A STUDY OF STUDENTS' PERCEIVED LEARNING IN ONLINE COURSES

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Abstract

As of 2014, one-third of all students in institutions of higher education are enrolled in at least one online course. There is nothing to suggest that this number will decline anytime soon, and it is predicted that it will rise (Allen & Seaman, 2014). Progressive delivery systems in education, like online courses and hybrid courses, have the potential to expand access to greater numbers of students and to make higher education a real possibility for students heretofore unable to attend traditional classrooms.

A central question to these burgeoning methods of delivery is whether or not they are of the same quality as traditional face-to-face courses and, moreover, whether or not students learn as much, more, or less in them. Student perceptions are important for two reasons. The first is the connection between perceptions of learning and the learning outcomes and second is that "understanding student perspectives helps both student administrators and educators make informed decisions when it comes to course offerings and course design" (Platt et al. p. 490, 2014). This study aims to uncover students' perceptions of learning in the online environment in relation to their learning within the face-to-face environment in one large community college district in Chicago, IL.

Introduction

Student perceptions of their own learning matter a great deal. Not only do students in higher education have maturing metacognitive skills but they are also the best critics of their own specific educational experiences. Students who have taken classes in traditional face-to-face classrooms are the best situated to compare those experiences with those in the online environment. "The perceived equivalence of online versus face-to-face courses can affect students' learning experiences, the pedagogical outcomes of individual courses, and the acceptance of online classes at any given institution of higher education" (Platt et. Al p.490 2014). It is therefore important that students perceive their online experiences as equal to their face-to-face classroom experiences.

This study looks at the comparative data learned from a survey of student perceptions in online courses offered through Harold Washington College (HWC), one of the City Colleges of Chicago.

Methods

In the fall of 2016, an assessment survey was developed to assess students' perceived learning in the online courses offered through HWC. The college's Assessment Committee was interested in taking a closer look at how students recognize what affects their learning in their online classes vis-à-vis their face-to-face classes. Additionally, the committee wanted to know *what* aspects of the online courses supported their learning and *how* those aspects supported their learning.

In November 2016, online instructors were informed of the assessment and were invited to provide a link within their course frameworks to their students so they could participate. This request was repeated three times over the next month and resulted in over 500 respondents.

The first thing that had to be ascertained was whether or not the students had taken or were currently taking a face-to-face course, as the survey was designed as a comparative tool. Students who had never taken a face-to-face course exited out of the survey if they answered the first question in the negative. From the original 515 respondents, 442 students were eligible to complete the rest of the surve, y and ultimately 436 students did complete it.

Participants

515 students responded to the survey. Of those, 443 had taken or were currently taking a face-to-face course at the City Colleges as well as their online course. Of those, 436 students completed the survey in its entirety. The data in this report is based on those 436 surveys. The following charts describe the participants by race/ethnicity, gender, and full or part-time status. The sample population (respondents) is representative of the CCC student population as a whole.

Ethnicity - No Significant Difference											
Sample	2	25	150	0	157	9	5	85			
Population	44	2239	11344	41	14940	960	438	4602			
	American Indian	Asian	Black	Hawaii/Pacific	Hispanic	Multi- Racial	Not Specified	White			

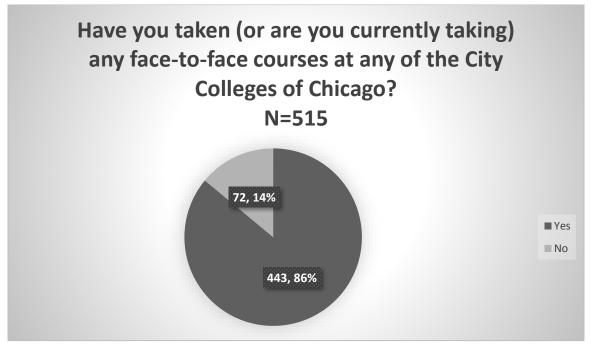
Full/Part Time - No Significant Difference							
Sample	187	223					
Population	16364	18244					
	Part-time	Full-time					

