

# Online teaching methodology in the speciality of sanitary area of the master's degree in teacher training at UNIR, the University on the Internet.

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## Abstract

This paper develops the teaching method that is carried out in the subject of Complements for disciplinary training of health area, belonging to the speciality of health area, in the University Master's Degree in Teacher for Compulsory Secondary Education, Upper Secondary Education, Vocational Training and Language Teaching, which is taught at the Faculty of Education of the International University of La Rioja, the University on the Internet. This speciality is aimed at training future teachers who will teach in the vocational training cycles of the healthcare area, a teaching with the aim of job placement, being shorter than university degrees. Most of the students' specialities are medicine, nursing, physiotherapy, veterinary medicine, nutrition, dentistry, optometry, etc. The didactic model, with which the subject is conceived, puts the student at the center of the teaching-learning process through active, practical and collaborative work, always online.

## Keywords 1

Complements formation discipline, vocational training, process health, online distance learning, active methodologies.

## 1. Introduction

Distance education is the way of learning in which, using technology, interaction between student and teacher is allowed, even if they are in different physical environments and synchronous or asynchronous timelines [1]. It is usually the adult population that uses this educational methodology the most [2]. On the other hand, according to Naidu [3], the concept of distance education itself was founded in the beginning as a flexible access and focused to distance students, which were generally adults workers, outside full time or part time, allowing them to study at the time, place and pace that best suits their circumstances.

Distance education began to consolidate and develop, both in Spain and in the rest of the world with the emergence of the first remote education methodologies from the end of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century, developing and establishing itself during the course of the 20<sup>th</sup> century. It was recognized in 1892 when the first distance education program at the university level was created at the University of Chicago [4]. In the United States the DEAC (Distance Education Accrediting Commission) was founded in 1926 to regulate educational standards of distance education: it is

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recognized by the United States Department of Education. More than two million Americans study under the accreditation of this commission. The first institution to work with distance education was the New York State's Empire College (NYSE) in 1971. According to Bizhan [5], it was founded with the aim of making higher education more accessible to students who could not attend face-to-face classes.

In Spain, although private distance courses and methodologies already existed at the beginning of the century, it was not until the 1960s that the Spanish government authorized the establishment of distance teaching and study centers, with the aim of providing access to education to the rural population [6]. It is finally in 1972, when the first unimodal distance education university in Spain was created, the Universidad Nacional de Educación a Distancia (UNED), was established, promoting the right to educational training for all citizens who require it in each of the existing training cycles [7].

During the following decades, with technological development, the Universidad Internacional de La Rioja (UNIR) was founded, which was recognized in 2008 and began its academic activity in 2009 after being authorized in Decree Law 69/2009, of July 31. It is established internationally, not only in Spain but in Mexico, Colombia, Ecuador, Peru, as well as in the United States after the acquisition of the Marconi International University (MIU), with 21% of its students distributed throughout the whole world.

Currently, millions of people have access to online distance learning (ODL) and a considerable increase in this is expected over the next ten years. The estimated worldwide income from distance learning is \$107 billion [8]. But, although there has been an increase in the number of students who are learning at distance, anticipating a potentially enormous increase [9], it has finally been more irregular than previously proposed [10] [11].

All this has been possible due to the existence of certain resistance that occurs in the step towards distance education, such as the bias in professionals that causes resistance to teaching with technology [12] [13] [14], it is also usually associated with the impact on workload [15] [16], the loss of interaction that exists in face-to-face teaching [17], the need to acquire new skills [18] [19], as well as concerns about the reliability of technical support [20]. The evidence is that distance learning is at least equivalent in terms of learning outcomes compared to the face-to-face educational approach [21] [22] [23].

From the point of view of Preti [24], the increase in educational demand by society was not only due to the increase in the population and the class struggle for access to education, but also the social change in education was also caused by the development of technological and scientific knowledge, which demanded changes in the ways in which teaching was carried out. This was one of the catalysts for the increase in distance education, for which this methodology allowed them to establish their own study hours, take lectures via the internet without the obligation to attend the university campus, as well as being able to join all classes or categories study at any level, whatever the intention of the students (training, vocational or advanced) [25].

