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Attitudes of doctoral students about the method of distance learning

A field study for PhD students in economics, commercial and management sciences
University of Ouargla & University Center Illizi

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Summary:

This study aim to reveal the effectiveness of the distance learning style through the opinions of doctoral students. This study was based on an electronic questionnaire (Google Drive) for 42 students from the two institutions. The most important results were that there is a mean trend of satisfaction among the respondents in interactive distance learning, continuity of distance education and students' interaction in the use of distance education, while it should be noted that there are obstacles to using distance education

Finally, the researchers recommended organizing distance education training courses for teachers and students, work to remove obstacles, the need to combine physical education (without media) and distance education in higher education institutions in the future.

Keywords: distance education, Third stage doctorate, simultaneous education, COVID-19.
Jel Classification Codes: A20; I21, I23, I29, O35

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I- Introduction:

The Corona pandemic has spread to more than 180 countries in the world. This is what forced all educational institutions to shift from face-to-face education that allows for physical closeness, which constitutes an opportunity for transmission of infection to distance education. 1.5 billion children and young people in 188 countries around the world have had to survive in their homes after closing schools and higher education institutions (Affouneh, Salha, Khlaif 2020).

Distance learning is called open learning (ODL) or electronic-learning (EL). It is this type of learning that has been talked about for a long time, and controversy about the need to integrate it into the educational process

Komi (2006) sees that distance education came as a result of technological developments as the educational process was directly affected by the automation of industry and the development of "artificial intelligence" technology and the "Internet of Things" (Internet of Things), as well as the information technology revolution that stormed the classroom and became an integral part of it.

Suddenly, universities were forced to switch to distance learning to ensure the continuity of the teaching and learning process. The Internet, smart phones and computers were used to communicate remotely with students, due to the conditions that the world is currently experiencing, represented by the spread of the Corona virus (Yulia, 2020).

The University Center of Illizi and the University of Ouargla are among the institutions of higher education and scientific research that have experienced distance education in light of the Corona crisis, in all educational stages, including the third phase concerned with our study. Because the process was not subject to an evaluation process on its effectiveness, this study aims to measure the attitudes of third-phase doctoral students towards the application of the simultaneous distance education method.

I-1. Problem

The study seeks to answer the following question:

How do doctoral students view the approved distance education method in providing teaching of some lessons at the University of Ouargla & the University Center Illizi?

This question is about the following sub-questions:

- What is the level of continuity of the simultaneous distance education process in the two institutions?
- What are the obstacles to the use of simultaneous distance education in the two institutions?
- What is the level of interaction of doctoral students with simultaneous distance education in the two institutions?
- What is the level of students' interaction with simultaneous distance education in the two institutions from the point of view of doctoral students?
- Are there statistically significant differences due to a variable of the nature of the subscription, the place of subscription, the nature of the device to which it is connected?

I-2. Objectives &Importance

I-2-1. Objectives

This study aims to reveal the effectiveness of the application of simultaneous distance education in light of the spread of the Corona virus from the point of view of the third-phase doctoral students during the year of attendance training.

It also aims to measure the level of continuity of this course, reveal the level of obstacles to its use, and the level of students' interaction with simultaneous distance education.

The importance of this study can also be summarized:

I-2-2. Theoretical importance: The theoretical literature contained in this study can add new knowledge to researchers, especially with regard to a new theoretical framework on simultaneous distance education in light of emergency situations. Previous studies that were translated in this study may benefit those who are interested in distance learning and the results of its global application.

I-2-3. Practical importance: The results of this study benefit the two study institutions in improving the performance of the distance education system, developing human cadres, material capabilities, trends in selecting the teaching patterns used and setting future plans for e-learning as an alternative to face-to-face learning. The study tool can also be used to measure the effectiveness of the system. Distance education in universities, and the research derives its importance because it is contemporary with a realistic phenomenon, which is the spread of the Corona virus, and the results of this study can be used in similar phenomena such as wars and crises.

I-3. Terms

I-3-1. Synchronous distance learning: Synchronous learning refers to an educational event in which a group of students participate in learning at the same time through the use of technological means such as the Internet and through the use of interactive educational software, electronic networks and smart devices to ensure physical distancing during the period of the spread of the Corona virus.

