Supplementary Materials

Supplementary Material 1 (SM1): Spring 2021 Beginning of the Semester (BOS) and End of the Semester (EOS) Surveys

Link to survey in Surveyplanet

Q1: "What is your name?"

Q2: "What is your age?"

Q3: "What is your home city and country?"

Q4: "What is your home university?"

Q5: "Which of the following best describes the focus of your academic studies?"

- Finance and Accounting
- Communications
- Business and Management
- Engineering
- Computer Science
- Other

Q6: "How do you feel about remote learning?"

- Very Unhappy
- Unhappy
- Somewhat Happy
- Somewhat Happy
- Happy
- Very Happy

Q7: "What are the top three things you like about online learning?" (Free Answer)

Q8: "What are the biggest challenges of online learning?" (Free Answer)

Q9: "After spending a lot of time learning online, please answer how strongly you agree or disagree with the following."

- "I like working at my own pace."
- "I am getting more sleep."
- "I miss my friends."
- "I am more easily distracted at home than in the classroom."
- "I like setting my own daily schedule for schoolwork"
- "I miss my teachers."
- "I have difficulty staying motivated to complete my assignments."
- "I am less stressed about my schoolwork."
- "I miss participating in sports."
- "I feel I am learning more than I do in school."
- "It is easier to focus without the distractions of school."
- "It's hard to keep school and home separate - I can't escape!"
- "I sometimes have difficulty understanding online assignments."
- "It's nice to have a break from the stress of the school environment."
- "I miss participating in extracurricular activities."
- "I feel that I'm not learning as much as I would in the classroom."
- "I struggle to keep up with a daily routine."

- "Teachers are assigning too much homework now."

Q10: "Do you have a reliable internet connection at home to take part in remote learning and complete your assignments without interference or delay?" (Y/N)

Q11: "Do you have access to a computer that is adequate for your needs, allowing you to take part in remote learning and complete your school assignments?" (Y/N)

Q12: "In your home university, which of the following learning attributes apply to your previous online experience?"

- Live online lectures
- Pre-recorded online lectures
- Online group activities and presentations
- Interactive online learning games
- Personalized and individual feedback with professors
- Online multiple-choice testing
- Individual essay testing
- Other

Q13: "Which learning method is the one you have experienced the most during your university experience thus far?"

- Traditional online learning—Classroom centric
- Only online learning
- Hybrid learning: a combination of traditional and online
- Other

Q14: "Which learning method do you feel is the most effective for your education?"

- Traditional online learning—Classroom centric
- Only online learning
- Hybrid learning: a combination of traditional and online
- Other

Q15: "Please tell us how you would improve the university education experience in the future." (Free Answer)

Supplementary Material 2 (SM2): Fall 2021 Beginning of the Semester (BOS) and End of the Semester (EOS) Surveys

Link to survey in Surveyplanet

Q1: Please select the relevant course(s) and professor for the fall 2021 semester.

- Corvinus Consumer Behaviour, Professor Kevin Jackson
- Corvinus Services Marketing ISP, Professor Kevin Jackson
- Corvinus Services Marketing Master's, Professor Kevin Jackson
- Corvinus Entrepreneurs, Intrapreneurs, and Innovation, Professor Kevin Jackson
- ESSCA Digital Management, Professor Kevin Jackson

Q2: "What is your name?"

Q3: "What is your age?"

Q4: "What is your gender?"

Q5: "What is your home city and country?"

Q6: "What is your home university?"

Q7: Please check all of the relevant boxes regarding your education:

- Spring 2020 Semester: I was in high school
- Spring 2020 Semester: Enrolled in BA /BSC (undergraduate)
- Spring 2020 Semester: Enrolled in MA/MSC (master's)
- Spring 2020 Semester: Passive or not a student at this time
- Fall 2020 Semester: I was in high school
- Fall 2020 Semester: enrolled in BA /BSC (undergraduate)
- Fall 2020 Semester: Enrolled in MA/MSC (master's)
- Fall 2020 Semester: Passive or not a student at this time
- Spring 2021 Semester: I was in high school
- Spring 2021 Semester: Enrolled in BA /BSC (undergraduate)
- Spring 2021 Semester: Enrolled in MA/MSC (master's)
- Spring 2021 Semester: Passive or not a student at this time

Q8: Which of the following best describes your education in the spring 2021 semester?