The three theories that predominate in teaching through the use of technology are [26]: (a) behaviourism, which defines learning as the probability of changing a particular behaviour given in a situation and emphasizes the observation of this change through the different indicators that have been proposed to measure it; (b) cognitivism, which defines learning as the change in knowledge that is stored in memory and puts emphasis on information processing; (c) constructivism, this is the knowledge which is produced by students instead of the processing performed from an external information also highlights the cooperation between pupils and project-based learning.

From the point of view of constructivism, positive results have been given in students who have worked on problem-based projects in a virtual environment. These students felt more 'connected' with other class members compared to the control group [27]. Also, in the Toto and Limone study we can observe in a self-directed learning experiment how this methodology places its emphasis on the learning process rather than on the evaluative dimension of learning [28]. Following this point, the need for students to carry out active and group learning, Bergart [29] suggests that experiential learning is an effective way for students to develop the skills that are necessary later in their different professional fields.

In the study of Calloway-Graham [30], the results obtained, in general, distance learning students experienced higher gains on self - confidence criteria than face-to-face students. Given these results, it must also be explained that distance education students tended to report less self-confidence in the evaluation tests at the beginning of the semester. On the other hand, there was also an increase in both

self-efficacy and interaction and cognitive skills. Given these results, it can be observed that distance learning with methods that use technological resources and collaborative learning is as effective as traditional learning, developing comparable knowledge and skills; this time giving greater benefits to distance students.

In a comparative analysis [31], by comparing the performance of distance learning students with classroom students in environmental science course between 2009 and 2016, to determine which method is more effective and produces better performance, including in the study variables such as gender and class rank to check if the teaching modality could have an impact on specific groups, no significant differences were found in performance between students who carried out distance learning and students with a face-to-face methodology, not having differences in gender or class rank.

On the teachers' side, the perception differs according to their experience. Teachers who have experience in online teaching perceive it more positively than teachers who have only taught in person. On the other hand, teachers who have only taught in person have the belief that traditional pedagogy of teaching in the classroom is better than the distance learning [32].

In another study [33] a consultation with workers and academics was carried out from the northwest of Great Britain about the confidence that supposed to teach them away with technological resources, attitudes about distance learning and their own perspective on teaching, their beliefs about possible attitudes of students in reference to distance learning and the point of view of these teachers on the belief that exist among employers, professional organizations and other countries about the results and achievements that were acquired through distance learning. The results of the consultation showed a positive attitude and experiences on the part of the academics of these universities in reference to online teaching. Also, one of the benefits of this learning methodology has been adopted by the students; a large part of the sample showed a proactive attitude in terms of promoting these technological resources for distance education as well as that a part of them underlined the importance of placing more emphasis on the use of these methodologies in order to maintain or increase the number of students. On the other hand, it was suggested that a significant number of employers, companies and, even, in some countries, the academic degrees acquired at a distance were not perceived with the same importance as the degrees acquired in person.

From the point of view of interpersonal interaction, in which a dynamic of a distance education methodology differs from face-to-face education, Dockter [34] says that due to the of the uncertainty that is sometimes caused in the management of relationships between student and teacher in distance learning, a good way to generate bonds, manage interactions, create realistic images of each individual and motivate the success of distance education, is for teachers to encourage interaction with themselves and among students through multimodal communication through the design of the course, such as the interaction and performance of activities during lectures as well as the use and participation in forums.

If the attention is focused on the environmental perspective, there is literature [35] showing that the fully distance learning model achieved the lowest energy consumption and carbon emissions, although there could be various rebound effects associated with higher energy consumption related to the use of technology and the use of paper for printing material.

Finally, an assumption that can be taken for granted and overlooked, and something to take into account in developing countries, as well as rural areas, is that for distance learning to be as effective as face-to-face learning, in today's environment, a correct internet connection is necessary, which is essential to be able to offer good image and sound quality in video classes and video tutorials, as well as a good ICT skills by teachers and students [36].

## **2. The experience at UNIR: The University on the Internet**

Next, a practical experience on online teaching is presented in the University Master's Degree in Teacher for Compulsory Secondary Education, Upper Secondary Education, Vocational Training and Language Teaching, an enabling title in Spain that trains future teachers of these educational levels.

