

A D e A P T I V E

Advanced Design of e-learning Applications
Personalizing Teaching to Improve Virtual Education

04 (A1-A5): Methodological guidelines on implementation of transnational pilot experiences:

Erasmus + Project 2017-1-ES01-KA203-03826

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Project Information:

Project Acronym:
ADeAPTIVE Project

Project Title:
Advanced Design of e-Learning Applications Personalizing Teaching to Improve Virtual Education

Agreement Number:
2017-1-ES01-KA203-03826

SubProgramme or KA:
KA203 Strategic Partnerships for Higher Education

Project Website:
www.adeaptive.com

Participant Partners:
UCLL, JYU, UAM, Eurecat, EucA, UVT

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UAM and EURECAT

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A1, A2, A3: Web questionnaires and Data analysis before, during and after the pilot experiences.

Contributor: UVT

SUMMARY

- The aim of these tasks was to initially identify the strategies and techniques that students apply at the beginning of their learning activity, the type of learning approach (surface or depth), as well as the type of achievement objectives that they follow in their academic activity (learning, or performance).
- Based on the results obtained, a series of activities can be designed to contribute to the awareness, by students, of these aspects, but also to the enrichment of the repertoire of learning techniques and self-regulation of their own learning.
- The finality of this approach is the increase of the capacity of efficient adaptation of the students to the academic requirements.
- After this initial stage, there follows a stage of development of workshops whose content is focused on the identified aspects (through structured exercises, case studies, role-playing games, etc.).
- Students for whom the test results will show that they need to optimize these aspects will be able to benefit from the training sessions held by CCOC of WUT, free of charge.

1. ACTIVITY DEVELOPMENT

After the implementation of the interventions by the CCOC, at the end of the first semester, we will initiate a new evaluation round to identify the progress of the students and the effectiveness of the implemented interventions.



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RespondeNTS

	Respondents	Total 1st year students	Procent respondent
Psychology	208	239	87.03%

Respondents according to specialization

	Frequency	Percent
Psychology	208	39.3
Total	529	100.0

Gender

		Psychology
Others	Number	1
	%	.5%
Female	Number	174
	%	83.7%
Male	Number	33
	%	15.9%
	Total	208



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Average age by gender

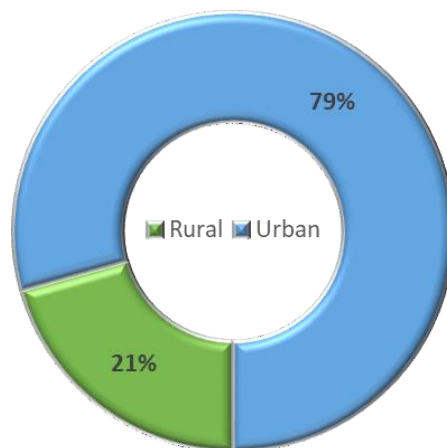
Gender	Average age
Female	20.66
Male	22.27
Total	20.92

Environment of origin

	Rural	43
	Urban	165
Total		208



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Environment of origin / Gender and average score of baccalaureate

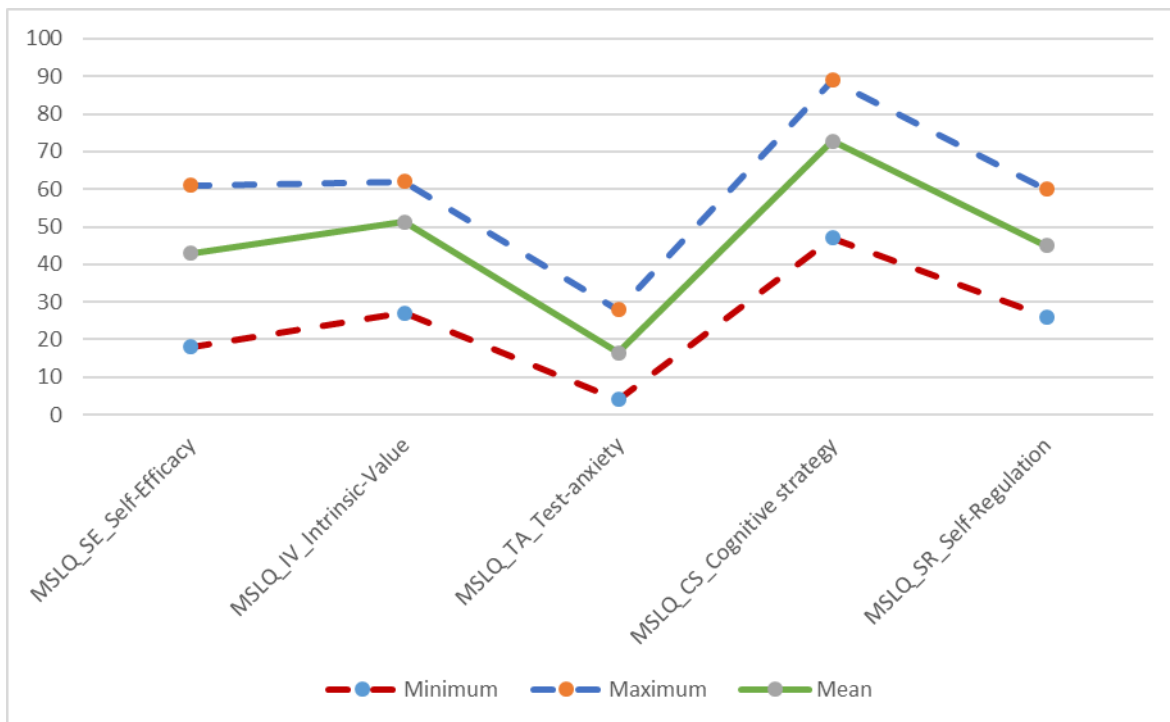
Environment / Gender	Fem ale	Male	Total
Rural	8.97	8.70	8.94
Urban	9.11	8.87	9.07
Total	9.09	8.84	9.05



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Results

Evaluation of motivational and learning strategies



The MSLQ questionnaire provides information about the motivational and learning strategies used by students in their academic activity. These aspects are important because they provide information about the relationships between motivation and self-regulation of learning in relation to academic tasks.

Motivational aspects are self-efficacy (the student's belief and confidence that he or she can cope effectively with the tasks he or she is facing), the intrinsic value assigned to learning tasks, his or her importance and interest in the task, and test anxiety, concern for which the student can

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experience in the exam situation (Pintrich & de Groot, 1990).

In terms of cognitive aspects, the two scales are represented by: cognitive strategies used in solving learning tasks and self-regulation, consisting of metacognitive strategies and effort management (persistence and conscientiousness of the student in performing tasks)(Pintrich & de Groot , 1990).

Studies show that the best predictor of academic performance is self-regulation (metacognitive strategies and effort management), while motivational components stimulate student cognitive engagement and lead to academic performance (Pintrich & de Groot, 1990; Pintrich, 2004).).

According to the results, it can be seen that students largely use cognitive learning strategies and consider learning important (intrinsic value assigned). Testing anxiety is very low, which can be explained by the fact that no report is made on a specific test situation. In fact, as there is no learning experience specific to the academic environment, their reporting was done in high school learning. High scores were also obtained for self-regulation and perceived self-efficacy.

For the design of some interventions, the cognitive dimension was chosen (cognitive strategies and self-regulation) because it is easier to approach in the current situation (online teaching / training and large number of participants).

Training activities may include teaching-learning strategies through which students are taught how to learn (ie, they can be shown specific cognitive strategies, they can work on concrete situations to highlight their effectiveness, so as to help them to and enrich the working repertoire). They can also be offered effort management strategies and work with students on



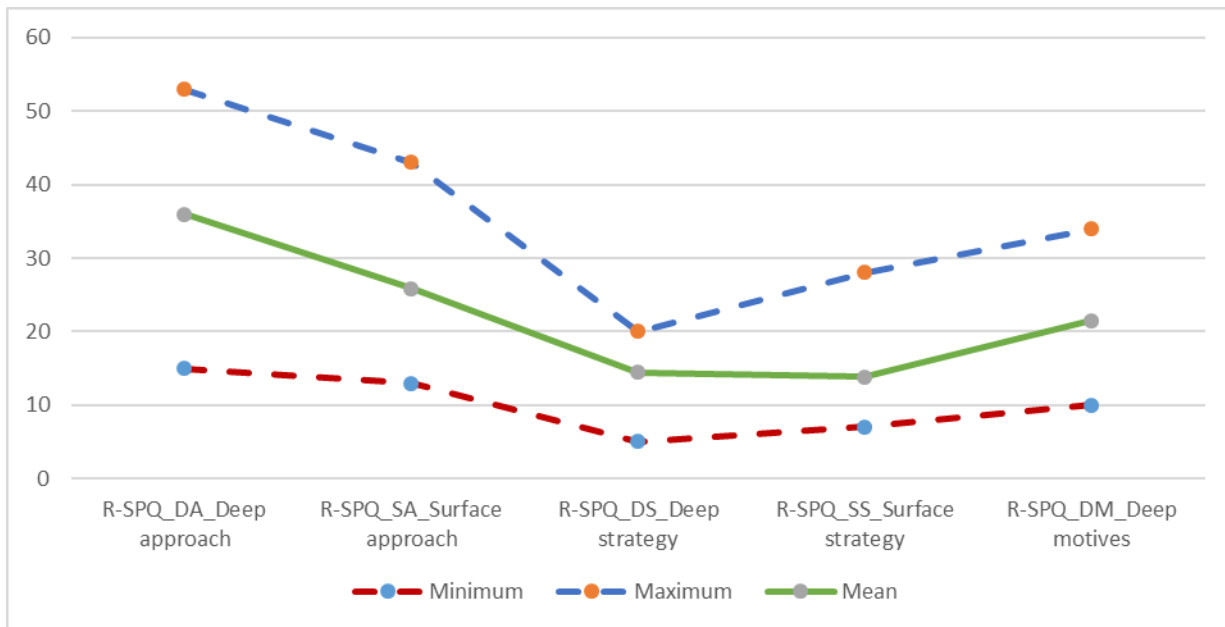
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situations characteristic of the specialization followed.



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Evaluating ways to approach learning



The R-SPQ questionnaire provides information about the student's learning approach, and the results depend on the individual characteristics of the student, but also the teaching context. The learning approach actually describes the nature of the relationship between the student, context, and learning task (Biggs, Kember, & Leung, 2001).

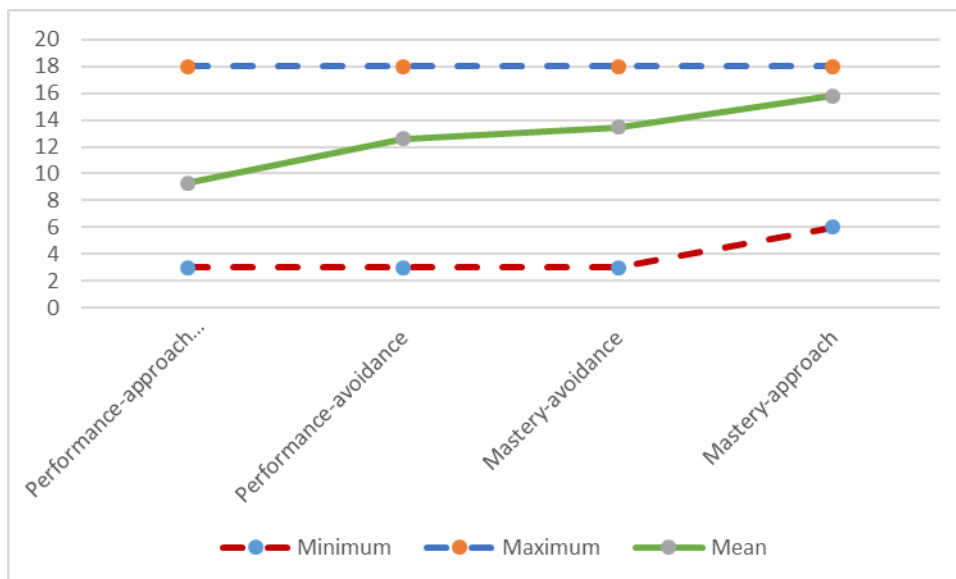
The questionnaire comprises two scales: the in-depth approach and the surface approach to learning, each of which highlights the existence of reasons and strategies that characterize each approach. The reasons refer to the student's intrinsic interest, commitment to work, desire to study, and strategies for how the student tries to understand things, learn them (for example, by memorization (surface strategies) or by understanding, by relating ideas (strategies of depth) (Biggs, Kember, & Leung, 2001).

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According to the results, one can observe an increased preference of Psychology students for the in-depth approach to learning and a predominance of reasons, of their interest in the field.

In order to identify the target group to design and deliver interventions by CCOC, we opted only for the general dimensions: depth and surface approach, respectively, because they are more relevant given that the testing did not target a specific discipline, but the process of learning in general. We must also not forget that students report to their learning experience in high school. It is possible that in subsequent evaluations, which will be marked by academic experience, the results will be more relevant if the sub-scales of the questionnaire are also targeted. As in the previous situation, training activities can focus on practicing cognitive and meta-cognitive strategies, but also on motivational strategies that contribute to stimulating academic engagement in tasks.

Evaluating the type of achievement objectives set



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If the two previous questionnaires focused on the cognitive dimension involved in learning, the latter questionnaire highlights motivational aspects that influence learning.

The questionnaire identifies the achievement objectives (cognitive representations of what the individual is trying to do or wants to achieve) that the student sets in his learning activity. It comprises four scales that evaluate: learning objectives (approach and avoidance) and performance (approach and avoidance). A person who sets learning objectives seeks to improve skills or train new ones, being interested in increasing the level of competence, its development and understanding those tasks. In the objectives of "learning avoidance" the emphasis is on the effort to avoid showing that he did not understand, that he did not learn or that he did not cope with that task. By setting performance goals, the student seeks to obtain favorable judgments or avoid unfavorable judgments from others (colleagues, teachers, parents) related to his skills. Through "performance avoidance" goals, the person's great fear is not to appear incompetent in the eyes of others (Elliot & McGregor, 2001; Finney, Pieper, & Barron, 2004).

According to the results, it can be seen that Psychology students set mainly learning goals (the desire to acquire skills) and not performance goals (the desire to show that they are better than others). This can have at least two explanations: (1) the reference is made to the educational experience in high school, when learning was important for development and there was not much emphasis on competition; (2) students did not have the opportunity to refer to a particular discipline, which may influence the results (these may be relevant when the test concerns a specific discipline). It is possible that in the academic environment, which is much more competitive, the orientation of students may experience a number of changes. This is also influenced by the achievement objectives promoted by the teacher or even by the respective



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specialization.

In order to identify the target group, in order to design and implement interventions by CCOC, we opted only for the orientation towards learning, respectively towards performance, because it is easier to approach in the current situation (online teaching / training and large number of participants). It is preferable for students to be taught and encouraged to set learning objectives (which involve deeper processing of information and the use of more elaborate strategies, seeking challenge and continuing the approach, despite difficulties, resulting in increased effort) instead of performance (which involve a superficial attachment and superficial learning strategies, choice of simpler tasks, and even decreased intrinsic motivation if there is no certainty of success (Pintrich, Conley, & Kempler, 2003; Finney, Pieper, & Barron, 2004; Lee, McInerney, Liem, & Ortega, 2010)).

The training activities can focus on practicing cognitive and meta-cognitive strategies, on motivation and evaluation strategies that link the criteria and the way of learning.

IDENTIFYING STUDENTS WHO NEED REMEDIAL ACTIVITIES

A number of 6 sub-scales were selected for which the analysis was run.

Motivational Learning Strategies (MSLQ)

Cognitive strategies Self-regulation

The learning process (R-SPQ-2F)

Depth approach Surface approach

The type of achievement objectives set

Performance orientation Learning orientation



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For each of these sub-scales, respondents with scores below the 25th percentile (for each subscale) were identified.

Specialization	MSLQ_C Cognitive strategy	MSLQ_SR Self- Regulation	R-SPQ_D Deep approach	R-SPQ_SA Surface approach	Performanc approach	Mastery- approach
No of students						
Psihologie	51	41	40	51	50	14



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LIST OF RESPONDENTS IDENTIFIED AT RISK TO THE INVESTIGATED VARIABLES RELATED TO LEARNING – PSYCHOLOGY

Due to the fact we have to protect student identity we erase their name and Identification number.