- Entirely online
- Hybrid learning (partly in the classroom, partly online)
- Entirely in the classroom
- Other

Q9: Which of the following best describes the focus of your academic studies*

- Finance and Accounting
- Marketing Communications
- Business and Management
- Engineering
- Computer Science
- Political Science
- Other

Q10: How do you feel about remote learning using a scale of 1–5, where 1 = strongly dislike and 5 = strongly support?

Q11: BUR/EMO: Based on your spring 2021 educational experience, please rate the following items using a scale of 1–5, where 1 = not at all and 5 = absolutely.

- I felt emotionally drained/exhausted from my studies
- I felt I was working too hard on my studies
- Interacting with people all day now is really a strain for me
- Interacting with people all day now puts too much stress on me
- I felt I was able to help my student colleagues
- It was really hard to create a relaxed environment
- I feel as though I haven't accomplished worthwhile things

Q12: RES: Based on your spring 2021 educational experience, please rate the following items from a scale of 1–5, where 1 = not at all and 5 = absolutely.

1. I have the ability to change
2. I can handle whatever comes my way
3. I can see the humorous side of problems
4. I feel that coping with stress strengthens me
5. I can stay focused while under pressure

6. I can bounce back quickly after an illness or hardship
7. I can achieve my goals despite obstacles
8. I am not easily discouraged by failure
9. I view myself as a strong person
10. I can handle unpleasant feelings

Q13: GSE: Based on your spring 2021 educational experience, please rate the following items from a scale of 1–5, where 1 = not at all and 5 = absolutely.

- I can always manage to solve difficult problems if I try hard enough
- If someone opposes me, I can find the means and ways to get what I want
- It is easy for me to stick to my aims and accomplish my goals
- I am confident that I can deal efficiently with unexpected events
- Thanks to my resourcefulness, I know how to handle unforeseen situations
- I can solve most problems if I invest the necessary effort
- I can remain calm when facing difficulties due to my coping abilities
- When I am confronted with a problem, I can usually find several solutions
- If I am in trouble, I can usually think of a solution
- I can usually handle whatever comes my way

Q14: OED: Based on your spring 2021 remote learning experience, please rate the following items from a scale of 1–5, where 1 = not at all and 5 = absolutely.

- I had a reliable internet connection at home for remote learning.
- I have an adequate computer for remote learning.
- I received the necessary technical support from my school for remote learning
- I felt comfortable using my digital devices at home.
- I took to the transition to a digital work schedule with ease.
- Camera views from students make online classes more interactive
- The digital agenda has caused me many technical difficulties.
- I am enthusiastic about remote learning because it prepares me for the future.

Q15: COV: Based on your spring 2021 educational experience, please rate the following items from a scale of 1–5, where 1 = not at all and 5 = absolutely.

- Have you been satisfied with your school's response to the coronavirus crisis?
- Are you concerned about contracting COVID-19 by attending class?
- Are you concerned about exposing an elderly or immunocompromised family member to the virus by bringing it home from class?
- I received timely updates and information regarding COVID 19.
- How well did your school prepare for COVID 19?

Q16: HME: Based on your spring 2021 remote learning experience, please rate the following items from a scale of 1–5, where 1 = not at all and 5 = absolutely

- I like working at my own pace
- I get more sleep when learning remotely
- I missed my friends
- I am more easily distracted at home than in the classroom
- I like setting my own daily schedule for schoolwork
- I missed my teachers

- I have difficulty staying motivated when learning remotely
- I am less stressed about my schoolwork when learning remotely
- I missed participating in sports
- It's hard to keep school and home separate - I can't escape!
- It's nice to have a break from the stress of the school environment
- I missed participating in extracurricular activities
- I struggled to keep up with a daily routine
- I missed the social environment at school

Q17: HYB: Based on your spring 2021 educational experience using a scale from 1–5, please rate the following where 1 = strongly disagree and 5 = strongly agree.

