

## Effects of COVID-19 on E-learning at Hassan II University of Casablanca, students: Results of survey conducted on 9,439 students\*

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### Abstract

The COVID-19 pandemic has changed education forever. It has resulted in Universities shut all across the world. In response to the emerging and ever solution to the COVID-19 epidemic, universities have innovated by creating new e-learning platforms. The purpose of this paper is to conduct a study on 9,439 students of Hassan II University of Casablanca, in particular to verify whether this was their first experience in e-learning? the difficulties encountered when using the new platform? How they connect to this platform? As well as a vision of the different platforms that students use during this period and if the objectives have been achieved and the degree of student satisfaction of the new elearnig plateau.

**Keywords:** e-learning; higher education; COVID-19; coronavirus; Hassan II University of Casablanca

### Introduction

On December 31, 2019, Chinese authorities reported to the World Health Organization (WHO), the presence of numerous cases of an unknown disease that presented like flu in Wuhan City, Hubei Province in China. After virus isolation and analysis of the viral genome sequence from the lower respiratory tract samples of infected patients, a novel coronavirus named coronavirus or SARS-CoV-2 was identified and subsequently named COVID-19 by the WHO<sup>1</sup>.

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<sup>1</sup> Elizabeth Armstrong-Mensah, Kim Ramsey-White, Barbara Yankey and Shannon Self-Brown, COVID-19 and Distance Learning: Effects on Georgia State University School of Public Health Students, *Front. Public Health*, 25 September 2020 | <https://doi.org/10.3389/fpubh.2020.576227>

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COVID-19 pandemic has led to the closure of universities and schools around the world in March 2020, in the hope that social distancing can help to flattening the infection curve and reduce the total number of deaths from the disease.

Accordingly, education has changed dramatically, through distance education. Although some of the schools, as well as the universities, used remote learning before the pandemic, it was not obligatory and did not focus on the whole teaching process. After the outbreak of the COVID-19 pandemic, universities and schools around the world were shut down and the distance learning for every subject or course has become a daily practice<sup>2</sup>.

While countries are at different stages in their COVID19 infection rates, globally there are currently over 1.2 billion children in 186 countries affected by school closures due to pandemic.

## Literature Review

Reports and studies conducted globally show that there was not one model for teaching classes online. Different platforms and means of communication were used. Students were exposed to a variety of formats replacing on-site lectures, like, for instance, synchronous and asynchronous video lectures.

This situation was especially severe for organizations that were highly dependent on face-to-face Instructor-Led Training (ILT) for their employee development, skilling, and training<sup>3</sup>.

Although there have been overwhelming challenges for educators, schools, institutes and the government regarding online education from a different angle, there are several opportunities created by the COVID-19 pandemic for the unprepared and the distant plans of implementing e- learning system. Teachers are obliged to develop creative initiatives that assist to overcome the limitations of virtual teaching. Teachers are actively collaborating with one another at a local level to improve online teaching methods<sup>4</sup>.

## Background of E-Learning Tools in Hassan II University of Casablanca

Following the decision declared in the press release from the Ministry of National Education, Vocational Training, Higher Education and Scientific Research on Friday March 13, 2020, Morocco switched to distance education in order to limit the spread of Coronavirus.

Being proactive in the digital field, the Hassan II University of Casablanca (UH2C), adopted in July 2019 a development project which is based on the 5i strategy (i-governance, innovation, internationalization, insertion and inclusion) mainly focused on digital as a tool for optimizing university services. Thus, Hassan II University of Casablanca has developed an integrated digital platform, i-UH2C, bringing together all of the university's services, including e-learning. This new Digital Work Environment (ENT) includes educational resources highlighting the interaction between students and teachers.

The digital resources of UH2C thus allow its students to follow their courses regularly in direct broadcast mode or in deferred access on the MOODLE (Modular Object-Oriented Dynamic Learning Environment) platform integrated into the i-UH2C. The goal of this integrated platform developed by UH2C is to allow each student and teacher to continue their academic journey in order to ensure the continuity of the courses.