MSLQ_CS_Cognitive strategy

User name	ID	High Schools profile	Year of baccalau reat	Score	Age	Gender	Urban /Rural	MSLQ_CS Cognitive strategy _Scor
Student1		Stiinte Sociale	2012	8.28	19	Masculi n	Urban	47
Student2		Matematica-Informatica	2019	8.65	20	Masculi n	Urban	56
		-	2020	8.3	18	Feminin	Urban	66
		Pshihologie	2020	8.81	19	Masculi n	Urban	56
		Filologie	2020	9.13	18	Feminin	Urban	58
		Stiinte Sociale	2020	9	19	Feminin	Rural	64
		Economie	1998	8.89	40	Feminin	Urban	61
		Filologie	2019	9.43	19	Masculi n	Urban	61



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		Stiinte Sociale	2020	8.35	19	Feminin	Rural	67
		-	2020	9.5	19	Feminin	Urban	67
		Matematica-Informatica	2009	9.07	29	Feminin	Urban	65
		informatica	1997	8.88	42	Masculin	Urban	67
		Protectia mediului	2020	8	19	Feminin	Rural	62
		Stiinte ale naturii	2020	8.46	19	Feminin	Urban	64
		Filologie	2020	8.7	18	Feminin	Rural	67
		Stiinte Sociale	2020	9.38	18	Feminin	Urban	66
		Filologie	2018	8.41	21	Feminin	Urban	59
		Filologie	2020	8.55	18	Feminin	Urban	64
		Liceul Teoretic „Bartok Bela”- Timisoara	2020	8.02	19	Feminin	Rural	66
		Stiinte ale naturii	2020	9.5	19	Masculin	Urban	64
		Matematica-Informatica	2020	9.75	18	Masculin	Urban	67
		Filologie	2018	9	21	Feminin	Rural	61



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		Filologie	2020	9.13	18	Feminin	Rural	63
		Real	2020	9.25	19	Feminin	Urban	60
		Matematica-Informatica	2019	8.3	19	Feminin	Urban	64
		Matematica-Informatica	2016	9.16	23	Masculin	Urban	62
		Filologie	2020	8.53	18	Feminin	Rural	65
		Stiinte Sociale	2020	8.41	19	Masculin	Urban	62
		Filologie	2020	8.86	18	Feminin	Rural	65
		Filologie	2008	8.48	31	Masculin	Urban	57
		Filologie	2020	9.2	18	Feminin	Urban	67
		Stiinte Sociale	2020	9.06	19	Feminin	Urban	64
		Matematica-Informatica	2020	8.3	19	Feminin	Urban	67
		Alimentatie Publica si Turism	2020	8.35	19	Masculin	Urban	56
		Pedagogie	2020	9.08	18	Feminin	Urban	60
		Bilingv Engleza	2020	9.33	19	Masculin	Urban	63
		Psihologie	2019	10	20	Feminin	Urban	65
		-	2020	9.25	18	Feminin	Urban	66
		Filologie	2020	8.83	19	Feminin	Urban	62



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		Filologie	2019	9.16	20	Feminin	Urban	66
		Militar	2009	8.87	30	Masculin	Rural	60
		Matematica-Informatica	2020	8.33	19	Masculin	Urban	65
		Filologie	2020	9.53	19	Masculin	Urban	54
		Stiinte Sociale	2020	9.66	19	Feminin	Urban	67
		Teoretic	2020	9.75	19	Feminin	Rural	67
		Economie	2020	8.45	18	Feminin	Urban	67
		Filologie	2020	9.15	18	Feminin	Urban	67
		Stiinte ale naturii	2020	8.78	19	Feminin	Urban	59
		Filologie	2020	9.08	19	Feminin	Urban	66
		Stiinte Sociale	2020	8.35	19	Feminin	Urban	64
		Stiinte Sociale	2020	9.4	19	Feminin	Urban	65

MSLQ_SR_Self-regulation

User name	ID	High Schools Profile	Year of baccalua reat	Score	Age	Gender	Urban/Rural	MSLQ_SR Self-
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								Regulation Score
		Stiinte Sociale	12	8.28	19	Masculin	Urban	31
		Stiinte ale naturii	2016	8.63	23	Feminin	Urban	38
		Mate- Informatica	2019	8.65	20	Masculin	Urban	34
		Pshihologie	2020	8.81	19	Masculin	Urban	35
		Filologie	2019	8.53	20	Feminin	Urban	33
		Economie	1998	8.89	40	Feminin	Urban	36
		Pedagogie	2020	9.55	19	Feminin	Urban	39
		informatica	1997	8.88	42	Masculin	Urban	37
		Stiinte ale naturii	2020	8.46	19	Feminin	Urban	36
		Stiinte Sociale	2017	8.55	21	Feminin	Urban	35
		Stiinte Sociale	2020	9.38	18	Feminin	Urban	36
		Filologie	2018	8.41	21	Feminin	Urban	34



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		Filologie	2020	8.55	18	Feminin	Urban	32
		Mate -Informatica	2020	8.58	19	Masculin	Urban	39
		Filologie	2018	9	21	Feminin	Rural	26
		Filologie	2020	9.13	18	Feminin	Rural	39
		Științe ale naturii	2020	9.15	19	Feminin	Urban	30
		Filologie	2020	9.56	18	Feminin	Urban	39
		Mate -Informatica	2019	8.3	19	Feminin	Urban	28
		Mate -Informatica	2016	9.16	23	Masculin	Urban	38
		Psihologie	2008	8.48	31	Masculin	Urban	36
		Pedagogie	2020	9.05	18	Feminin	Urban	39
		umanist	2020	9.71	19	Feminin	Urban	34
		Științe Sociale	2020	9.06	19	Feminin	Urban	38
		Științe Sociale	2020	8.93	19	Masculin	Urban	39
		Mate	2020	8.3	1	Feminin	Urban	36



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		-Informatica			9	in		
		uman	1996	9.23	4	Mascu	Urban	35
		Alim Publ si Turism	2020	8.35	2	lin		
					1	Mascu	Urban	35
		Filologie	2020	8.93	9	lin		
					1	Femin	Urban	36
		Pedagogie	2020	9.08	9	in		
					1	Femin	Urban	32
		Stiinte ale naturii	2020	9.08	8	in		
			2019	7.15	2	Mascu	Urban	38
		Filologie	2020	8.96	0	lin		
					1	Femin	Urban	39
		Filologie	2020	8.83	9	in		
					1	Femin	Urban	35
		Filologie	2020	8.83	9	in		
			2019	9.16	2	Femin	Urban	37
		Filologie			0	in		
		Teoretic	2020	9.75	1	Femin	Rural	39
					9	in		
		servicii	2020	9.21	1	Femin	Urban	33
					9	in		
		Economie	2020	8.45	1	Femin	Urban	37
					8	in		
		Filologie	2017	8.63	2	Femin	Urban	37
					2	in		
		Stiinte ale naturii	2020	8.78	1	Femin	Urban	32
					9	in		



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		Stiinte Sociale	2020	8.35	19	Femin in	Urban	32
		uman	2006	8.55	32	Femin in	Urban	36

R-SPQ_DA_Deep information processing

User-name	ID	High Schools Profile	Year of baccalu areat	Score	Age	Gender	Urban /Rural	R-SPQ_ DA_ Deep approa ch _ Scor
		Stiinte Sociale	2022	8.28	19	Masculin	Urban	24
		Filologie	2020	8	19	Feminin	Urban	30
		Stiinte Sociale	2020	8.88	19	Masculin	Rural	29
		Stiinte Sociale	2020	9	19	Feminin	Rural	23
		Filologie	2020	8.91	19	Feminin	Urban	26
		Filologie	2019	9.43	19	Masculin	Urban	30
		Invatatoa re-	2020	9.55	19	Feminin	Urban	27



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		educatoare						
		-	2020	9.5	19	Feminin	Urban	21
		Filologie	2020	9.21	18	Feminin	Urban	30
		Filologie	2020	8.46	19	Feminin	Urban	30
		Stiinte Sociale	2020	9.38	18	Feminin	Urban	27
		Filologie	2020	8.55	18	Feminin	Urban	27
		Filologie	2020	9.8	19	Feminin	Rural	29
		Liceul Teoretic „Bartok Bela"	2020	8.02	19	Feminin	Rural	27
		Stiinte ale naturii	2020	9.5	19	Masculin	Urban	25
		Filologie	2018	9	21	Feminin	Rural	25
		Filologie	2020	9.13	18	Feminin	Rural	21
		Real	2020	9.25	19	Feminin	Urban	29
		Mate-Informatica	2016	9.16	23	Masculin	Urban	23
		Filologie	2020	8.53	18	Feminin	Rural	29
		Teoretic	2010	9.78	29	Feminin	Urban	30
		Filologie	2020	8.31	19	Feminin	Rural	22
		Filologie	2020	8.86	18	Feminin	Rural	21
		Stiinte	2020	9.65	19	Feminin	Urban	29



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		Sociale						
		umanist	2020	9.71	19	Feminin	Urban	29
		Stiinte Sociale	2020	9.06	19	Feminin	Urban	30
		Mate -Informat ica	2020	8.3	19	Feminin	Urban	28
		Alimentat ie Publica si Turism	2020	8.35	19	Masculin	Urban	15
		Stiinte ale naturii	2020	8.93	18	Feminin	Urban	27
		Filologie	2020	8.93	19	Feminin	Urban	30
		Filologie	2020	918	18	Feminin	Rural	26
		Filologie	2020	8.96	19	Feminin	Urban	28
		MuzicÄf	2020	8.48	18	Feminin	Rural	29
		Filologie	2020	9.63	18	Feminin	Rural	18
		Filologie	2017	8.63	22	Feminin	Urban	25
		Filologie	2020	915	18	Feminin	Urban	27
		Stiinte ale naturii	2020	8.78	19	Feminin	Urban	22

R-SPQ_SA_Surface information processing



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User name	ID	High Schools Profile	Year of baccalaureate	Score	Age	Gender	Urban/Rural	SA_Surface approach_Score
		-	2020	9.2	19	Feminin	Urban	21
		Stiinte Sociale	2020	8.28	19	Masculin	Urban	19
		Stiinte ale naturii	2020	8	19	Feminin	Urban	18
		Pedagogie	2020	9	19	Feminin	Urban	18
		Filologie	2019	8.53	20	Feminin	Urban	20
		uman	1995	9.79	43	Feminin	Urban	18
		Filologie	2020	8.91	19	Feminin	Urban	20
		Bilingva - Intensiv Franceza	2001	9.59	38	Feminin	Urban	16
		Stiinte Sociale	2020	8.35	19	Feminin	Rural	20
		-	2020	9.	19	Femi	Urban	20



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				5		nin		
		Matemati ca- Informati ca	2009	9. 07	2 9	Femi nin	Urban	14
		Filologie	2020	9. 01	19	Masc ulin	Rural	18
		informati ca	1997	8. 88	4 2	Masc ulin	Urban	17
		-	2020	9. 2	19	Femi nin	Urban	19
		telecomu nicatii	1997	8. 77	4 2	Masc ulin	Urban	13
		Filologie	2020	9. 33	18	Femi nin	Urban	19
		Stiinte Sociale	2020	9. 68	18	Femi nin	Urban	18
		-	2013	89 6	2 6	Femi nin	Rural	16
		Stiinte ale naturii	2020	9. 5	19	Masc ulin	Urban	18
		Matemati ca- Informati ca	2020	9. 75	18	Masc ulin	Urban	17
		Filologie	2018	9	2	Femi	Rural	21



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					1	nin		
		Matemati ca- Informati ca	2020	9.1 5	18	Femi nin	Urban	19
		-	2017	9	2 2	Femi nin	Urban	19
		Stiinte Sociale	2009	9. 41	3 0	Femi nin	Urban	19
		Filologie	2020	8. 53	18	Femi nin	Rural	19
		Stiinte ale naturii	2020	9. 03	19	Femi nin	Urban	21
		Psihologi e	2008	8. 48	31	Masc ulin	Urban	17
		Stiinte Sociale	2020	9. 65	19	Femi nin	Urban	15
		Stiinte ale naturii	2020	9. 46	18	Femi nin	Urban	14
		Bio-chimi e	2020	8. 53	19	Masc ulin	Rural	21
		Bilingv Engleza	2020	9. 33	19	Masc ulin	Urban	21
		Filologie	2020	9. 5	18	Femi nin	Urban	20



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		Filologie	2008	9.31	31	Feminin	Urban	15
		Filologie	2020	918	18	Feminin	Rural	21
		Filologie	2020	8.95	19	Feminin	Urban	19
		sportiv	2004	8.95	35	Feminin	Urban	16
		Militar	2009	8.87	30	Masculin	Rural	21
		Muzica	2020	8.48	18	Feminin	Rural	19
		Pedagogie	1996	9.28	44	Feminin	Urban	21
		Stiinte Sociale	2020	8.78	19	Feminin	Urban	20
		Filologie	2020	9.53	19	Masculin	Urban	21
		servicii	2020	9.21	19	Feminin	Urban	20
		Filologie	2020	9.63	18	Feminin	Rural	19
		Stiinte Sociale	2001	8.91	38	Feminin	Urban	20
		inv-educato	2020	9.1	18	Fem	Urban	19



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		r				inin		
		Filologie	2017	8.63	22	Feminin	Urban	18
		Liceu Teoretic, Uman	2020	9.5	18	Feminin	Urban	21
		Filologie	2011	8.96	28	Feminin	Urban	21
		Științe ale naturii	2020	9.23	19	Feminin	Urban	21
		Științe Sociale	2020	9.4	19	Feminin	Urban	19
		Liceul Teoretic "Mihail Kogălniceanu"	2020	9.5	19	Feminin	Urban	17

Performance orientation

User-name	ID	High Schools Profile	Year of baccalaureate	Score	Age	Gender	Urban/Rural	COS_Pap Score
		Filologie	2020	8	19	Feminin	Urban	3
		-	2020	8.3	1	Feminin	Urban	3



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					8			
		Pshihologie	2020	8.81	19	Masculin	Urban	3
		Filologie	2019	8.53	20	Feminin	Urban	3
		invatatori - educatoarele	2020	9.16	19	Feminin	Rural	4
		uman	1995	9.79	43	Feminin	Urban	3
		Bilingva - Intensiv Franceza	2001	9.59	38	Feminin	Urban	3
		Invatatoarele-educatoarele	2020	9.55	19	Feminin	Urban	3
		general (Serbia)	2020	10	18	Feminin	Rural	4
		-	2020	9.5	19	Feminin	Urban	3
		Matematica-Informatica	2009	9.07	29	Feminin	Urban	3



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		Filologie	2020	9.21	18	Feminin	Urban	3
		-	2020	9.2	19	Feminin	Urban	3
		telecomu nicatii	1997	8.77	42	Masculin	Urban	3
		Matemati ca- Informati ca	2019	9.25	19	Feminin	Urban	3
		Filologie	2020	9.33	18	Feminin	Urban	3
		Matemati ca- Informati ca	2020	9	19	Feminin	Urban	3
		-	2000	9.02	38	Feminin	Urban	3
		-	2013	8.96	26	Feminin	Rural	3
		Matemati ca- Informati ca	2020	9.15	18	Feminin	Urban	3
		Stiinte ale naturii	2020	9.15	19	Feminin	Urban	4



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		Filologie	2020	9.7	19	Feminin	Urban	3
		Matemati ca- Informati ca	2019	8.3	19	Feminin	Urban	3
		Stiinte Sociale	2009	9.41	30	Feminin	Urban	3
		Filologie	2020	8.53	18	Feminin	Rural	3
		Teoretic	2010	9.78	29	Feminin	Urban	3
		Tehnologi c	2020	9.06	19	Feminin	Urban	3
		Filologie	2020	8.31	19	Feminin	Rural	4
		Filologie	2020	8.86	18	Feminin	Rural	3
		Stiinte Sociale	2020	9.65	19	Feminin	Urban	3
		Pedagogi e	2020	9.4	19	Feminin	Urban	3
		Stiinte ale naturii	2020	9.46	18	Feminin	Urban	3
		Filologie	2008	9.31	31	Feminin	Urban	3



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		sportiv	2004	8.95	35	Feminin	Urban	4
		Filologie	2020	9.13	18	Feminin	Urban	3
		Militar	2009	8.87	30	Masculin	Rural	3
		Stiinte ale naturii	2020	8.75	19	Feminin	Urban	4
		Tehnician operator tehnica de calcul	2020	8.48	19	Feminin	Rural	3
		Filologie	2020	9.06	18	Feminin	Rural	3
		Filologie	2020	9.46	19	Feminin	Urban	3
		Stiinte Sociale	2020	8.63	19	Feminin	Urban	4
		Filologie	2020	9.63	18	Feminin	Rural	3
		Stiinte Sociale	2001	8.91	38	Feminin	Urban	3
		Filologie	2017	8.63	22	Feminin	Urban	3
		Filologie	2020	9.28	19	Feminin	Urban	3



