

A Preliminary Study of International Student Perceptions of  
Online versus Face-to-Face Education

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**Web Appendix**

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**Appendix A: Student Perceptions Survey**

With the rise in online education, we are interested in gathering information as to student perceptions of educational methods. We would greatly appreciate you completing this anonymous form. Thank you!

**Background Information:**

What is your class level?	Freshman (1) Sophomore (2) Junior (3) Senior (4) Graduate (5)
Are you:	Male (1)                      Female (2)
What is your nationality?	
How old are you?	18 19 20 21 22 23 24 25 26 27 28 29 30 Greater than 30
Have you taken an online course at this College?	Yes (If yes, please complete ONLY SECTION A) (1) No (If no, please complete ONLY SECTION B) (2)

**COMPLETE SECTION A ONLY IF YOU HAVE TAKEN AT LEAST ONE ONLINE COURSE AT THIS COLLEGE.**

**SECTION A:** With respect to the online courses that you have taken at this College compared to face-to-face (traditional classrooms), please rate the following responses (Please circle your response.)

Question	Response	Scale
How many online courses have you taken:	0 1 2 3 4 5 6 7 8 9 10+	
Prior to taking an online course, did you take a course to prepare you for the online environment?	Yes No	1 2
If 'yes', was the course offered by this College or the book publisher?	This College Book Publisher Other	1 2 3
I perceive online courses to be _____ in difficulty than face-to-face courses.	Significantly Easier Easier The Same Difficulty Harder Significantly Harder	1 2 3 4 5
I am _____ motivated in online courses than face-to-face courses.	Significantly Less Less Equally More Significantly More	1 2 3 4 5
I _____ the interaction with other students in the online environment compared to the face-to-face course environment.	Significantly Dislike Dislike Equate Like Significantly Like	1 2 3 4 5
I _____ the interaction with the instructor in the	Significantly Dislike	1

online environment compared to the face-to-face course environment.	Dislike Equate Like Significantly Like	2 3 4 5
I find the discipline required in taking online courses to be _____ than in face-to-face courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I find its' _____to cheat in the online environment than in face-to-face courses.	Significantly Easier Easier The Same Harder Significantly Harder	1 2 3 4 5
I enjoy the self-directed online learning environment__than the interaction in face-to-face courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I enjoy the independence associated with the online learning environment____than the interaction in face-to-face courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I enjoy the schedule flexibility associated with the online learning environment____than the interaction in face-to-face courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I find online courses require____time investment in the course than face-to-face courses	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I find online courses total costs are _____than face-to-face courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
In the online environment, I feel these activities <u>increase</u> my understanding of the course material. (Circle all that apply)	Discussion boards In-class sessions Reading Homework Videos Instructor lectures Instructor chat	1 2 3 4 5 6 7

	Other students	8
	Problem Scaffolding & Hints	9
In the online environment, I feel these activities <u>decrease</u> my understanding of the course material. (Circle all that apply)	Discussion boards	1
	In-class sessions	2
	Reading	3
	Homework	4
	Videos	5
	Instructor lectures	6
	Instructor chat	7
	Other students	8
	Problem Scaffolding & Hints	9
Would you prefer to take the class in a traditional face-to-face environment?	Yes	1
	Undecided	2
	No	3
I am ___ with the online course environment for learning.	Not very happy	1
	Not happy	2
	Okay	3
	Happy	4
	Very happy	5
Given this institution, do you think online courses are appropriate?	Yes	1
	Undecided	2
	No	3
Why did you choose to take the course online?		

**Thank you for your time! It is greatly appreciated.**

**COMPLETE SECTION B ONLY IF YOU HAVE NEVER TAKEN AN ONLINE COURSE AT THIS COLLEGE.**

**SECTION B:** With respect to the face-to-face (traditional) courses that you have taken at THIS College compared to your perception of online courses, please rate the following responses: (Please circle your response.)