I-3-2. Corona virus (Covid-19): It is a family of viruses that may cause illness in animals and humans, and causes respiratory diseases in humans ranging in severity from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (SARS). It is characterized by rapid spread (WHO, 2019).

I-4. Limits

The results of this study can be generalized in light of the following limits:

I-4-1. Human limits: This study was applied to (50) doctoral students distributed over the two institutions, the University of Ouargla, 36 doctoral students, and the University Center of Illizi, 6 doctoral students.

I-4-2. Time limits: This study was applied in the second semester of the academic year (2020-2021).

I-4-3. Objective limits: This study dealt with the effectiveness of distance education in light of the spread of the Corona virus at the University of Ouargla and the University Center of Illizi, and used a questionnaire characterized by honesty and a reliability coefficient (0.804).

I-5. Study difficulties:

- The inability to access all references, sources and paper documents that can be adopted as a basic reference.
- Lack of previous studies on the proposed topic.
- The difficulty of accessing the study sample in the current situation of the spread of the Corona virus, and distributing the questionnaire and receiving it electronically using e-mail.

II– Methods and Materials:

This part deals with a description of the study methodology and its personnel, as well as a description of the study's tools, procedures, and statistical treatment that were used in it.

II-1. Study Approach:

This study relied in its procedures on the descriptive analytical approach, which depends on collecting data from the study sample of doctoral students using the questionnaire prepared for the purposes of this study, and studying and analyzing the responses of doctoral students.

II-2. Description of the study population and sample

The study population was represented in the third phase of doctoral students, and as a sample, an intentional sample was selected, represented by doctoral students in the first year of the university year 2020/2021, their number was 42 students who were doctored, distributed among the two institutions concerned with the study as follows:
36 PhD students from the University of Ouargla, 6 PhD students from the Illizi University Center. An electronic questionnaire was distributed to the sample, the link of which was sent to the emails of all students, and it was received using Google Forms.

The number of responding students was distributed from one to 5 students in the specialization, with a total of 13 specializations between the two universities, and most of the answers were from students of business administration, as the specialization is shared between the two institutions; see Table (2)

III. Theoretical framework:

For a short period of time, it was believed that the Internet was nothing but a platform for chatting, reading newspapers, shopping and browsing forums. Then, the use of the Internet and educational institutions began, and knowledge was exchanged through the means of communication, and there were websites for schools and universities on the Internet, and the image of the Internet, smart phones and computers changed, It has come to be seen as an essential educational tool, as the number of schools and universities connected to the Internet is increasing day by day. The search results in Google revealed that there are more than (400) universities and electronic colleges (Online University), and that more than (35,000) teachers and (250,000) students use distance education before the Corona pandemic, and that there are university portals and that there are more than (1700)) An online university course in the United States only (Koumi, 2006).

The increase in the number of teachers and students who use computers, the Internet and smart phones in the learning process is due to the characteristics of distance education and its positive effects.

The study of Edwards and Fritz (1997) revealed that distance education is interesting and interesting. It effectively achieves the desired educational outcomes, and improves students' acquisition of concepts.

Distance education is defined as education provided on the Internet, through the use of modern electronic technologies to access everything related to educational materials outside the boundaries of the traditional educational classroom (Koumi, 2006).

Basilaia and Kvavadze (2020) see that distance education is an organized process that aims to achieve educational outcomes using technological means that provide sound, image, films and interaction between the learner, content and educational activities at the appropriate time and time.

The researcher believes that distance education is a process of replacing distance learning using electronic means of communication with face-to-face interaction in the classroom to achieve the planned educational outcomes.

Among the most important common terms used to express and describe it are distance education, computerized distance education, and it is in the form of interactive meetings via the Internet, in which students can interact with teachers, and receive tasks and duties from them at the same time. (eLearning NC, 2018)

There are many benefits and features offered by distance education, which make it superior to traditional methods of education, as follows:
- Cost control, as it reduces the costs of establishing new classes to hold educational courses and workshops, and providing electricity, water and other materials used in the school, thus ensuring the continuation of learning without going to educational centers, this leads to reducing transportation costs.