In the next points it is exposed, from the most general to the most particular, how digital platforms work and what tools are used in UNIR for its teaching program. Subsequently, the didactic training program of the subject of Complements for disciplinary training of health area is analyzed, whose

recipients will work as teachers in the middle and upper grades of the vocational training cycles of the health area.

What is vocational training? vocational training (Formación Profesional, FP) is the education that includes different studies or apprenticeships that are aimed at labor insertion. It is an equally valid training system for accessing university education, characterized by its practical aspect and proximity to companies. It has other positive aspects. For example, study durations are shorter than college, enrollment fees are affordable, and job placement can be done more quickly. In addition, the relationship with the teaching staff is very special, from the beginning since the class starts it becomes a work team. This education also offers the possibility of internships abroad, as well as the recognition of qualifications in Europe.

## 2.1. UNIR platform of the subjects

UNIR makes available to all its students a complete platform that allows adequate monitoring of the degree.

In the first place, it establishes that before the beginning of the school period itself, the students have the so-called "Week 0" in which an introduction is made about the operation of the platforms and resources that they will have at their disposal for their distance learning. However, throughout the course there is also a Technical Support service with 24 hours attention from Monday to Friday and 12 hours on weekends. The platform also includes an assistance center where you can seek help for different procedures.

Going to the academic aspect of the platform, it includes a great deal of information. In each subject, the students can see the "Last minute" messages, among which is, for example, the first welcome message, the notice of publication of grades, etc.

The platform includes links to general tools such as:

- "Agenda": where the dates and hours of classes of the different subjects in question will be marked.
- "Exams": with information such as the duration, procedures related to the exam, when and where they are carried out, etc.
- Download programs like Google Chrome, 7-Zip, Adobe Reader, Java, etc.
- Library with bibliographic resources like UNIR and other external platforms such as: Dialnet, eBooks, ERIC, Google Scholar, Scielo, Springer Journals, GRAO (education journals), Scopus and Web of Science.

In addition to these general tools, the platform offers access to information related to the subject, as follows:

- a) Resources: Includes 4 great points:
  - "Topics": from where each of the topics is viewed online or downloaded in PDF format, along with the didactic program, continuous assessment work, etc.
  - "Documentation": where students can download documents in different formats that are uploaded by the teacher to support them.
  - "Lectures": this point refers to short videos with aspects related to the subject such as explanation of activities, summaries of topics, extension of any of the points covered or whatever the teacher deems appropriate. These pills are prepared with the Panopto tool.
  - "Weekly schedule": that allows students to see what is covered in each of the weeks, the agenda and continuous assessment activities.
- b) Live classes: allows access to both live classes and recordings of previous classes for viewing if it has not been possible to attend live or for later review whenever the student needs it.
- c) Communications: last minute, mail, forums and blog. At this point, the case of forums is especially remarkable, which allow interaction with both the teacher and the rest of the classmates in the subject. The forum also allows to include files, turning it a powerful tool both for making queries and for sharing information beyond the classes or the specific Documentation section.
- d) Activities: where students can consult in more detail each of the activities included in the continuous assessment, reviewing their description, template, assessment rubric or delivery deadline.

Likewise, students will be able to review here the results of the activities carried out, both individually and the sum of the different grades obtained up to the moment of consultation.

Therefore, as mentioned above, the platform offers a wide range of tools for the autonomous monitoring of the subject, but also for synchronous and asynchronous collaboration and communication with the teacher.