The teachers ensure the success of this operation thanks to the interactive virtual classes and discussion forum. A unit has been created at the level of the presidency of UH2C in coordination with the units of its various establishments in order to assist in the operation of distance education. The students were encouraged to access their digital workspace in order to find courses in their fields and disciplinary fields. This operation allows them to follow their lessons in real time and interact with their teachers.

This digital transformation accelerated by the confinement situation linked to the COVID 19 pandemic reinforces the efforts undertaken by the UH2C for eight months to adapt the objectives of its 2019-2023 development project strongly focused on educational innovation and governance, based on digital (i-Governance).

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<sup>2</sup> Cicha Karina, Rizun Mariia, Rutecka Paulina and Strzelecki Artur (2021), *COVID-19 and Higher Education: First-Year Students' Expectations toward Distance Learning, Sustainability*.

<sup>3</sup> Amit Gautam, (2020). *Is COVID-19 Disrupting Online Learning For Good? [Online]*. *E-learning industry*, <https://elearningindustry.com/covid-19-disrupting-online-learning>

<sup>4</sup> Sumitra Pokhrel, Roshan Chhetri, *A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning*, Sage pub, January 19, 2021, <https://doi.org/10.1177/2347631120983481>

It should also be noted that the Hassan II University of Casablanca, concerned about the psychological health of its students in this period of confinement very loaded by changes in lifestyles and learning, created the listening and psychological unit to ensure support for the benefit of its students and their families, with the help of more than 20 expert psychologists from UH2C.

Hassan II University of Casablanca has also made available to its students and users a link to follow more courses registered in other Moroccan universities and shared by the Ministry of National Education, Vocational Training and Higher Education and Scientific Research.

I-UH2C e-learning platform:

UH2C, which has today around 130,000 students in addition to 3,000 employees, and all other Moroccan universities have switched to distance education and this for and to limit the risk of the spread of the COVID19 virus in institutions academics, who experience mass human flows on a daily basis. In this particular context of the state of health emergency, and in order to be able to ensure pedagogical continuity while maintaining the quality of the service offered to students, the Moroccan university was able to accelerate the process of its digital transformation by implementing place of a certain number of innovative services: Virtual teams, Videoconferencing, Webinars, distance training via the E-learning platform, Mooc, ..., direct distribution or in deferred access on the MOODLE platform (Modular Object Oriented Dynamic Learning Environment). In this context of digitalization of the training offer, UH2C has set up:

UH2C offers more than 359 courses in its training offer spread over 18 establishments.

E-learning training platform management system which is a learning environment, accessible via the ENT, allowing:

- Teachers to teach online, record videos or course materials
- Students to attend online classes and interact with their teachers

This Platform considers “Apogée” as a benchmark for an educational structure, with a central authentication system, students are redirected from apogee to the i-UH2C platform.

During this pandemic period, more than 4000 courses were taught online at the level of 10 universities with regulated access, and more than 5000 courses at the level of 08 universities with open access. Still in the interests of health security, the UH2C has also set up a remote registration platform dedicated to students to allow baccalaureate holders to submit their administrative files remotely for the year 2020-2021 and validate their registrations via an interview, by videoconference.