- I support more technology use in my fully in-person courses
- The use of Kahoot games enhances my educational experience
- Pre-recorded lectures enhance my educational experience
- I will take some of my courses in a fully online format in the future
- Guest lecturers and judges enhanced my remote learning experience
- I will take some of my courses as a combination of in-person and online
- I really need face-to-face class discussion to learn
- An online environment makes it easier for me to communicate with my instructor and fellow students
- Face-to-face learning and online learning are complementary to each other.
- My preferred learning method is online learning
- My preferred learning method is traditional, face-to-face learning
- My preferred learning method is a combination of face-to-face and online learning

Q18: In your home university, which of the following learning attributes apply to your previous online experience? Multiple answers are possible.

- Live online lectures
- Pre-recorded online lectures
- Online group activities and presentations
- Interactive online learning games
- Personalized and individual feedback with professors
- Online multiple-choice testing
- Individual essay testing

Q19: Which learning method is the one you have experienced the most during your university experience thus far?

- Traditional online learning - Classroom centric
- Only online learning
- Hybrid learning: a combination of traditional and online

Q20: What are the top three things you like about online learning? Free answer.

Q21: What are the biggest challenges of online learning? Free answer.

Q22: I am grateful to receive your honest input. Please provide any additional suggestions regarding how university education should be improved

Supplementary Material 3 (SM3): Abbreviations/Terminology

BOS: Beginning of the Semester

EOS: End of the Semester

BUR: Burnout

RES: Resiliency

GSE: General Self Efficacy

OED: Online Education Technical Support

COV: A University's Responses to COVID-19

HME: Home Environment Sentiment (referring to COVID-19 lockdown periods)

USM: University Self-Management

HYB: Hybrid Learning

Remote Learning Sentiment: The amount a student favors online learning.

Home Environment Sentiment: How a student sees their home enivronment related to their ability to learn.

General Self Efficacy: "General self-efficacy is the belief in one's competence to cope with a broad range of stressful or challenging demands, whereas specific self-efficacy is constrained to a particular task at hand" [30].

Resilience: "Resilience is the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands" (American Psychological Association).

University Self Management: The ability of a university to provide support to its students academically and administratively.

Supplementary Material 4 (SM4): Items from the Maslach Burnout Inventory [2]

Selected statements are in bold letters.

Emotional Exhaustion

- **I feel emotionally drained from my work**
- I feel used up at the end of the workday
- I feel fatigued when I get up in the morning and have to face another day on the job
- **Working with people all day is really a strain for me**
- I feel burned out from my work
- I feel frustrated by my job
- **I feel I'm working too hard on my job**
- **Working with people directly puts too much stress on me**
- I feel like I'm at the end of my rope

Personal Accomplishment

- I can easily understand how my recipients feel about things
- I deal very effectively with problems of my recipients
- **I feel I'm positively influencing other people's lives through my work**
- I feel very energetic
- **I can easily create a relaxed atmosphere with my recipients**
- I feel exhilarated after working closely with my recipients
- **I have accomplished many worthwhile things in this job**

In my work, I deal with emotional problems very calmly

Supplementary Material 5 (SM5): BOS and EOS Burnout Unidimensional Reliability (BUR)

BOS Burnout Unidimensional Reliability (BUR)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,667
95% CI lower bound	0,549
95% CI upper bound	0,758

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
BOS_BUR1	0,649	0,34
BOS_BUR3	0,583	0,497
BOS_BUR4	0,618	0,416
BOS_BUR6	0,633	0,388
BOS_BUR7	0,591	0,47

Note: Questions 2 and 5 removed due to a lack of significance.

EOS Burnout Unidimensional Reliability (BUR)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,732
95% CI lower bound	0,636
95% CI upper bound	0,806

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
EOS_BUR1	0,762	0,297
EOS_BUR3	0,639	0,624
EOS_BUR4	0,647	0,594
EOS_BUR6	0,63	0,631
EOS_BUR7	0,733	0,374

Note: Questions 2 and 5 removed due to a lack of significance.

