

Language Teachers' and Learners' Transition to Emergency Remote Instruction

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The study

When: April until September 2020

Where: global (**over 6,000 participants** from **118 countries**; average completion rate: 32%)

Who: language teachers and learners as well as linguistics instructors and majors

What: longitudinal study looking at **441 interlocking factors** that potentially influenced participants' health, wellbeing, and effectiveness in teaching and learning during school closures. In particular, we aimed to understand what **circumstances, behaviors, attitudes and psychological traits** facilitated the shift, and what caused difficulty.

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Population breakdown

	total responses	complete	completion EN	completion PL
Language teachers	2,798	912	34%	26%
Linguistics instructors	1,196	422	37%	29%
Language learners	730	169	24%	21%
Linguistics students	1,348	386	31%	18%
Total:	6,072	1,889		

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Method

441-item online questionnaire comprising:

Higher-level constructs	Example variables/subscales
General professional experience	type of school and classes, semester schedule
Remote teaching-related experiences & attitudes	attitudes toward remote teaching logistics communication/interaction obstacles perception of student coping with remote learning
Well-being during the COVID-19 pandemic	health-related attitudes toward COVID-19 future expectations daily routines/habits situational stability emotional coping with lockdown active coping social support and prosocial involvement

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Method (ctd.)

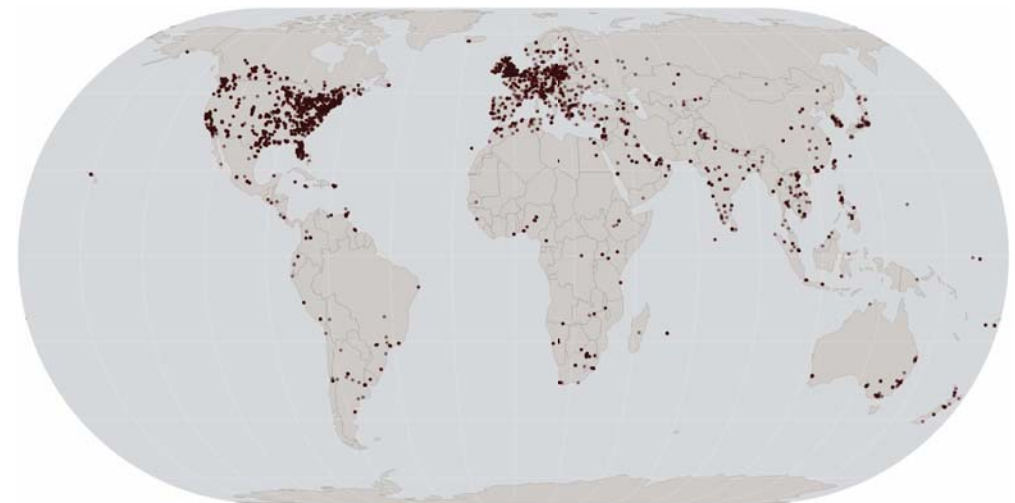
Higher-level constructs	Example variables/subscales
Perceived Stress Scale (Cohen <i>et al.</i>, 1983)	
Character strengths/Psychological capital*	locus of control, experience-seeking, curiosity, creativity, courage, tranquillity, patience, flexibility, planfulness, organization, self-discipline, perseverance, responsibility, understanding, leadership, sociability, nonverbal expressiveness, optimism, emotional reactivity <i>Self-Compassion Scale – Short Form (SCS-SF; Neff, 2011)</i>
Social background	

*Subscales measuring personality traits, which constitute the components of character strengths/psychological capital, were selected from the *International Personality Item Pool (IPIP)*. The subscales are composed of 4 to 6 items with Cronbach's α values ranging from .50 to .85.