## **Results**

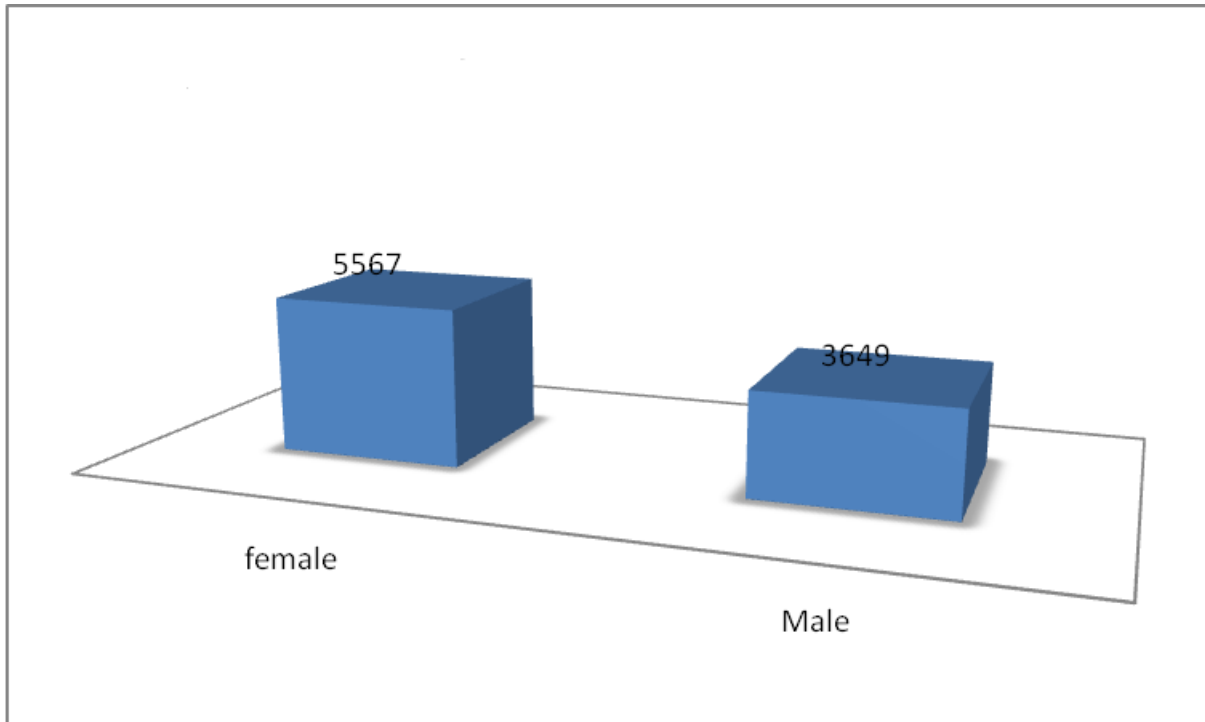
### ***Methodology***

MOODLE, which is the Technology used by Hassan II University of Casablanca for ELearning, was used in the study.

The research used a quantitative approach; the survey was conducted through the GOOGLE form; the links were shared with the student through the WhatsApp group of lecturers.

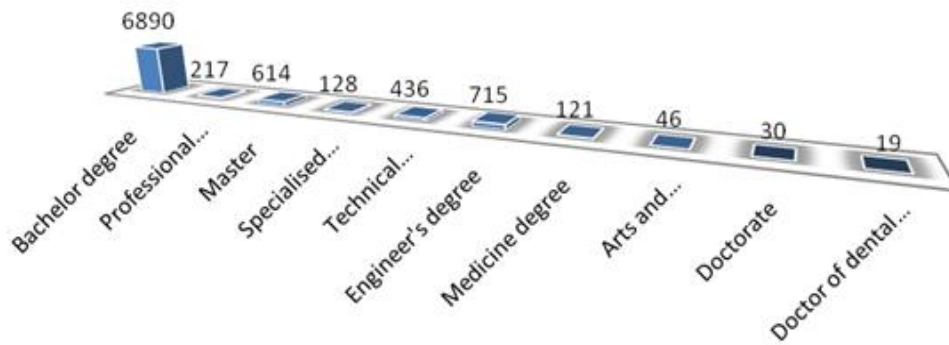
The study employed concerned all the category of students: undergraduate, master and doctorate.

