

**The perception of remote education by teachers  
In light of the covid 19 pandemic  
The case of ESSTS teachers**

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**Abstract:** During the covid-19 pandemic, Algerian universities found themselves facing a real challenge requiring them to quickly and effectively integrate new educational approaches into the training process. Indeed, distance learning remains an advantageous solution to ensure pedagogical continuity, but at the same time, these alternative risks being hampered by some constraints thus influencing its smooth running. This study aims to study, on the one hand, the perception of the adaptation process of teachers of the Higher School of Science and Technology of Sport to remote education and on the other hand, to determine the main obstacles to which they have to cope in order to ensure pedagogical continuity. In conclusion, we will present some suggestions to contribute to the development of remote education in our country.

**Keywords:** remote education, covid19, adaptation process

**Jel Classification Codes:** M150, M120

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**الملخص:**

وجدت الجامعات الجزائرية نفسها خلال جائحة كوفيد-19 ، أمام تحدياً حقيقياً يفرض عليها دمجاً سريعاً وفعالاً للمقاربات التعليمية الجديدة في عملية التدريس ، فالتعلم عن بعد يظل ففي الواقع حلاً مفيداً لضمان الاستمرارية التعليمية ، ولكن في الوقت نفسه، فإن هذا البديل يخاطر بالتعرض لبعض المشاكل والعراقيل مما يؤدي الى سوء سير العملية التعليمية . تهدف هذه الورقة البحثية إلى معرفة مدى تكيف أساتذة المدرسة العليا لعلوم الرياضة وتكنولوجياها للتعليم عن بعد من جهة ، وكذا تحديد المعوقات الرئيسية التي يتعين عليهم التعامل معها من جهة أخرى. من أجل ضمان الاستمرارية التعليمية، الى أن تصل الى جملة من الاقتراحات و التوصيات للمساهمة في تطوير التعليم عن بعد في الجزائر. الكلمات المفتاحية: التعلم عن بعد، كوفيد 19، عملية التكيف

## **1. INTRODUCTION**

Our world has been experiencing a health crisis linked to the covid-19 pandemic for more than two years, which has had negative consequences on several sectors of activity, in particular the education sector. Algeria was not spared, since Algerian universities had to face an unprecedented situation in order to ensure educational continuity. Since then, information and communication technologies have grown and become an integral part of our daily lives.

Consequently, classroom lessons were transferred online and teachers found themselves faced with a situation in which mastery of the tool used became essential. Unfortunately, many teachers find themselves in difficulty and encounter problems in the learning environment. In addition, pressure builds due to the rapid and sudden change.

### **The question of the study:**

It is in this way that we posed the following problem:

#### **Have ESSTS teachers adapted to the remote learning process, and what obstacles have they faced?**

From this issue arise the following questions:

- 1) What are the electronic means of communication already used by teachers?
- 2) Did ESSTS teachers easily adapt to remote learning?
- 3) What are the difficulties encountered by teachers during their transition to remote learning?

### **Hypothesis:**

To answer this problem, we have made the following two (02) hypotheses:

**H1:** The teachers of the ESSTS use more and more the means of electronic communication within the framework of their work.

**H2:** ESSTS teachers have easily adapted to remote learning.

### **The Objective of the study:**

Through this study, we would like to describe and analyze the perception of the teachers of the Higher School of Science and Technology of Sport (ESSTS) in relation to remote learning; we will try through this study:

- To identify the level of adaptation of ESSTS teachers to distance learning.
- Identify the difficulties encountered.
- Determine the factors that influence their adaptation (motivation, poor connection, etc.)

### **Methodology and sample selection**

Our research is based on a qualitative method. To this end, a questionnaire survey was conducted online with teachers from the Higher School of Sports Science and Technology with the two specialties in this case management and training.

- This questionnaire covers two main areas: the first relating to the nature of the technological means used by teachers and the second relating to adaptations and obstacles related to remote education.

## **2. Literature review**

### **2.1 Remote learning**

The term "remote education" refers to formal courses offered by the teacher to the student in a context where they are both distant in order to allow the student to follow his courses using the appropriate media. (Boufala & Lisse, 2021, p. 479)

Daniel Peraya (2005) stipulates that "remote training, because it separates the teaching-learning process in time and space, immediately appears as deferred training and, consequently, it must necessarily be design and be implemented as mediated training. In other words, all remote learning necessarily uses technical arte facts, old or new, analogue or digital media devices: printed and illustrated books or manuals, radio broadcasting, sound recordings on cassettes, live or video taped television broadcasts, information and communication. This is how pedagogical resources, the various communication and collaboration tools, will be made available to learners, (Peraya.D, 2002).

The emergency remote education process is a temporary transition from traditional education to remote education using information and communication technologies; and once the causes of the emergency disappear, we return to our starting situation (Boufala & Lisse, 2021, p. 484)

In the light of the previous definitions, we can see that remote learning brings together two actors who are: the teacher and the student with the aim of pursuing this technique requires training, good course design and appropriate means of communication.