Question	Response	Scale
I perceive face-to-face courses to be _____ in difficulty than online courses.	Significantly Easier Easier The Same Difficulty Harder Significantly Harder	1 2 3 4 5
I would be _____ motivated in face-to-face courses than online courses.	Significantly Less Less Equally More Significantly More	1 2 3 4 5
I perceive the interaction with other students in the face-to-face environment to be _____ compared to the online course environment.	Significantly Worse Worse Equal Better Significantly Better	1 2 3 4 5
I perceive the interaction with the instructor in the face-to-face environment to be _____ compared to the online course environment.	Significantly Worse Worse Equal Better Significantly Better	1 2 3 4 5
I perceive the discipline required in taking face-to-face courses to be _____ than in online courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I perceive that it would be _____ to cheat in the face-to-face environment than in online courses.	Significantly Easier Easier The Same Harder Significantly Harder	1 2 3 4 5
I believe that I would enjoy the self-directed face-to-face learning environment _____ than the interaction in online courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I believe that I would enjoy the independence associated with the face-to-face learning environment _____ than the interaction in online courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5

I believe that I would enjoy the schedule flexibility associated with the face-to-face learning environment than in online courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I believe that face-to-face courses require ___time investment in the course than online courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
I believe face-to-face courses total costs are ___than online courses.	Significantly Less Less The Same More Significantly More	1 2 3 4 5
In the face-to-face environment, I feel these activities INCREASE my understanding of the course material. (Circle all that apply)	Discussion boards In-class sessions Reading Homework Videos Instructor lectures Instructor chat Other students Problem Scaffolding & Hints	1 2 3 4 5 6 7 8 9
In the online environment, I feel these activities DECREASE my understanding of the course material. (Circle all that apply)	Discussion boards In-class sessions Reading Homework Videos Instructor lectures Instructor chat Other students Problem Scaffolding & Hints	1 2 3 4 5 6 7 8 9
Would you prefer to take the class in an online environment? If 'no', why not?	Yes Undecided No	1 2 3
I am ___with the face-to-face environment for learning.	Not very happy Not happy Okay Happy Very happy	1 2 3 4 5
Given this institution, do you think online courses are appropriate?	Yes Undecided No	1 2 3

**Thank you for your time! It is greatly appreciated.**

**Appendix B. Unabridged Comments**

**Section A. Why did you choose to take the course online?**

It fulfilled several requirements at once.
I'm interested in International business major and online course is the only way to take this kind of course for a graduate student.
You do know that intl students are limited on how many online classes they can take on a F1 visa? Just checking
Because I had no other options.
I chose it because the flexibility of time. I do not need go to class so I can save more time on my major courses.

**Section B. Would you prefer to take the class in an online environment?If 'no', why not?**

Because an online class would give me too much freedom and flexibility, and I would probably end up not doing any of the work, readings etc.
I prefer being in an actual classroom, my mind knows I am in a working/studying atmosphere. I have no other choice than studying when I'm in class
I prefer face to face communication because I can ask some question to the professor frequently.