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		Stiinte ale naturii	2020	9.23	19	Feminin	Urban	3
		Tehnician Economic	2020	8.33	19	Masculin	Rural	3
		Stiinte Sociale	2020	9.4	19	Feminin	Urban	3
		Teologie	2020	9.11	18	Masculin	Urban	3
		Liceul Teoretic "Mihail Kogalniceanu"	2020	9.5	19	Feminin	Urban	3



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Learning orientation

User-name	ID	High Schools Profile	Year of baccalureat	Score	Age	Gender	Urban/Rural	COS_Map_Scor
		Matemati ca- Informatic a	2019	8.6 5	20	Masculin	Urban	14
		Pshihologi e	2020	8.81	19	Masculin	Urban	14
		-	2020	9.5	19	Femini n	Urban	13
		informatic a	1997	8.8 8	42	Masculin	Urban	14
		Stiinte Sociale	2020	9.6 8	18	Femini n	Urban	6
		Matemati ca- Informatic a	2016	9.16	23	Masculin	Urban	13
		Psihologie	2008	8.4 8	31	Masculin	Urban	12
		Filologie	2020	9.2	18	Femini n	Urban	12
		uman	1996	9.2 3	42	Masculin	Urban	13



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	Filologie	2020	9.53	19	Masculin	Urban	14
	Filologie	2020	8.88	20	Femini	Urban	13
	Economie	2020	8.45	18	Femini	Urban	11
	Filologie	2017	8.63	22	Femini	Urban	12
	tursm	2020	9.01	19	Masculin	Urban	14



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Annex

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MSLQ_SE_Self-Efficacy	208	18	61	42.89	7.110
MSLQ_IV_Intrinsic-Value	208	27	62	51.34	5.311
MSLQ_TA_Test-anxiety	208	4	28	16.55	5.611
MSLQ_CS_Cognitive strategy	208	47	89	72.82	7.372
MSLQ_SR_Self-Regulation	208	26	60	45.06	6.661
R-SPQ_DA_Deep approach	208	15	53	35.93	6.813
R-SPQ_SA_Surface approach	208	13	43	25.87	6.039
R-SPQ_DS_Deep strategy	208	5	20	14.46	2.825
R-SPQ_SS_Surface strategy	208	7	28	13.79	4.098
R-SPQ_DM_Deep motives	208	10	34	21.47	4.611
Performance-approach goals orientation	208	3	18	9.31	5.144
Performance-avoidance	208	3	18	12.61	4.202
Mastery-avoidance	208	3	18	13.49	3.753



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Mastery-approach	208	6	18	15.82	1.488
Valid N (listwise)	208				

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A3: report on the data analysis from the web questionnaires and interviews in the pilot experiences.

AUTHOR: UVT and UAM

SUMMARY

- Again, this task was influenced by the COVID-19 pandemic.
- For this reason, the report on the data analysis from the web questionnaires is divided into two studies.
- This time, we did not lose any objective because of the pandemic. On the contrary, we could include an additional study not proposed at the beginning.
- The first study is developed by UVT and is not affected by the pandemic since its format did not change.
- The second one is an additional result over the initial objectives of the project and analyses the effects of the pandemic in subjects that include many interviews activities such as Language subjects.



A D e A P T I V E

UVT study

We started an online course (REDION, Educational Resources for Teaching Online) between June and July 2020 with 70 teachers, ranging from kindergarten to university, both female and male, different ages.

The course consists of 4 disciplines (with 6 different trainers). They had to pass one subject to attend the following and finally to have the final exam.

Upon descriptive analytics of each subject we run a diagnosis in order to:

- understand and optimise the learning and the environment in which it occurs
- intervene when a student was struggling to provide a unique feedback tailored to their answers
- personalize the learning process for each and every teacher, playing to their strengths and encouraging improvement
- but most to adapt our teaching and learning styles via socialization, pedagogy and technology

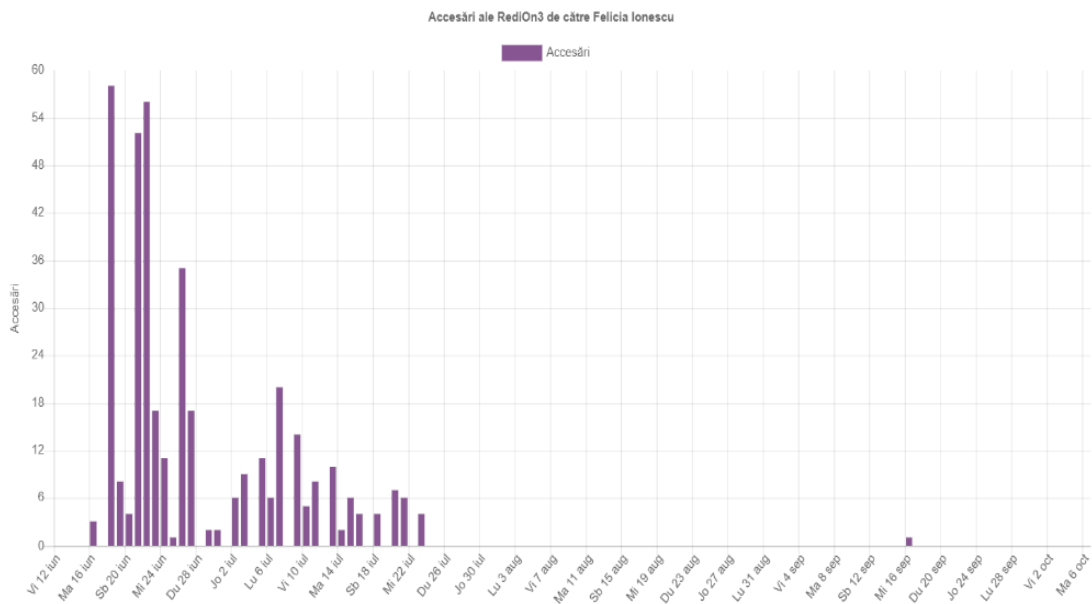
Although learner interaction in Moodle leaves a lot of digital interactions, we didn't have access to all data.

Our intention was:

- To try to predict students' dropout
- To get live statistics about the learners



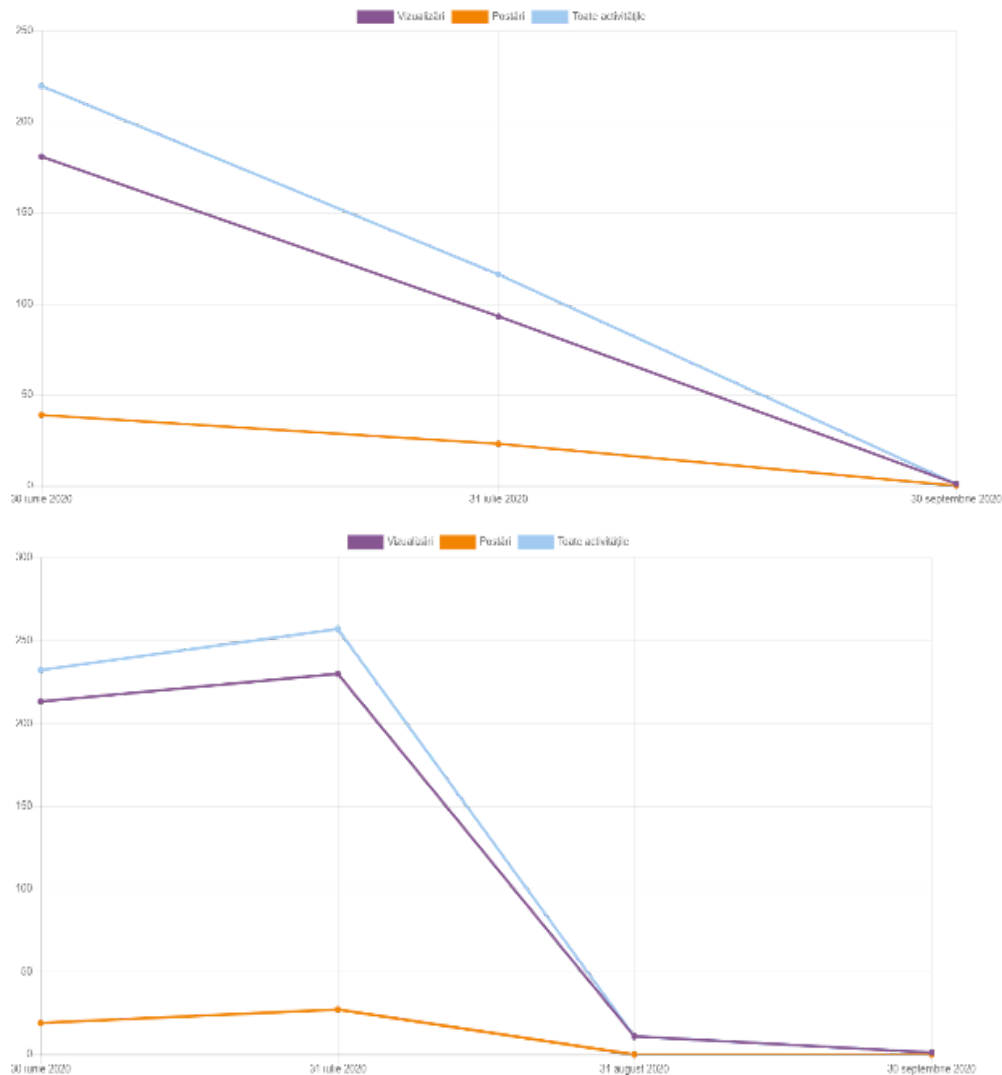
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- To trace individual progress vs collective progress



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Thus we identified participants who appear less likely to succeed and initiated targeted interventions to help them achieve better outcomes. Unfortunately, from 70 enrolled teachers only 59 finalized the course.



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Name	REDION1	REDION2	REDION3	REDION4	REDION Final
Student1	↑ 100	↑ 85	→ 35	↑ 77	↑ 75
Student2	↑ 90	↑ 85	→ 35	↑ 77	↑ 75
Student3	↑ 70	↑ 85	→ 35	→ 54	↑ 75
Student4	↑ 100	↑ 100	↑ 100	↑ 92	↑ 100
Student5	↑ 70	↑ 70	↑ 70	↓ 31	↑ 75
Student6	↑ 70	↑ 70	↑ 70	→ 38	↑ 75
Student7	↑ 100	↑ 100	→ 41	↑ 85	↑ 100
Student8	↑ 100	↑ 100	↑ 71	↑ 77	↑ 100
Student9	↑ 100	↑ 100	↑ 82	↑ 85	↑ 100
Student10	↑ 100	↑ 100	↑ 100	↑ 85	↑ 100
Student11	↓ 30	↓ 15	↓ 12	↓ 15	↓ 25
Student12	↑ 100	↑ 100	↑ 100	↑ 92	↑ 88
Student13	↑ 90	↑ 81	↑ 88	→ 54	↑ 75
Student14	↑ 100	↑ 96	↑ 88	→ 54	↑ 88
Student15	↑ 90	↓ 17	→ 65	↓ 31	↑ 75
Student16	↑ 100	↑ 100	↑ 100	↑ 92	↑ 100
Student17	→ 60	↓ 15	↓ 12	→ 54	→ 63
Student18	↑ 100	↑ 100	↑ 100	↑ 100	↑ 88
Student19	↑ 70	↓ 15	↓ 29	→ 62	↑ 88
Student20	↑ 100	↑ 100	↑ 94	↑ 92	↑ 100
Student21	↓ 0	↓ 0	↓ 0	↓ 0	→ 63
Student22	↑ 100	↑ 100	↑ 100	↑ 85	↑ 88
Student23	↑ 100	↑ 100	↑ 94	↑ 92	↑ 100
Student24	↑ 100	↑ 94	↑ 94	↑ 92	↑ 100
Student25	→ 60	→ 60	→ 41	→ 54	↑ 88
Student26	↑ 100	↑ 100	↑ 100	↑ 92	↑ 88
Student27	↑ 70	↑ 70	→ 41	↓ 23	↑ 88

Among disciplines REDION3 was the most difficult, that required a change in the curricula and to modify the learning activities in order to improve the teacher's learning.



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Much of the data comes from the LMS of our university (MOODLE based), including: log-in information, rates of participation in specific activities, time spent interacting with online resources and grades.

The system allowed us to proactively notify the users as a simple alert about the rate of success or to take specific actions.

On the other hand we didn't have access to all data (for eg. hit counts and access patterns).



UAM study related to the COVID-19 pandemic

1. Introduction

COVID-19 pandemic affected education in many ways. During the March-June 2020's confinement, Spanish Government followed a common goal of reducing the spread of coronavirus by introducing measures limiting social contact, suspending face-to-face teaching and exams as well as placing restrictions on immigration affecting Erasmus students [1]. In this context, many traditional classes were replaced by online teaching. Various e-learning platforms or social media were used for education, enabling interaction between teachers and students. In Spain, the confinement took three months from March to June and no clear nor homogeneous way for teaching and evaluation was imposed. Different options were tested in primary, secondary and higher education, and each educational institution could also take their own decisions. As for the teachers, almost all of them used distant learning tools to communicate with their students (e-learning platforms, web resources, e-mail, videoconferences...). Several educational institutions and even publishers made digital version materials available for free.

Fortunately, e-learning has been strongly developed in the last years and there was a range of modern tools available to face the challenge of distance learning imposed by the COVID-19 pandemic [2]. By using these tools, online teaching that was previously taught face-to-face with large Information and Communication Technologies (ICT) support was easily adapted in COVID-19 confinement, especially in those cases where these tools were already used before [3].

The objective of this document is to analyze the effect of COVID-19 confinement in March-May 2020 in students' performance in higher education. To achieve this goal, we analyze students' marks in different tasks that were performed before and during the confinement and in the early stages of the gradual release in May. We have used data from 333 students from Universidad Autónoma de Madrid (122 out of them from COVID-19 period in 2019/20) that studied three different subjects: French as a Second Language Level 2 (FL2-II) in Tourism degree; French as a Second Language Level 6 (FL2-VI) in Modern Language Culture, and Communication degree (MLCC) and General Translation from French (minor language) Spanish I included in the degree of Translation and Interpretation (T&I). As



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we will show, our data indicates that autonomous learning in this scenario has increased students' performance from the confinement to the end of April., where we have found a maximum. Right after that point, students' performance decreases. We discuss the possible reasons for this effect taking into account both the factors related to the COVID-19 confinement and to the distance learning format.

In section 2 we present the objectives of the document in detail. In section 3 we describe the subjects involved in the analysis. In section 4 we present the results. In section 5 we discuss the possible reasons for the effects shown in the previous section. In section 6 we show the conclusions.

2. Objectives

The use of computers in education is a hot topic nowadays [4]. The automatization that computers can add to the learning process is a concept that must be taken into account when facing courses or subjects that include a huge number of students [5] or a scenario where students are not available for face-to-face sessions [6]. Thanks to the use of computers, teaching in these complex circumstances is achievable [7]. However, the automatization of learning implies that teachers will not have a close interaction with students, which is a disadvantage that must be compensated by well-structured learning environments [8]. The correct configuration of these environments strongly depends on data analysis, which is the origin of Learning Analytics [9]. We can expect that some environments as synchronous lessons by videoconference would have some different effects on distance learning.

In this document, we have two main research questions: a) How was the progress of scores (learning curve) in these subjects from the beginning to the end of the second semester of 2019/20 (i.e. before, during and after the confinement)?; and b) Is there any impact of students' performance in the confinement comparing to previous years as it was showed by [10]? As subjects based on language performance, even if the task is presented in the same way, learners can perform differently depending on their starting level or many other factors. Its contents are not quantitatively measurable, as they are related to the several options students have when writing or speaking in a foreign language or when translating a text from French to Spanish. For this reason, we have chosen for comparison only some tasks in General Translation and in one group of FR2-II for Tourism proposed by the teachers every year. We have also only selected tasks where the aims and assessment



criteria are well known by the teachers, in order to be sure that the main different variable would be the new COVID situation vs non COVID context.

3. Description of the subjects included in the study

The following are the subjects involved in the study, their academic objectives, tasks and methodology. We have observed that students handed in 100% of the assignments (except for Translation tasks) in all the subjects. Some of the exceptions were students who didn't pass the course before (with the problem of having subjects from the 1st and the 2nd year) or foreign students.