The screenshot displays the UNIR Learning Management System interface. At the top, the UNIR logo is on the left, and navigation links for 'DEFENSOR UNIVERSITARIO', 'CENTRO DE ASISTENCIA', and the user profile 'ANTONIO JAVIER CRIADO MARTIN PROFES...' are on the right. Below this is a main navigation bar with tabs for 'AULAS', 'AGENDA', 'EXÁMENES', 'DESCARGAS', 'BIBLIOTECA', 'SERVICIOS PARA PROFESORES', and 'CENTRO DE ASISTENCIA'. The breadcrumb trail indicates the user is in 'Inicio > Complementos para la Formación Disciplinar > Última Hora'. The left sidebar is organized into sections: 'RECURSOS' (Temas, Documentación, Lecciones Magistrales, Programación semanal), 'CLASES EN DIRECTO' (Próximas, Anteriores), 'COMUNICACIONES' (Última hora, Correo, Foros), and 'ACTIVIDADES' (Envío de actividades, Resultado de actividades). The main content area, titled 'ÚLTIMA HORA', is dated 18/09/2020 and contains a welcome message: 'Bienvenida a la asignatura'. It includes several FAQ-style questions and answers: '¿Tengo ya el temario?' (Yes, it's available in 'Temas'), '¿Dónde podrás ver el horario de las próximas clases?' (In 'Agenda' and 'Clases en Directo > Próximas'), '¿Cómo puedo visualizar las clases ya impartidas?' (In 'Clases en Directo > Anteriores'), '¿Puedo ver la previsión semanal?' (Yes, in 'Programación Semanal'), '¿Dónde veo las actividades?' (In 'Programación Semanal' and 'Actividades'), and '¿Dónde puedo plantear mis dudas al docente?' (In 'Foros' and via chat).

Figure 1: UNIR Learning Management System.

## 2.2. Illustrative case: practical experience with the subject of Complements for disciplinary training in health area

### 2.2.1. Context

The subject of Complements for disciplinary training of health area, is framed in University Master's Degree in Teacher for Compulsory Secondary Education, Upper Secondary Education, Vocational Training and Language Teaching, within the speciality of Health Area. It enables and is focused on future teachers who will teach in the middle and higher degree cycles of professional training of the health area. These cycles are:

FP Medium Grade:

- Medium Technical Degree in Auxiliary Nursing Care.
- Medium Technical Degree in Health Emergencies.
- Medium Technical Degree in Pharmacy and Parapharmacy.

Higher Grade FP:

- Superior Technician in Prosthetic Audiology.
- Superior Technician in Oral Hygiene.
- Higher Technician in Dietetics.
- Senior Technician in Health Documentation and Administration.

- Superior Technician in Orthotics and Support Products.
- Superior Technician in Dental Prosthesis.
- Superior Technician in Radiotherapy and Dosimetry.
- Superior Image Technician for Diagnosis and Nuclear Medicine.
- Senior Technician in Pathology and Cytodiagnosis.
- Senior Technician in Clinical and Biomedical Laboratory.

### **2.2.2. Recipients/Beneficiaries**

The students who can access this speciality and then work as a teacher in the health area cycles, come from various specialties: Medicine, Nursing, Physiotherapy, Veterinary Medicine, Nutrition, Ophthalmology, Dentistry, Optometry, etc.

It should be noted that the students who access this Master and, specifically, the speciality of Healthcare Area, apart from their heterogeneity according to their training, are also characterized by their great diversity: from students who have just finished university training, to people who have not studied for years and who wish to take the Master to offer vocational training students the knowledge acquired over the years as doctors, nurses, etc. This entails a significant age range, which results in unequal capacities and competencies among students by managing this online distance learning, with multiple platforms and virtual resources.

### **2.2.3. Objectives**

Prepare students for their professional future as professional training teachers for the health area, in a practical, active and collaborative way, where work in class and interactions on the platform serve them for their future professional practice, for opposition area, for the final exam and for the preparation of the Master's Final Project, in which they must prepare a proposal for intervention in the classroom.

### **2.2.4. Presentation of the subject**

According to the didactic program, the subject complements for the disciplinary training of sanitary area deals in a didactic, practical and active way with the contents, resources and materials that exist in the different training cycles of middle and higher degree of this area. It is focused on those future teachers who teach in vocational training of this area and with it acquire the didactic competence and professional knowledge to develop work units, didactic programs and educational activities to later implement them in the classroom or that serve as support for selective processes in teaching exams. At the end of each topic, a practical activity is presented and elaborated that helps to solve educational problems that arise for teachers when facing each new course and during it, since the groups-classes vary each year depending, even, on the cycle, or for the preparation of material for selection processes in competitions for the teaching staff. In any case, the practice will consist of the preparation of work units present within the didactic programs of the professional modules and proposals for educational activities and methodologies with reference to the contents of the degrees, all adapted to the peculiarities of each cycle.