## 2.2 The covid-19 pandemic

Coronavirus disease (covid19) is an infectious disease caused by the SAR-CoV-2 virus.(WHO, 2021)

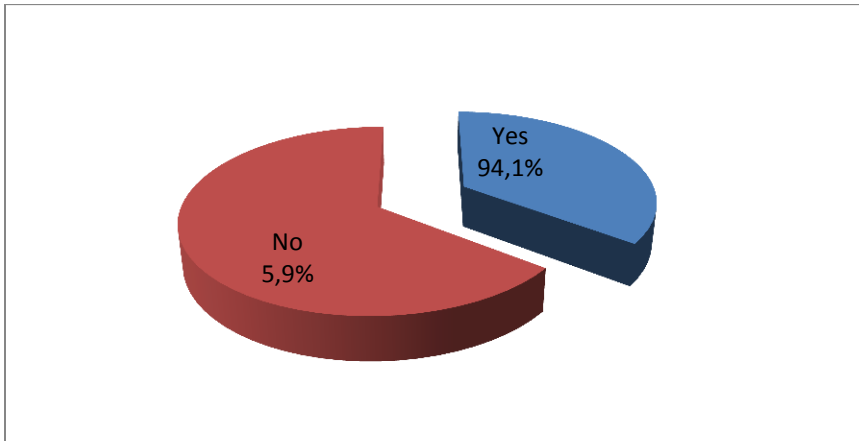
The Covid-19 pandemic is the result of the transmission of the Sars-cov-2 virus responsible for a highly contagious infectious lung disease(Hedidi & RN, 2021) This virus, which appeared at the end of 2019 in China, succeeded in paralyzing the world at the beginning of 2020 because of its very rapid spread. (Hamdi-Cherif, 2020).

### 3. Result and discussion

#### Axis 01: Nature of the technological means used

- Do you use ICT (information and communication technologies) in your work?

Fig.1. Use of ICT by teachers

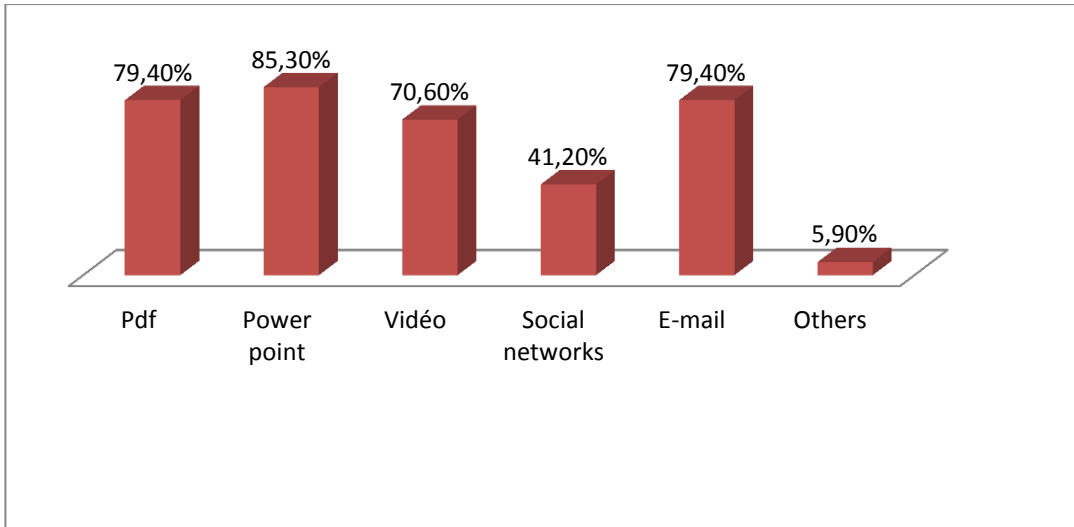


Source: established by ourselves

We note that almost all teachers use information and communication technologies with a percentage of 94.1%. 5.9% do not use them.

- What means of electronic communication do you use?

**Fig.2. Electronic means used**



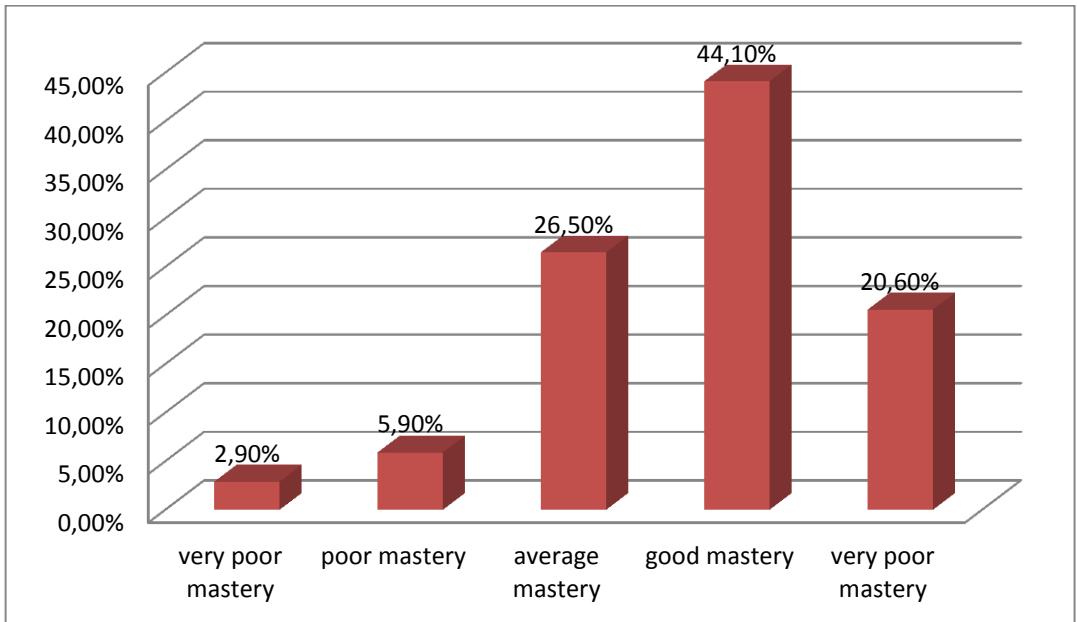
**Source:** established by ourselves

The percentages attributed to the different means of electronic communication used by teachers are as follows:

- PDF: 79.4%
- PowerPoint: 85.3%
- Video: 70.6%
- Social networks: 41.2%
- Email: 79.4%
- Others: 5.9%