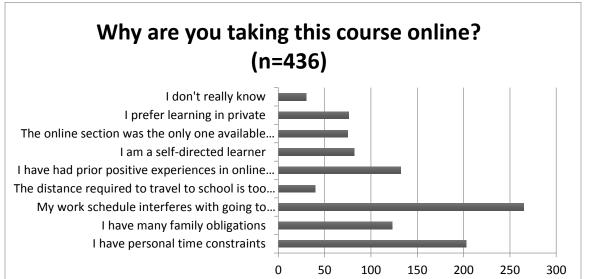
Gender - No Significant Difference						
Sample	328	104				
Population	20262	14223				
	Female	Male				

Instrument

The survey consisted of 14 close-ended questions and 10 open-ended questions targeting students' perceptions of learning related to various aspects of their online course(s). The questions were carefully designed to look at interactive elements of the course (i.e., interactions between students and faculty, interactions between students and other students) and instructional elements (i.e., the textbook, additional course materials, overall course design). Each Likert-style, close-ended question was followed by an additional optional question that allowed for open-ended written responses from students so they could elucidate their responses. The survey was created using Google forms, and a direct link to the survey was sent out via email to all online instructors at the City Colleges. Instructors who teach online may also teach full or part time at any of the City Colleges of Chicago, and all have taken at least three courses about online learning through the University of Illinois.

Analysis





Value	Count
I have personal time constraints	203
I have many family obligations	123
My work schedule interferes with going to classes at specific times	265
The distance required to travel to school is too great	40
I have had prior positive experiences in online learning	132
I am a self-directed learner	82
The online section was the only one available to me when I registered	d 75

	Value	Count
I prefer learning in private		76
I don't really know		30

Why are you taking this course online? - Additional Comments

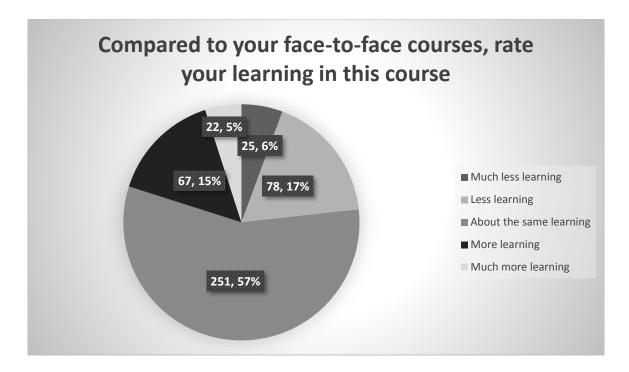
Over half (59.8%) the respondents reported that at least one of the reasons for taking online coursework was attributed to work schedule conflicts. Online courses allow students with busy work and life schedules the opportunity to continue their education without sacrificing one for the other. It is clear from the above data that students who take online coursework do so for a variety of reasons, and for many of them, several reasons simultaneously.

In addition to the reasons stated in the survey, 36 respondents (8.3% of total respondents) provided additional details through written feedback about their individual reasons for choosing online learning. 14% of those students explained that their reason for registering for an online course was because the face-to-face course was filled, they couldn't find it, or it was cancelled. 11% reported that online learning saved commuting time and that time could be better spent at work or studying. 8% reported they had had previous positive experiences with online learning while one additional student said the course was chosen because of a familiarity with the instructor from a previous course. 5% reported that they prefer working at their own pace and 5% said that the online coursework would keep them on track to graduation. 5% were concerned about their personal safety either commuting or on campus, and several described personal illnesses that prohibited them from attending classes on campus.

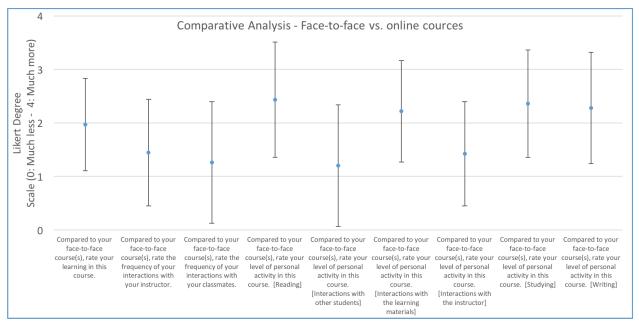
In addition to the above reasons for taking online courses, other individual reasons included:

- Active military duty
- Pregnancy
- Small children and a difficulty with child care
- Better grades online
- Dislike of working in groups in class
- Increased ability to self-discipline
- Wanted to try a new way of learning
- Reputation of the online coursework

The responses to the above question suggest that the HWC administration must be cognizant of the various and varied reasons that students take coursework online. There is no one "typical" online student, and course design should reflect that.