- Available to all individuals and age groups, all individuals can benefit from online meetings and courses, gain new skills and school experiences.
- Flexibility, it is not tied to a specific time, so individuals can learn at any time they want according to the time convenient for them.
- investing time by intensifying learning programs, where useless interactions between students are reduced by reducing excessive conversations and time-wasting questions,
- make education more organized and effective; By evaluating exams in a fair and honest manner, as well as meticulously following each student's achievement.
- Environmentally friendly, as there is no use of papers and pens that may harm the environment when disposed of (Ferriman, 2014).

In addition, distance education will be the dominant style of education in the future. The current generation is characterized by its attachment to smart phone devices, the use of various applications, so the integration of technology in the educational process has become a global trend, interaction with educational activities through mobile devices has become a catalyst for learning instead of The traditional study is sufficient (Yulia, 2020).

Despite the many benefits of e-learning, it has some disadvantages as follows:
- It is highly dependent on technology. Although distance education is available to all individuals, many of them may not have smart phones, computers or a network.
- Low level of motivation and organization, because distance education is subjective, some people may find it difficult to motivate themselves to learn, resist playing, and organize the learning process.

Isolation and loneliness, which arise due to students' interaction with computers and smart phones instead of their direct communication and interaction with each other (Hetsevich, 2017).

Yulia, 2020 (Basilaia, Kvavadze, 2020; Yulia, 2020) believes that distance education can be effective if teachers do the following:

1- Organizing educational content: teachers may resort to adopting an educational design to prepare an educational material that effectively achieves the goals, studying the educational needs of students, defining the appropriate goals and means to achieve them, and choosing measurement and feedback tools.

2- Choosing the appropriate educational means: In distance education, the choice of educational means is determined by choosing the appropriate educational software for communication, and the effective and widespread means of communication among students.

3- Determining measurement tools: Because distance education suffers from a weakness in the reliability of assessment and the difficulty of controlling the implementation of tests, and the monitoring process is impossible to avoid cheating, teachers have resorted to formative assessment during interaction with students, or using real assessment.

4- Individualizing learning and meeting different learning needs and styles: by taking into account the diversity of learning styles among students, their computer competencies, their circumstances in terms of study times and the different quality of their networks and devices.

5- Professional growth: the teacher constantly improves his electronic competencies, and improves the level of readiness to use modern technology in the education process.

Before February of the year 2020, no faculty member thought that distance education would be the only gateway to reach students and interact with them to achieve educational goals, as the Corona crisis resulted in the launch of courses for teachers in the field of e-learning and its various means intensively, to maintain continuity Teaching and learning, achieving the requirements of the second semester of the academic year 2020, and achieving physical distancing between students in order to preserve their safety from infection with the Corona virus 19.

The new "Covid 19" virus falls within a new strain of the family of "Corona" viruses that have not previously been discovered in humans, and it is a viral disease that affects the respiratory system of humans at different ages, and the people most affected and vulnerable to it are the elderly

and those with chronic diseases, and it may spread among People by mixing with infected people, and flying droplets during coughing, sneezing and touching the tools of the injured or the victim himself, and its prominent symptoms are the following: fever, high temperature, cough, shortness of breath and general fatigue, vomiting and diarrhea, runny nose, in addition to sore throat. The Red Crescent (2020) states that among the preventive measures and methods of protection that help reduce the risk of infection with this virus are the following:

• Avoid close contact with anyone who has symptoms of the common cold or flu, and avoid touching the eyes, nose or mouth.

• Clean hands with soap and water frequently, or use an alcohol-based hand sanitizer when leaving the house, or touching public facilities and others.

• Use a tissue when coughing and sneezing and dispose of it immediately after using it, or use the upper part of your sleeve or your bent arm in the absence of a tissue.

• Sterilization of all necessities that are purchased before entering the house, and continuous disinfection of surfaces in the home and office.

III-1. Education in the digital environment

As a result of the rapid and important development in educational technology in the past two decades, a lot of modern social media has emerged, which has worked to change the daily lifestyles of individuals, their social relationships, and everything they know. It affected the aspects of their political, psychological, economic, educational and health lives, although the Internet has become the most prominent result of employing educational technology in the service of humanity, the emergence of modern digital technology or what is known as digital education is in fact the most important achievement.