- On a scale of 1 to 5, how would you rate your mastery of its (their) use(s)? (1 : very poor mastery up to 5 very good mastery)

**Fig.3. Mastery of means used**



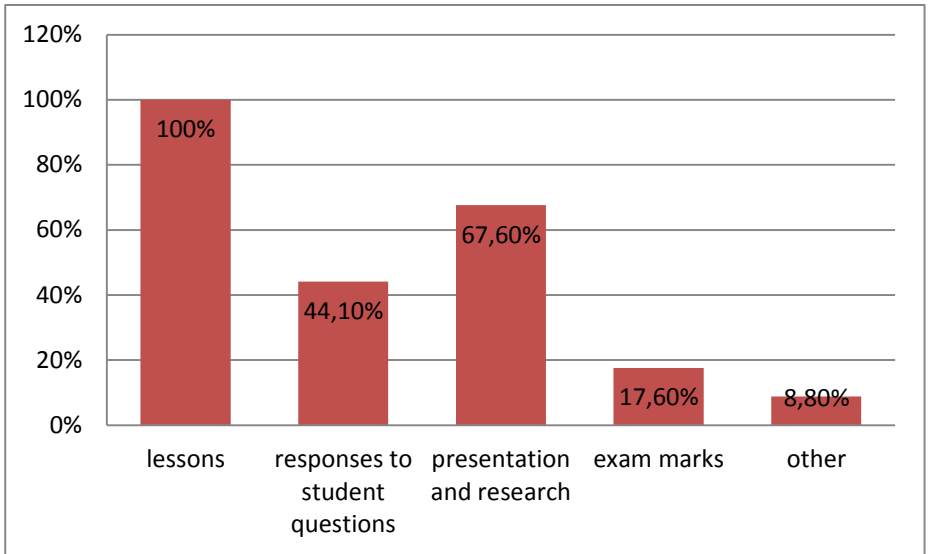
**Source:** established by ourselves

The results indicate that 44.1% of teachers have a good command of the electronic means of communication used, 26.5% of them master them moderately, and 20.6% consider that their mastery is very good while 5.9% declare poor mastery.

- In what context(s) do you use these means?



**Fig. 4. Context means use**



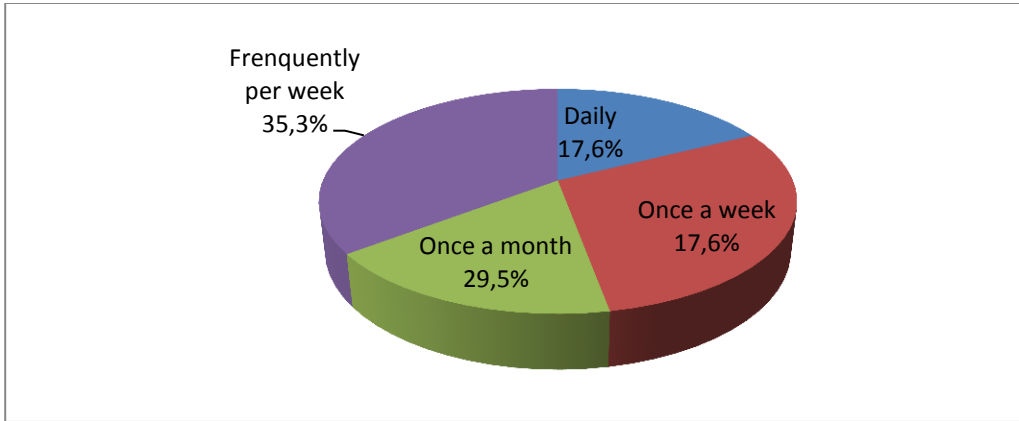
**Source:** established by ourselves

Teachers in several contexts with different percentages use the means of communication:

- Price: 100%
- Presentations and research: 67.6%
- Responses to student questions: 44.1%
- Exam marks: 17.6%
- Other: 8.8%

- How often do you use them?

**Fig.5. Frequency of use**

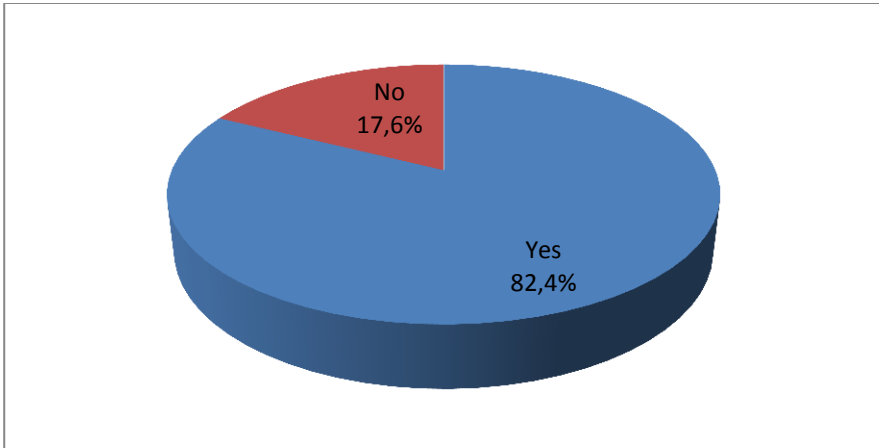


**Source:** established by ourselves

According to the graph, we notice that the same percentage is attributed to “daily” and “once a month” or 17.6%. The highest percentage is awarded “several times a month” i.e., 35.3% and 29.5% for “once a week”.

- Have you ever been exposed to a remote learning process?