The first subject analyzed is French as a Second Language, FSL, taught in different degrees and levels: Modern Languages (major language) and Tourism (minor language). The second one is General Translation from French to Spanish, in the degree of Translation and Interpretation (T&I), taught to students of French as a minor language.

3.1 French as a Second Language (FL2-II) in Tourism

French as a Second Language takes place during the second semester of 2019-2020 in two groups of Tourism (Gil, Marnet). In the following section, we will show for one of them (Gil, 34 students) the learning curve in terms of scores from the beginning to the end of the semester (before, during and after the confinement). As for the other one, we will compare different academic years (Marnet, 36 students). In both cases, the total of students taking this subject was 70. FL2-II is a compulsory module of 9 ECTS in the 2nd year of the Tourism degree at the Faculty of Economics in Universidad Autónoma de Madrid. It is taught mostly through practical lessons focused on reading, listening comprehension, speaking skills, role playing and writings related to the tourism sector. The aim of this subject is that students acquire communication skills for different situations in tourism professional context at an A2+/B1.1 level of the Common European Framework. A proper and intelligible speaking is needed as well as appropriate registers and genres. To achieve these objectives it is necessary to acquire grammatical and lexical means. The results analyzed correspond to different speaking and writing tasks. The details of these tasks are:

Marnet group: two tasks (speaking and writing): the writing task was guided by the activities on <https://objectifemploi.jimdofree.com/> organized as the tasks described by

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[11]. Students must follow different instructions to search for a job in France, prepare an interview and a motivation letter and write their resume, which were previously explained by the teacher and supervised by email. As for the speaking, they have to prepare an exposition with a slideshow, which they recorded, (instead of presenting it to the class) and uploaded to moodle platform.

Gil group: Tasks were only oral, and they were recorded and uploaded to moodle platform.

3.2 French as a Second Language (FL2-VI) in Modern Languages, Culture and Communication

As for French as a Second Language in Modern Languages, Culture and Communication, the subject FL2-VI is taught during the second term of 2019-2020 (Gil) with 32 students. FL2-VI is a compulsory module of 6 ECTS in the 3rd year at the Faculty of Philosophy and Letters. It is taught through mostly practical lessons focused on speaking and writing skills in several genres. The aim of this subject is to acquire communication skills for different situations including in French for specific purposes at a C1.2 level of the Common European Framework. To achieve these objectives it is necessary to acquire larger and more varied grammatical and lexical means.

The tasks analyzed correspond to 3 written essays (French dissertations) and 3 oral expositions on varied subjects.

3.3 General Translation from French (minor language) to Spanish in T&I

This subject is taught in the Translation and Interpretation degree, during the second term of 2019-2020 to 26 students (Sanz). FL2-VI is a compulsory module of 6 ECTS in the 2nd year at the Faculty of Philosophy and Letters. It is taught through mostly practical lessons focused on several skills that constitute a complex translating competence from language ones (orthographic, phonetics, grammatical, lexical, genre and pragmatics knowledge) to documentation (research of information) and word processing skills or cultural knowledge.

The tasks analyzed correspond to research of information, word processing and orthographic issues (Task 1), orthotypographic issues and what to translate or not translate issues (Task 2) and all kinds of difficulties (Task 3). This last one is significantly longer and more complex than the others.



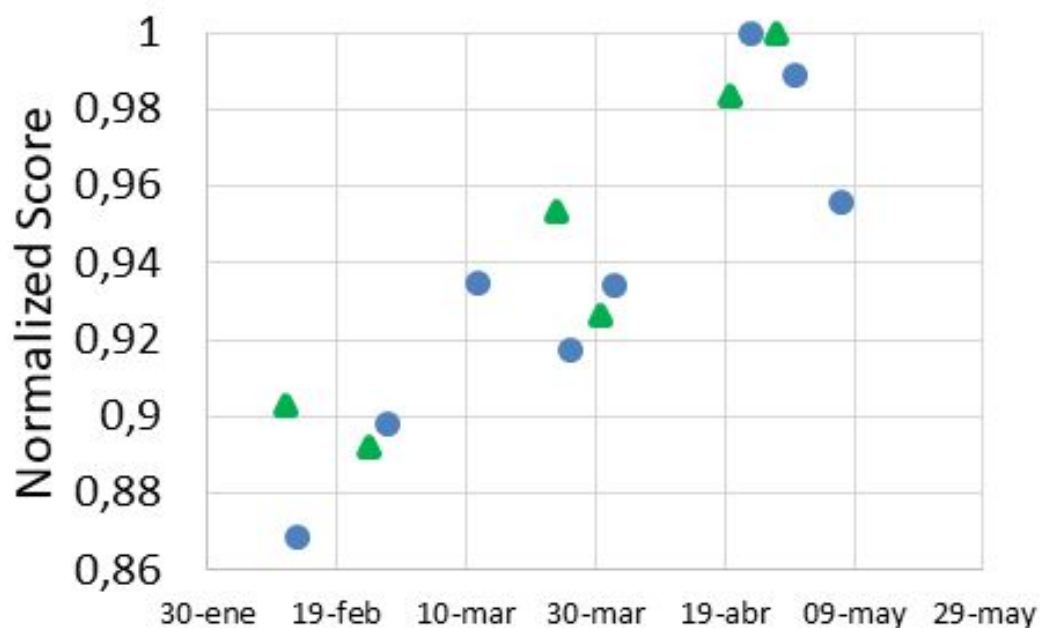
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4 Results

4.1 Students performance over the semester that included COVID-19 confinement: French as a Second Language in Modern Language Studies (FR2-VI) and Tourism (FL2-II)

In figure 1 we show the normalized scores obtained by the students in the course 2019/2020 in FR2-VI (32 students) and FR2-II (one group of 34 students). Each series in the figure, represented by a different shape and color, corresponds to a different subject. All the scores obtained by the students in each activity were normalized to the maximum score obtained for that subject. For that reason, the two series include a maximum with a value of 1. The score obtained for each activity is the mean value of the scores obtained by all students.

As we can see, the maximum scores correspond to activities that were presented by the end of April. Scores were increasing from the beginning of the course until that date. Right after that, scores decreased until the end of the course (4th may is the first step of a gradual release in Madrid and in Spain).



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Figure 1: Normalized mean comparison of scores in tasks proposed during the 2nd semester before, during the confinement and during the first stages of gradual release in 2 groups: FL2-II in Tourism (blue points) and FL2-VI in Modern Languages (green triangles)

Lessons in both groups during this period were online by videoconference, supported by activities online, resources in moodle and email monitoring. It is worth noting that, according to our data, most of the group handed in the assignments (and those students who delivered their assignments, delivered 100% of them).

4.2 Students' performance in COVID context: French as a Second Language in Tourism (FR2-II, group 2)

In figure 2 we show the scores obtained by another group of students of FR2-II in the academic years 17/18, 18/19 and 19/20 (36, 40, 34 students). In this case, we have two tasks that were finished approximately on March 15th and May 15th respectively. In the previous years, those dates corresponded to face-to-face periods since no confinement were applied. However, both dates are in confinement in the academic year 19/20. As we can see, there are significant differences between this last year and the previous ones in both tasks. In this case, we can also see a decrease in the scores between the task presented in March and the one in May. However, this effect also happened in previous years (especially in 17/18). For this reason, in this case we can only conclude that students' performance increased in confinement, without including in our analysis the differences between March and May. If we look closely at the whole set of activities proposed during these three years, it appears that students in face-to-face teaching showed little motivation, did not attend the lessons and delivered little homework. The teacher recorded a high absenteeism rate in the classroom, and a significant amount of students did not take the final exams. On the contrary, in 2019/20 the whole group fulfilled and delivered all the assignments, met all the requirements of all the exercises and took the final exams. It turned out that confinement made students more responsive and more active in the learning process.



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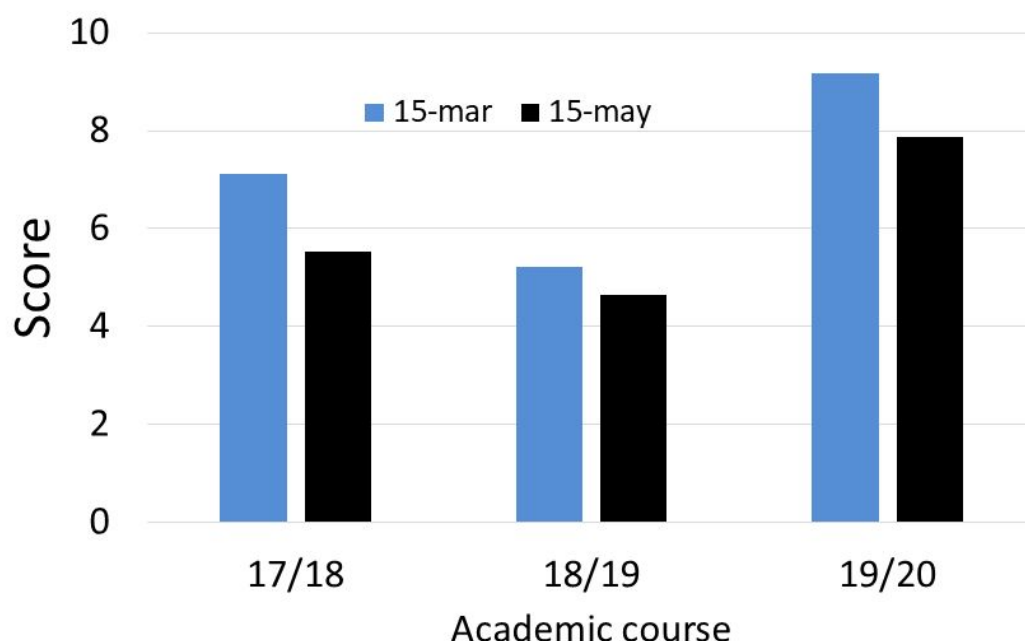


Figure 2: Mean scores in FL2-II in Tourism degree, compared to previous years: writing task (15th March) and speaking task (15th May).

Lessons in this group during this period were online, supported by moodle, online activities and supervised by email. As for this group, according to our data, most of the group handed in all the assignments which showed much better quality compared to previous years.

4.3 Students' performance in COVID context: General Translation from French (minor language) to Spanish

In figure 3 we show the scores obtained by 161 students of the subject General Translation from French to Spanish in the academic years from 2016 to 2020 (42, 39, 30, 24, 26 students respectively). In this case, we have compared the performance in three main tasks. Two of them were finished in March and the last one in May. In this case, students from the academic year that suffered confinement (2020) did not increase their scores. The first task was delivered before the confinement (February 24th); the second one, on March 10th, the eve of the confinement (it was announced on March 9th for March 11th). The last one was rendered on May 27th during the exam period and replaced the exam (first stage of gradual release on May 25th). This last task was not particularly bad from the linguistic point of view but lacked some basic requirements (translation of the whole text, including footnotes,

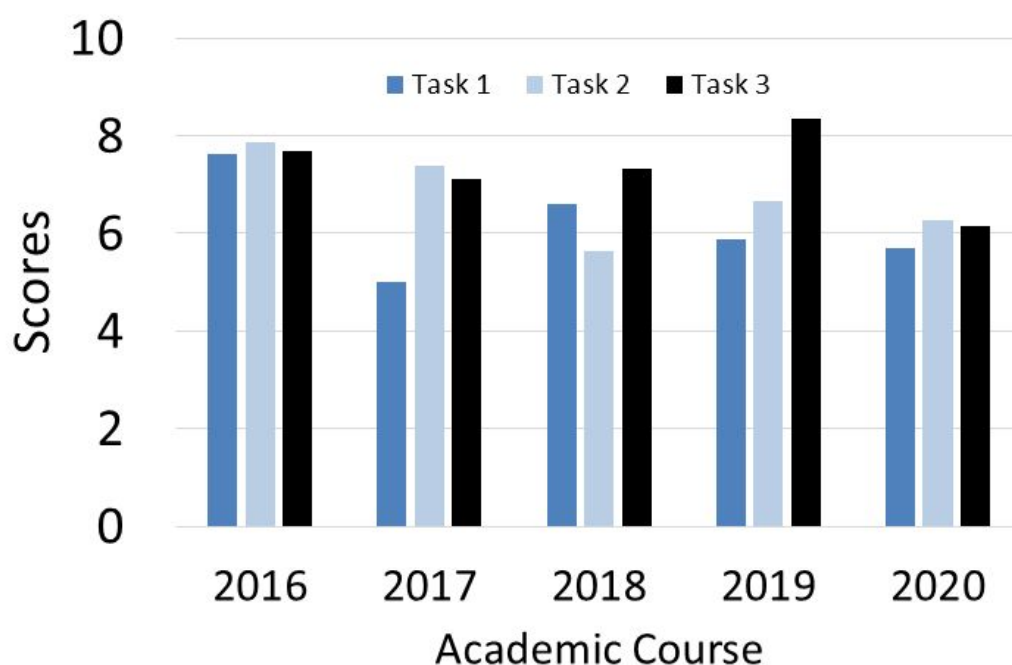


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appropriate treatment of bibliography without mistakes on proper names of books and authors, orthographic mistakes, strong word processing skills). In this case, we cannot rule out that the proximity of key dates (beginning and ending of confinement) could have had a strong influence as the group was quite serious in rendering all of the other exercises during the term.

Analyzing the differences between the three tasks, we can see that the third task (May) in the 2020 academic year has a very low value compared to the previous ones. This significant difference cannot be seen in the tasks finished in March. In previous years, we can see two different behaviors. In 2016 and 2017, students got high scores from the beginning (excepting March 1st in 2017). In those years, the tendency of having high scores continued in May. In 2018 and 2019, students did not have high scores in March. However, they strongly increased their scores in May. The academic year 2020 shows scores slightly increasing with respect of the period before the confinement, then a slightly decrease at the end of the term in early stages of the release for a third task that consisted in a much longer translation with all kind of difficulties, requiring quite an amount of focusing and articulation of all the levels of translation skills.



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Figure 3: Mean scores in General Translation French>Spanish in 2020 compared to previous years. Tasks in 2020: 1 (before the confinement), 2 (the day before confinement) and 3 (two days after reaching the first stage of gradual release).

Lessons in this group during this period were online by videoconference and supported by resources and activities in and e-mail monitoring.

Finally, according to our data, most of the group handed in all the assignments. Those who did not deliver 100% of the assignments were repeaters or foreigners.

5. Discussion

First, we must summarize the distant learning methodologies used in the subjects. E-mail or moodle have been used for proposing materials, collecting exercises and communicating with the students (Gil, Marnet, Sanz). In some of the subjects (Gil, Sanz), face-to-face was partially or totally replaced by videoconference synchronous lessons following the regular schedule during the week.

In the study, we have identified several tasks identically proposed by the same teachers every year, in order to compare the effect of teaching face-to-face with the effect of e-learning.

This teaching/learning experience cannot be considered a matter of advantages of using ICT vs not using ICT, or as the advantages of face-to-face learning vs distance learning, as, for example, videoconference makes the differences between face-to-face and distance learning less clear and ICT was already used before. On the other hand, we have also an anomalous situation at home: students are confined, some of them telework, have some family engagements or have even been ill. This situation leads us to look closer to some other data in order to explain teaching and learning in the specific context of the COVID-19 confinement. In fact, to explain our data (showing lower, equal or higher grades during this period) we could think of a general effect (the confinement) but then we should ask ourselves about which elements of the confinement resulted in a major impact on the learning process. For example, anxiety or disease are elements that can be present in this scenario and could have a strong influence in students' performance.

All these arguments end in a common topic: how to ensure the assessment's adequacy to correctly measure students' progress in the COVID-19 world. For example, how can teachers compare students' results if they differ from previous years? On one hand, students



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achieving higher scores than in previous years could be linked with cheating in online exams or with changes in the format of the evaluation tools. On the other hand, lower grades could also be caused by the evaluation format changes or be attributable to anxiety or any other factor directly related to the pandemic.

The increase in the students' performance in the confinement is an effect that can be seen in our results related to French subjects. It has been also reported before for other subjects in other University degrees for example such as Computer Science and Metabolism [10]. However, previous results only indicated an increasing in the performance since data were only analyzed until April. The decrease that is observed here for the period between the end of April, except for the subject Translation from French to Spanish I (where we have seen a lower than expected result in a task delivered on 27th May).

A factor that has been reported and could have a strong influence in the decreasing of the students' performance at the end of the academic year is the increasing anxiety due to the COVID-19 confinement. Psychologists have reported an increasing in the number of students who required their attention at the end of the confinement [12].