The value added by digital education using smart networks and computers to the educational process includes two aspects: the cognitive aspect (represented in mastering reading, writing, arithmetic and research skills) and the educational aspect (representing behavior change, acquiring life skills and developing the motivation to learn), which is, in general, a real and practical translation For his philosophy of distance education, which is based on expanding the base of educational opportunities for individuals, and reducing their cost compared to traditional learning systems, as a philosophy that emphasizes the right of individuals to seize available educational opportunities, not restricted by time, place, or class of learners, and not limited to a certain level or type From education.

III-2. Types of e-learning

III-2-1. Video conferencing via distance learning:

Video conferencing is a common way for teachers to interact directly with students in live lessons, this could be a one-on-one session or a classroom-like scenario where many students are communicating with the teacher, distance learning institutions often use video conferencing to teach students, for this reason video conferencing software is used as high-quality as Talks Cloud Meeting, this ensures you flawless communication and enhances the experience of both students and faculty, thus video conferencing plays a vital role in distance learning, but you may not be aware of the benefits of learning via ez Talks Cloud Meeting.

III-2-2. Synchronous vs Asynchronous Distance Learning:

Another very important distinction when it comes to different types of distance learning, is synchronous versus asynchronous learning.

First, synchronous distance learning:

Synchronous learning is where you participate in learning activities (such as webinars and virtual classes) simultaneously with teachers and fellow students.

Advantages of synchronous distance learning:

- You can interact with your teachers and fellow students in real time via synchronous learning.
- You can get instant feedback from teachers.

- You may be more motivated to ask questions or participate in discussions in synchronous learning.
- Disadvantages of synchronous distance learning:
- You will have less flexibility compared to asynchronous learning, as you will have to be available to attend sessions at the scheduled times.
- You will need to have access to the relevant technology (which can be expensive).
- You will need to be comfortable using the relevant technology.

IV. Review of Literature

The literature of the study directly related to the topic was reviewed, arranged from newest to oldest as follows:

(Draissi, Yong, 2020): This paper aims to identify the response plan to the outbreak of the disease (Covid-19) and the implementation of distance education in Moroccan universities. It relied on various documents consisting of daily news articles and various reports from university websites. The study used the method of content analysis, and the results indicated that the Covid-19 pandemic urges universities to continue to overcome difficulties, and new teaching methods were based on increasing student independence, while increasing the additional work of professors.

(Sahu, 2020): This paper aims to know the impact of university closures due to the Corona virus (COVID-19) on the education and mental health of students and faculty. The results of the study showed that universities must implement laws to slow the spread of the virus. Students and staff should receive regular information through email and health. If students and staff safety is our priority, counseling services should be available to support students' mental health as well as responsibility to ensure food and housing for international students PhD Students should pay close attention to technology to make student learning experiences Rich and efficient.

(Yulia, 2020): It was in the form of a descriptive study aimed at clarifying the ways in which the Corona pandemic affected the reshaping of education in Indonesia. Online learning, where the study concluded that there is a high speed of the impact of the Corona epidemic on the education system, as online learning led to limiting the spread of the epidemic instead of the traditional method of education by limiting the mixing of individuals with each other, and the study proved the importance of using strategies Smoothly different and improve online education.

(Basilaia, Kvavadze, 2020): This paper discusses the experience of moving from school education to online learning during the spread of the Corona virus epidemic in Georgia, as it was based on the statistics of the teaching process in a private school and its experience in moving from face-to-face education to distance education during this pandemic. Traditional education and online education have been successful, and the system and skills acquired in a post-pandemic phase can be used in different situations such as those with special needs who need extra hours, or by increasing the effectiveness of group teaching.

(Hodges, Moore, Lockee, Trust, BondH, 2020): This study aims to reveal the difference between distance teaching in emergency situations and online education, as the researchers designed a model consisting of evaluation conditions and a set of questions through which online teaching can be evaluated. After emergencies, and measuring the success of online distance learning experiences, the study concluded that online learning experiences differ from emergency learning in terms of quality of planning, and colleges and universities in general have worked to maintain education during the COVID-19 pandemic.