The reliability of our custom-made scales: Cronbach's α : .72-.92, McDonald's ω_h : .75-.92, Guttman's λ_6 : .63-.93, Raykov's ρ : .76

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main countries represented: USA, Canada, Australia, India, China, Japan, South Korea, Thailand, Trinidad & Tobago, Spain, UK, Ireland, France, Greece, Germany, Italy, Poland

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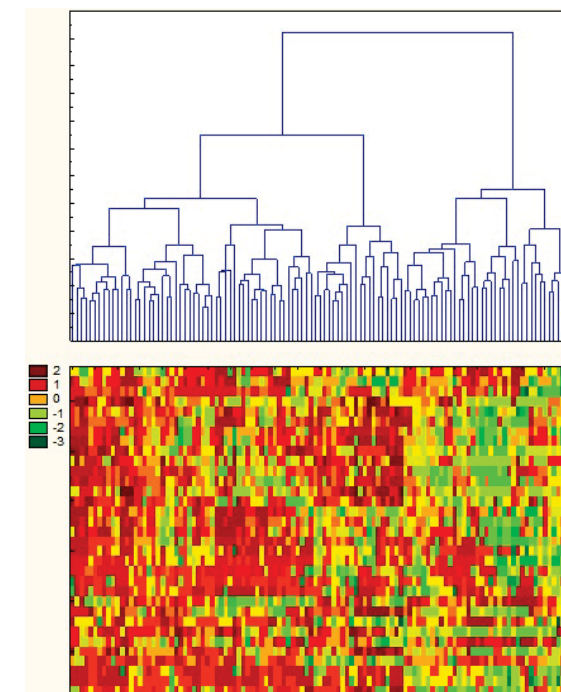
Language learners – a handful of selected correlations

	Age	Pos. attitude	Neg. attit./ disengagem.	Teacher attitude	Tech problems	Learning difficulty	Engagement	Interaction w/teacher
Age								
Positive attitude towards RT	.25							
RT negative attitude/disengagement	-0.06	-0.34						
Teacher attitude towards RT	.13	.47	-0.27					
Tech problems (hardware/software)	-0.08	-0.16	.33	-0.09				
Learning difficulty (focus, attention)	-0.23	-0.41	.60	-0.26	.42			
Activity/engagement in Rt classes	.00	.26	-0.37	.12	-0.07	-0.32		
Interacting with teacher	-0.07	.24	-0.22	.27	-0.18	-0.32	.33	
RT effectiveness	-0.08	.33	-0.51	.16	-0.12	-0.42	.46	.38

$p < .05$

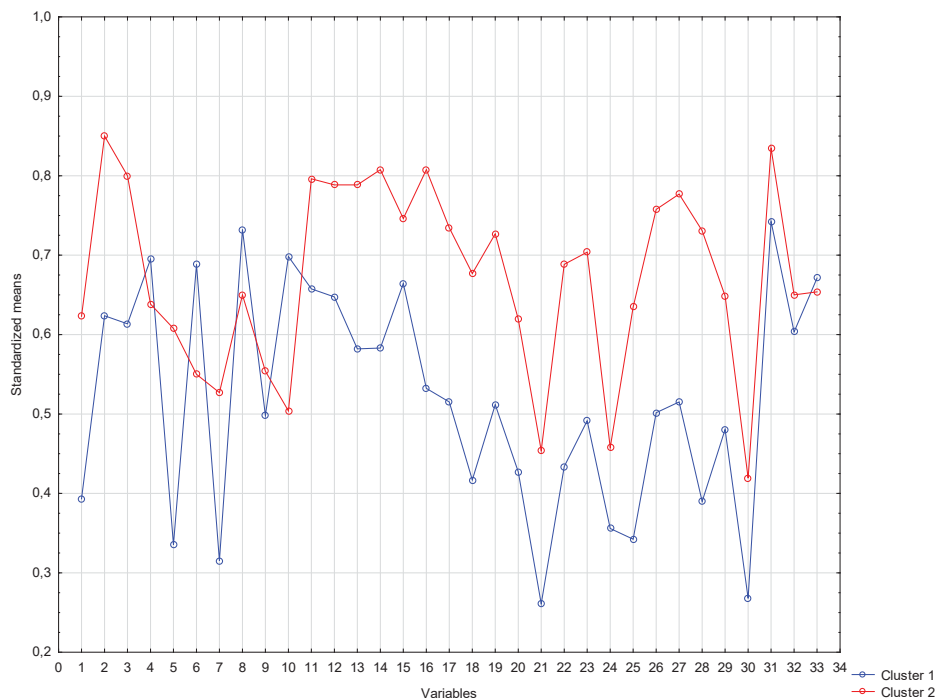
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The better- and worse-coping clusters were distinguished by:

- motivation: both general, and staying motivated in class
- engagement in the learning process
- difficulties with staying focused
- concern regarding the assessment of in-class activity
- the teachers' (in)ability to meet individual/special needs
- initial confidence in the ability to learn remotely
- general attitudes towards distance teaching
- interaction with the teacher and classmates

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Take-aways

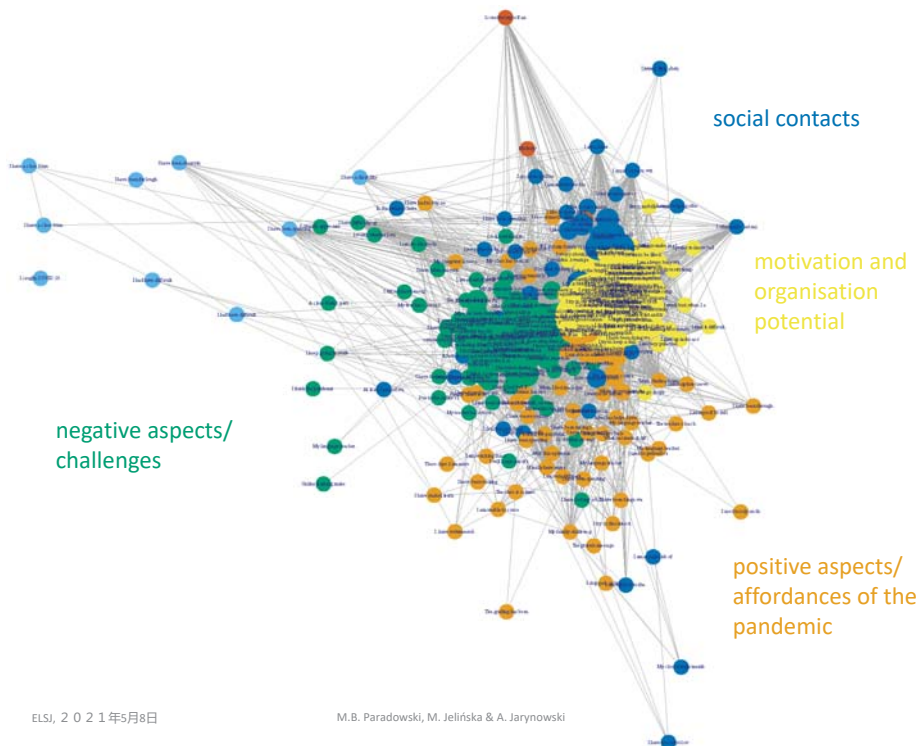
Very high concentration of centralities

Hubs – psychological constructs and a couple other key variables:

- love of learning
- organisation
- competence
- ambition, perseverance and willpower
- optimism
- creativity
- curiosity
- perceived stress level
- flexibility

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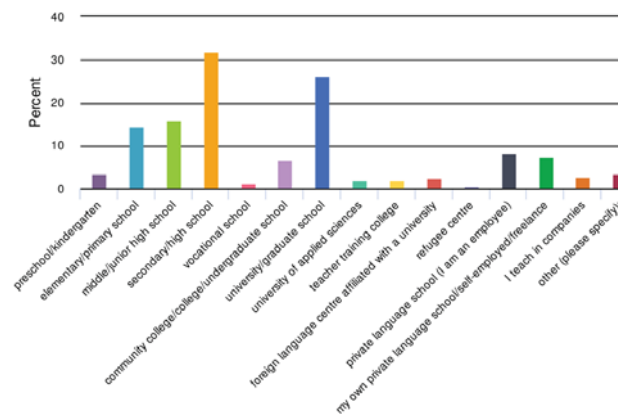
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How about language teachers?