Another factor that must be taken into account is the reduction of the restrictions at the end of the confinement. From March to the end of April, strong restrictions were applied in the whole Spanish territory. Because of that, students were forced to stay at home and their social activities were strongly reduced. By the end of the confinement, different phases implied softer restrictions. It is reasonable to think that students started sharing their time with other activities, decreasing their academic performance.

There is also a factor that is not directly related to the COVID-19 confinement, but with the intrinsic nature of the distance learning. It is well-known that engagement is a problem in several online courses such as MOOCS [13].

As for our data, high commitment to assignments was proved in all subjects (100% of assignments delivered in FL2-II and FL2-VI) but best performance was not always observed, and dates in relation with confinement seem to be an important factor.

Since one of the main limitations of this study is the analysis of a certain group of subjects, the next steps in this research are related to the extension of this study to other subjects and disciplines, in order to analyze any potential influence of the kind of studies or methodology. It is also important to see the differences between countries since different



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COVID-19 confinements have been applied. If the main effect of the decrease in students' performance is the reduction of restrictions, we should expect similar results in countries with less restrictive situations. This study can also be done within Spain frontiers since different restrictions have been applied in different areas.

6 Conclusions

To summarize, all the groups show one common behavior: more commitment to personal homework in the COVID-19 confinement with 100% of delivered assignments in non-repeaters and in local students. These exceptions could point out to an increasing amount of work for some of the students in these particular cases, as we have verified for Translation French to Spanish I more assignments than other years in order to supply the final exam.

On the other hand, in Tourism FR2-II (group 2) we have seen more motivation from the students (as they are not usually motivated to attend lessons in this degree). It turned out e-learning during the confinement was more motivating.

In FL2-II (group 1) and FL2-VI, the learning curve shows an inverted U tendency also seen in other cases corresponding to dates of beginning – middle – ending of confinement.

We have analyzed anxiety and other factors directly related to the pandemic, such as more free time, as key elements to predict a change in students' behavior.

These findings can be used to improve teaching performance of online teaching and evaluation; better calculation and dosage of the amount of work, and better schedules for tasks (deadlines far from beginning and ending of the confinement, far from exams periods). Awareness and recognition of these relationships between scores in e-learning depending on the scenario since we have demonstrated that there are reasons related to COVID-19 confinement and others related to the intrinsic nature of distant learning. The development of new online applications to help teaching in confinement should take into account the differences between teaching in this particular situation and

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A4: Online versions of questionnaires and interviews for transnational pilot experiences

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SUMMARY

- In this task we include the final versions of questionnaires that have been used in transnational pilot experiences.
- The first one is related to soft-skills and is a collaboration between UAM, Eurecat and EUCA.
- The second one has been developed by UAM and has been used in both in Spain and Romania at this time (it is available online through the web page in order to obtain more information for different countries)
- In both cases, description and/or data analysis is shown when applicable.

Related to soft-skills

In this document we present a method, based on well-known and established rubrics, to measure soft skills in Art subjects. The method implies two phases, both related to peer and self-evaluation. Peer and self-evaluation are performed both externally and internally in work groups.

We demonstrate that it is easy for the students to have a strong agreement when evaluating a good performance of a group.

Results from the internal evaluation of the members of the groups reveal that students can detect bad behaviors that highly correlate with bad results in the final exam. This system could be used as a good predictor of bad attitudes or strategies throughout the learning process.



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1. INTRODUCTION

One of the challenges university teachers are facing nowadays is evaluating students in situations wider than in traditional learning environments. In this wider scenario, **soft-skills** such as creativity, problem solving, leadership and communication [¹⁻²⁻³] are becoming extremely relevant.

It is well-established between instructors that soft skills development is extremely useful for preventing work-related disagreements that could escalate to interpersonal conflict [⁴].

The problem that we are facing is that the development and measurement of these skills has been difficult to achieve in the traditional university classroom teaching models. [⁵]. By using new technologies, several models and tools have been developed [⁶] with great

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success in evaluating hard skills such as computer programming [7], identification of learning styles [8], mathematical ability [9], clinical practice and assessment of patients' quality of life [10], and language skills [11]. The main advantage of these skills is that they are easily measurable since they are easy to quantify. Soft skills do not have this characteristic and different approaches are needed [12].

It has been demonstrated that working in interdisciplinary environments is conducive to a better development of soft skills [13]. This fact implies that soft skills are extremely

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important for many subjects such as technology/engineering [14], business [15], medicine [16], ecology [17], history [18] or art [19], where several different disciplines interact.

In this document, we present a method to evaluate and quantify the development of soft skills in the subject Art and Globalization from the International Studies Degree. In this subject, the development of communication skills and critical thinking is as important as the development of hard skills. A good assessment of soft skills in this field is essential for a comprehensive evaluation of students.

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¹⁹ Julia Richardson, Uma Jogulu,, Ruth Rentschler. 2017. Passion or people? Social capital and career sustainability in arts management. *PERSONNEL REVIEW*. Vol. 46, No 8. 1835-1851 DOI: 10.1108/PR-02-2016-0023

Quality Evaluation:

Not included.



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In section 2 we introduce a methodology for evaluating soft skills in the subject under study. In section 3 we describe the results of applying the methodology in a field study with real students. Finally, in section 4 we show the conclusions.

2 METHODOLOGY

The experiment with students at the Universidad Autónoma de Madrid was carried out during the 2017/18 academic year and included 51 students from the Art and Globalization subject. This subject, taught through theoretical lessons, is a compulsory module in the 2nd year of the International Studies Degree at the Philosophy and Letters Faculty in Universidad Autónoma de Madrid. This module corresponds to 6 ECTS.

The methodology proposed here is based on the concept of rubrics for evaluation and self-evaluation. For the evaluation of soft skills in this subject, we started from VALUE (Valid Assessment of Learning in Undergraduate Education), which is a campus-based valuation method developed and lead by the Association of American Colleges & Universities (AAC&U) in partnership with Indiana University's Center for Postsecondary Research, as part of its Liberal Education and America's Promise (LEAP) initiative.

VALUE rubrics provide tools to assess students' individual work, created through students' varied knowledge pathways, fields of study and institutions, to conclude whether and how well students are meeting qualification level achievement in learning outcomes that both employers and faculty consider indispensable. The VALUE rubrics are being used to help institutions prove, share, and evaluate student achievement of increasingly more advanced and integrative learning.

In this work, the VALUE rubrics have been selected and additionally modified in order to better meet the aims of the subject.

Those aims are expressed in the subject guide, in which the course main goal is "help students acquire the most recent discursive and methodological tools used in the fields of art history and visual culture, especially those contributing to the questioning of Euro-centered perspectives. The subject provides models for analysis and interpretation of processes related to the migration of forms, representations, artistic objects and aesthetic concepts, along with the intertwining of different artistic traditions."



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This involves approaching the given topics in a way that avoids the usual association between the author/genius and his work and the rhetoric that frequently accompanies it and which has to do with originality, exceptionality, subjective meaning, individuality, etc. All those ideas have shaped the traditional Western Euro-centered canon in Art History. They are very common in the way art history is taught at school and high school and also in how it is presented in the media. This aim is related to some of the competences this subject is meant to develop according to the subject guide, mainly:

BASIC AND GENERAL SKILLS

CB1 - Show basic knowledge and understanding of a subject area already familiar from secondary school, and progressing now to a level of advanced textbook knowledge, and even to a certain degree of familiarity with knowledge at the forefront of the field of study.

CB5 - Develop the learning skills needed to undertake more advanced study requiring a high level of intellectual independence.

CB2 - Apply acquired knowledge to one's future profession, developing and defending arguments and solving problems within the discipline.

TRANSVERSAL SKILLS

CT1 - Acquire a wide range of historical, cultural, socio-political, geographical and ethical knowledge in order to develop a critical attitude toward social realities.

CT2 - Locate and evaluate by oneself relevant information from oral and traditional written sources along with those available on the internet; know how to use internet resources critically and responsibly.

CT6 - Show receptiveness and respect in the exchange of concepts and ideas, valuing independent learning and staying up to date, while fomenting proactive and critical attitudes toward knowledge.

Those skills will be included in two general rubrics, that will take some elements from the standard VALUE ones:

The "critical thinking" rubric is the basis of our first rubric as it evaluates relevant elements related to the acquisition of these competences. Critical thinking is required from students



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when analyzing data, text or other complex problems. It consists of exploring ideas and events followed by arriving at conclusions and formulating opinions. The sections that have been selected from this rubric of "critical thinking" are: Explanation of issues - Evidence presentation - Students' position (perspective, thesis/hypothesis) - Conclusions and related outcomes (limitations, implications and consequences)

As participation and collective critical thinking are relevant for this subject, students were asked to prepare some final questions and/or topics for debate that made sense both with the approach of their presentation and the subject for the last 10 minutes of their 20 minutes' presentations. In order to evaluate this, a new field ("debate") was added to this rubric.

As the topics suggested to students could be approached in a number of ways and because our aim is that they do not take the statements by others at face value, we modified the "topic selection" in order to include the approach to the topic and the "analysis" one was combined with the "evidence presentation" one. In the same vein we also included the evaluation of the analysis of the limitations of the stated positions in the "conclusion" field. These three items were taken from the "inquiry and analysis. Inquiry can be explained as a systematic exploration of issues or works through gathering and examining of evidence followed by formulating conclusions and judgements. Analysis consists of simplifying complex problems and obtaining a better understanding of their constituent parts. This rubric focuses on the outcomes of inquiry and analysis, as opposed to the processes themselves. The intricacy of the inquiry and analysis procedures is determined both by the amount of information and direction given to a student and by how much the student achieves.

Finally, some expressions and field descriptions were shortened in order to make rubrics better to understand and manage by students.

In addition to that, the subject guide indicates that oral presentations have an important weight in the final grade (preliminary presentation 10% + final presentation 20%). For this reason, after the preliminary presentation we organized a general discussion to give some feedback.

The second rubric was prepared in order to help students prepare their final oral presentation and to evaluate presentations by others. The rubric "oral presentation" was



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the basis to do this. Oral communication can be defined as a pre-prepared presentation intended to amplify a student's knowledge, understanding and develop desired values and behaviors.

In order to take into account integrated communication and also to pay attention to the use of audiovisual elements we included an item related to all this and which appears in the "Integrative learning" rubric. (Integrated communication). Integrative learning begins with the student making simple connections between experiences and ideas, which then are applied to new environments both professional and personal.

As students in this subject are not art historians and have only a general idea of the subject and the discipline, they frequently do not have the appropriate vocabulary to say what they want. As we had discussed at class a selection of texts dealing with relevant concepts and ideas, we have included a new item in the "language" category to evaluate how, if and when they use the specialized vocabulary they have acquired.

Finally, as in the first presentation we had observed that some groups had had important problems respecting the time allotted for their presentation, we included timing as a specific item in the evaluation of the "organization" criterion. The modifications of the original VALUE rubrics are summarized in Figure 1.



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<u>Critical thinking & inquiry and analysis</u>	VALUE RUBRIC	<u>Oral and visual presentation</u>	VALUE RUBRIC
Topic/approach selection	INQUIRY AND ANALYSIS VALUE RUBRIC	Organization	ORAL COMMUNICATION VALUE RUBRIC
Explanation of issues	CRITICAL THINKING VALUE RUBRIC	Language	ORAL COMMUNICATION VALUE RUBRIC
Evidence presentation and analysis	Evidence - CRITICAL THINKING VALUE RUBRIC Analysis - INQUIRY AND ANALYSIS VALUE RUBRIC	Delivery	ORAL COMMUNICATION VALUE RUBRIC
Students' position (perspective, thesis/ hypothesis)	CRITICAL THINKING VALUE RUBRIC	Supporting material	ORAL COMMUNICATION VALUE RUBRIC
Conclusions and related outcomes (limitations, implications and consequences)	CRITICAL THINKING VALUE RUBRIC	Integrated communication	INTEGRATIVE LEARNING VALUE RUBRIC
Debate	-	Central message	ORAL COMMUNICATION VALUE RUBRIC

Figure 1: Modifications done in the original VALUE rubrics to fit the requirements of the subject under study.

A second self and peer evaluation process is performed within the working groups. A group of 54 students was divided into 10 groups of 5-6 students each. Every group was given a subject on which a presentation had to be given. The presentation preparation period spanned several weeks over which the team had to divide responsibilities amongst all the members. After the group presentation, each team member had to evaluate all team members in their own group, including themselves. This was done on a prescribed peer evaluation form with 6 statements listed as follows: attends group meetings regularly, contributes meaningfully to group discussions, completes group assignments on time or makes alternative arrangements, prepares work in a quality manner, demonstrates a cooperative and supportive attitude, contributes significantly to the success of the project. Each person had to indicate their agreement with the statement ranging from 1 to 4 for all of their peers. 50 out of 54 forms were returned to the teacher.



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Based on this peer evaluation, an average student grade was calculated (on a scale 1-4) for each student and compared to the final grade given by the teacher (on a scale 1-10).

3 RESULTS AND DISCUSSION

3.1 Evaluation of groups

In Fig. 2 we show the standard deviation calculated on the evaluations of the students following the rubrics. This evaluation involved all the students of the class assessing all the groups, which entailed both peer and self-evaluation. Darker blue color in the figure implies higher standard deviation, which is an indicative of a lower agreement between students. We can see that the opinion of students about the work of their peers ranges from 0.47 to 0.9 on a scale between 1 and 4. We have found that the cases where standard deviation is higher are the ones that imply intermediate values, i. e. it is much easier for students to agree when a work is well-considered than in the cases where some defects are found. This fact can also be detected when taking a closer look to the results in Fig. 2. We can see that standard deviation in groups 4, 6 and 9 is low in most of the characteristics.

This means that students easily agree that those groups did a good job and gave good scores for all the characteristics. This is a very interesting fact since it implies that most of the soft skills characteristics evaluated in this job are closely related. Also, the average scores given by the students to those groups are 3.54, 3.42 and 3.47, which are the highest scores for all the groups.



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Std Dev. in Student Feedback	Group 1	Group 2	Group 3	Group 4	Group 5
Topic/approach selection	0,51	0,58	0,49	0,53	0,58
Explanation of issues	0,54	0,69	0,49	0,59	0,78
Evidence presentation and analysis	0,63	0,62	0,68	0,55	0,70
Students' position	0,69	0,72	0,53	0,51	0,69
Conclusions and related outcomes	0,65	0,80	0,78	0,64	0,63
Debate	0,66	0,85	0,74	0,63	0,80
Organization	0,59	0,75	0,60	0,55	0,90
Language	0,63	0,70	0,58	0,47	0,59
Delivery	0,58	0,71	0,54	0,56	0,61
Supporting material	0,70	0,66	0,52	0,55	0,65
Integrated communication	0,61	0,66	0,64	0,59	0,71
Central message	0,60	0,72	0,55	0,55	0,63
Average	0,61	0,70	0,60	0,56	0,69

Std Dev. in Student Feedback (cont'd)	Group 6	Group 7	Group 8	Group 9	Group 10	Average
Topic/approach selection	0,53	0,67	0,57	0,55	0,62	0,56
Explanation of issues	0,59	0,71	0,64	0,55	0,68	0,63
Evidence presentation and analysis	0,50	0,60	0,58	0,51	0,58	0,59
Students' position	0,62	0,71	0,78	0,55	0,62	0,64
Conclusions and related outcomes	0,56	0,61	0,68	0,73	0,68	0,68
Debate	0,68	0,76	0,70	0,61	0,64	0,71
Organization	0,63	0,63	0,65	0,68	0,82	0,68
Language	0,59	0,60	0,63	0,48	0,55	0,58
Delivery	0,57	0,77	0,70	0,59	0,74	0,64
Supporting material	0,64	0,62	0,67	0,55	0,72	0,63
Integrated communication	0,51	0,69	0,64	0,66	0,70	0,64
Central message	0,55	0,61	0,64	0,55	0,58	0,60
Average	0,58	0,66	0,66	0,58	0,66	0,63

Figure 2: Standard deviation of the feedback scores given by students when evaluating the work groups. It shows results obtained for all the characteristics included in the rubric.

In Fig. 3, we show the difference between the scores assigned by the teacher and the average scores of the students. Green color means that the teacher gave higher grades. Red color implies just the opposite (lower scores given by the teacher). Darker colors imply bigger differences. We have divided the groups in three different categories. The first category corresponds to groups that have better teacher scores in general (groups with 9 or more green characteristics): 4, 9 and 10. The second category is just the opposite (groups with 9 or more red characteristics): 5, 6, 7 and 8. Finally, the third category includes all remaining groups that are not clearly polarized: 1, 2 and 3. Following this classification, we



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cannot find a clear direction in which students or teachers follow significantly different paths. There are, however, some interesting results that must be considered. For example, the biggest disagreement between the opinion of the students and teacher is found in group 6. This is the group with one of the lowest considerations of the teacher (2.75). However, it is one of the best considered by the students with a mean feedback score of 3.42 and one of the lowest standard deviations (0.58).