### **2.2.5. Tools for virtual lectures**

For the development of online lectures, the Adobe Connect platform is used, which offers a series of resources to work with students. It basically consists of a series of " pods " with which students can interact: whiteboard, surveys, notes, questions and answers, screen sharing, upload presentation, file sharing, chat for students (given by a camera and micro), direct links to web links, group work pod, etc. All lectures are recorded so that students who have not been able to come to class or those who want to review it at home, have access to it.

Other tool to prepare audiovisual material, is Panopto, which is used to record small lectures on the subject, with an approximate duration of ten minutes. It is also used to present small explanatory pills of the continuous assessment activities and for other extra videos that the teacher deems appropriate to record to: reinforce knowledge, clarify doubts that may have arisen in the virtual face-to-face class, in the forum or by mail of the platform, so that all students have access. This video is posted on the subject forum.

### **2.2.6. Virtual lectures**

They consist of 14 sessions of key ideas, in which the normal development of the subject's syllabus occurs, and 6 of reinforcement, in which doubts are clarified, complementary activities are carried out and one of the sessions is left to do a simulation of the final evaluation. the duration of the lectures is 60 minutes throughout the semester.

Model, method and methodology.

Model: the way of developing the educational process in this subject is based on a completely practical model, placing the student at the center of the learning process; active, since it works in the resolution of cases by groups; and useful, because what they have worked on prepares them for their professional future as teachers, if they want to appear in opposition processes to the teaching staff or, also, for the final exam of the subject and the Master's Thesis.

Method and methodology: several methods are combined and developed, which will later be seen how they are specified in the virtual classroom. These are case studies, problem-based learning, thinking-based learning, all with collaborative work. The study of cases with problem-based learning occurs with the statement of an educational problem that must be solved. They do it in groups in a collaborative way, arriving at different proposals sometimes coinciding each of them. Because there is no single answer to the problem, this being the aim of the intellectual and creative work of the group members, learning is based on thinking.

Development of class.

The duration of the virtual lectures is 60 minutes. Students access the virtual classroom of Adobe Connect, in which teachers always have the technical support of UNIR. It is called "UNIR Classes Support".

The class begins with a series of good practices such as asking how they are, how are they taking the Master, from what geographical location they write and what are their specialties (there have been cases of students studying the Master from Germany, England or France). In this way, a mental map of the attendees is made, giving them context and not just their names and surnames. Later, a very brief introduction is made to what is going to be worked on in class and, if everything is clear and there are no doubts, group work begins.

Group work consists of educational problems that will be encountered as future professional training teachers of the health area. These situations, which are resolved collaboratively in groups, with open solutions, through cases that represent a problem that must be solved are varied: develop work units, improve student motivation, prepare health-related conferences, propose activities educational, etc. These cases are raised through the topics going through all the cycles of the healthcare area, so that in a practical way they can see the contents of all of them. The problems presented are largely based on the personal experience of the UNIR teaching staff in this speciality, as they are also teachers of vocational training cycles of the health area.

Here are two practical cases to be solved in class by students:

#### **Example 1:**

Item 2. Medium Technical Degree in Health Emergencies.

Practical application question.

Mireia is a professor of the Technical Medium Degree in Health Emergencies. He teaches in the professional module "Evacuation and transfer of patients". He is not overly convinced by the way in which the "Driving ambulances" work unit is structured in the didactic program. It intends to change it before the course begins and must include the modifications in said didactic programming, including the following basic points:

Contextualization.

Learning outcomes.

Evaluation criteria.

Contents.

Activities and timing (10 sessions of 55').

Methodologies.

Resources (human, spatial, material, digital).

Evaluation procedure and instruments (Conceptual, procedural and attitudinal contents).

Evaluation of the proposal (Assessment of the teacher, other teachers, students).

### **Example 2:**

Unit 5. Superior Technician in Oral Hygiene.

Practical application question.

Your center wants to develop a program to promote oral health. All colleagues from the cycle of Superior Oral Hygiene Technician must agree to carry out the work together. The program should focus on «harmful and beneficial habits related to oral health: alcohol, tobacco and other drugs». (Free format).