Supplementary Material 6 (SM6): Connor–Davidson [37] Resilience Scale

Selected statements are in bold letters.

Item no.	Description
1	**Able to adapt to change**
2	Close and secure relationships
3	Sometimes fate or God can help
4	**Can deal with whatever comes**

5	Past success gives confidence for new challenge
6	**See the humorous side of things**
7	**Coping with stress strengthens**
8	**Tend to bounce back after illness or hardship**
9	Things happen for a reason
10	Best effort no matter what
11	**You can achieve your goals**
12	When things look hopeless, I don't give up
13	Know where to turn for help
14	**Under pressure, focus and think clearly**
15	Prefer to take the lead in problem solving
16	**Not easily discouraged by failure**
17	**Think of self as strong person**
18	Make unpopular or difficult decisions
19	**Can handle unpleasant feelings**
20	Have to act on a hunch
21	Strong sense of purpose
22	In control of your life
23	I like challenges
24	You work to attain your goals
25	Pride in your achievements

Supplementary Material 7 (SM7): BOS and EOS Resiliency Unidimensional Reliability (RES)

BOS Resiliency Unidimensional Reliability (RES)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,784
95% CI lower bound	0,713
95% CI upper bound	0,84

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
BOS_RES1	0,773	0,379
BOS_RES2	0,759	0,506
BOS_RES3	0,775	0,389
BOS_RES4	0,778	0,353
BOS_RES5	0,762	0,479
BOS_RES6	0,767	0,44
BOS_RES7	0,762	0,49
BOS_RES8	0,77	0,416
BOS_RES9	0,758	0,615
BOS_RES10	0,758	0,506

EOS Resiliency Unidimensional Reliability (RES)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,81
95% CI lower bound	0,75
95% CI upper bound	0,859

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
EOS_RES1	0,812	0,28
EOS_RES2	0,775	0,682
EOS_RES3	0,803	0,413
EOS_RES4	0,805	0,396
EOS_RES5	0,789	0,531
EOS_RES6	0,806	0,396
EOS_RES7	0,786	0,585
EOS_RES8	0,779	0,605
EOS_RES9	0,78	0,617
EOS_RES10	0,796	0,463

Supplementary Material 8 (SM8): Generalized Self-Efficacy Scale (GSE) [28]

1. I can always manage to solve difficult problems if I try hard enough.
2. If someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.

Supplementary Material 9 (SM9): BOS and EOS General Self Efficacy Unidimensional Reliability (GSE)

BOS General Self Efficacy Unidimensional Reliability (GSE)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,823
95% CI lower bound	0,766
95% CI upper bound	0,869

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
BOS_GSE1	0,813	0,46
BOS_GSE2	0,809	0,496
BOS_GSE3	0,811	0,476
BOS_GSE4	0,799	0,583
BOS_GSE5	0,801	0,565
BOS_GSE6	0,809	0,499
BOS_GSE7	0,828	0,381
BOS_GSE8	0,81	0,485
BOS_GSE9	0,808	0,502
BOS_GSE10	0,776	0,716

EOS General Self Efficacy Unidimensional Reliability (GSE)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,799
95% CI lower bound	0,735
95% CI upper bound	0,851

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
EOS_GSE1	0,785	0,447
EOS_GSE2	0,8	0,329
EOS_GSE3	0,798	0,323
EOS_GSE4	0,771	0,556
EOS_GSE5	0,775	0,529
EOS_GSE6	0,78	0,502
EOS_GSE7	0,8	0,333
EOS_GSE8	0,766	0,599
EOS_GSE9	0,766	0,63
EOS_GSE10	0,774	0,539

Supplementary Material 10 (SM10): BOS and EOS Online Education Unidimensional Reliability (OED)

BOS Online Education Unidimensional Reliability (OED)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,676
95% CI lower bound	0,568
95% CI upper bound	0,762

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
BOS_OED1	0,636	0,406
BOS_OED2	0,624	0,503
BOS_OED3	0,661	0,332
BOS_OED4	0,607	0,532
BOS_OED5	0,614	0,48
BOS_OED6	0,676	0,283
BOS_OED8	0,672	0,278

Note: Question 7 was removed due to a lack of significance.