- gender distribution:
 - 82.1% female
 - 16.6% male
 - 1.2% non-binary/not listed
 - age span 22 to 74 (mean/median 44)
 - teaching experience 0 to 49 years (mean 13.7, median 12 years)
 - 24% NOT teaching in their home country
- AND
- 22% were teaching students residing in different time zones

Types of school represented



whereof:
 61% state schools
 34% private schools
 4% religious schools
 2% run by an NGO/foundation

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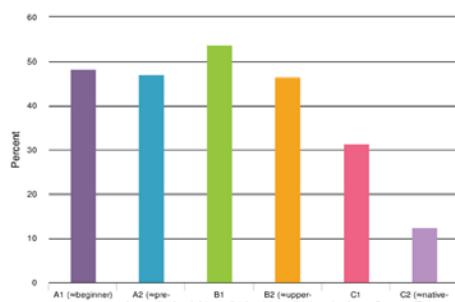
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Language levels taught

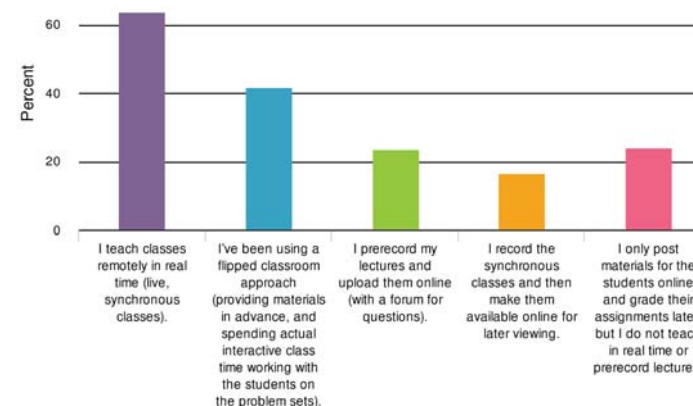
On average, the teachers found that the remote instructional mode depressed students' language progress by around 64.29% (!; SD = 31.38, with a handful of students actually reported to regress).



Future learning outcomes are the biggest cause for concern in beginner-level classes.

Value	Percent
A1 (=beginner)	48.3%
A2 (=pre-intermediate)	47.0%
B1 (=intermediate)	53.8%
B2 (=upper-intermediate)	46.5%
C1 (=advanced)	31.4%
C2 (=native-like)	12.4%