The students, depending on the enrollment, tend to be in the cases of less attendance in the 8 to 12 students and, in the most, being very specific cases, between 35 and 40. When they are in the group rooms of Adobe Connect, they can use chat, microphones and the webcam to elaborate the proposed cases. There is always the figure of the "scribe" who oversees collecting in the "pod" of notes the contributions of the group companions. From experience, the ideal size of groups is between 3 and 5 members, without exceeding 6. It must be borne in mind that they are not in a physical classroom and that the interaction is more complicated in this sense, especially since not all students have the same resources, for example a microphone. More than 6 students make communication more difficult in the virtual room.

Once the proposals are finished, they return to the main room and at the end of class leave 10-15 minutes so that a spokesperson for each group can read to the rest of the classmates what their group classmates have proposed in the previous collaborative work. If this collaboration is enriching, it is even more so when the groups present their proposals to the rest, since they can see how for the same problem there a multitude of different solutions are and sometimes also coincident. This part amuses them and motivates them a lot, it opens their minds.

The role of the teacher in these classes is to be a guide who visits the different groups solving doubts, contributing and organizing ideas, many from his own experience as a teacher of the professional training health cycle. When the class is over, he collects the proposals from all the groups and reworks them for further correction. This document that he compiles is called REMIX and loads it in the "Documentation" section of the subject platform, so that all students have access to what they have worked on in class, those who attended and those who did not.



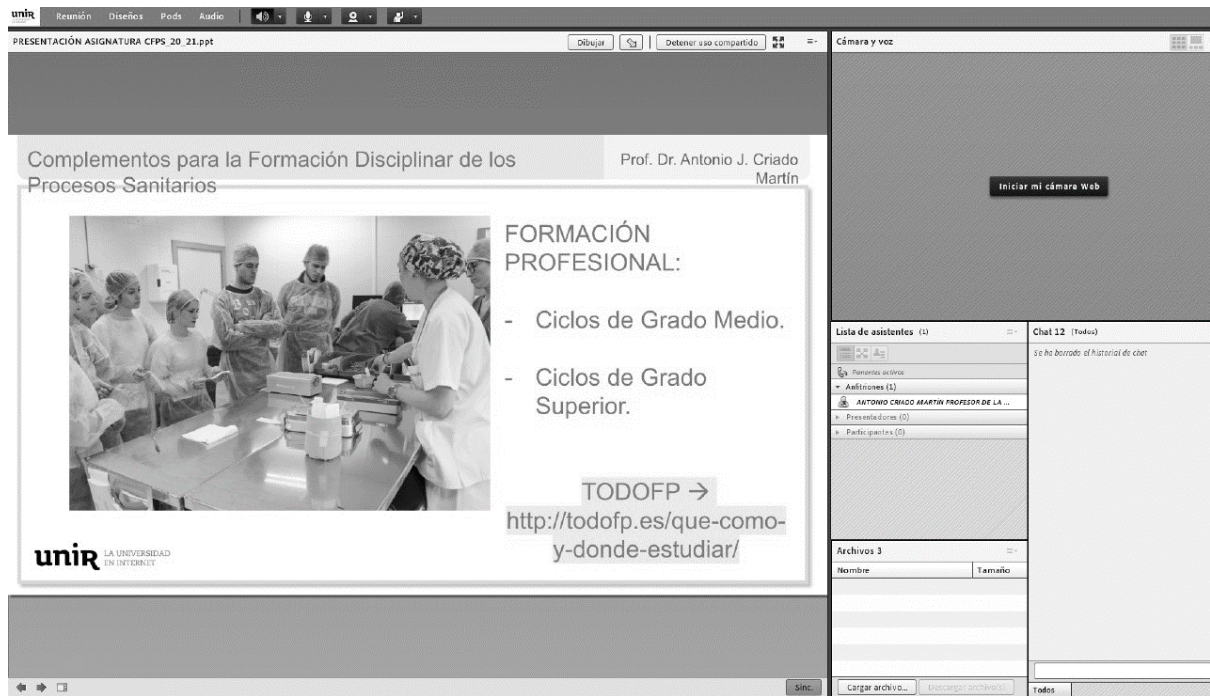


Figure 2: UNIR Adobe Connect Web conferencing tools.