EOS Online Education Unidimensional Reliability (OED)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,659
95% CI lower bound	0,545
95% CI upper bound	0,749

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
EOS_OED1	0,611	0,408
EOS_OED2	0,639	0,322
EOS_OED3	0,63	0,354
EOS_OED4	0,63	0,346
EOS_OED5	0,575	0,529
EOS_OED6	0,6	0,468
EOS_OED8	0,671	0,23

Note: Question 7 was removed due to a lack of significance.

Supplementary Material 11 (SM11): BOS and EOS COVID-19 University Response Unidimensional Reliability (COV)

BOS COVID-19 University Response Unidimensional Reliability (COV)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,698
95% CI lower bound	0,575
95% CI upper bound	0,789

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation

BOS_COV1	0,55	0,558
BOS_COV4	0,81	0,356
BOS_COV5	0,429	0,658

Note: Questions 2 and 3 were removed due to a lack of significance.

EOS COVID-19 University Response Unidimensional Reliability (COV)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,69
95% CI lower bound	0,567
95% CI upper bound	0,783

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
EOS_COV1	0,604	0,5
EOS_COV4	0,748	0,399
EOS_COV5	0,44	0,647

Note: Questions 2 and 3 were removed due to a lack of significance.

Supplementary Material 12 (SM12): BOS Home Environment and EOS University Self-Management Unidimensional Reliability (HME) (USM)

BOS Home Environment Unidimensional Reliability (HME)

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,667
95% CI lower bound	0,549
95% CI upper bound	0,758

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
BOS_HME1	0,648	0,44
BOS_HME2	0,595	0,322
BOS_HME3	0,647	0,429
BOS_HME4	0,53	0,659
BOS_HME5	0,655	0,415

Note: Questions 2, 3, 6, 8, 9, 10, 11 and 12 were removed due to a lack of significance

The following items were reverse scaled: BOS_HME4, BOS_HME7 and BOS_HME13.

EOS University Self-Management Unidimensional Reliability (USM)

Kaiser–Meyer–Olkin test

	MSA
Overall MSA	0,846

EOS_HME1	0,894
EOS_HME2	0,552
EOS_HME3	0,81
EOS_HME4	0,912
EOS_HME5	0,894
EOS_HME6	0,902
EOS_HME7	0,883
EOS_HME8	0,527
EOS_HME9	0,684
EOS_HME10	0,924
EOS_HME11	0,742
EOS_HME12	0,669
EOS_HME13	0,881
EOS_HME14	0,848

Note: Questions 2, 8, 9 and 11 were removed due to lack of significance.

Chi-squared Test

	Value	df	p
Model	199,454	64	< .001

Component Loadings

	RC1	RC2	Uniqueness
EOS_HME1	0,777		0,377
EOS_HME2		0,559	0,685
EOS_HME3	0,713		0,458
EOS_HME4	0,789		0,377
EOS_HME5	0,709		0,475
EOS_HME6	0,824		0,324
EOS_HME7	0,855		0,262
EOS_HME8		0,641	0,587
EOS_HME9	0,424	0,41	0,674
EOS_HME10	0,724		0,478
EOS_HME11		0,709	0,317
EOS_HME12	0,454	0,612	0,453
EOS_HME13	0,771		0,408
EOS_HME14	0,751		0,423

Note: Applied rotation method is oblimin.

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α
Point Estimate	0,903
95% CI lower bound	0,872
95% CI upper bound	0,928

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
EOS_HME1	0,892	0,707
EOS_HME2	0,895	0,626
EOS_HME3	0,888	0,731
EOS_HME4	0,894	0,644
EOS_HME5	0,887	0,762
EOS_HME6	0,884	0,798
EOS_HME7	0,894	0,655
EOS_HME8	0,913	0,345
EOS_HME9	0,889	0,714
EOS_HME10	0,892	0,673

Note: Questions 2, 8, 9 and 11 were removed due to lack of significance.