This is very interesting since students were in close agreement about the good work done by that group, but the teacher had a differing opinion. It is in these cases where the use of our method can be more efficient since we can detect a great disagreement between students and teachers and work on it.

Teacher/Student Feedback Difference	Group 1	Group 2	Group 3	Group 4	Group 5	
Topic/approach selection	0,51	-0,26	-0,61	0,36	0,40	
Explanation of issues	0,63	0,84	0,39	0,50	-0,16	
Evidence presentation and analysis	-0,10	0,05	-0,43	0,48	-0,26	
Students' position	0,70	0,21	0,68	0,49	-0,33	
Conclusions and related outcomes	0,70	0,19	0,73	0,51	-0,45	
Debate	-0,23	0,33	-1,10	-0,41	-0,26	
Organization	0,60	0,86	-1,46	0,44	-1,05	
Language	-0,40	0,74	-0,37	-0,78	-0,53	
Delivery	0,67	1,20	0,62	0,29	-1,16	
Supporting material	0,65	-0,10	-0,68	0,49	0,65	
Integrated communication	-0,30	-0,05	-0,20	-0,43	-0,02	
Central message	-0,41	-1,26	0,45	0,54	-0,40	
Average	0,25	0,23	-0,17	0,21	-0,30	
T / S Feedback Diff. (cont'd)	Group 6	Group 7	Group 8	Group 9	Group 10	Average
Topic/approach selection	-0,64	-0,25	-0,31	0,43	0,58	0,02
Explanation of issues	-0,41	0,90	-0,20	0,50	0,64	0,36
Evidence presentation and analysis	-1,43	-0,10	0,02	0,49	0,61	-0,07
Students' position	-0,24	-0,95	-0,88	0,56	0,73	0,10
Conclusions and related outcomes	-0,20	-0,30	-1,12	-0,20	0,64	0,05
Debate	-0,48	-0,08	-1,17	0,34	-0,34	-0,34
Organization	-0,56	-0,25	-0,20	0,77	-1,09	-0,19
Language	-0,56	0,55	-1,25	-0,67	0,51	-0,28
Delivery	-1,34	0,02	-0,65	0,56	-0,16	0,00
Supporting material	-0,49	-0,33	0,64	0,53	0,82	0,22
Integrated communication	-1,29	-0,13	0,05	0,58	0,86	-0,09
Central message	-0,43	-0,21	-1,18	0,48	0,59	-0,18
Average	-0,67	-0,09	-0,52	0,36	0,37	-0,03



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Figure 3: Differences between the evaluation of the teacher and the average of the evaluation of the students using the rubric shown in section 3.1. It shows results obtained for all the characteristics included in the rubric.

3.2 Self-evaluation inside the working groups

In this section, we will compare the students' evaluation of the work of their partners inside every group with the scores obtained in the final exam. In Fig.4 we show the frequency of the final grades obtained by the students and the frequency of their peer evaluations. As we can see in the figure, the number of high scores is significantly bigger in both cases, showing a good correlation between both evaluation systems.



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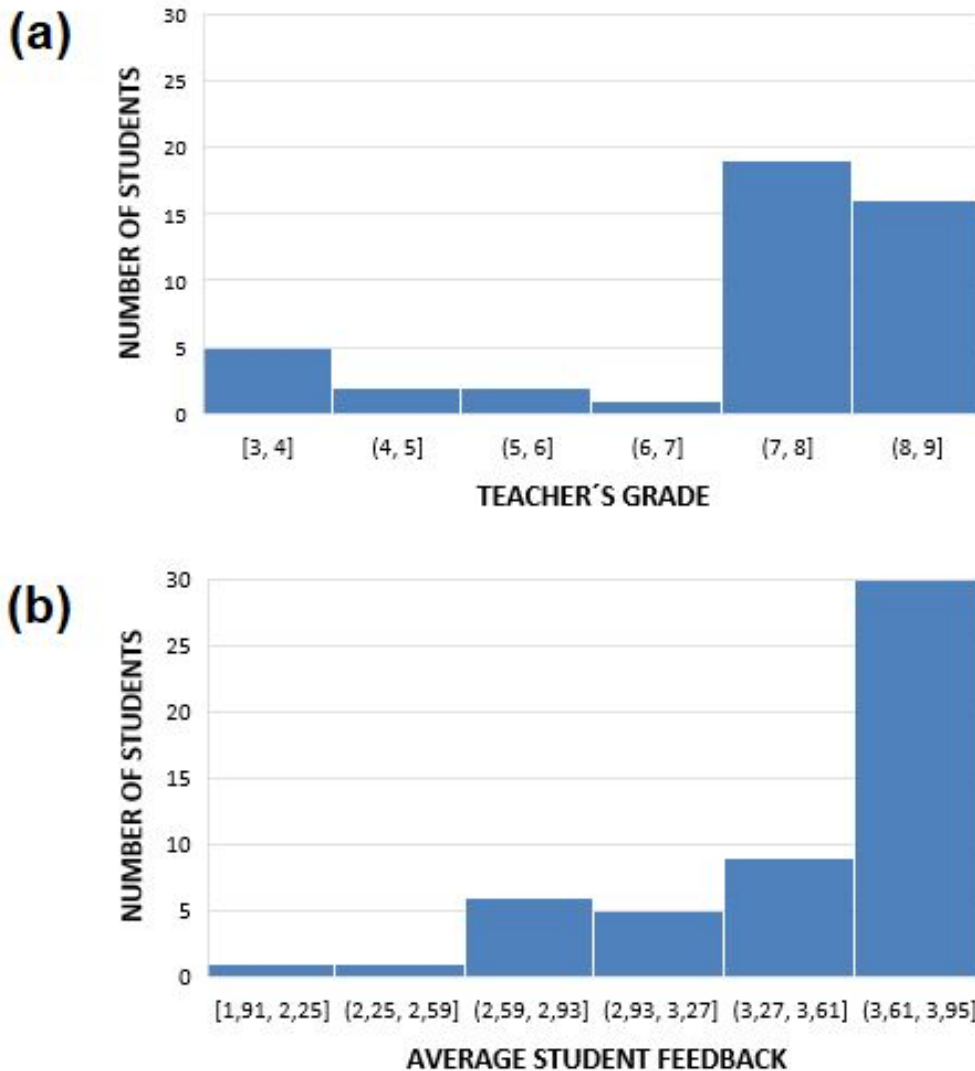
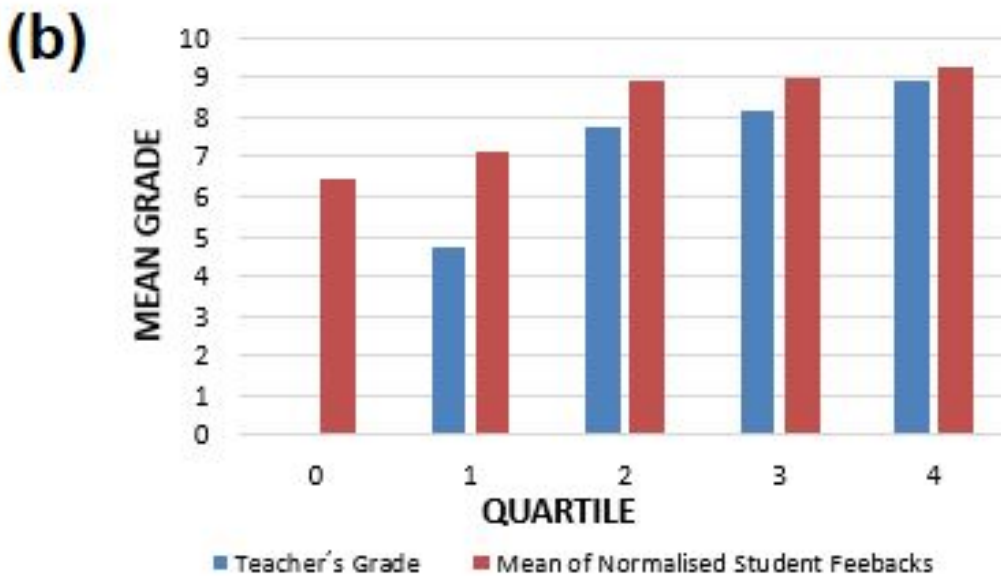
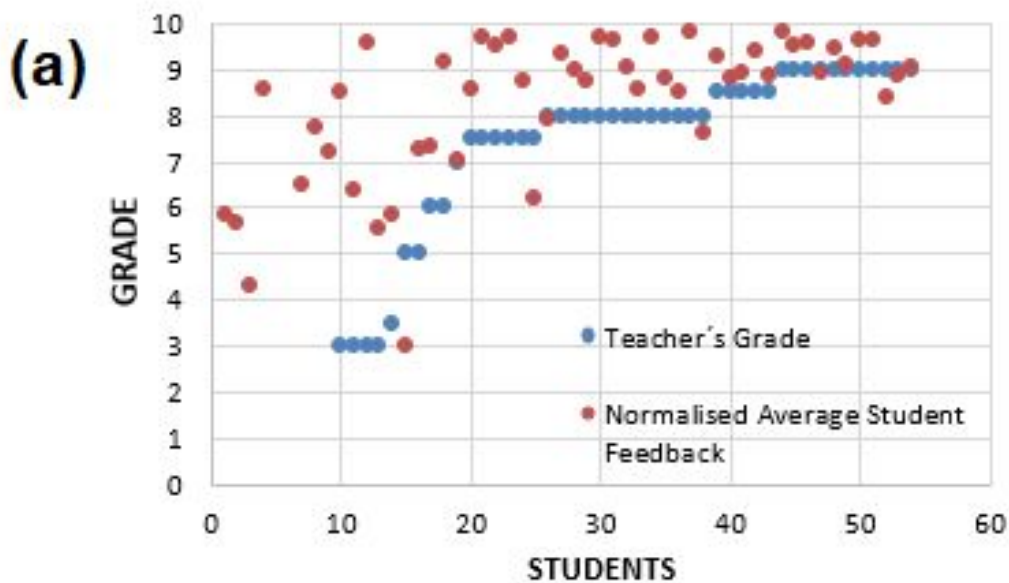


Figure 4: **Frequency of different evaluation ranges for both teacher's grade in the final exam (a) and student feedback following the rubrics assessment described in section 3.2.**

In Fig. 5 we show the final grades and students' peer evaluation together. For clarity, we present both the individual scores and the results aggregated in quartiles. We can see a good correlation between both scores, which implies that the rubric proposed in this section is a good measurement tool for predicting a good performance in the subject. Since

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the peer review of students is done throughout the course, it could be a good method to detect problems in some students and help them in correcting bad learning strategies or attitudes.



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Figure 5: (a) Teacher's grades in the final exam compared to the normalized average student feedback values. Students without a corresponding teacher's grade did not finish the evaluation process, hence no grade. (b) Teacher's grades and students' feedback divided in quartiles. Quartile 0 includes students who did not finish the assessment process.

4 CONCLUSIONS

In summary, we have developed a method, based on well-known and established rubrics, to measure soft skills in art subjects. The method implies two phases. The first one looks for a peer review of a work done by a group of students and the second one is related to the assessment of students on their peers within the work groups. In both cases, students must also evaluate their own work, which means that the peer assessment is complemented by a self-evaluation process.

Results from the evaluation of the work groups demonstrated that it is easy for the students to have a strong agreement between them when faced with good performance of a group. However, even when they are in close agreement, opinions by the teacher can be very different.

Results from the internal evaluation of the members of the groups reveal that students can detect bad behaviors that highly correlate with bad results in the final exam. This system could be used as a good predictor of bad attitudes or strategies throughout the learning process.

RUBRICS DEVELOPED

Self and peer assessment

Use the two rubrics below for peer- and self-assessment. Please, use a new document (each including two rubrics) for each group and presentation and mark there the performance of the group for each of the items. There is also space to write your comments at the end.

GROUP NUMBER AND TOPIC:



A DeAPTIVE

Critical thinking & inquiry and analysis	4	3	2	1
Topic/approach selection	Identifies a creative approach that addresses potentially significant yet previously less explored aspects of the topic.	Identifies a focused approach that appropriately addresses relevant aspects of the topic.	Identifies a topic/approach that is too narrowly focused and leaves out relevant aspects of the topic.	Identifies a topic/approach that is far too general and wide-ranging.
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding. Its connection with the subject is clearly and explicitly stated, including references to specific terms, texts or cases	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions. Its connection with the subject is clearly and explicitly stated, including references to specific terms, texts or cases	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown. Its connection with the subject is stated but only in a general way.	Issue/problem to be considered critically is stated without clarification or description. Its connection with the subject is unclear or poorly stated.



A DeAPTIVE

	discussed in class.	discussed in class.		
Evidence presentation and analysis	Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus. Information is taken from source(s) with enough interpretation / evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Organizes evidence to reveal important patterns, differences, or similarities related to focus. Information is taken from source(s) with enough interpretation/ evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities. Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Lists evidence, but it is not organized and/ or is unrelated to focus. Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Students' position (perspective, thesis/ hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the	Specific position (perspective, thesis/hypothesis) takes into account	Specific position (perspective, thesis/hypothesis) acknowledges different	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.



A DeAPTIVE

	<p>complexities of an issue.</p> <p>Limits of position (perspective, thesis/hypothesis) are acknowledged.</p> <p>Others' points of view are synthesized within position (perspective, thesis/hypothesis).</p>	<p>the complexities of an issue.</p> <p>Others' points of view are acknowledged within position (perspective, thesis/hypothesis).</p>	<p>sides of an issue.</p>	
<p>Conclusions and related outcomes (limitations, implications and consequences)</p>	<p>Conclusions and related outcomes (consequences and implications) are logical and reflect a student's informed evaluation and ability to place evidence and perspectives discussed in priority order.</p> <p>Insightfully discusses in detail relevant and supported limitations</p>	<p>Conclusion is logically tied to a range of information, including opposing viewpoints ; related outcomes (consequences and implications) are identified clearly.</p> <p>Discusses relevant and supported limitations and</p>	<p>Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.</p> <p>Presents relevant and supported limitations and</p>	<p>Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.</p> <p>Presents limitations and implications, but they are possibly irrelevant and unsupported.</p>



A DeAPTIVE

	and implications.	implications.	implications.	
Debate	Formulates questions for the general debate which have a strong connection with the topic of the presentation, with the subject and with the conclusions/specific issues discussed in the presentation.	Formulates questions for the general debate which have a strong connection with the topic of the presentation and with the subject.	Formulates questions for the general debate which have a connection with the topic of the presentation.	Formulates questions for the general debate which are too general and/or poorly related to the specific topic of the presentation or with the subject.



A DeAPTIVE

Oral and visual presentation	4	3	2	1
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive. Adequate and balanced use of allotted presentation and debate time.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation. Adequate and balanced use of allotted presentation and debate time.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation. Unbalanced use of the allotted presentation and debate time.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation. Do not respect the allotted presentation and debate time (presentation/debate too long or too short).
Language	Language in presentation is appropriate to the audience. Specialized vocabulary is used in a natural accurate way.	Language in presentation is appropriate to the audience. Specialized vocabulary is used in an accurate way but seems forced.	Language in presentation is appropriate to the audience. Specialized vocabulary is used but not in an accurate way.	Language in presentation is not appropriate to the audience. Specialized vocabulary is not used at all.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability



A DeAPTIVE

	presentation compelling, and the speaker appears polished and confident.	presentation interesting, and the speaker appears comfortable.	presentation understandable, and the speaker appears tentative.	of the presentation, and the speaker appears uncomfortable.
Supporting material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation.
Integrated communication	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) in ways that enhance meaning, making clear the interdependence of language and meaning,	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) to explicitly connect content and form, demonstrating awareness of purpose and audience.	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) that connects in a basic way what is being communicated (content) with how it is said (form).	Fulfills the assignment(s) (i.e. to produce an essay, a poster, a video, a PowerPoint presentation, etc.) in an appropriate form.



A D e A P T I V E

	thought, and expression.			
Central message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.