**Table 1.** Summary of Student Responses

Section A Online Courses							
Number of Online Courses	Mean	Std. Dev.	1	2	3	4	5
		1	0	5	0	0	0
Preparation Course	Yes	No					
	0	6					
Prep offered through	College	Book	Other				
Question	Mean	Std. Dev.	Significantly Dislike (1)	Dislike (2)	Equal (3)	Like (4)	Significantly Like (5)
Difficulty	2.83	0.98	0	3	1	2	0
Motivation	2.50	0.84	0	4	1	1	0
Interact Students	2.83	0.98	0	3	1	2	0
Interact Instructor	2.50	0.52	0	3	3	0	0
Discipline	3.00	0.89	0	2	2	2	0
Cheating	2.50	0.55	0	3	3	0	0
Self-directed	2.67	0.82	0	3	2	1	0
Independence	2.83	0.98	0	3	1	2	0
Schedule Flexibility	3.33	1.21	0	2	1	2	1
Time investment	3.00	0.75	1	0	3	2	0
Cost investment	3.00	0.00	0	0	6	0	0
Preference FTF	1.17	0.41	Yes (1)	Undecided (2)	No (3)		
			5	1	0		
Happiness OL	3.00	0.63	Not very happy	Not happy	Okay	Hap py	Very Happy
			0	1	4	1	0
19Appropriateness OL	1.33	0.52	Yes (1)	Undecided (2)	No (3)		
			4	2	0		
Section B Traditional FTF Courses							
Question	Mean	Std. Dev.	Significantly Dislike (1)	Dislike (2)	Equal (3)	Like (4)	Significantly Like (5)
Difficulty	2.75	1.06	1	4	5	1	1
Motivation	3.92	0.79	0	0	4	5	3
Interact Students	4.00	0.74	0	0	4	6	2
Interact Instructor	4.17	0.72	0	0	2	6	4
Discipline	3.45	0.82	0	1	5	4	1
Cheating	3.45	1.21	1	1	3	4	2
Self-directed	3.73	0.90	0	1	3	5	2
Independence	2.91	0.94	1	2	5	3	0
Schedule Flexibility	2.18	1.17	4	3	3	2	0
Time investment	3.36	1.12	0	3	4	3	2
Cost investment	3.64	0.67	0	0	6	5	1
Preference OL	2.45	0.52	Yes (1)	Undecided (2)	No (3)		



			2	7	7		
Happiness FTF	3.82	0.75	Not very happy	Not happy	Okay	Happy	Very Happy
			0	0	4	6	2
Appropriateness OL	1.73	0.79	Yes (1)	Undecided (2)	No (3)		
			7	4	3		

**Table 2.** Comparison OL vs. Traditional FTF Perceptions

Question	Online		Traditional FTF		t-test significance
	$\mu$	$\sigma$	$\mu$	$\sigma$	
Difficulty	2.83	0.98	2.75	1.06	0.87
Motivation	2.50	0.84	3.92	0.79	0.01
Interaction with students	2.83	0.98	4.00	0.74	0.03
Interaction with instructor	2.50	0.52	4.17	0.72	0.00
Discipline	3.00	0.89	3.45	0.82	0.33
Cheating	2.50	0.55	3.45	1.21	0.04
Self-directed	2.67	0.82	3.73	0.90	0.03
Independence	2.83	0.98	2.91	0.94	0.88
Schedule flexibility	3.33	1.21	2.18	1.17	0.09
Time investment	3.00	0.75	3.36	1.12	0.67
Cost investment	3.00	0.00	3.64	0.67	0.01
Preference	1.17	0.41	2.45	0.52	0.00
Happiness	3.00	0.63	3.82	0.75	0.03
Appropriateness OL	1.33	0.52	1.73	0.79	0.23

Table 3. Average and Standard Deviation of Responses – American UG vs. International Students UG

Question	American (OL)		American (FTF)		International (OL)		International (FTF)	
	$\mu$	$\sigma$	$\mu$	$\sigma$	$\mu$	$\sigma$	$\mu$	$\Sigma$
Difficulty	2.08	0.90	2.30	0.93	3.00	1.00	2.75	1.04
Motivation	2.08	0.90	4.17	0.83	2.00	0.00	3.875	0.99
Interaction with students	2.58	0.67	4.09	0.67	2.33	0.58	3.875	0.83
Interaction with instructor	2.25	0.97	4.43	0.59	2.67	0.58	4	0.76
Discipline	2.58	1.16	3.61	1.08	2.67	1.15	3.25	0.71
Cheating	2.08	0.90	4.00	0.67	2.00	0.00	3.125	1.25
Self-directed	3.25	1.22	4.04	0.47	2.33	0.58	3.5	0.93
Independence	3.67	1.07	3.43	0.66	2.67	1.15	2.875	0.99
Schedule flexibility	4.42	0.67	2.78	1.13	3.67	1.53	2.375	1.30
Time investment	2.67	0.78	3.23	0.87	2.67	0.58	3.5	1.20
Cost investment	2.58	0.51	3.39	0.89	3.00	0.00	3.625	0.74
Preference	1.58	0.67	2.61	0.58	1.00	0.00	2.375	0.52
Happiness	3.50	0.67	4.26	0.62	2.67	0.58	3.75	0.71
Appropriateness OL	1.50	0.67	1.96	0.77	1.33	0.58	1.75	0.89