Supplementary Material 13 (SM13): BOS Hybrid Learning Unidimensional Reliability (HYB)

Principal Component Analysis

Chi-squared Test

	Value	df	p
Model	114,569	43	< .001

Component Loadings

	Prefer online	Prefer hybrid	Uniqueness
BOS_HYB1		0,447	0,819
BOS_HYB2		0,534	0,732
BOS_HYB3		0,441	0,817
BOS_HYB4	0,727		0,266
BOS_HYB5		0,655	0,62
BOS_HYB6	0,415	0,516	0,415
BOS_HYB7	-0,889		0,277
BOS_HYB8			0,684
BOS_HYB9		0,615	0,533
BOS_HYB10	0,889		0,239
BOS_HYB11	-0,861		0,196
BOS_HYB12		0,591	0,426

Note: Applied rotation method is oblimin.

Frequentist Scale Reliability Statistics

Estimate	Cronbach's α

Point Estimate	0,892
95% CI lower bound	0,852
95% CI upper bound	0,922

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	Cronbach's α	Item–rest correlation
BOS_HYB4	0,883	0,71
BOS_HYB7	0,872	0,729
BOS_HYB10	0,848	0,793
BOS_HYB11	0,839	0,83

Note: Questions 1, 2, 3, 5, 6, 8, 9 and 12 were removed due to lack of significance.

The following items were reverse scaled: BOS_HYB7 and BOS_HYB11.

Frequentist Scale Reliability Statistics

Estimate	**Cronbach's α**
Point Estimate	0,753
95% CI lower bound	0,668
95% CI upper bound	0,82

Note: Of the observations, pairwise complete cases were used.

Frequentist Individual Item Reliability Statistics

	If Item Dropped	
Item	**Cronbach's α**	**Item–rest correlation**
BOS_HYB5	0,807	0,307
BOS_HYB6	0,658	0,614
BOS_HYB9	0,687	0,566
BOS_HYB12	0,584	0,733

Supplementary Material 14 (SM14): Fall 2021 BOS and EOS Burnout Regression Analysis

Fall 2021 BOS Burnout Regression Analysis

Model	**R**	**R^2**	**Adjusted R^2**	**RMSE**	**R^2 Change**	**F Change**	**df1**	**df2**	**p**
H1	0,15	0,023	0,003	0,764	0,023	1,14	2	99	0,324
H2	0,327	0,107	0,08	0,734	0,085	9,277	1	98	0,003
H3	0,386	0,149	0,114	0,72	0,042	4,81	1	97	0,031
H4	0,423	0,179	0,136	0,711	0,03	3,487	1	96	0,065

H1—age and gender; H2—age, gender + self-eff; H3—age, gender, self-eff + sentiment; H4—age, gender, self-eff, sentiment + HO+.

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H1	Regression	1,332	2	0,666	1,14	0,324
	Residual	57,809	99	0,584		
	Total	59,141	101			
H2	Regression	6,331	3	2,11	3,916	0,011
	Residual	52,81	98	0,539		
	Total	59,141	101			
H3	Regression	8,826	4	2,206	4,254	0,003
	Residual	50,315	97	0,519		
	Total	59,141	101			
H4	Regression	10,59	5	2,118	4,188	0,002
	Residual	48,551	96	0,506		
	Total	59,141	101			

Note: Null model includes age and gender.

Coefficients

Model		Unstandardized	Standard Error	Standardized[a]	T	p	Collinearity Statistics	
							Tolerance[a]	VIF[a]
H1	(Intercept)	2,883	0,755		3,817	< .001		
	age	-0,016	0,034	-0,047	-0,469	0,64	1	1
	gender (female)	0,234	0,159		1,473	0,144		
H2	(Intercept)	3,984	0,811		4,915	< .001		
	age	0,011	0,034	0,034	0,34	0,735	0,94	1,07
	gender (female)	0,177	0,154		1,153	0,252		
	BOS_Self-eff	-0,444	0,146	-0,303	-3,046	0,003	0,94	1,07
H3	(Intercept)	4,377	0,815		5,369	< .001		
	age	0,014	0,033	0,043	0,436	0,664	0,93	1,071
	gender (female)	0,149	0,152		0,981	0,329		
	BOS_Self-eff	-0,444	0,143	-0,303	-3,108	0,002	0,94	1,07
	BOS_Sentiment_remote	-0,147	0,067	-0,206	-2,193	0,031	1	1,001
H4	(Intercept)	4,255	0,808		5,269	< .001		