### 2.2.7. Evaluation

The evaluation is set by the UNIR and consists of two parts: a continuous one that represents 40% and that consists of the preparation of three works and the resolution of the tests present at each end of the topic; the final evaluation, which accounts for 60%, which consists of two practical application questions to choose one (worth 6 points) and another five for comprehension, to develop four, worth 4 points, one point for each one.

The three tasks of the continuous assessment are related to the contents of the subject, but they can also work in a practical, enjoyable, fun, motivating way that can serve as future teachers. One of the activities, for example, is this:

#### Activity 2:

Type. Handy with gamification. Alphabetical on the Educaplay platform.

Educaplay is a free platform where you can access different educational games already made by other users or they can be made from scratch. Some examples are: Riddle, Complete, Crossword, Dialogue, Dictation, Order of letters, Match, Word search, Test, Interactive map, Presentation, Video Quiz, Match columns, Match mosaic and Password. For this activity, you should choose a professional module or training cycle at your leisure and, with its own content, develop an educational Alphabetical. Subsequently, the link generated in the General Forum of the subject must be shared.

Through this activity they can prepare different games to work on content in class with their future students. In this case, the choice of the subject is free, if it is within the professional training cycles of the healthcare area.

Regarding the final exam, whose structure has already been described, the questions are not theoretical or rote answer. The questions are once again the practical cases that arise in the virtual face-to-face classes, both for key ideas and for reinforcement, with which cheat does not make sense since the exams are online. In fact, it is encouraged that the answers do not have to be the proposals made in

class or reflected in the REMIX, but that they can be totally original, elaborated by them, as has actually happened in evaluations of four-month periods and past courses.

What about students who cannot attend class and do not see the recordings? In the notes of the subject, at the end of each topic, the teacher makes a proposal for a resolution to the educational problem that arises in the classes. These students, who for whatever reasons, cannot attend class, have the same freedom when taking the exam to make different proposals from those raised by the teacher, which are also recorded in the section on lectures with the Panopto tool.

### 3. SWOT Analysis

**Table 1**  
SWOT Analysis

Helpful	Harmful	Opportunities	Threats
At UNIR, students have not seen their online training altered with the COVID-19 pandemic	There is no physical interaction between students and with the teacher: expressions, voices, etc.	Access to education from anywhere in the world that has internet access.	Older age ranges Vs Digital Natives.
Students have immediate access from home, any day at any time, to all resources: library, forums, teaching materials, educational videos, recording of lectures, notes, syllabi, etc., being able to set the pace of learning.	The high number of students often prevents everyone from turning on their microphone and thus having direct feedback.	Inclusive training: adaptation to people with disabilities and with very different personal circumstances.	Digital divide: places with limited or no internet access.
They can interact through various channels with colleagues who participate in distance learning from multiple places in Spain.	The resources for students to work online can be limited: they do not have good access to the internet, microphone, web cam, large groups access the virtual classroom, etc.	Possibility to return or continue studying in the case of people who work.	Excessive control of the contents by the university.
It encourages synchronous communication in class and asynchronous in the forum or through the tutor with the teacher.	When the groups are high, the REMIXs become more complicated to elaborate, which entails a greater teaching workload.	Access to a huge number of resources on the web for students, researchers and teachers in a single platform.	The final evaluation is given by the university, it is the same as always: an exam. There is no evaluative innovation no matter how much you want to give a practical character to the questions.
			The posing of the exam questions is limited to external controls.

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Improves the ability of students to adapt to new situations.

The experience of UNIR teachers as teachers of professional training cycles in the health area.

Active learning based on real educational situations.

Teamwork:  
motivating, promoting teamwork and social skills.

Individual work:  
creativity, innovation, flexibility, preparation for teaching.

By working in small groups, they can turn on the microphones in the Adobe sub -rooms, even the web cam, recovering part of that physical interaction that we have in face-to-face classes.

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## **Strengths**

UNIR is completely based on distance learning. Students who enroll are perfectly aware of this premise and therefore choose to study at UNIR. The state of alarm due to the COVID-19 pandemic that has given logical problems to face-to-face teaching systems has not produced alterations in the day-to-day life of UNIR students, except for certain overloads in the network due to the increase in volume teleworking. There were certain difficulties in facing the internships that they must do in educational centers, but ingenious and creative solutions were reached that allowed them to do their internships remotely.