### ***Data Analysis***



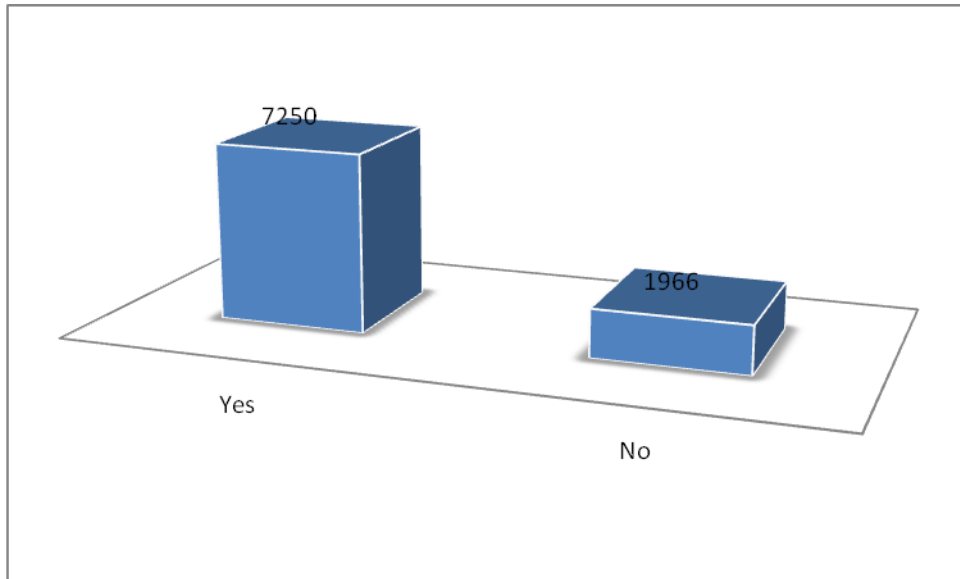
**Figure 1: Number of participants to the study**

In this study, 5567 of respondents are female, while 3649 are male.



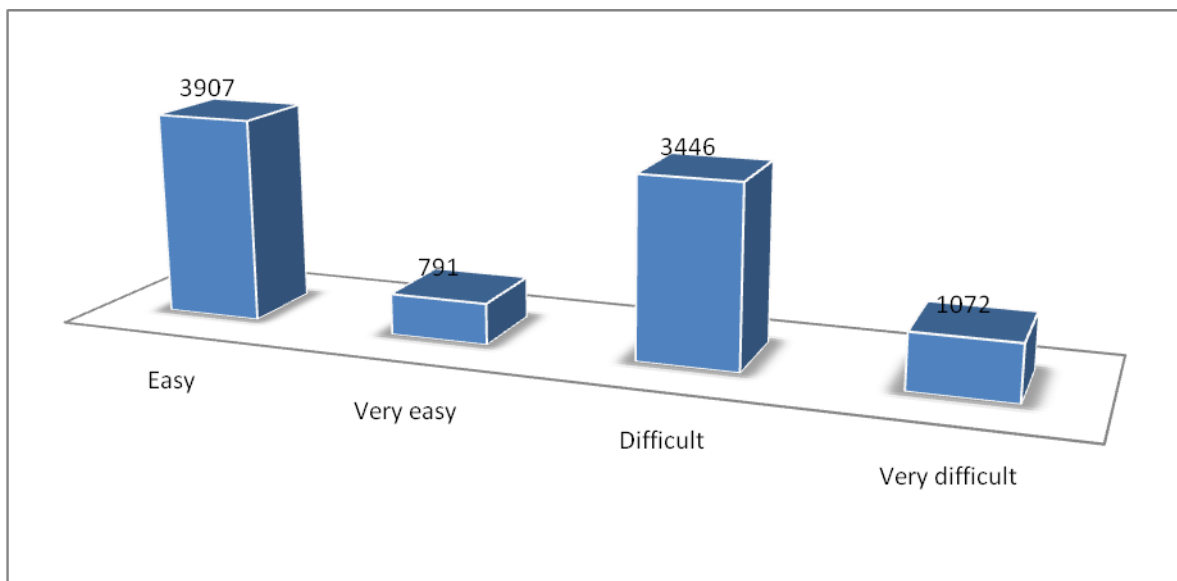
**Figure 2: Cycle degree program**

The majority of participants in the study are bachelor students (6890) and master students (614).