**Fig.6. Exposure to remote learning process**

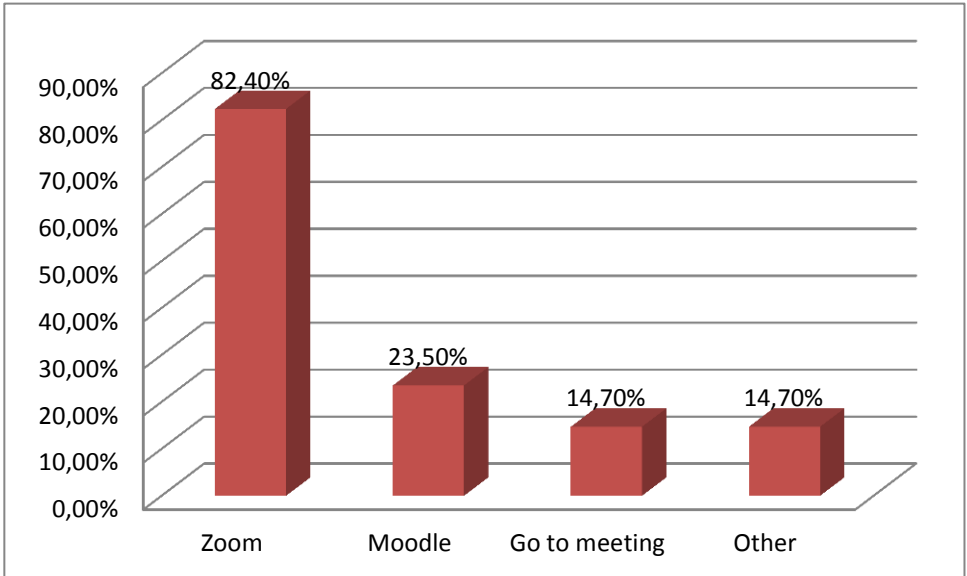


**Source:** established by ourselves

The answers to this question indicate that 82.4% of respondents have already been exposed to a remote learning process while 17.6% have not.

- What platform do you usually use?

**Fig.7. Platforms used by teachers**

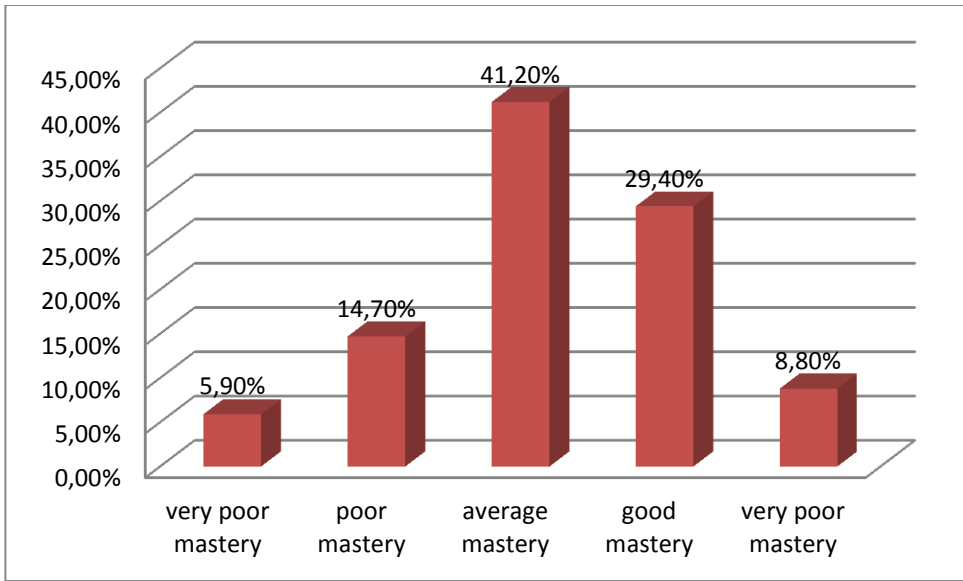


**Source:** established by ourselves

We find that the most used platform is “zoom” with a percentage of 82.4%, then comes “moodle” with 23.5%, followed by “go to meeting” and “others” with an identical percentage of 14, 7%.

- On a scale of 1 to 5, how would you rate your mastery of its use?  
(1: Very poor proficiency to 5 very good proficiency)

Fig.8. Mastery of platforms used



Source: established by ourselves

We note that 41.2% moderately master the platform(s) used, 29.4% for "good mastery", 14.7% for "poor mastery", 5.9% for "very bad" and finally, only 8.8% of them have a "very good command".

- How was your reaction to the decision on mandatory remote learning? (1: Very bad up to 5 very good)

Fig.9. Reaction to remote learning decision



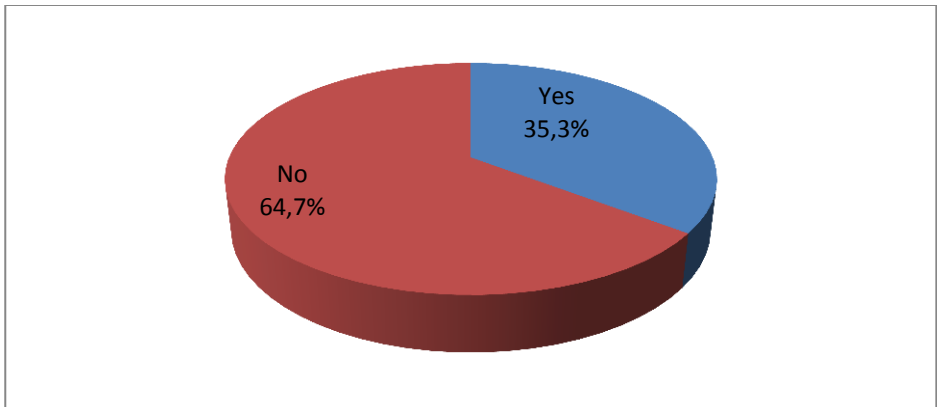
Source: established by ourselves

The percentages attributed to the reaction to the decision on the obligation of remote learning are as follows:

- Good: 26.5%
- Average: 23.5%
- Very good: 20.6%
- Very bad: 17.6%
- Bad: 11.8%

- Have you been trained in the field?

