



FIRST EXPERIENCE IN THE VIRTUALIZATION OF RADIATION PROTECTION TRAINING AT HOSPITAL LEVEL

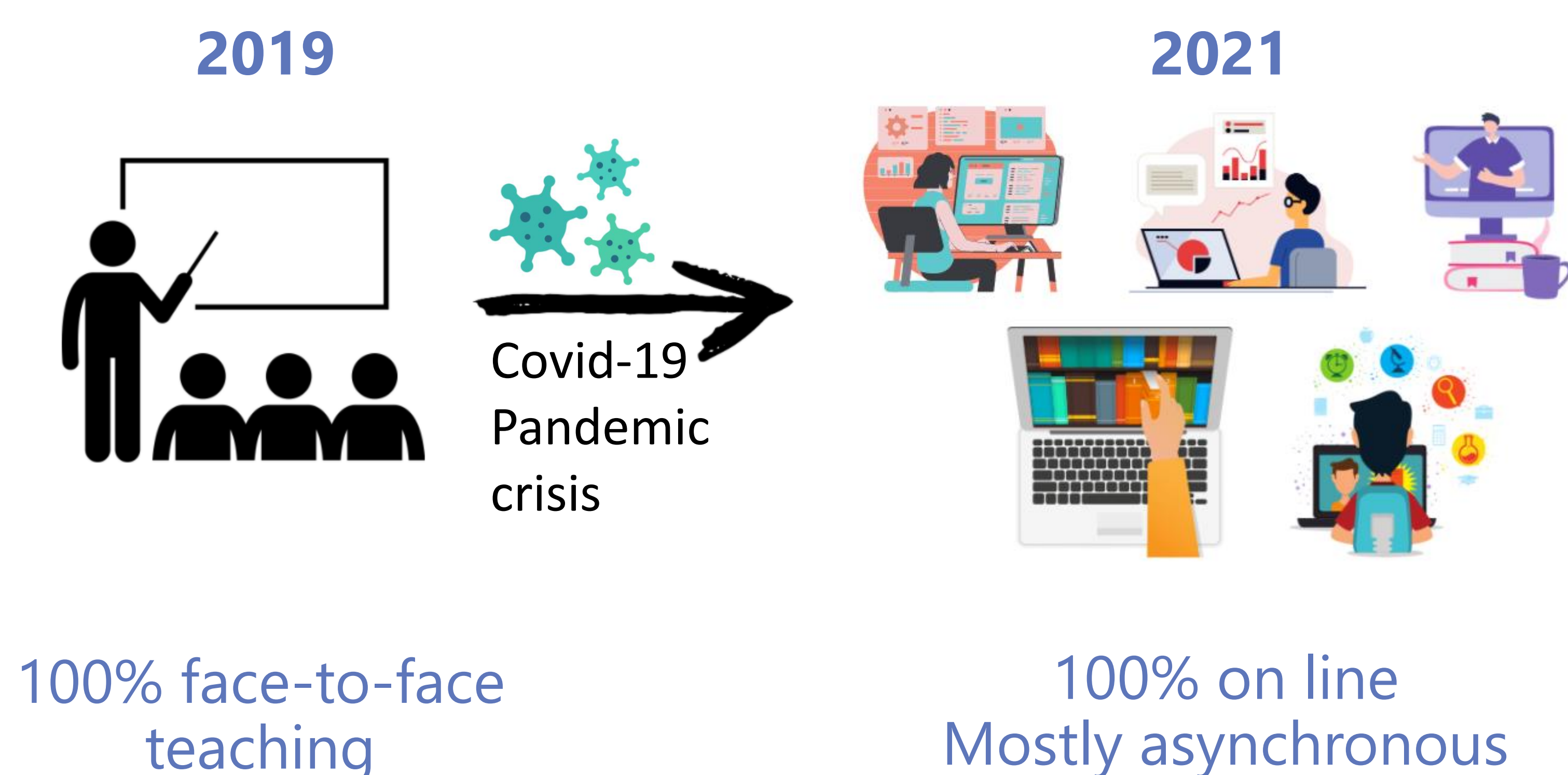
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Virtualization of radiation protection training

What training is virtualized?



- Continuous training (at least biennially) of professionals working in radioactive installations (radiotherapy, nuclear medicine, laboratories...) (RP1).
- Continuous training of professionals (including security personnel) involved in the safety and security of high activity sealed sources (RP2).
- Training as part of the curriculum at the Medicine and Dentistry schools (RP3). Personnel from our Department is mainly involved in seminars and practices.
- Periodical and initial training of professionals working in diagnostic imaging facilities (RP4).
- Training in radiation protection as part of the training program of medical specialties (RP5), that is organized into two different levels, basic and advanced, according to the degree of involvement of the different specialities in radiological procedures.
- Training programs for the accreditation of operators and supervisors of medical radioactive installations, as well as operators and directors of X-ray facilities (RP6).

How?

Course	Tools used		Synchronous training	Collaboration with other hospitals and Institutions
	Course	Evaluation		
RP1 and RP2	Moodle on the 'virtual knowledge platform' of the hospital	Moodle	No	No
RP3 (Medicine, only involved in seminars)	Moodle platform and Blackboard Collaborate on the Virtual campus. Kahoot for gamifying online classes	Moodle, Office forms and Classical live exams	Yes	Yes
RP3 (Dentistry, only involved in practices)	Practices recorded with OBS and shown and commented in small groups with social distancing	Moodle	Yes	Yes
RP4 (dentist and hygienists)	A one-day course for dentist using Zoom video conferencing.	Google forms	Yes	Yes
RP4 (other professionals working with X-rays)	Moodle, on the 'virtual knowledge platform' of the hospital	Moodle	No	No
RP5	Training platform ForMadrid from the Autonomous Community of Madrid. Powerpoint presentations and videos of all the lessons. Integration of this material in the Learning Suite from CSOD	Training platform ForMadrid	No	Yes
RP6	Moodle on the Virtual classroom from the CIEMAT Zoom video conferencing	Classical live exams	Yes	Yes

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Discussion and Conclusions

The virtualization of radiation protection training has involved a very important effort. The options were very diverse depending on the course and the institution where the program of training is developed. However, the change has been swift and smoother than we expected and has brought some advantages such as:

- Material is available for review and reflection for a longer time. It is not only possible to learn at the time that best suits each student, but also at a personalized pace, repeating as many times as necessary.
- Greater flexibility and accessibility in online training, which implies greater possibilities to follow the course (more attendees), which means that the training reaches a higher percentage of the target group.

Far from posing a threat, virtualization became an opportunity to adapt training to modern methodologies, making it more flexible and accessible