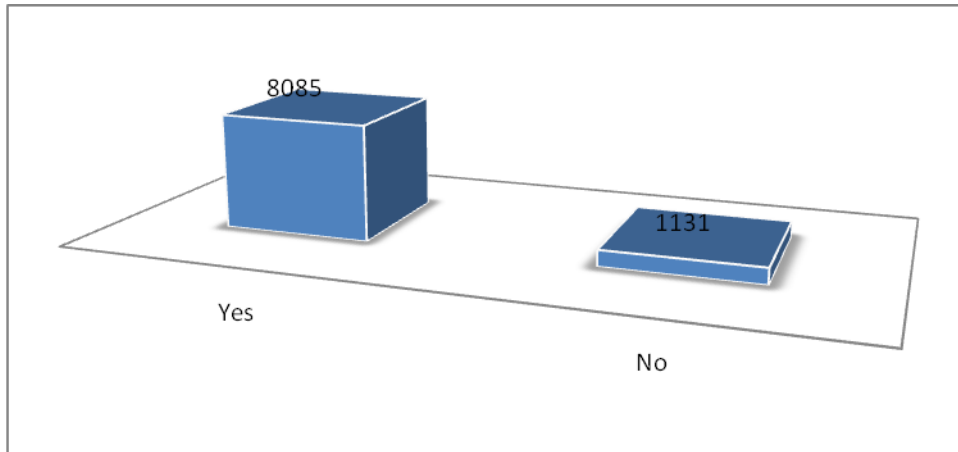
**Figure 2 : Do you consult the digital platform for distance learning courses developed by Hassan II University of Casablanca?**

More than 76% of respondents consult the digital distance training platform developed by the Hassan II University of Casablanca.



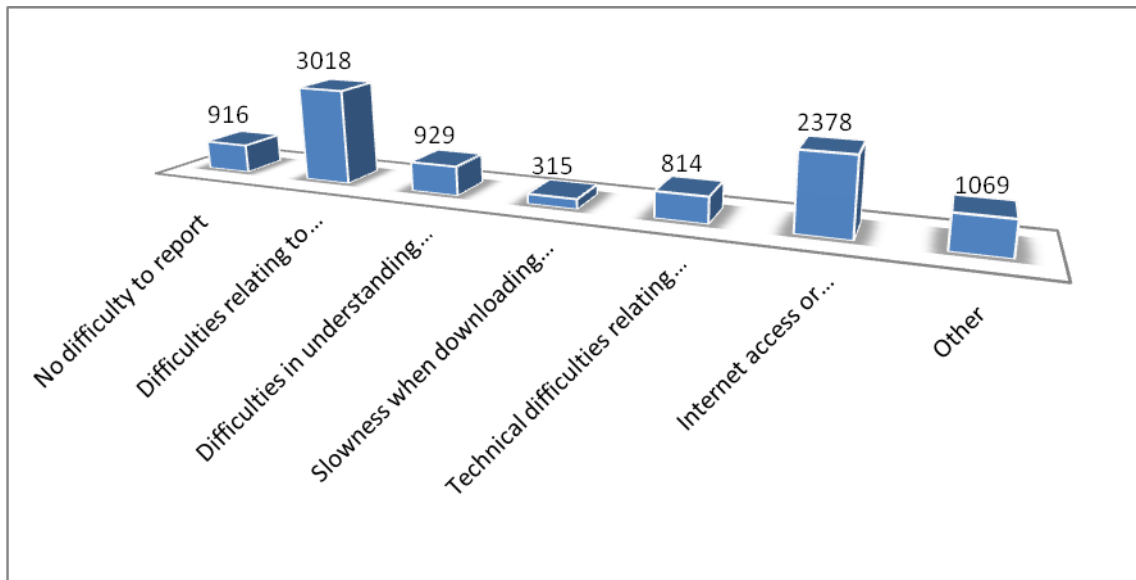
**Figure 3: Do you think that the use of the platform is?**