Table 4. TTEST Comparison American vs. International Students

Question	Online	Traditional FTF
Difficulty	0.25	0.30
Motivation	0.75	0.46
Interaction with students	0.56	0.53
Interaction with instructor	0.38	0.17
Discipline	0.92	0.30
Cheating	0.75	0.09
Self-directed	0.10	0.15
Independence	0.27	0.17
Schedule flexibility	0.49	0.45
Time investment	1.00	0.57
Cost investment	0.02	0.48
Preference	0.01	0.31
Happiness	0.11	0.10
Appropriateness OL	0.69	0.57

Table 5. Average and Standard Deviation of Responses by Region

Question	Africa (Nigeria; FTF)		Americans (FTF)		Europe (FTF)		Far East				Middle East (Saudi)	
	$\mu$	$\sigma$	$\mu$	$\sigma$	$\mu$	$\sigma$	OL (China)		FTF (Japan & Korea)		$\mu$	$\sigma$
							$\mu$	$\sigma$	$\mu$	$\sigma$		
Difficulty	1.67	.58	2.30	0.93	2.60	.55	2.33	.58	4.00	1.00	3.50	.71
Motivation	3.67	.58	4.17	0.83	4.00	1.00	3.00	1.00	4.00	1.00	3.00	1.41
Interaction with students	3.67	.58	4.09	0.67	4.00	.71	3.33	1.15	4.00	1.00	3.50	2.12
Interaction with instructor	4.33	.58	4.43	0.59	4.20	.84	2.33	.58	4.00	1.00	3.50	.71
Discipline	4.00	1.00	3.61	1.08	3.20	.84	2.67	.58	3.33	.58	4.00	-
Cheating	4.00	1.00	4.00	0.67	3.60	1.14	2.67	.58	2.67	1.53	3.00	-
Self-directed	4.00	1.00	4.04	0.47	3.40	.89	3.33	.58	4.00	1.00	2.00	-
Independence	3.33	1.15	3.43	0.66	2.40	.89	3.67	.58	3.33	.58	2.00	-
Schedule flexibility	3.33	1.15	2.78	1.13	1.80	.84	3.33	1.53	1.67	1.15	4.00	-
Time investment	3.33	1.15	3.23	0.87	3.00	1.22	3.00	1.00	4.00	1.00	4.00	-
Cost investment	3.67	.58	3.39	0.89	3.40	.55	3.00	0.00	4.00	1.00	3.00	-
Preference	2.33	.58	2.61	0.58	2.40	.55	1.33	.58	2.67	.58	1.00	-
Happiness	4.00	1.00	4.26	0.62	4.00	.71	3.33	.58	3.33	.58	3.00	-
Appropriateness OL	1.67	.58	1.96	0.77	1.40	.89	1.00	0.00	2.33	.58	2.00	-

Table 6. TTEST Comparison by Region – Only FTF Comparison

Question	Africa		Europe	Americans		
	Europe	Far East (Japan & Korea)	Far East (Japan & Korea)	Africa	Europe	Far East
Difficulty	0.08	0.04	0.12	0.18	0.37	0.09
Motivation	0.57	0.65	1.00	0.26	0.73	0.80
Interaction with students	0.50	0.65	1.00	0.34	0.81	0.90
Interaction with instructor	0.80	0.65	0.79	0.80	0.58	0.53
Discipline	0.31	0.39	0.80	0.58	0.38	0.53
Cheating	0.63	0.28	0.42	1.00	0.49	0.27
Self-directed	0.44	1.00	0.44	0.95	0.19	0.95
Independence	0.31	1.00	0.12	0.89	0.06	0.80
Schedule flexibility	0.13	0.15	0.87	0.50	0.06	0.23
Time investment	0.72	0.49	0.26	0.89	0.71	0.31
Cost investment	0.55	0.65	0.42	0.52	0.98	0.40
Preference	0.88	0.52	0.55	0.50	0.47	0.88
Happiness	1.00	0.39	0.20	0.70	0.48	0.09
Appropriateness OL	0.63	0.23	0.12	0.49	0.25	0.38