(Favale, Soro, Trevisan, Drago, Mellia, 2020): This study aims to analyze the impact of implementing lockdown on campus traffic and e-learning during the COVID-19 pandemic, and how the pandemic has changed traffic on campus, Politecnico di Torino, and collaboration in the use of private platforms via distance learning. The results indicated, after analyzing the considered changes, to demonstrate the ability of the Internet to deal with a sudden need, and that platforms for

remote work, distance education and online collaboration are a viable solution to deal with the policy of social distancing during the COVID-19 pandemic.
This study is similar to literatures of study in dealing with distance education and using the descriptive and analytical approach, but this study is distinguished from that literature in dealing with the effectiveness of distance education in light of the spread of the Corona virus through the opinions of doctoral students at the University of Ouargla and the University of Illizi Center.

V. Results and discussion :

The presentation and analysis of the results based on the sequence of study questions will be as follows:
To analyze this questionnaire, the Means and standard deviations of its three domains were calculated. The results were as in the table (3).

- Results of the first question: What is the level of continuity of the distance education process in the university institutions under study?

Table (4) shows that the paragraphs of the field of "continuity of simultaneous distance education" ranged between a mid-level and a good degree. The paragraph "the success of e-learning is linked to the provision of infrastructure" came in the first place with a mean of (2.90) and a standard deviation of (0.403) to a good degree, and the paragraph "the university administration provides the logistical capabilities for the success of this pattern" came in the last rank with mean of (1.83) and a standard deviation of (0.791) at a mid-level.

- The results of the second question: What are the obstacles to the use of simultaneous distance education?

The results of the analysis showed a representation of logical answers for the students in the two institutions, where the answers of the students of the University Center of Illizi accounted for 16.7% with 5 answers out of 30, while the majority of the respondents were from the University of Ouargla with a percentage of 83.3%, 25 answers, see Figure (5)

VI-Conclusion:

The most important results were; There is a mean trend of satisfaction among the respondents in interactive distance learning, Continuity of distance education, Students' interaction in the use of distance education, while it should be noted that there are obstacles to using distance education.

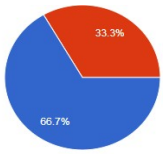
Finally, this study recommends several points, including:

- Investing in positive directives for students and faculty members towards distance education, setting plans and programs to benefit from these directives, organizing training courses in the field of distance education.
- Training teachers and encouraging them to communicate with students through electronic pages and e-mail,
- The necessity of the university's interest in introducing the method of distance education in university education, and spreading electronic culture among students to achieve the greatest degree of interaction with this type of education.
- Providing an appropriate educational structure for applying distance education at the university and removing all human, material and technical obstacles.
- The university should conduct more studies and research to find out the effectiveness of distance education under harsh conditions and hold conferences and seminars to develop distance education.
- The necessity for the university to offer materials that give the student the skills and techniques of distance education in order to facilitate the process of interaction and benefit by students with the educational materials presented electronically.

- Appendices:

Table (1) :Distribution of the study sample by gender

gender	Number
female	11
Male	19
Total	30



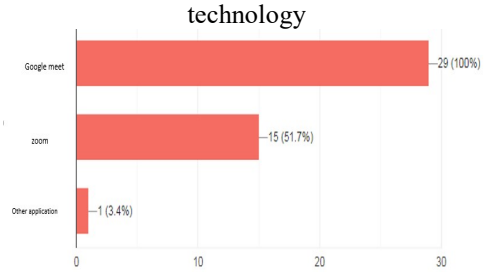
The source: Prepared by researchers

Table (2) :Distribution of students according to specialization

SPECIALIZATION	NUMBER
Strategic Management	3
Business Management	5
Managing And Gestion Human Resources	3
Quantitative Economics	1
AccountingandAdvance Fiscal	1
International Trade and Logistics Services	1
Tourism Marketing	3
Marketing Services	3
MonetaryAnd Banking Economics	3
Accounting&Auditing	2
Accounting&Fiscal	3
Accounting& Finance	2
Total	**30**