More than 41% of respondents think that the platform is easy to use. Indeed, more than 36% of students find it difficult to access the platform



**Figure 4: Is this your first e-learning experience in your University?**

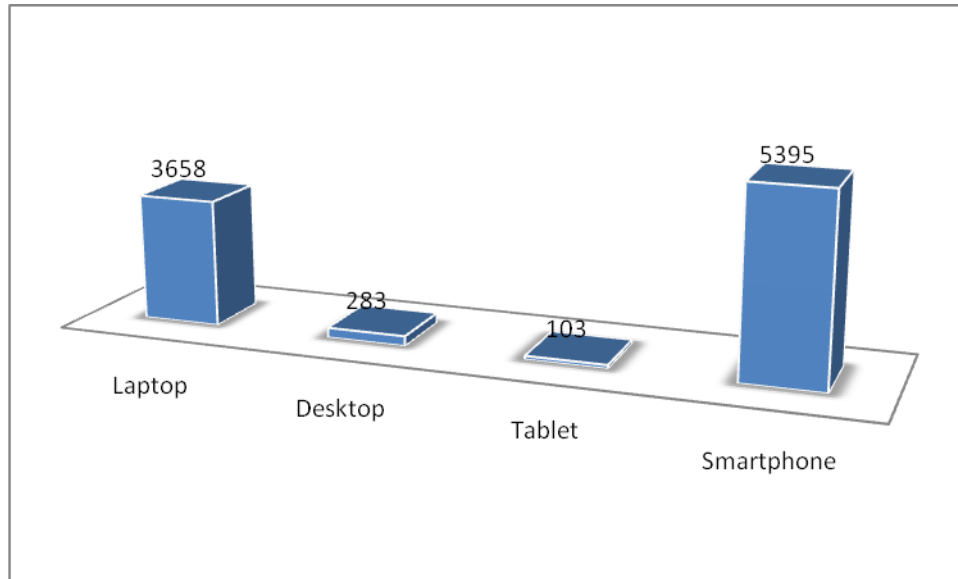
For the majority of students who participate in the study, this is their first elearning experience.



