

# Teachers' and students' perspectives on the intensive use of technology for teaching and learning

Noguera, I. and Valdivia, P.

## Appendix 1. Teachers' interview

Teacher:

Interviewer:

Date:

**1. How do you usually organize your face-to-face teaching?**

*What teaching methodologies and learning activities were used to apply. How did (s)he use the virtual campus. What previous experience did (s)he has teaching at a distance.*

**2. How have you adapted the subjects to distance teaching?**

*If have applied different designs for different subjects. Changes in: methodology, types of activities, planning, interaction with students, resources, use of the virtual classroom, and/or evaluation.*

**3. Which difficulties did you find when adapting it?**

Technological competences, time, resources, psychological factors, technology. Differentiate difficulties in the domestic field and the university field.

**4. Which solutions did you find to deal with such difficulties?**

Technology, peer support, institutional support, resources.

**5. Which are the lessons learned during this experience?**

About students, about techno-pedagogical design, about technology, about the university, about colleagues.

**6. Would you agree to share a survey with your students to know their perspectives about the experience lived as a result of the adaptation to distance learning?**

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### Appendix 2. Student's survey

#### Information about equipment and connectivity

Answers refer to the equipment and connection at disposal during the confinement.

1. What devices have you used to learn? (Multiple response)
  - a. Mobile
  - b. Tablet
  - c. Laptop
  - d. Desktop computer
  
2. How have you primarily been connected to the Internet? (Single answer)
  - a. Mobile data
  - b. WI-FI
  - c. Ethernet (cable)
  
3. Did you have connectivity issues (e.g., Internet access, connection to videoconferences, access to the campus) that have made it difficult to follow the courses?
  - a. Yes
  - b. No
  
4. Have you had a suitable physical environment to learn?
  - a. Yes
  - b. No
  
5. Do you share the workspace with other people?
  - a. Yes
  - b. No

#### Learning experience

6. What aspects of distance learning have been challenging for you? *Please indicate your degree of agreement or disagreement about the following statements. (Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree)*
  - 6.1 Learning at a distance has made me feel disoriented.
  - 6.2 Work-family reconciliation, given the health alert, has affected my performance.
  - 6.3 It took me a while to self-regulate the time spent on the activities.
  - 6.4 It took me a while to understand the new organization of some subjects.
  - 6.5 The amount of information and activities proposed by the teaching staff has been excessive.
  - 6.6 The activities and dynamics of learning at a distance have not been very motivating.
  - 6.7 Not being able to carry out situated learning activities (e.g., role-play, case study) has harmed my learning.

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- 6.8 I have had difficulties performing the activities given my technological competences.
  - 6.9 I have missed seeing teachers in person.
  - 6.10 Fluency in communication has been affected by using asynchronous tools (email, forum).
  - 6.11 I have missed seeing my colleagues in person.
  - 6.12 I prefer to enroll in a face-to-face subject than do it remotely.
7. Please, describe any other aspects that have been difficult for you and are not included in the previous question.
8. What aspects of distance learning have been especially beneficial to you? *Please indicate your degree of agreement or disagreement about the following statements. (Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree)*
- 8.1 Distance learning has allowed me to continue learning in times of confinement.
  - 8.2 Saving time on commuting has allowed me to devote more to learning.
  - 8.3 I was able to learn at my own pace.
  - 8.4 Learning at a distance has made me feel like I had more control over my learning than learning face-to-face.
  - 8.5 I felt accompanied by the teacher.
  - 8.6 I have been able to interact with my colleagues through learning activities.
  - 8.7 The use of technologies motivates me to learn.
  - 8.8 I feel that the time I have spent learning to use tools has benefited my learning.
  - 8.9 I feel that the way to learn in times of confinement has been of quality.
9. Please, describe any other aspects that have been beneficial for you and are not included in the previous question.
10. Which teaching strategies have been most useful to you? *Please indicate the degree of usefulness with respect to the following statements. (I have not experienced it, Not at all useful, Useless, Neither useful nor useless, Useful, Extremely useful)*
- 10.1 Lecture through video recording (recorded videos).
  - 10.2 Lecture with PowerPoint presentation (with or without audio).
  - 10.3 Lecture through videoconference (with content explanation).
  - 10.4 Synchronous videoconference (all connected simultaneously) for the resolution of doubts, presentations, or review before an exam.
  - 10.5 Synchronous videoconference (all connected simultaneously) where professionals are invited.
  - 10.6 Synchronous videoconference to learn how to use a program.
  - 10.7 Written material.
  - 10.8 Forum discussion.
  - 10.9 Autonomous learning activities with guidelines.
  - 10.10 Tutorials through videoconference.
  - 10.11 Tutorials through phone calls.