**Fig.10. Field training**

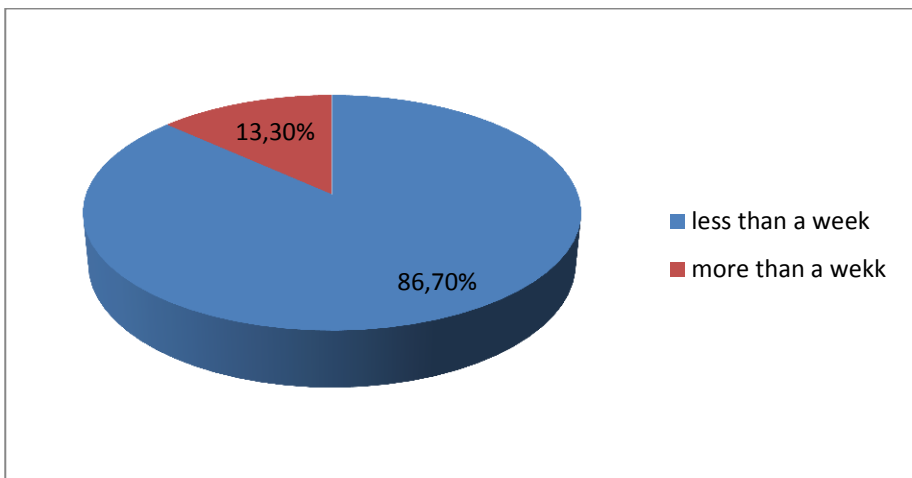


**Source:** established by ourselves

The answers to this question indicate that 64.7% of teachers have not been trained in the field and 35.3% have been.

- If yes: the training lasted:

**Fig.11. Training period**

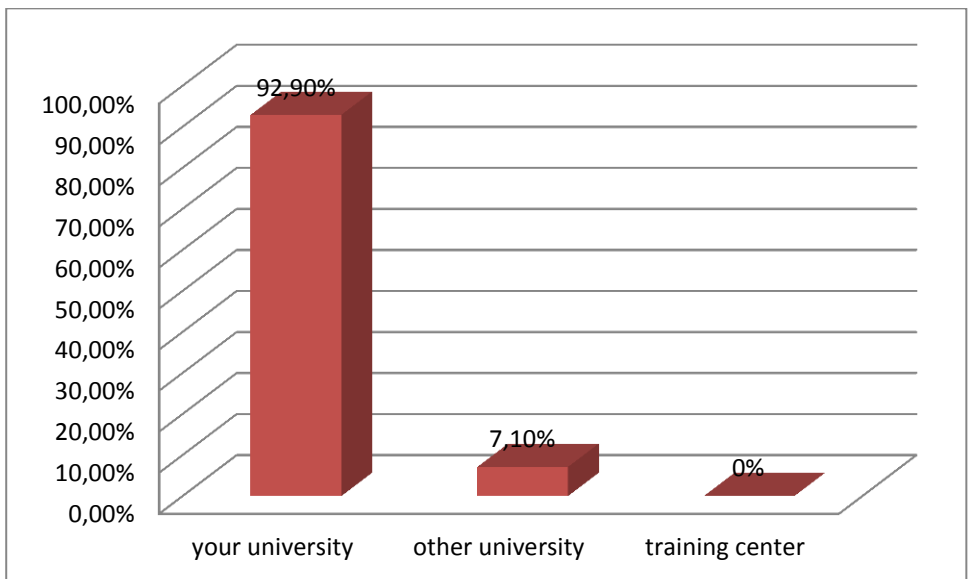


**Source:** established by ourselves

Among the people who have been trained in the field, 86.7% of them declare that the training lasted less than a week, 13.3% more than a week.

- Was this training provided by?

Fig.12. Training place



Source: established by ourselves

According to the graph, 92.9% of teachers who took the training claim to have done so at their university, while 7.1% took it outside their university.

- Check an answer from 1 to 5 according to your level of agreement (1: totally disagree to 5 totally agree)



**Table 1: Degree of agreement with respect to some items**

Items	1	2	3	4	5
I have the necessary means to provide online courses	17.65	35.29	26.47	2.94	17.65
I am more motivated when I work remotely	35.29	38.24	17.65	2.94	5.88
I master the technical problems encountered	35.29	23.53	20.59	11.76	8.82
I have been trained by qualified personnel	55.88	11.76	29.41	0.00	2.94
I am more organized when I teach remotely	32.35	23.53	26.47	14.71	2.94
Remote learning is a disadvantage more than an advantage	26.47	14.71	35.29	17.65	5.88
Remote learning increases inter activity between teacher and student	58.82	26.47	5.88	5.88	2.94
Remote education is better than face-to-face education	76.47	11.76	5.88	2.94	2.94
Remote education complements face-to-face education	11.76	8.82	44.12	26.47	8.82
In remote learning, my teaching skills are at the same level as in face-to-face	35.29	17.65	20.59	14.71	11.76

**Source:** established by ourselves

From the table above, we notice that 17.65% of teachers have the necessary means to provide online courses; the same percentage is attributed to those who have them.