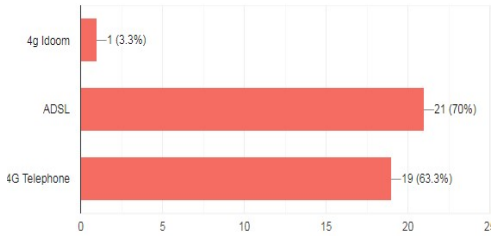
The source: Prepared by researchers

Figure (2): Distribution by distance teaching technology



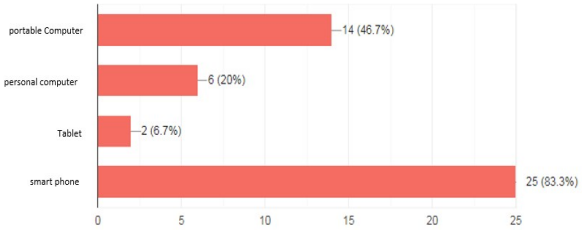
The source: Prepared by researchers

Figure (3): Distribution according to the nature of the Internet subscription



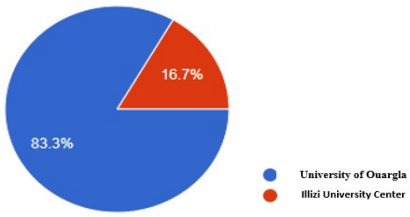
The source: Prepared by researchers

Figure (4): Distribution by computer used



The source: Prepared by researchers

Figure (5): Distribution by university



The source: Prepared by researchers

Table (3): Means and standard deviations of the effectiveness of the educational content and interaction with the professor

N"	Paragraph	sample members	Mean	standard deviations	Degree	ranking

1	The educational content presented online is comprehensive and sufficient	30	2,57	0.774	good	**4**
2	The teacher's control of technology has a role in the success of teaching	30	2,93	0.365	good	**1**
3	I think what I got electronically is equivalent to what I might get in regular teaching	30	2,00	0.871	mid-level	**10**
4	E-learning gave me additional skills in my scientific and academic studies	30	2,60	0.770	good	**3**
5	Responding to the professor while teaching is effective	30	2,33	0.844	good	**7**
6	Class time management is controlled by the teacher	30	2,47	0.860	good	**5**
7	The nature of the subject has a role in the success of teaching it electronically	30	2,73	0.583	good	**2**
8	I feel bored during class	30	2,23	0.817	mid-level	**9**
9	This style of learning lacks the human aspect between the teacher and the student	30	2,27	0.828	mid-level	**8**
10	I get annoyed when I have a homework that requires internet	30	1,77	0.898	mid-level	**11**
11	I have confidence in the electronic evaluation by the professor	30	2,47	0.776	good	**5**
First dimension		**30**	**2,3970**	**0.34139**	good	

The source: Prepared by researchers

Table(4): Means and standard deviations of Continuity level of simultaneous distance education

N"	Paragraph	sample members	Mean	standard deviations	Degree	ranking
1	E-learning can be relied upon in parallel with traditional education	30	2,63	0.765	good	3
2	The success of e-learning is linked to the provision of infrastructure	30	2,90	0.403	good	1
3	E-learning has no results in the current teaching environment at the university	30	2,10	0.845	mid-level	6
4	The necessity of supporting e-learning with training courses for students and professors	30	2,83	0.461	good	2
5	I would like to continue my e-education even after the pandemic is over	30	2,33	0.922	mid-level	4
6	The university provides the logistical capabilities for the success of this style	30	1,83	0.791	mid-level	7
7	I would like to generalize this pattern to all courses	30	2,23	0.898	mid-level	5
Second dimension		**30**	**2,4095**	**0.42067**	**good**	

The source: Prepared by researchers

Table (5): Means and standard deviations of Obstacles to the educational process electronically

N"	Paragraph	sample members	Mean	standard deviations	Degree	ranking
1	The flow of the Internet contributes to the success of e-learning	30	2,80	0.551	good	2
2	Internet subscription costs weaken the desire to accept e-learning	30	1,70	0.915	mid-level	6
3	My technological culture does not allow me to encourage this style of education	30	1,47	0.776	Weak	7
4	My income covers the costs of e-learning	30	2,67	0.661	good	4

5	With this type of education, I avoid going to university	30	2,93	0.365	good	1
6	I am a doctoral student and I feel that e-learning is suitable for this educational stage	30	2,70	0.651	good	3
7	The nature of the device I am connected to affects my interaction with the lessons	30	2,33	,844	mid-level	5
third dimension		**30**	**2,3714**	**0.31522**	good	

The source: Prepared by researchers

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