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- 10.12 Monitoring through Whatsapp.
  - 10.13 Resolution of doubts through chat.
  - 10.14 Resolution of doubts through email.
  - 10.15 Monitoring through shared documents.
11. Please describe below any other teaching strategies you have experienced and not included in the previous question (open).
12. What teaching adaptations do you value positively (e.g., guidelines, contents, formats, flexibility, or communication, among others). (open)
13. How would you like teaching to be if you would live the same situation in the next academic year? (Single answer)
- a. All subjects face-to-face.
  - b. Some subjects face-to-face and others at a distance.
  - c. Each subject combines face-to-face part and remote teaching.
  - d. All subjects at a distance.
14. Other comments that you want to make. (Open)

### **Demographic information**

15. Indicate your age range: (Single answer)
- a. 18-30
  - b. 31-40
  - c. 41-50
  - d. + 50
  - e. I prefer not to say.
16. Indicate which is your situation: (Multiple response)
- a. Full-time student.
  - b. Full-time work.
  - c. Part-time work.
  - d. Unable to work.
  - e. Unemployed.
  - f. Home care.
  - g. With children.
  - h. With dependants.
  - i. I prefer not to say.
17. Your technology domain is: (Single answer)
- a. Beginner.
  - b. Low-intermediate.
  - c. Intermediate-high.
  - d. Advanced.

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18. What degree are you studying? (Single answer)
  - a. Social Education
  - b. Pedagogy
  - c. Early Childhood Education
  - d. Primary Education
  - e. Double Degree in Early Childhood Education-Primary Education
  - f. Secondary School Master's Degree
  - g. Master's Degree in Psychopedagogy
  - h. Master's Degree in Research in Education
  
19. Are you in the PIUNE program?
  - a. Yes
  - b. No
  
20. Have you encountered difficulties concerning functional diversity due to distance learning? (Open)
  
21. If you are interested in knowing the results of the questionnaire, please indicate your email below:

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### **Appendix 3.** Focus group

1. What are your thoughts regarding the data and conclusions presented?
2. What do you believe are the possible reasons for the difficulties expressed by students?
3. How did you adapt the assessment of your courses to distance learning?

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### Appendix 4. Category system

Category	Subcategory	Code	No. citations	
Teaching strategies (TS)	Connect topic w/reality	TS_connect	3	
	Create resources	TS_create	13	
	Flexibility	TS_flexibility	13	
	Reading guides	TS_read	24	
	Reducing demands	TS_reduce	6	
	Teaching coordination	TS_coordination	9	
Difficulties (DI)	Communication with students	DI_communication	12	
	Digital learning	DI_digital	19	
	Distress	DI_distress	20	
	Identification of students	DI_identification	3	
	Improvisation	DI_improvisation	9	
	Lack of institutional guidelines	DI_guidelines	1	
	Lack of students' self-management	DI_management	1	
	Methodological	DI_methodological	17	
	Personal	DI_personal	2	
	Technical	DI_technical	13	
	Uncertainty	DI_uncertainty	7	
	Workload	DI_workload	29	
	Solutions (SO)	Ask for help	DI_help	1
		Change tools	DI_change	9
Diverse resource formats		DI_formats	7	
Guidance		DI_guidance	4	
Mandatory participation		DI_participation	2	
Support among teachers		DI_support	9	
Training on tools		DI_training	2	
Use of chat		DI_chat	17	
Opportunities (OP)	Written resources	DI_written	1	
	Attendance	OP_attendance	5	
	Flexibility	OP_flexibility	14	
	Get to know students	OP_students	7	
	New learning	OP_learning	48	
	Rethink courses	OP_rethink	6	
Reflections (RE)	Reuse resources	OP_reuse	14	
	Changes' durability	RE_durability	15	
	Not that difficult	RE_difficult	18	
	Privacy	RE_privacy	1	
	Relationship with students	RE_relationship	5	
	Value of F2F teaching	RE_valueF2F	1	

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Lessons learned (LL)	Communicative restrictions	LL_communication	3
	Contents' format	LL_format	8
	Prevision	LL_prevision	3
	Synchronous sessions though videoconference	LL_videoconference	4
	Assessment	NG_assessment	2
Non-grouped (NG)	Students' participation	NG_participation	30
	Feedback	NG_feedback	12
	Time management	NG_time	13
	Big groups	NG_biggroups	24
	Students' needs	NG_needs	13
	Teaching planning	NG_planning	15
	Monitoring	NG_monitoring	17
	Tutoring	NG_tutoring	17

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