Another strong point, which the pandemic has not been able to disrupt, is that students interact through forums, in virtual face-to-face classes, in group work that they have in other subjects, having access from home to all the material they need to develop their studies, also including access to research resources.

Regarding the speciality of sanitary area, it has a teaching staff that has experience teaching in vocational training cycles of the sanitary area. This means that the didactic material prepared and the proposals for activities and dynamics of the classes, are focused in an active and practical way, from

their own experience, so the students can reflect, work and prepare materials on cases that they will have to face when it comes to being teachers of these cycles.

This practical and active learning is carried out collaboratively, in groups, which encourages teamwork and also initiative when proposing solutions, a fundamental factor in their future teaching to be able to coordinate with their other classmates in the cycle of vocational training, finally, the beneficiary of this collaboration and good dynamics between teachers is the students.

Working in small groups makes it possible to partially recover this loss of physical contact that occurs from face-to-face to remote teaching. In the sub-rooms of Adobe Connect, they can turn on the microphones and even the web cam, going from the silence of the chat in the main room to hear their voices, what they think, what they express, what they feel, obtaining feedback from the practical activity that is going out.

### **Weaknesses**

Linking with the last point, the lack of physical interaction between students as well as students and teachers is scarce. At the time that we do not use webcams and microphones, maybe because they do not have that resource or because there are too many students in the class to be able to use them, we lose the visual and sensitive contact that helps us so much to know if they are understanding or not, if they are motivated, excited or bored. In these cases, the only way to get feedback from them is to ask them. It is one of the many reasons why to work in small groups was chosen, breaking the silent barrier of the chat.

As frequently appears in the literature on active methodologies, these entail a greater workload for the teacher. In this case that we are dealing with, the elaboration of the REMIX, it is not the same that ten students go to class and two groups of five are made, which would entail reviewing and elaborating two works, instead with forty students eight groups of five have to be formed, with the increase consequent of works to review. It is something that is detrimental to quality.

### **Opportunities**

An opportunity for the future, accentuated with the COVID-19 pandemic, is universal access to distance education. Both students and teachers can study and teach from anywhere in the world with Internet access. In fact, UNIR has headquarters all over the world and with the transformation to exams 100% online, access is unlimited if there is access to the Internet.

This universal access from anywhere, not in Spain, but in the world, encourages inclusive education for people in the most diverse contexts by being able to have access to all training from their homes. For example, people with disabilities who have adapted their houses, eliminate possible architectural barriers to access to face-to-face teaching centres. Other cases may be the case of people who, due to work or lack of time, want to renew, update and resume studies, which they could not face-to-face, since in this type of flexible teaching they can adapt their own pace.

For the non-native digital population, it represents an opportunity to recycle and improve their skills related to ICT, and this can be extrapolated to better management in their jobs in which the requirement of a correct use of computer interfaces is necessary, as well as in daily life.

Access through a single platform to a huge number of resources, both for students, teachers and researchers: Dialnet, eBooks, ERIC, Google Scholar, Scielo, Springer Journals, GRAO (education journals), Scopus, Web of Science, etc.

### **Threats**

It has been found that digital natives do not have any problem with teamwork, and they function perfectly in virtual environments, preparing material with tools and platforms on the internet to develop educational material. Students of a higher age range have more difficulties, but with the methodology of working in groups, with a heterogeneous distribution, this gap can be partially bridged, achieving satisfactory results from the students.

Something that the pandemic has highlighted is the digital divide. There are areas where they do not have access to the internet and / or enough ICT resources. They cannot access this type of education. Students in face-to-face educational centres in some cases have not been able to continue their studies due to confinement and a state of alarm. These areas, where there are people who through online training could access higher education, who due to their circumstances could not normally, lose this possibility

Despite the paradigm shift and even though there is a continuous assessment (40% of the global subject), the final evaluation is the traditional exam. Students work and learn with active, practical and motivating methodologies, but at the end of the journey they find the usual final exam, which no matter how practical the questions are proposed, demotivates and discourages them. Besides, the content of the exam questions is under the control of the departments.

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