Regarding "I am more motivated when I work remotely", we notice that our target is not as motivated since the highest

percentages were attributed to "strongly disagree" and "disagree and only 2.94% agree and 5.88% "totally agree"

With regard to "I master the technical problems encountered", we note that a large majority opted for "totally disagree", "disagree", moderately agree" with respective percentages of: 35.29%, 23.53% and 20.59%

For "I was trained by qualified personnel", more than half of the respondents opted for "totally disagree" with a percentage of 55.88% and only 2.94% answered "totally agree" and 0% for "agree".

"I am more organized when I teach remotely", we clearly see that teachers are not more organized when working remotely since the largest percentages were attributed to "strongly disagree", "disagree", moderately agree" with respective percentages of: 32.35%, 23.53%, 26.47% and for "totally agree" the percentage is 2.94 %.

"Remote education is a disadvantage more than an advantage", the percentages displayed indicate that our target tends more towards "totally disagree", "disagree", moderately agree" with percentages respectively: 26.47%, 14.71%, and 35.29%. Only 5.88 "totally agree" and 17.65% "agree".

Regarding; "Remote education increases the interactivity between the teacher and the student", it is clear that the answers show that the respondents believe that the remote education reduces the interactivity between the teacher and the student since 58.82% "totally disagree" and only 2.94% "totally agree".

The figures indicate that 76.47% of the teachers surveyed say they strongly disagree with "remote learning is better than face-to-face teaching" and only 2.94% are "totally agreed".

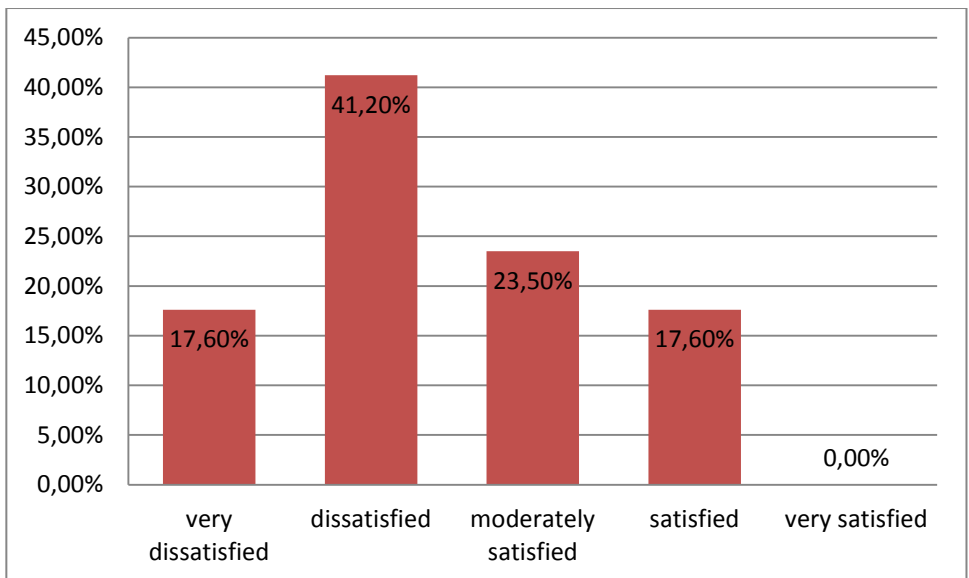
The table indicates that 44.12% of respondents "moderately agree" regarding "remote education complements face-to-face education"

Concerning "In remote learning, my teaching skills are at the same level as in face-to-face", the percentages are quite mixed:

"totally disagree": 35.29%, "agree": 17, 65%, "moderately agree": 20.59%, "agree": 14.71% and finally "totally agree": 11.76%.

- On a scale of 1 to 5, how satisfied would you be with distance learning? (1: Very dissatisfied to 5 very satisfied)

**Fig.13. Satisfaction rate regarding RE**



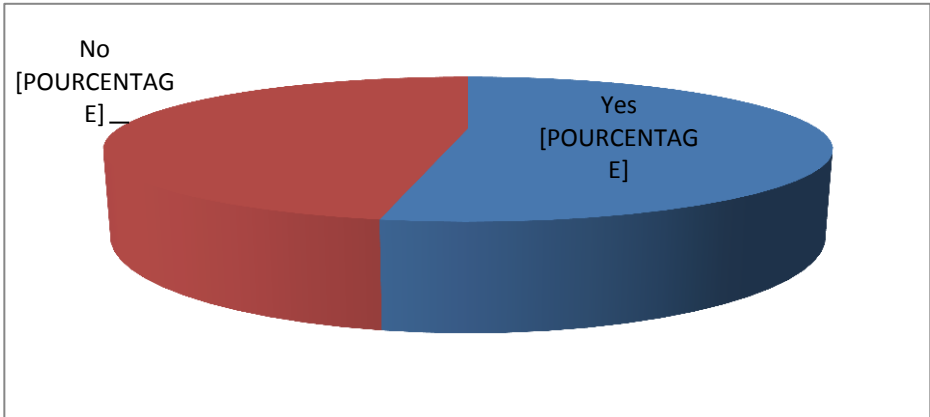
**Source:** established by ourselves

The percentages attributed to the degree of satisfaction of teachers with remote education are vary, a follows:

- Dissatisfied: 41.2%
- Moderately satisfied: 23.5%
- Very dissatisfied: 17.6%

- Satisfied: 17.6%
- Very satisfied: 0%
- Would you encourage this type of teaching even after the pandemic?