**Figure 5: Difficulties you encountered while taking distance courses**

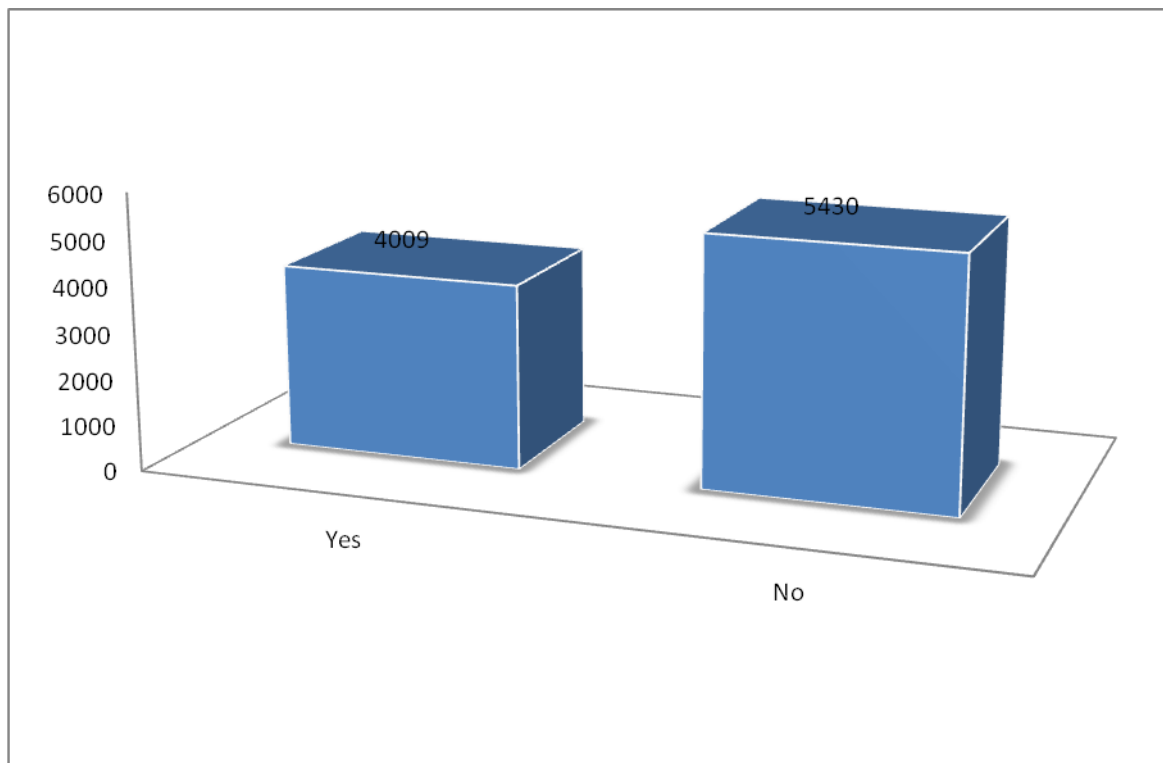
However, there are challenges to overcome. 3192 students without Internet access reliable and / or without technology find difficulties to participate in digital learning. Others don't have those kinds of worries. For example, while 3018 students find difficulties in understanding professors via elearning studies, 315 are suffering from slowness when downloading.

Over 31% of respondents find it difficult to learn online courses.



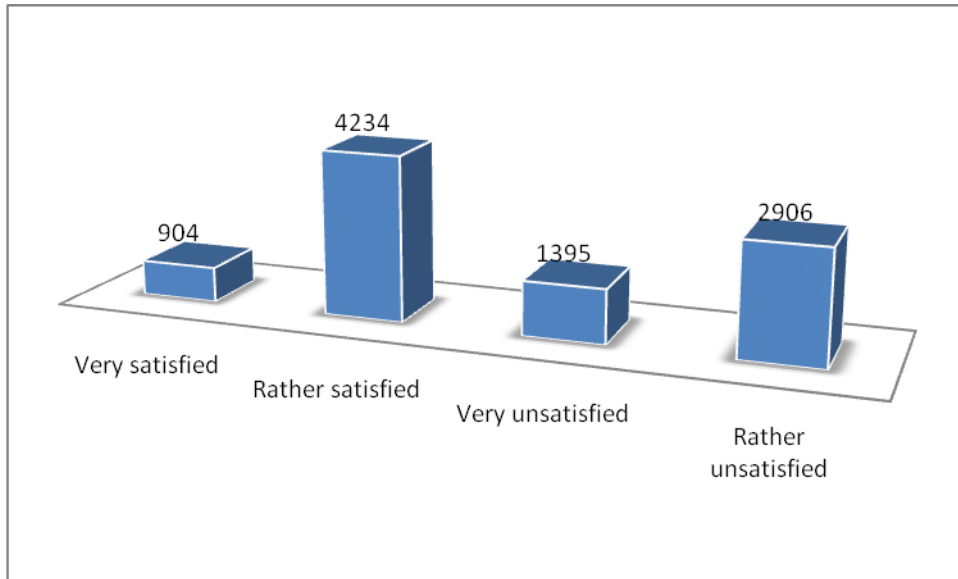
**Figure 6: How do you connect to the UH2C platform?**

More than 57% of respondents access the platform from their smartphone, as well as more than 38% of respondents access it via a personal computer. The result represented in Figure 7 proves that the sample is reasonably well equipped to engage in E-learning mainly through Smartphone and Laptop.