Table 7. Learning Experience Preferences Online Students & FTF Students

	Online		FTF	
In the _____ environment, I feel these activities INCREASE my understanding of the course material.				
	Total # Responses	% of Responses	Total # Responses	% of Responses
Discussion boards	3	20.00	6	11.76
In-class sessions			7	13.73
Reading	5	33.33	6	11.76
Homework	3	30.00	6	11.76
Videos	3	20.00	1	1.96
Instructor lectures	1	7.00	10	19.61
Instructor chat			5	9.80
Other students			7	13.73
Problem Scaffolding & Hints			3	5.88
In the _____ environment, I feel these activities DECREASE my understanding of the course material.				
Discussion boards				0
In-class sessions				0
Reading				20
Homework				20
Videos				20
Instructor lectures				0
Instructor chat				20
Other students	1	50.00		0
Problem Scaffolding & Hints	1	50.00		20

Table 8. Undergraduate versus Graduates Perceptions

Question	Undergraduates		Graduates		t-test Significance
	Average	Std. Dev.	Average	Std. Dev	
SECTION A					
Difficulty	3.00	1.00	2.67	1.15	0.73
Motivation	2.00	0.00	3.00	1.00	0.23
Interact Students	2.33	0.58	3.33	1.15	0.27
Interact Instructor	2.67	0.58	2.67	0.58	1.00
Discipline	2.67	1.15	3.33	0.58	0.44
Cheating	2.00	0.00	3.00	0.00	
Self-directed	2.33	0.58	3.00	1.00	0.39
Independence	2.67	1.15	3.00	1.00	0.73
Schedule Flexibility	3.67	1.53	3.00	1.00	0.57
Time investment	2.67	0.58	3.67	0.58	0.10
Cost investment	3.00	0.00	3.00	0.00	
Preference OL	1.00	0.00	1.33	0.58	0.42
Happiness OL	2.67	0.58	3.33	0.58	0.23
Appropriateness OL	1.33	0.58	1.33	0.58	1.00
SECTION B					
1 Difficulty	2.75	1.04	2.75	1.26	1.00
2 Motivation	3.875	0.99	4.00	0.00	0.73
3 Interact Students	3.875	0.83	4.25	0.50	0.36
4 Interact Instructor	4	0.76	4.50	0.58	0.24
5 Discipline	3.25	0.71	4.00	1.00	0.32
6 Cheating	3.125	1.25	4.33	0.58	0.06
7 Self-directed	3.5	0.93	4.33	0.58	0.12
8 Independence	2.875	0.99	3.00	1.00	0.86
9 Schedule Flexibility	2.375	1.30	1.67	0.58	0.25
10 Time investment	3.5	1.20	3.00	1.00	0.52
11 Cost investment	3.625	0.74	3.67	0.58	0.93
14 Preference	2.375	0.52	2.67	0.58	0.49
15 Happiness FTF	3.75	0.71	4.00	1.00	0.72
16 Appropriateness	1.75	0.89	1.67	0.58	0.86

Table 9. Males versus Females for OL and FTF perspectives

	OL	FTF
Difficulty	0.85	0.63
Motivation	0.59	0.17
Interaction Students	0.85	0.09
Interaction Instructor	0.18	0.62
Discipline	0.36	0.44
Cheating	0.06	0.93
Self-directed	0.74	0.63
Independence	0.55	0.84
Schedule Flexibility	0.72	0.74
Time Investment	0.02	0.46
Cost Investment		0.61
Preference FTF	0.39	0.85
Happy	1.00	0.59
Appropriate	0.71	0.44