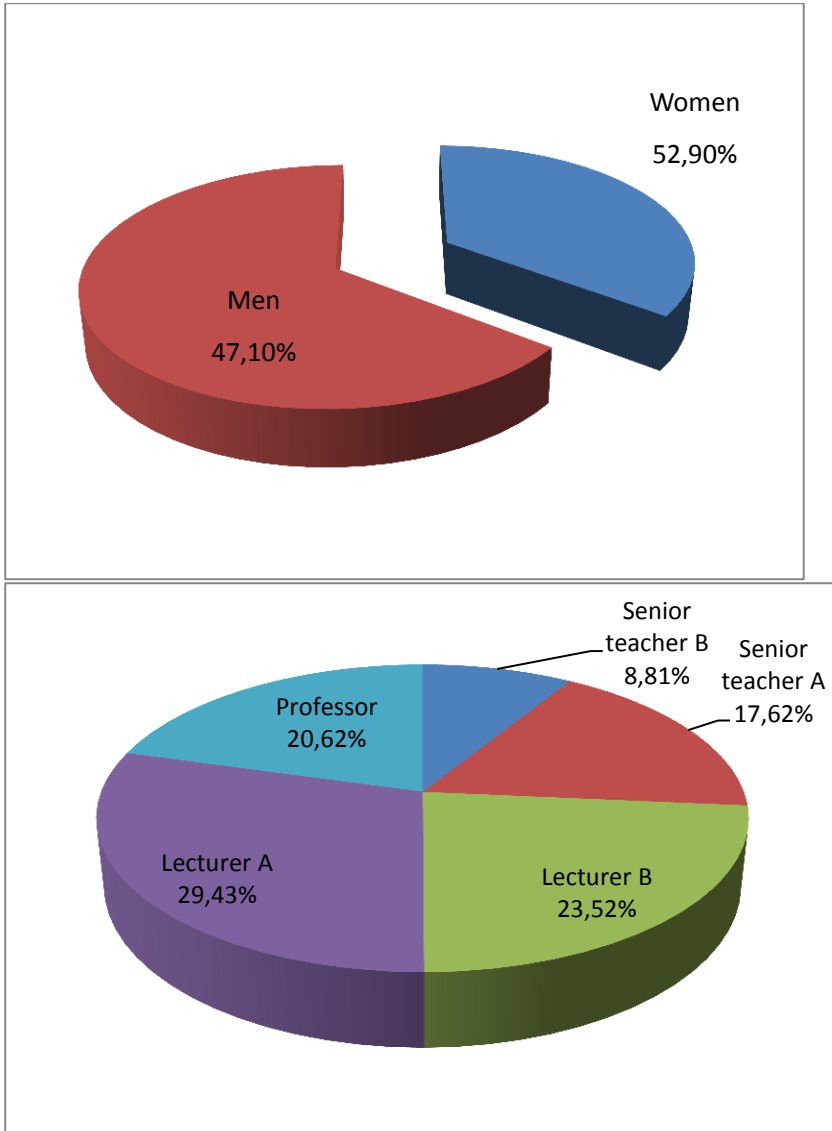
**Fig.14. Encouraging RE**

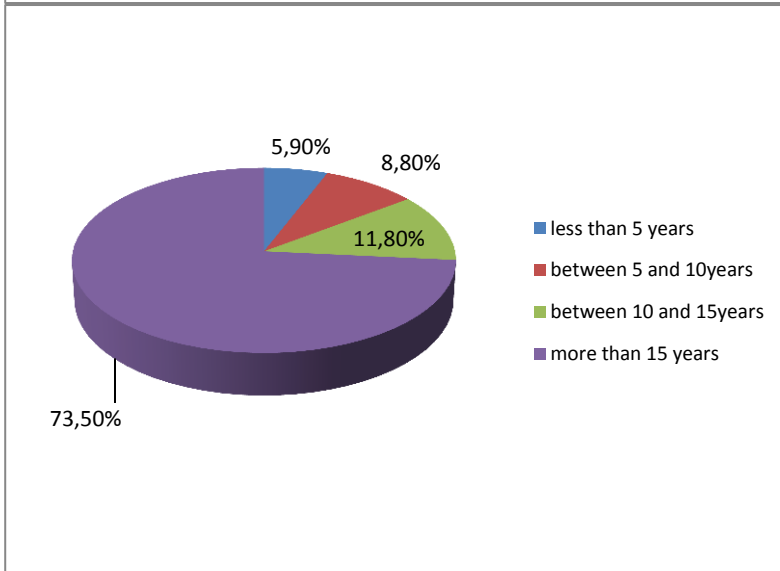
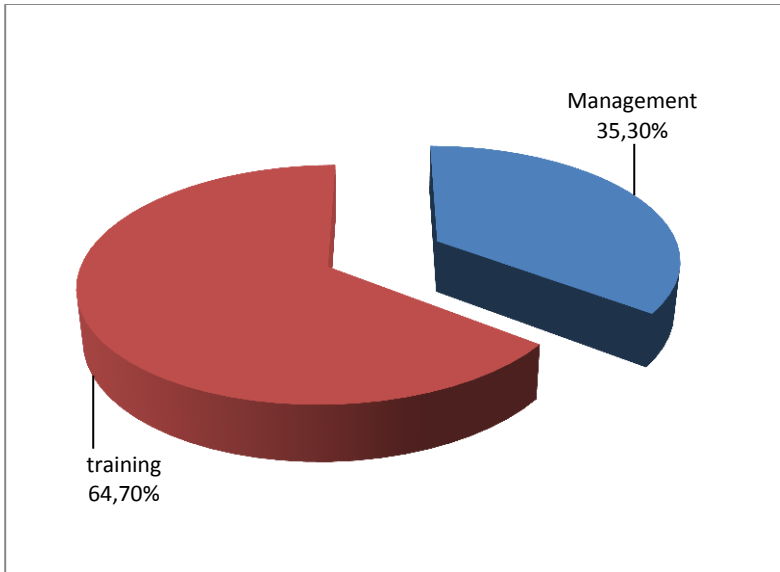


**Source:** established by ourselves

We notice that 52.9% of teachers encourage distance learning, 47.1% do not encourage it.