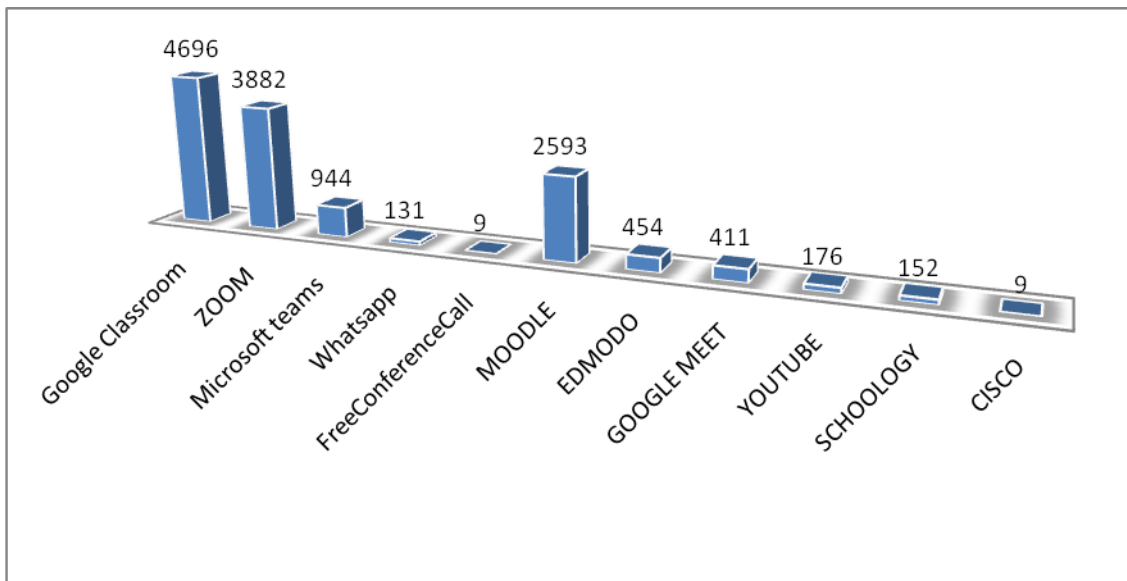
**Figure 7 : Are the courses taught interactive and understandable?**

In an E-learning environment, students will be the ones who will benefit the knowledge and acquire skills in an E-learning environment. Therefore, they must benefit from courses that are interactive and understandable. In this study, more than 57% of respondents consider that the courses taught are not interactive or understandable.



**Figure 8: How much do you appreciate courses via the UH2C e-learning platform?**

For the question of appreciation of courses via the online UH2C platform, 45% of respondents appreciate the online courses via the UH2C platform.



**Figure 9: Use of other distance education platforms**

Finally, the data presented in figure 10 shows that the other platforms most used by students are respectively Google classroom (4696 respondents), ZOOM (3882 respondents), Microsoft teams (944 respondents), Edomodo (454 respondents) and Google meet (411 respondents).

**Conclusion**

The article discussed the importance of eLearning in the context of university setting, especially during the COVID-19 pandemic where remote teaching and learning supersede the traditional instructional methods. The study shows that this was first elearning experience for students in Hassan II University of Casablanca.. The major difficulties encountered are related to internet connection. More than a half of interviewees are rather satisfied about this experience.

It is true that the distance education platform of the Hassan II University of Casablanca has solved the problem of stopping classes caused by the coronavirus, but it is time to think about improving the capacity of the platform , the quality of the



connection speed, to carry out more awareness-raising actions for students to use and master the platform and to provide students with a language platform allowing them to progress in the level of mastery of the two main languages, namely French and English.

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