Teaching methods used during the pandemic

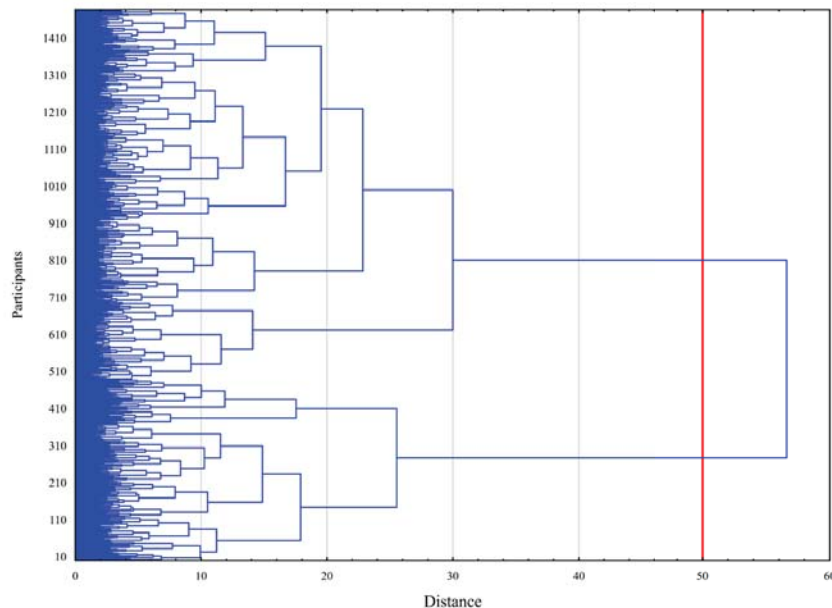


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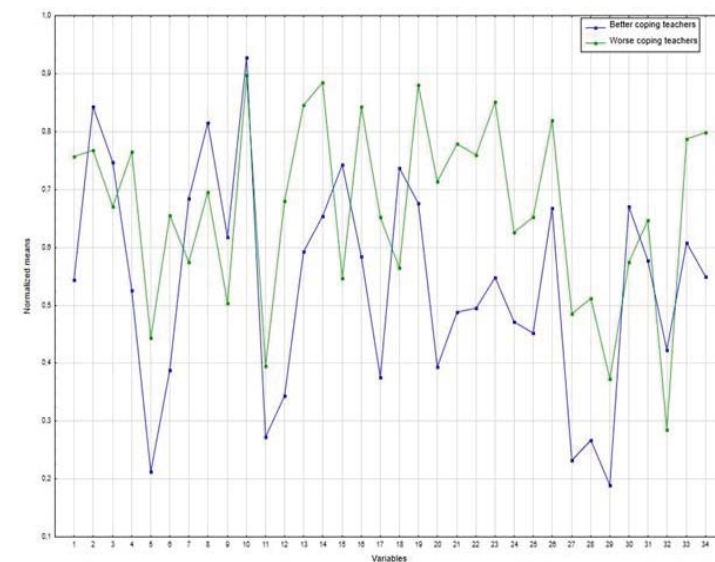
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Normalized mean values for variables measuring the following meaningful aspects of the shift to remote teaching: **preparedness level and support received, effectiveness and engagement in using new technologies, perception of students' coping, logistic problems, and general positive orientation**

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What distinguishes **better-coping** teachers?

- More than half (54.1%) taught at **higher levels of education**: community colleges/colleges/undergraduate schools, universities/graduate schools, universities of applied science, or as private tuition
- As many as 90% of teachers in this cluster declared they were teaching remotely **in real time** (i.e., synchronous classes)
- A majority (54.4%) found online teaching **equally efficient** to traditional face-to-face classes. When comparing their current work with the period before the COVID-19 pandemic, most (61.7%) estimated themselves to be equally productive.
- Compared with the worse-coping teachers, not only did they feel **better prepared** for and **supported** in remote teaching, they were also more **satisfied with using online platforms and software**. They perceived their **students as coping well** enough with remote learning and experienced **fewer logistic problems**. This group of teachers maintained **positive overall life and work attitudes** and 70.1% declared to cope better in these circumstances than others.

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What distinguishes **worse-coping** teachers?

- A majority (82.4%) taught in **elementary/primary schools, middle/junior high schools, secondary/high schools** (the best represented here, 35.8% of the teachers) and teacher training colleges.
- In this group, only 36.8% of the teachers taught classes remotely in real time
- 84.9% estimated online teaching to be **less efficient** than regular face-to-face classes (only 5.7% found online teaching as efficient as traditional in-class teaching). 39.8% found their current work productivity similar to the one they had before the pandemic, while almost the same number (39%) felt **less productive** than before the COVID-19 lockdown.
- this group of teachers scored lower in all the measured aspects meaningful in the transition to remote teaching. 55.6% found that they coped as well as others in the pandemic context of living and working (vis-à-vis 70.1% of the teachers from the better-coping cluster).

