

Supplementary Material S2: Category System definitions

1. **Previous teaching experiences supported by ICT and the Internet:** Assessing the use of ICT resources and accessing the Internet before the hybrid teaching taught during academic year 2020/21.
 - 1.1. Employing ICT in usual teaching: Usual here is understood as that teaching given before the March 2020 lockdown.
 - 1.1.1. *Frequency of use and tasks:* Perceived habitual use (daily, weekly, sporadic, etc., frequency) to perform teaching activity by also indicating the tasks performed by means of ICT resources (explanations, follow-up, evaluation).
 - 1.1.2. *Resources used:* Referring not only to electronic devices, but also to systems, software, platforms, applications, etc.
 - 1.1.3. *Opinion about the suitability of their use and function:* Opinion about the presence of technologies while teaching in the university context to either give classes or to perform tasks outside teaching hours. This includes the perception of their validity for university teaching (if they have been adapted, are useful, etc.)
 - 1.1.4. *Perception of specific training in this methodology and the involved technological tools.* This includes two aspects: the first is the perception of teachers' and students' knowledge and management of different devices and educational applications; the second is the perception and evaluation of the offered and received training.
 - 1.2. Adapting e-learning during confinement: Determining the aspects that conditioned teaching in the university context in the last trimester of academic year 2019/20, which was marked by the lockdown that began in March.
 - 1.2.1. *Technical and technological resources:* Possibility of teachers and students accessing the Internet and having electronic devices at home. This includes specific mentions to using applications and generic programmes, but with no specific references made to their use to support teaching (e.g., email). Attention is paid to questions like Internet connection speed, the characteristics, usefulness and updates of resources and personal equipment, availability of individual and/or shared resources, etc.
 - 1.2.2. *Teaching action: Theoretical sessions:* The way in which the consideration of theoretical contents was made by pointing out certain aspects like schedules, the methodology and the employed didactic resources, length of sessions, students' attendance/participation, performed activities, the used programmes or applications, etc.
 - 1.2.3. *Activities and evaluation tasks:* This involves the tasks typology to apply acquired knowledge, as well as aspects that refer to evaluating and marking tasks. This indicator also includes possible references to

the modifications made to evaluation instruments and marking criteria, particularly in relation to this trimester.

1.2.4. *Teaching follow-up and tutoring*: Perception of the way in which teaching follow-up was done (theoretical and learning activities), reflections about the time, dedication (real and perceived) and schedules spent on attending to students.

1.2.5. *Support agents*: Determining emotional support agents (teachers, students, relations, friends), direction of this support (teachers-students, students-students, etc.), and type of actions and messages (by differentiating especially between what is emotional and what is cognitive)

1.2.6. *Evaluating the usefulness of this methodology*: Perceptions of the usefulness of this way of teaching after witnessing the experience lived during confinement months. Evaluating the level and quality of perceived learning. This also includes comparisons related to usual teaching.

2. **Evaluating e-learning in mixed face-to-face and virtual (hybrid) teaching during the post-lockdown course**: Perception of the result of having given the hybrid teaching imposed by the Education Authorities in the university context.

2.1. Resources availability: Existence of technological devices in the education centre and at homes, as well as Internet access, and them being available to give classes and to perform the different considered learning tasks.

2.1.1. *Personal resources availability*: Possibility of teachers and students having electronic resources available and Internet access, especially for distance teaching. This includes any possible references to institutions' efforts to improve and adapt those that existed in previous courses (updates, improvements, purchasing more equipment, etc.).

2.1.2. *Adapting the resources available in classrooms and the centre*: Evaluating the usefulness and quality of the available resources and those purchased to give hybrid teaching.

2.2. Giving hybrid teaching by using the e-learning methodology: Describing the way in which hybrid teaching was given.

2.2.1. *The e-learning concept and its application to teaching*: Determining the elements and characteristics that help to identify e-learning as a teaching methodology; describing the way it was carried out

2.2.2. *Applying other methodologies*: Identifying other teaching methodologies to carry out hybrid teaching to complement or substitute e-learning.

2.2.3. *Measures to facilitate teaching follow-up*: This indicator focuses on teachers' proposals in relation to the changes made to the usual

methodology by means of programmes, applications, and the type of considered activities.

- 2.2.4. *Playing the main roles: students and teachers*: Perception of tasks for students and teachers during academic year 2020/21: were they the same as they were in an ordinary course? This also includes reflections on not only the interest in, commitment to and engagement in the tasks entrusted to students, but also on the consideration and follow-up of classes for teachers. Clearing up doubts also forms part of this indicator.
- 2.3. Evaluating e-learning: Perception of the influence that e-learning has had on teaching quality as part of hybrid teaching.
 - 2.3.1. *Advantages and facilitating elements*: Advantages, positive aspects and improvements to the e-learning methodology *versus* exclusive face-to-face teaching.
 - 2.3.2. *Disadvantages and limiting elements*: Disadvantages, negative aspects, problems that do not solve or the e-learning methodology generates, *versus* exclusively face-to-face teaching.
 - 2.3.3. *Valuing perceived learning and academic performance*: Comparative perception with other courses in which teaching was only face-to-face.
 - 2.3.4. *Psychological perception (emotional and cognitive)*: Perceptions of the feelings and emotions that the use of this teaching generates in both students and teachers. Comments can be your own or centre on others. For example, taking a rejection attitude and not wishing to switch on the camera during virtual classes.
- 2.4. Applying and proposing improvements: Reflecting on the perceived differences between the way teaching was given during confinement months and the way hybrid teaching was applied during academic year 2020/21.
 - 2.4.1. *Positive aspects, successes or strong points*: Perception of finding perceived mistakes during confinement and correcting them during academic year 2020/21, and identifying successes during the last trimester of academic year 2019/20 that have continued with time.
 - 2.4.2. *Negative aspects, mistakes or weak points*: Identifying the mistakes made while teaching during confinement and have not been corrected during academic year 2020/21.
 - 2.4.3. *Improvement proposals*: Reflecting on the lines or elements that must be reinforced in the application of e-learning in the university context, including improvement proposals or possible adaptations made and actions performed in the future.