A DeAPTIVE

USE OF COMPUTERS IN CONFINEMENT

Available online:

<https://forms.office.com/Pages/ResponsePage.aspx?id=XttPHW9YTEGg95P2MbZVkbbaFcBt0zGtBvsk2QEbHQipUOVkyWjRPME90R1RLUzRIMVY5NU5LOFI0Uy4u&lang=en&fbclid=IwAR05wwz2rsh90lpTes5lfFRmMleRthZr5gE21XkM1bp5zhtM0i49b1PvrXw>

Which applications have you used in your classes and how frequently have you used them? (Leave in blank those that you did not use).

Daily

2 - 4 times a week

Once a week

2 - 3 times a month

Once a month

2 - 3 times in the course

Only once

Classroom

Drive

Meet

Whatsapp

Telegram

Youtube

Radioedu

e-mail



A D e A P T I V E

Zoom

Moodle

Duo

Jitsi Meet

Digital by me

Class Dojo

Padlet

Snappet

Skype

Socrative

2. If you have used other applications, please provide the name and the frequency of use.

3. Which teaching resources have been used in your classes and how frequently have they been used?

Daily

2 - 4 times a week

Once a week

2 - 3 times a month

Once a month

Less than once a month

Never

Shared documents

Recorded Lectures



A D e A P T I V E

Live Classes

Individual Tutorials

Group Tutorials

Personally designed broadcasted programs

TV or radio external broadcasted resources

Students's Projects

Online exams

Job Guides

Tutorials

Audiovisual products

Online Debates

Group Work

4.If you have used other resources, please provide the name and the frequency of use.

5.How do you consider the contribution of each application for your learning?

Extremely good

Very good

Good

Neither good or bad

Bad

Very bad

Extremely bad



A D e A P T I V E

Classroom

Drive

Meet

Whatsapp

Telegram

Youtube

Radioedu

e-mail

Zoom

Moodle

Duo

Jitsi Meet

Digital by me

Class Dojo

Padlet

Snappet

Skype

Socrative

Other Applications

6.How do you consider the contribution of each teaching resource for your learning?

Extremely good



A D e A P T I V E

Very good

Good

Neither good or bad

Bad

Very bad

Extremely bad

Shared documents

Recorded Lectures

Live Classes

Individual Tutorials

Group Tutorials

Personally designed broadcasted programs

TV or radio external broadcasted resources

Students's Projects

Online exams

Job Guides

Tutorials

Audiovisual products

Online Debates

Group Work

Other Resources



A D e A P T I V E

7. Your load of work during the confinement has been, compared to how it was before:

Much more

More

A bit more

Same

A bit less

Less

Much less

8. The load of work for the faculty during the confinement has been, compared to how it was before:

Much more

More

A bit more

Same

A bit less

Less

Much less

9. Grade

10. Number of students for course (approximately)

11. Institution you belong to



ADeAPTIVE

DATA ANALYSIS

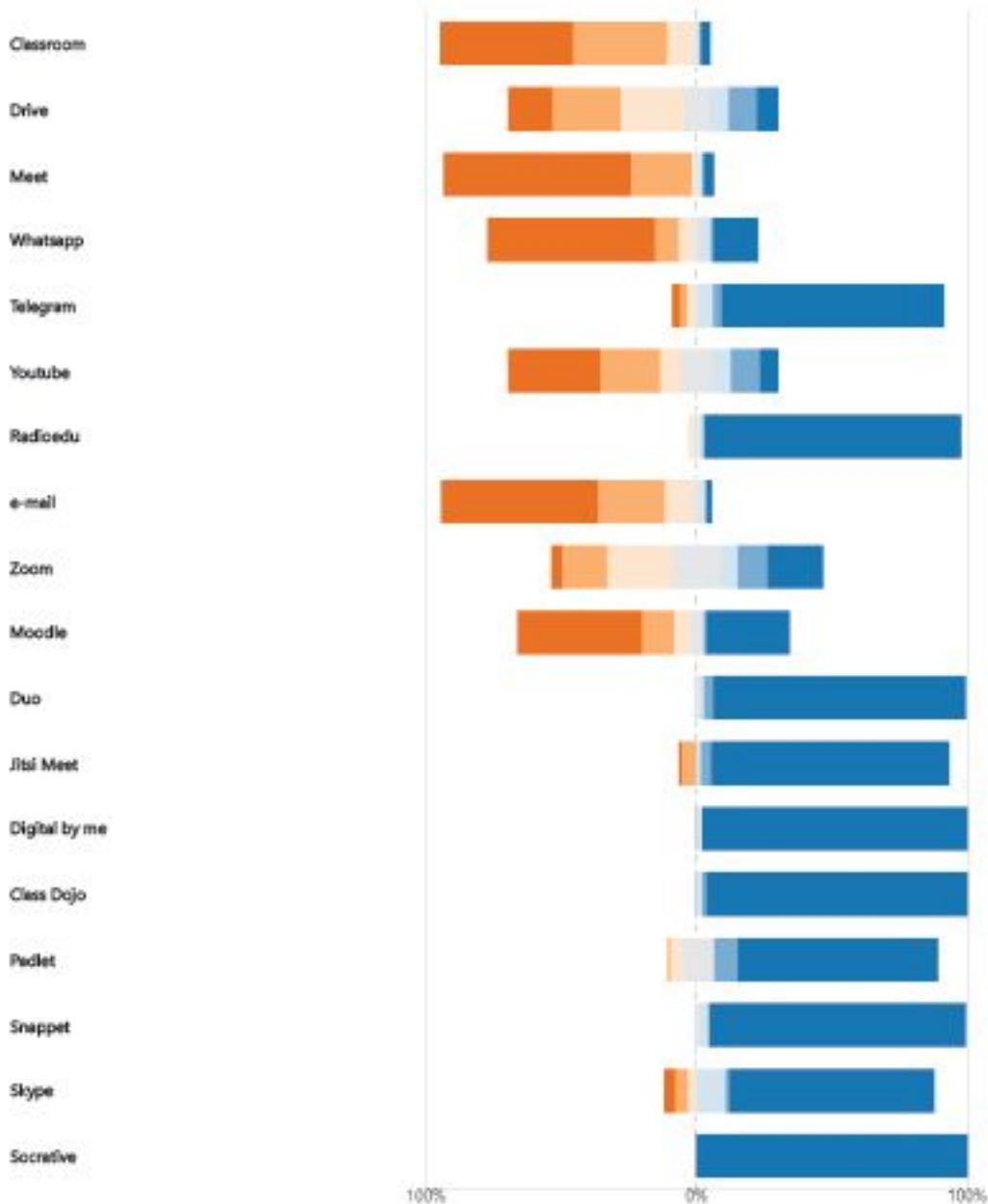
Students' Results



ADeAPTIVE

1. Which applications have you used in your classes and how frequently have you used them?
(Leave in blank those that you did not use).

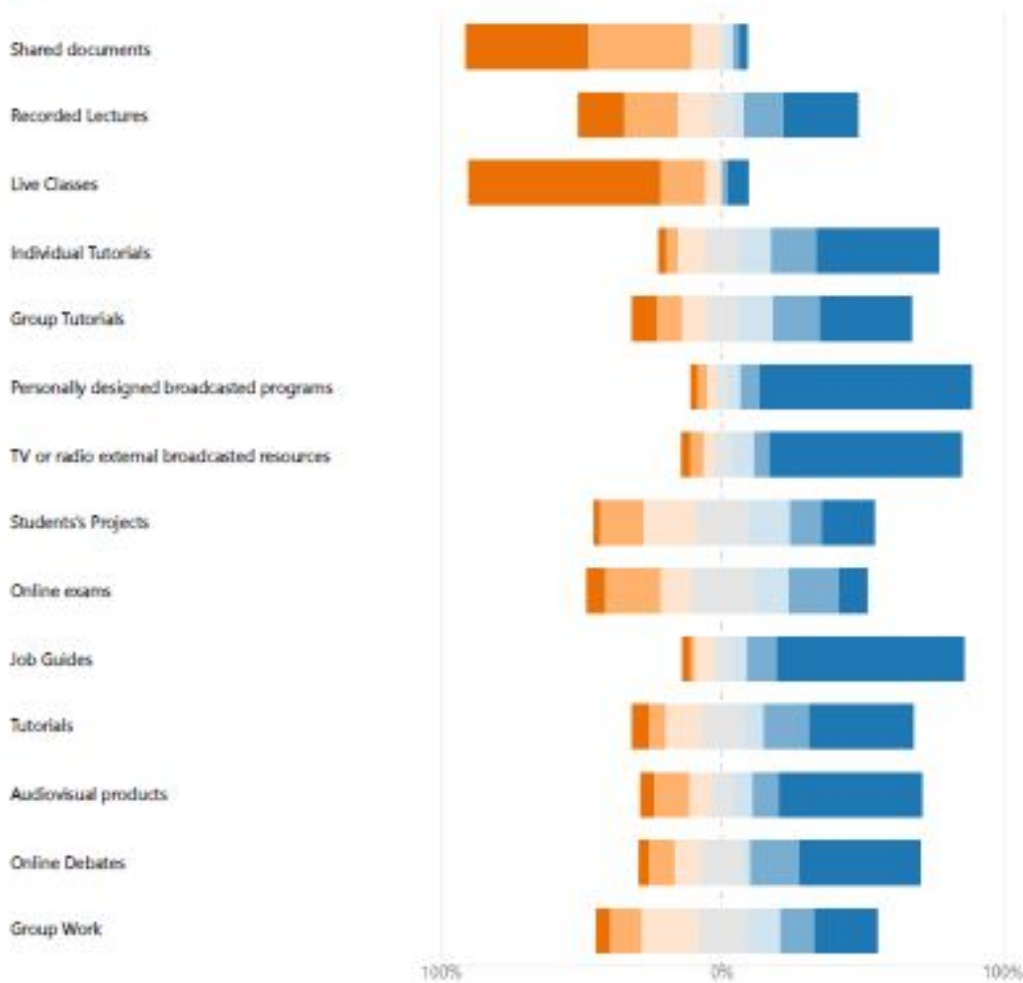
■ Daily ■ 2 - 4 times a week ■ Once a week ■ 2 - 3 times a month ■ Once a month ■ 2 - 3 times in the course ■ Only once



ADeAPTIVE

3. Which teaching resources have been used in your classes and how frequently have they been used?

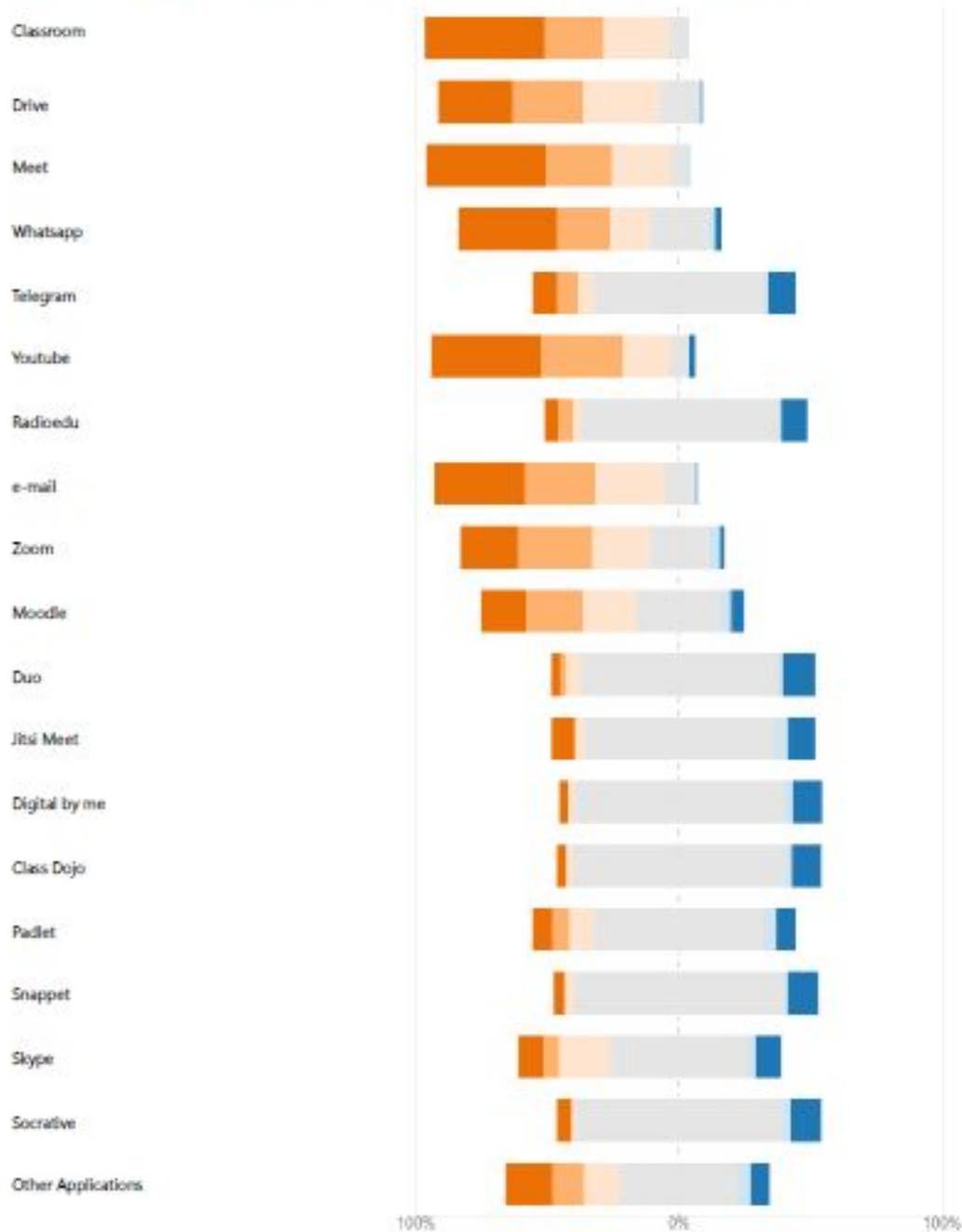
■ Daily
 ■ 2 - 4 times a week
 ■ Once a week
 ■ 2 - 3 times a month
 ■ Once a month
 ■ Less than once a month
 ■ Never