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Teacher engagement

Multivariate Linear Regressions Built with ANCOVA (Forward Selection) for Variables Predicting Teachers' Engagement

	step	b	β	SE	t	95%CI	
intercept		2.14		0.12	18.55	1.91	2.37
coping	1	0.24*	0.32	0.02	13.76	0.21	0.27
course mode: synchronous	2	0.12*	0.17	0.02	6.88	0.16	0.09
education type / level:	3						
K-5		-0.09*	-0.07	0.03	-2.68	-0.16	-0.02
middle school		-0.24*	-0.15	0.04	-5.75	-0.32	-0.16
high school		-0.08*	-0.07	0.03	-2.70	-0.14	-0.02
higher education		0.15*	0.11	0.03	4.34	0.08	0.21
country classification: developed	4	-0.07*	-0.06	0.03	-2.61	-0.13	-0.02
prior remote teaching experience: no	5	-0.06*	-0.06	0.02	-2.73	-0.11	-0.02
gender: female	6	-0.13*	-0.06	0.09	-1.41	-0.30	0.05
age	—						
years of professional experience	—						

* $p < .001$

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Factors influencing perception of student coping

Table 3. Pearson's $r^{[1]}$ and Spearman's $\rho^{[2]}$ correlation coefficients between indicators of teachers' professional adaptation to ERT and perceived student coping with online learning

	Perceived student coping	R^2	95%CI	
Evaluation uncertainty ¹	-.57*	.33	.29	.36
Instructional adjustment ¹	-.45*	.20	.16	.24
Perceived remote teaching effectiveness ²	.44*	.17	.13	.21
Education level handled ²	.32*	.10	.06	.14
Activity evaluation ¹	.30*	.09	.05	.13
Initial confidence in ability to teach remotely ¹	.29*	.03	-.01	.07
Overly demanding expectations ¹	.21*	.05	.01	.09
Supportive teaching ¹	.14*	.02	-.02	.06
Reassuring attitude ¹	-.12*	.02	-.02	.06
Sense of competence ¹	.10*	.01	-.03	.05
Appraisal of relative situational impact	.03	.00	-.04	.04

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Disparities among teachers influencing their psychological overload

Table 3. 10-step multiple linear regression model with ANCOVA (forward selection) for variables predicting teachers' psychological overload during after the transition to remote teaching

Step	Independent variables	b	SE	β	t	R^2	F	η_p^2	95%CI	
1	Future anxiety	.39	.02	.35*	18.09	.16	327.17	.15	.13	.18
2	Situational coping	-.53	.04	-.27*	-14.13	.11	199.64	.10	.08	.12
3	Perception of student coping	-.18	.03	-.14*	-6.50	.30	42.27	.02	.01	.04
4	Age	-.02	.00	-.14*	-7.95	.03	63.24	.03	.02	.05
5	Access to resources	.08	.02	.09*	4.23	.24	17.93	.01	.003	.02
6	Appraisal of the situational impact						11.12	.02	.008	.03
	teachers more affected than students	-.13	.06	-.04*	-2.15	.16				
	students more affected than teachers	-.17	.04	-.08*	-3.99	.22				
	teachers and students affected equally	.06	.04	.03	1.62	.15				
7	Education level handled						5.95	.01	.003	.02
	primary	.13	.04	.06*	3.09	.12				
	secondary	.06	.04	.03	1.51	.06				
	tertiary	-.09	.04	-.04*	-2.22	.11				
8	Family support	-.01	.02	-.06*	-3.47	.04	12.01	.01	.002	.01
9	Gender						5.04	.01	.00	.01
	female	.01	.09	.00	.15	.68				
	male	-.17	.10	-.05	-1.75	.67				

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Concerns about learning outcomes

Table 6. General linear model with ANCOVA for variables predicting language teachers' concerns about future teaching outcomes

