronic version. Other activities for students with SEN are comparable for both examination modes.

The presented research shows that, in the opinion of students, the mode of stationary and remote examination is not significantly different. As in the case of the preferences for a specific learning mode (remote or stationary), also here there is a duality of voices, which proves that for some students a specific examination mode brings more positive feelings and experiences. At the same time, new learning strategies are developed in relation to remote exams, based on the wide availability of technologies dedicated to effective online work.

The use of online examination methods is also a necessity of time - new skills are needed, therefore the forms of learning and examining should be adapted to them [15]. And although taking exams online, especially at the beginning, generates difficulties and a high level of stress, over time, by overcoming problems that are associated with new experiences, it helps to appreciate this form [9] and even to find it more beneficial than the form of traditional.

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