ADeAPTIVE

5. How do you consider the contribution of each application for your learning?

Extremely good Very good Good Neither good or bad Bad Very bad Extremely bad

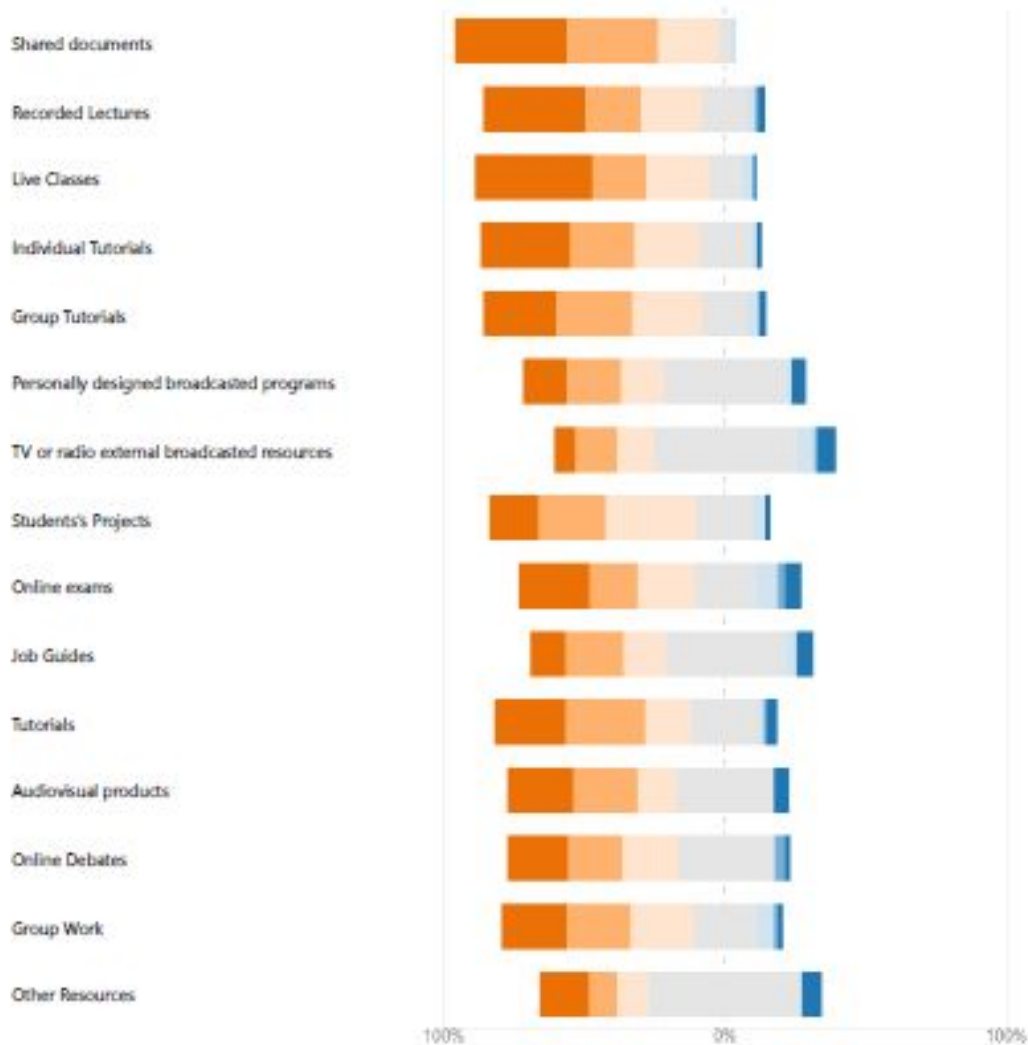


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ADeAPTIVE

6. How do you consider the contribution of each teaching resource for your learning?

Extremely good Very good Good Neither good or bad Bad Very bad Extremely bad



ADeAPTIVE

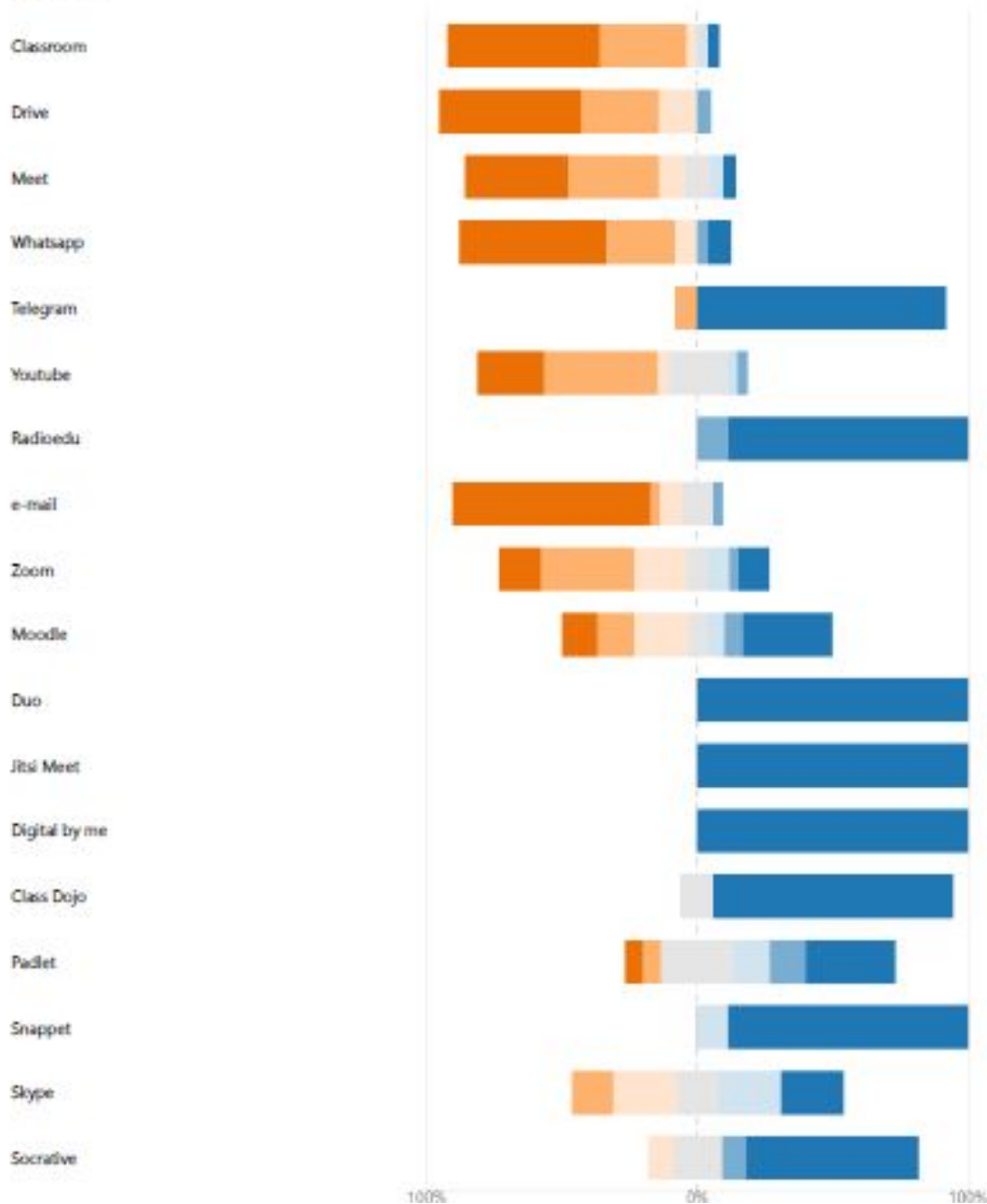
Teachers' results.



ADeAPTIVE

1. Which applications have you used in your classes and how frequently have you used them?
(Leave in blank those that you did not use).

■ Daily
 ■ 2 - 4 times a week
 ■ Once a week
 ■ 2 - 3 times a month
 ■ Once a month
 ■ 2 - 3 times in the course
 ■ Only once

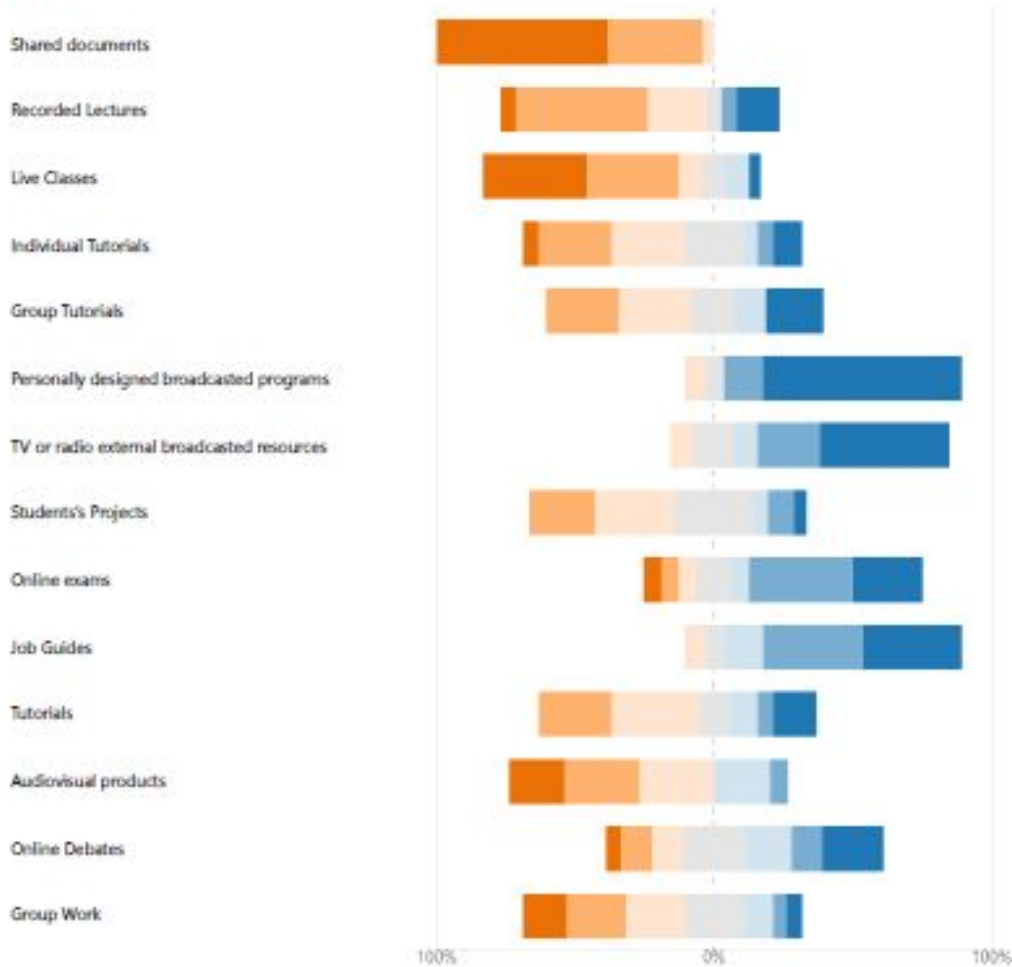


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ADeAPTIVE

3. Which teaching resources have been used in your classes and how frequently have they been used?

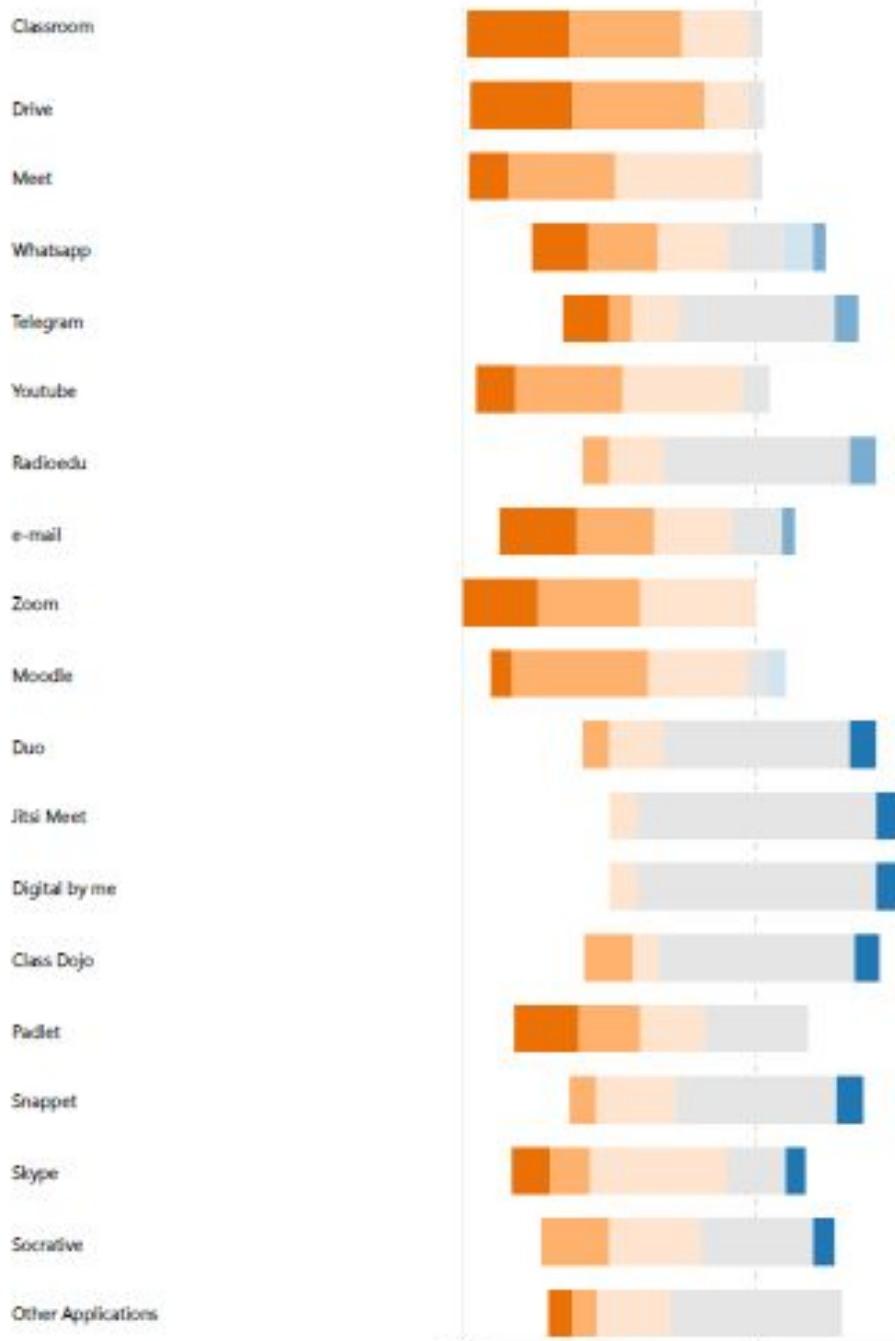
■ Daily
 ■ 2 - 4 times a week
 ■ Once a week
 ■ 2 - 3 times a month
 ■ Once a month
 ■ Less than once a month
 ■ Never



ADeAPTIVE

5. How do you consider the contribution of each application for the students' learning?

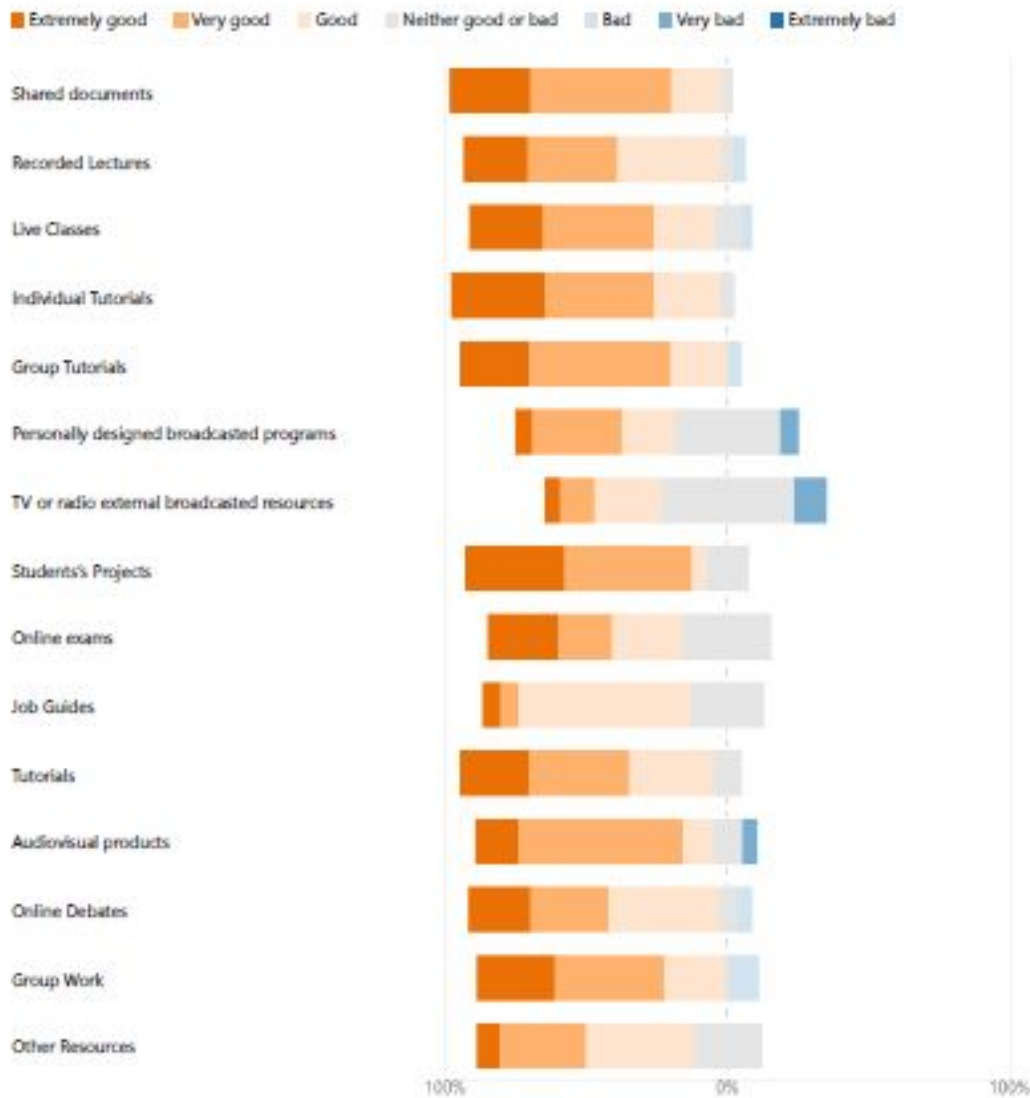
Extremely good Very good Good Neither good or bad Bad Very bad Extremely bad



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ADeAPTIVE

6. How do you consider the contribution of each teaching resource for the students' learning?



ADeAPTIVE