	age	0,037	0,035	0,109	1,06	0,292	0,82	1,218
	gender (female)	0,146	0,15		0,975	0,332		
	BOS_Self-eff	-0,43	0,141	-0,293	-3,04	0,003	0,93	1,073
	BOS_Sentiment_remote	-0,061	0,081	-0,085	-0,751	0,454	0,67	1,495
	BOS_Hopositive	-0,215	0,115	-0,224	-1,867	0,065	0,6	1,675

Model Summary - BOS_Burnout

Model	R	R^2	Adjusted R^2	RMSE	R^2 Change	F Change	df1	df2	p
H_1	0,417	0,174	0,14	0,71	0,067	7,892	1	97	0,006

Note: age, gender, BOS_Self-eff and HO+ are included

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H_1	Regression	10,304	4	2,576	5,117	< .001
	Residual	48,837	97	0,503		
	Total	59,141	101			

Note: the null model includes age, gender, and BOS_Self-eff

Coefficients

Model		Unstandardized	Standard Error	Standardized[a]	T	p	Collinearity Statistics	
							Tolerance[a]	VIF[a]
H_1	(Intercept)	4,118	0,785		5,247	< .001		
	age	0,041	0,034	0,122	1,205	0,231	0,85	1,18
	gender (female)	0,153	0,149		1,029	0,306		
	BOS_Self-eff	-0,426	0,141	-0,291	-3,024	0,003	0,93	1,073
	BOS_Hopositive	-0,265	0,094	-0,275	-2,809	0,006	0,89	1,122

Fall 2021 EOS Burnout Regression Analysis

Model Summary - EOS_Burnout

Model	R	R^2	Adjusted R^2	RMSE	R^2 Change	F Change	df1	df2	p
H1	0,162	0,026	0,005	0,745	0,026	1,234	2	92	0,296
H2	0,193	0,037	0,006	0,745	0,011	1,05	1	91	0,308
H3	0,402	0,162	0,125	0,699	0,125	13,394	1	90	< .001
H4	0,469	0,22	0,176	0,678	0,058	6,587	1	89	0,012
H5	0,541	0,293	0,244	0,649	0,073	9,054	1	88	0,003

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H1	Regression	1,371	2	0,685	1,234	0,296
	Residual	51,077	92	0,555		
	Total	52,448	94			
H2	Regression	1,953	3	0,651	1,173	0,324
	Residual	50,495	91	0,555		
	Total	52,448	94			
H3	Regression	8,494	4	2,124	4,348	0,003
	Residual	43,954	90	0,488		
	Total	52,448	94			
H4	Regression	11,523	5	2,305	5,012	< .001
	Residual	40,925	89	0,46		
	Total	52,448	94			
H5	Regression	15,341	6	2,557	6,064	< .001
	Residual	37,107	88	0,422		
	Total	52,448	94			