Independent variables	b	SE	β	t	R^2	η_p^2	95%CI		F	p
Intercept	.78	.37		2.11		.01			4.46	.035
Student challenges	.74	.04	.58*	16.77	.36	.32	.27	.37	281.37	.000
Prior RT experience	-.23	.04	-.15*	-5.19	.14	.04	.02	.07	26.90	.000
Technological challenges	-.17	.04	-.13*	-3.93	.26	.03	.80	.83	15.43	.000
L2 proficiency - A1	-.18	.08	-.09*	-2.23	.51	.01	.00	.02	1.85	.026
L2 proficiency - B1	.07	.04	.06	1.78	.31	.01	.00	.02	3.18	.075
Estimated students' progress	-.07	.04	-.05	-1.76	.19	.01	.00	.02	3.11	.078
Language school	.00	.00	.05	1.53	.20	.00	.00	.02	2.35	.126
Teaching experience	.30	.19	.06	1.62	.39	.01	.00	.02	2.24	.105
Education stage handled (tertiary)	.01	.00	.05	1.44	.44	.00	.00	.02	2.09	.149
Gender (male)	.28	.21	.08	1.34	.79	.01	.00	.01	1.67	.182
L2 proficiency - C2	-.07	.06	-.04	-1.10	.16	.00	.00	.01	1.43	.232
Virtual background (no)	.08	.05	.05	-.20	.14	.00	.00	.01	1.17	.129

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Mediators of psychological overload

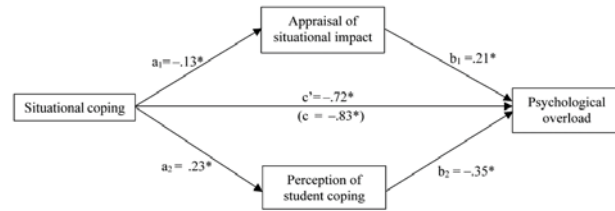


Figure 2. The mediating effects of the appraisal of situational impact, perception of student coping and access to resources in the relationship between situational coping and psychological overload.

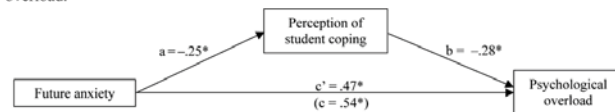
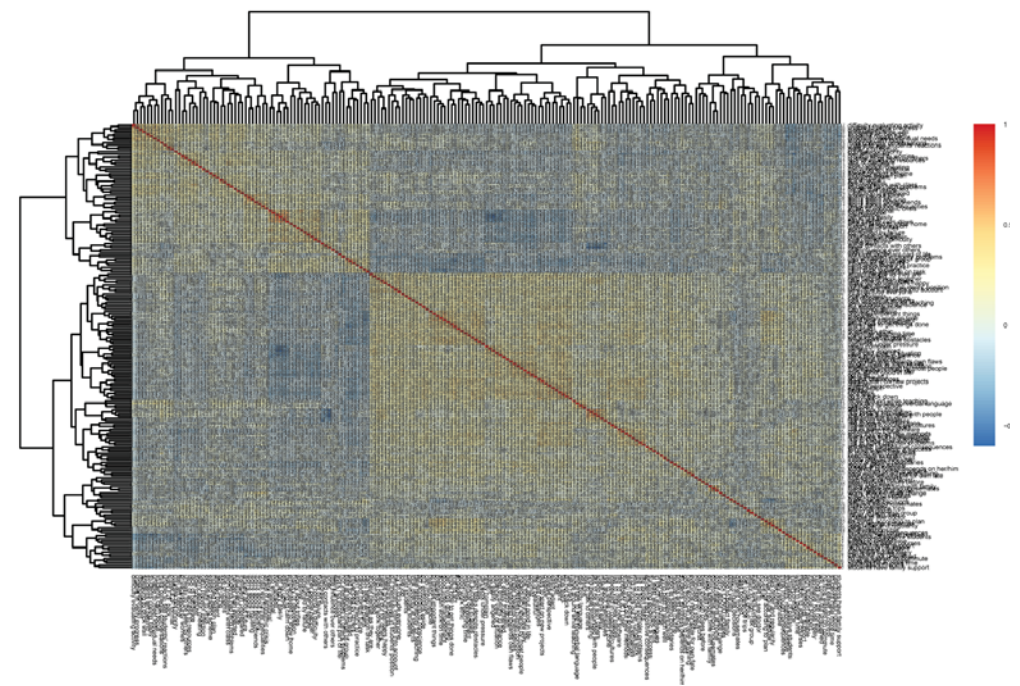


Figure 3. The mediating effect of access to resources and perception of student coping in the relationship between anxiety about the future and psychological overload.