Compared to your face-to-face course(s), rate your learning in this course (0-4). Mean: 1.97 Standard Deviation: 0.86



Overall Learning – Comparative Analysis

251 of 436 (57%) respondents reported that they rate their online learning about the same as their face-to-face learning. There is no statistical difference between how students self-report their learning in either modality. This data is very promising and speaks to the students' perceptions of quality of the online learning that is taking place at Harold Washington College. Students reported that their personal activity (reading, writing, studying) and their interactions with the learning materials were more frequent in their online classes while the frequency of their human interactions (instructors, fellow

classmates) were less frequent. This suggests that students" learning online interact more with their materials than they do with people.

Learning – Additional Comments

In addition, 33 respondents (7.6% of total respondents) provided detailed written feedback about why they chose their answers. 15% felt that their learning was "course dependent" and included comments such as: "I have found that it depends on the course. I could learn science and math just as easily on-line, but I need face-to-face for English, literature, and other languages." One student said, "When taking a math course online, you are obligated to learn on your own and keep trying until you get it. It shows that you are capable of teaching yourself." One reported that, "depending on the class sometimes there is so much work it is impossible to retain the information. So a lot of the times I am just doing the work strictly for a good grade versus the learning."

Respondents also wrote about the difficulty of their online courses and managing their time to get their work done. One wrote, "It was a little tough, especially managing my other classes and assignments as well as doing the online assignments." Another said, "I've had a tremendous amount of difficulty in this class. I already have a Bachelor's Degree, so I thought the course would be just a refresher for me. I have never fought so hard in a course to be at my present grade (86%). To some degree, the difficulty, I think, speaks more to my ability to learn the subject material online than the course itself." 6% wrote that the online format forced them to be better at managing their time. One said, "It's the same learning, but a lot more time required," and another wrote, "Online courses teach learners to be disciplined by scheduling time to complete required reading assignments and Blackboard activities." One wrote that her learning was less in the online class, "Mostly by my own fault; poor time management." In addition, respondents liked the "flexibility of online learning, at my own pace," and "learning a lot doing research."

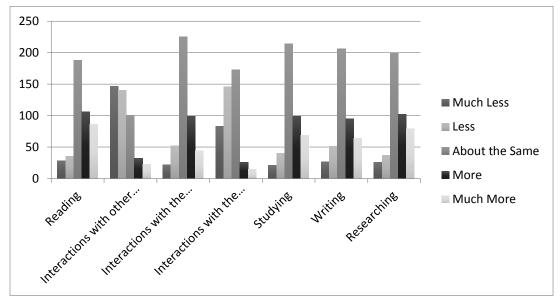
Respondents also had feedback about their course instructors and their interactions with them related to their overall learning. 18% of those were criticisms of the instructors that included, "The teacher doesn't provide too many resources, takes a while to grade assignments, "and "My instructor does not answer emails or speak English well enough to understand my questions." One wrote, "I learned less because I had less interaction with my instructor." Others (15%) had positive insights about their instructors. One wrote, "I feel like the professors communicate well with students online more so than in person." Another said, "She is great and provides videos that help us to better understand the material." One felt, "both teachers I had this semester were great, both online and in person." A few respondents felt that the college tutors were more influential in their learning than their instructors. One wrote, "I only learned when I went to see the tutor. I feel like I taught myself in this class and my score shows it." And another, "The tutors are a lot more helpful than teacher at times."

24% of the written responses wrote that they realized that the online environment was not for them and their learning suffered because of it. One wrote, "I don't learn as well on the Internet, as it turns out." While two others said, "I probably in the future would never take an online class," and "I prefer face to face."

Other written responses included the following:

- In my face-to-face courses you can get the answer right away and get the explanation more clearly.
- Since it is an online course, it felt hard to get the answers for questions that I don't know about.
- I did learn a lot in this class, but I felt I could've appreciate it more had I taken it in class, opposed to online.
- I put the same effort and interest on this class and that's why I learned the same.

- I'll always learn more in the classroom. It's the slow pace I work that is bestsuited for an online class.
- My GPA is always higher in an online class and I feel like I have actually mastered the course.
- The reading is much more crucial in online classes.
- If you read the material thoroughly and look at the discussion boards of classmates, you actually do learn a lot from the class. Sometimes, however you do miss the instant answers a live class answers. The open threads can do that if utilized fully.