Note: Null model includes age and gender

Coefficients

Model		Unstandardized	Standard Error	Standardized[a]	T	p	Collinearity Statistics: Tolerance[a]	Collinearity Statistics: VIF[a]
H1	(Intercept)	3,316	0,755		4,392	< .001		
	age	-0,051	0,034	-0,156	-1,508	0,135	1	1
	gender (female)	0,091	0,161		0,567	0,572		
H2	(Intercept)	3,706	0,845		4,384	< .001		
	age	-0,035	0,037	-0,109	-0,965	0,337	0,852	1,17
	gender (female)	0,056	0,165		0,341	0,734		
	EOS_Self-eff	-0,185	0,181	-0,117	-1,025	0,308	0,852	1,17
H3	(Intercept)	4,632	0,833		5,564	< .001		
	age	-0,029	0,035	-0,091	-0,854	0,396	0,85	1,18
	gender (female)	0,056	0,155		0,36	0,719		
	EOS_Self-eff	-0,135	0,17	-0,085	-0,796	0,428	0,847	1,18
	EOS_UniSelfManage	-0,32	0,087	-0,356	-3,66	< .001	0,986	1,01
H4	(Intercept)	5,313	0,85		6,249	< .001		
	age	-0,038	0,034	-0,117	-1,128	0,262	0,841	1,19
	gender (female)	0,046	0,15		0,306	0,761		
	EOS_Self-eff	0,018	0,175	0,011	0,103	0,918	0,742	1,35
	EOS_UniSelfManage	-0,189	0,099	-0,211	-1,916	0,059	0,726	1,38
	EOS_Technical	-0,38	0,148	-0,299	-2,567	0,012	0,645	1,55
H5	(Intercept)	3,94	0,933		4,221	< .001		
	age	-0,047	0,032	-0,146	-1,465	0,147	0,833	1,2
	gender (female)	0,044	0,144		0,305	0,761		
	EOS_Self-eff	-0,021	0,168	-0,013	-0,124	0,902	0,737	1,36
	EOS_UniSelfManage	-0,049	0,106	-0,054	-0,463	0,645	0,584	1,71
	EOS_Technical	-0,289	0,145	-0,228	-1,996	0,049	0,617	1,62
	EOS_Sentiment_remote	0,247	0,082	0,336	3,009	0,003	0,646	1,55

Supplementary Material 15 (SM15): Fall 2021 BOS and EOS Burnout Mediation Analysis

Fall 2021 BOS Burnout Mediation Analysis

Direct Effects								
							95% Confidence Interval	
			Estimate	Std. Error	z-value	p	Lower	Upper
BOS Remote Sentiment	→	BOS Burnout	-0,076	0,076	-1,003	0,316	-0.225	0,073
BOS Self-eff	→	BOS Burnout	-0,431	0,119	-3,634	< 0.001	-0.664	-0.199
Note: Robust standard errors, robust confidence intervals and DWLS estimator								

Indirect Effects										
									95% Confidence Interval	
					Estimate	Std. Error	z-value	p	Lower	Upper
BOS Remote	→	BOS Home +	→	BOS Burnout	-0.09	0,045	-1,992	0,046	-0,179	-0,001
BOS Self-eff	→	BOS Home +	→	BOS Burnout	-0.015	0,024	-0,612	0,54	-0,063	0,033
Note: Robust standard errors, robust confidence intervals, and DWLS estimator										

Total Effects								
							95% Confidence Interval	
			Estimate	Std. Error	z-value	p	Lower	Upper
BOS Remote Sentiment	→	BOS Burnout	-0,166	0,071	-2,358	0,018	-0,305	-0,028
BOS Self-eff	→	BOS Burnout	-0,446	0,119	-3,757	< .001	-0.679	-0,213
Note: Robust standard errors, robust confidence intervals, and DWLS estimator								

Fall 2021 EOS Burnout Mediation Analysis

Direct Effects								
							95% Confidence Interval	
			Estimate	Std. Error	z-value	p	Lower	Upper
EOS Uni Self Manage	→	EOS Burnout	-0,174	0,077	-2,272	0,023	-0,325	-0,024
Note: Robust standard errors, robust confidence intervals, and DWLS estimator								

Indirect Effects										
									95% Confidence Interval	
					Estimate	Std. Error	z-value	p	Lower	Upper
EOS Uni Self Manage	→	EOS Remote	→	EOS Burnout	-0,151	0,057	-2,65	0,008	-0,263	-0,039
Note: Robust standard errors, robust confidence intervals, and DWLS estimator										

Total Effects							
							95% Confidence Interval

			Estimate	Std. Error	z-value	p	Lower	Upper
EOS Uni Self Manage	→	EOS Burnout	-0,325	0,074	-4,385	< .001	-0,471	-0,018
Note: Robust standard errors, robust confidence intervals, and DWLS estimator								