**Fig.15.**Target data





Source: established by ourselves

Our sample is 52.9% female and 47.1% male; the "training" specialty is the most dominant with a percentage of 64.7% while "management" 35.3%. 73.5% of them have more than 15 years' experience.

The grade percentages are broken down as follows:

- Senior teacher B: 8.8%
- Senior teacher A: 17.6%
- Lecturer B: 23.5%
- Lecturer A: 29.4%
- Professor: 20.6%

#### **4- Analysis of the result**

##### **Axis 01: Nature of the technological means used**

The results obtained clearly show us that 94.1% of teachers at the Higher School of Science and Technology of Sport (ESSTS) use information and communication technologies. The latter use several means, namely: pdf, power point, video, social networks, e-mail, etc., with a greater percentage attributed to power point (85.3%), 79.4% for "pdf" and email and 70.6% for videos. Regarding social networks it is 41.2%, this is probably due .....

The courses are given to the students in "pdf" format by all the teachers questioned (100%), 67.6% use these means for presentations and research, in particular the "power point". 44.1% use them to answer students' questions.

The tools used are quite mastered by the teachers since 44.1% believe that they have a "good mastery" of the tool, 20.6%, say, they have a "very good" mastery, and this is probably explained by the experience in the field even before the health crisis.

The frequency of use of the electronic means of communication used varies from one teacher to another, 35.3%

use them "several times a month", 29.5% "once a week" and the same percentage, i.e., 17, 6% for "once a week" and "daily", these differences are explained by the number of hours, sessions and groups allocated to each teacher.

## **Axis2: Behavior and barriers to remote education**

A large percentage of teachers surveyed have already been exposed to a distance learning process, i.e., 82.4%, especially with the health crisis, that has turned our professional daily life upside down, 82.4% use the Zoom platform with an average mastery of 41, 20%. We also note that the reaction of teachers to the decision to remote learning is very good by 20.60% of them; this is explained by the fact that they see this solution as a necessary alternative for educational continuity. 17.60% of respondents had a very bad reaction; this is probably due to fear of not mastering the tool and the obstacles that could be countered.

The teachers who have been trained in the field (64.70%) declare at 86.70% that the latter lasted less than a week in their university.

Following the answers obtained, we found that the teachers questioned have the means necessary for remote education at 17.65% and those who do not have them indicate the same percentage. According to the suggestions indicated, the connection constitutes a major obstacle; moreover, this is what explains the demotivation of some, namely 35.29%. Another obstacle relating to the control of the problems encountered is noted, since half of the respondents say that they "do not agree at all" with the fact of controlling the technical problems.

Training is also one of the obstacles since the decision to use remote learning was sudden and the teachers did not have enough knowledge in the field. The 35.3% of teachers who have undergone training do not "totally agree" with the fact that they



have followed it with qualified staff, only 2.94% agree. Therefore, 35.29% moderately agree with “remote learning is more of a disadvantage than an advantage”.

The results indicate that 76.47% of respondents confirm that remote education is not better than face-to-face education; moreover, 44.12% think that it only complements it. The percentages are mixed concerning the pedagogical skills between the two types of education, 35.29% think that they do not have the same pedagogical skills while 11.76% say the opposite.

Consequently, 41.2% of ESSTS teachers are not satisfied with remote learning in their establishment, 17.6% are satisfied and 0% very satisfied, the brakes explain this and obstacles mentioned above, which is why 52.9% encourage this type of education and 47.1% do not encourage it.

## **5. CONCLUSION**

Our study allowed us to draw the following conclusions:

- ✓ Information and communication technologies are used by the vast majority of ESSTS teachers, namely 94.1% (PDF, power point, videos, social networks, etc.) since these are the more appropriate to get the message across, and with the health crisis we are currently experiencing, they remain the means that teachers use the most. These means are used in several contexts, in particular, for presentations and research 67.6%. 44.1% for answering student questions. 17.6% for giving grades to students and 100% for courses.
- ✓ Teachers have a fairly good mastery of these tools, since 44.1% consider that they have a “good command” of the tool, 20.6% declare that they have a “very good” command.
- ✓ The difference in the frequency of use is mainly explained by the number of hours and the number of lessons taught.
- ✓ 82.4% of teachers in the school have already been exposed to a remote teaching process with Zoom as the most used platform (82.4%)
- ✓ The reaction of teachers to the remote to distance learning was "very good" by 20.60% of them while 17.60% had a "very bad" reaction.
- ✓ The duration of the training pursued by the teachers was not sufficient, since 86.70% declared that the latter lasted less than a week.
- ✓ The demotivation of some teachers, namely 35.29%, is due to several reasons: poor connection, lack of resources, lack of training in the field, insufficiently qualified staff. Since then, 76.47% say remote education is no better than face-to-face education and 44.12% of them think that it completes it.

- ✓ Only 17.6% are satisfied with this type of teaching, 52.9% encourage it and 47.1% do not encourage it.

Finally, the hypothesis "the teachers of the ESSTS use more and more the means of electronic communication within the framework of their work" is confirmed. While the second "ESSTS teachers have easily adapted to remote learning" is invalidated.

Based on the results of our study, we offer the following suggestions:

- 1) Training in the use of ICT by qualified personnel;
- 2) Include an allowance for the use of ICT in the salaries of teacher-researchers and the possibility of permanent free internet access for all students, as well as a laptop for the majority who can not afford it;
- 3) Establishment of appropriate conditions for remote learning;
- 4) Increase in Internet speed;
- 5) Educate students and provide them with the necessary means to access courses;
- 6) Make broadcast programs official;
- 7) Provide adequate computer equipment.

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