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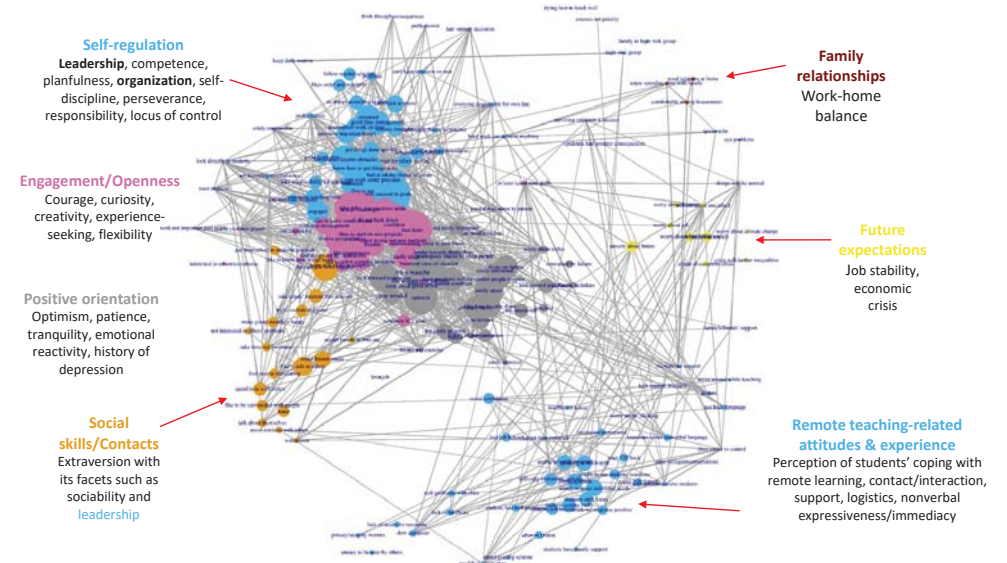


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Network visualisation

- 204 Likert-scale items
- nodes – question items
- links – correlation values above .3 threshold (abs)
- community detection: Louvain method on a weighted network



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- Self-regulation, openness/engagement, positive orientation and extraversion are highly interconnected clusters (communities) comprising the most influential variables
- Positive orientation cluster most central in the network
- Remote teaching-related attitudes and experiences connected to a greater extent with future expectations and to a lesser extent with the positive orientation cluster
- Extraversion cluster almost unconnected to remote teaching-related attitudes and experiences and seems to be of lesser importance

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Variables predicting negative affect

Table 4. Multiple linear regression model built with ANCOVA (forward selection) for variables predicting teachers' negative affect

Step	Independent variables	<i>b</i>	SE	β	<i>t</i>	η^2	95%CI	<i>F</i>
1	Situational anxiety	0.64	0.09	0.30	6.82	.54	.47 .58	46.58
2	Work-life synergy	-2.24	0.38	-0.25	-5.81	.46	.38 .50	33.71
3	Productivity:					.30	.22 .35	16.98
	reduced	4.31	0.77	0.26	5.62			
	equal	-2.42	0.70	-0.15	-3.50			
4	Coping: worse than others	5.75	1.82	0.26	3.16	.17	.09 .21	8.14
5	Age	-0.17	0.05	-0.16	-3.77	.26	.18 .31	14.21
6	Situational loneliness	0.33	0.16	0.09	2.04	.10	.03 .13	4.16
	Family and social support							
	Gender							
	Relationship status							
	Living conditions							
	Professional experience							

b – unstandardised regression coefficient; SE – standard errors; β – standardised regression coefficient

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Thank you for your attention! Stay safe and healthy!

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