Compared to your face-to-face course(s), rate your level of personal activity in this course. [Reading]

Mean: 2.43 Standard Deviation: 1.08

Compared to your face-to-face course(s), rate your level of personal activity in this course. [Interactions with other students]

Mean: 1.20

Standard Deviation: 1.12

Compared to your face-to-face course(s), rate your level of personal activity in this course. [Interactions with the learning materials]

Mean: 2.21

Standard Deviation:0.95

Compared to your face-to-face course(s), rate your level of personal activity in this course. [Interactions with the instructor]

Mean: 1.42

Standard Deviation: 0.97

Compared to your face-to-face course(s), rate your level of personal activity in this course. [Studying]

Mean: 2.36

Standard Deviation: 1.00

Compared to your face-to-face course(s), rate your level of personal activity in this course. [Writing]

Mean: 2.28 Standard Deviation: 1.04

Compared to your face-to-face course(s), rate your level of personal activity in this course. [Researching]

Mean: 2.40 Standard Deviation: 1.06

Students report that their interactions with other people (instructors -Mean = 1.42 and fellow students - Mean=1.20) are *lower* in the online environment than the face-to-face environment. They also report that their interactions with the materials (*reading*-Mean=2.43, *studying*-Mean=2.36 and *researching*-Mean=2.40) are *higher* in the online environment than in the face-to face environment.

	Reading	Students	Materials	Instructor	Studying	Writing	Researching
Reading	1						
Students	0.33	1					
Materials	<mark>0.62</mark>	0.36	1				
Instructor	0.24	0.50	0.33	1			
Studying	<mark>0.61</mark>	0.22	<mark>0.62</mark>	0.29	1		
Writing	0.54	0.34	0.44	0.35	0.58	1	
Researching	0.55	0.28	0.49	0.29	<mark>0.65</mark>	<mark>0.72</mark>	1

Correlation Coefficient Matrix (-1 to 1)

There is a higher correlation between writing and research (0.72), studying and research (0.65), studying and interactions with the course materials (0.62), studying and reading (0.61) and reading and interactions with the course materials (0.62), than between the other correlated activities such as between the instructor and researching (0.29) or between students and researching (0.28). There are no other remarkable correlations between the activities. This suggests that students in online courses who are asked to conduct research are also reading more, writing more, and studying more. It is also possible that the reverse is true; students who are studying more are reading more, writing more and researching more.

Personal Activity- Additional Comments

Twenty students (4.6% of total respondents) wrote additional feedback about their levels of personal activity in their online course relative to their face-to-face course(s). 30% of those comments were positive, while 35% were negative, and 35% were neutral. Responses included both positive and negative comments about their interactions with their instructors (40%) and included comments such as, "Interactions with my instructor were practically nonexistent despite several attempts on my part across several different media. My instructor took weeks to respond to my emails and never responded to text or voicemail despite noting in Blackboard that this was an effective way to reach him." 15% of comments had to do with course materials (i.e., textbooks, math program- Aleks). One student wrote, "The textbook was relatively useless and I learned much more through research." Another said, "Aleks math program is horrible and how it is set up wastes hours and doesn't properly record." One said, "I have less interactions with the course materials because I couldn't order my books this semester and I had to go to another school to use a copy at the library."

10% of respondents discussed the intensity of online courses, "Online courses are intense" and "Taking an online course requires more studying and dedication." Another wrote, "I don't think face-to-face really influences my learning. It is really how much time and effort I choose to put into a course that influences the result." In addition, one student wrote,

"You have to be very disciplined and independent. You get out of these classes what you put into them." One other wrote, "Online is more challenging than face-to-face courses."

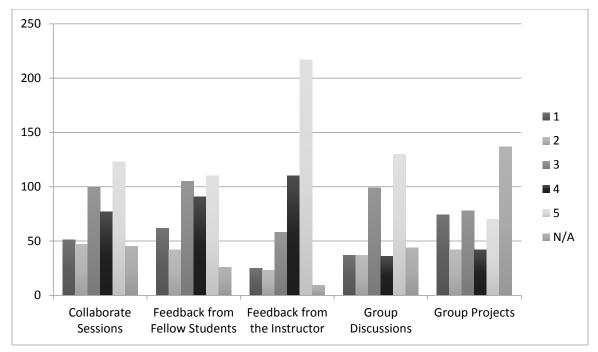
Additional comments about student levels of personal activity in online courses relative to face-to-face courses were:

- I had no communication with the students and I did not talk to the instructor much, but responded when I reached out to her.
- Way too many discussion boards in this class session. 41 total.
- Actually the contact is going to be much less in this mode of teaching. Still, the instructor has been great. His feedback is direct and to the point. Very helpful and constructive in critiques. I have had no issues reaching him or waited inordinate amounts of time for a response. He has always been timely.
- Even though a little less is required from me as a student I still find all the course work to be beneficial in a learning manner.
- It is almost the same as the face-to-face course.
- It was harder taking a math class online. I feel like I needed to learn everything on my own.
- I wish it was more active. Like Skype.
- Because I don't have the opportunity to see my teacher, I'm not inclined to ask her any questions I might have.
- Didn't realize this was an English grammar, research class. The teacher was confused about what she is teaching.
- I am more comfortable and honest in my interactions online than I am in person.

Rate the following interactive elements of this online course related to your learning.

1= This element did not support my learning at all.

5 = This element supported my learning a great deal.



Rate the following interactive elements of this online course related to your learning [Collaborate Sessions] (0-4).

Mean: 2.12 Standard Deviation: 1.64

Rate the following interactive elements of this online course related to your learning [Feedback from fellow students] (0-4).

Mean: 2.22 Star

Standard Deviation: 1.53

Rate the following interactive elements of this online course related to your learning [Feedback from the instructor] (0-4).

Mean: 3.04 Stand

Standard Deviation: 1.24

Rate the following interactive elements of this online course related to your learning [Group Discussions] (0-4).

Mean: 2.30 Standard Deviation: 1.60

Rate the following interactive elements of this online course related to your learning [Group Projects]

Mean: 1.25 Standard Deviation: 1.78

Here, students report that feedback from the instructor (Mean=3.04) was more important to their learning than any of the other interactive elements of the course. Students scored *group projects* (Mean 1.25) as the element that supported their learning the least. This report suggests recommending a further conversation about the efficacy of group projects and whether or not they should be made optional. None of the other elements were remarkable.

Correlation Coefficient Matrix (-1 to 1)

	Collaborate	Student	Instructor	Group	Group Projects
		Feedback	Feedback	Discussions	
Collaborate	1				
Student	0.48	1			
Feedback					
Instructor	<mark>0.39</mark>	0.55	1		
Feedback					
Group	0.46	<mark>0.69</mark>	0.50	1	
Discussions					
Group					1
Projects					

The highest correlation in the above data is between Group Discussion and Student Feedback (0.69). It stands to reason that these two elements are positively correlated more than the others as most student interaction takes place in the Discussion Boards. Although the correlation between instructor feedback and collaborate sessions was low, some students' additional written responses indicate that synchronous sessions are important to them. Therefore, we recommend building in more *optional* synchronous sessions for those who want them.

Interactive Elements-Additional Comments

Of the additional 18 written comments (4.1% of total respondents) related to the interactive elements of the course, 42% were about group projects. Of those comments 89% were negative. Comments such as, "I loathe group projects..." and "I found the group project to be a bit of a disaster. You have 2-3 people doing all of the work of what should have been done by 5-6 people. Everyone is on different schedules as far as their online activity. It really makes it difficult to coordinate. Sometimes you are waiting for group members for over a day." Another wrote, "Deadlines set by the group leader were ignored by most people in the group, including the actual group leader." One said, "I feel that group projects are a lot harder online because everyone is taking online courses for various reasons, hence it is hard for everyone to click at certain times." Furthermore, one student wrote, "I actually preferred that this class didn't have any assignments that required an online group project. I've never felt that the in class efforts yielded very good results and the limited experience I've had with online group has been mediocre to dismal at best."

11% of the written comments about the Interactive Elements of the course were neutral. One student wrote, "There weren't any group projects," while another said, "I did not participate in the group activities because I was not sure if I was answering the statement correctly and I did not want to seem as if I didn't know what I was talking about, so I didn't participate in the discussions either."

16% wrote additional comments about Blackboard Collaborate. One wrote, "There were not enough collaborate sessions. Should be once a week." Another said, "I think the course would be more effective if there are more collaborate sessions available." One other wrote, "I was hoping Blackboard Collaborate would be extra credit."

Additional comments about the Interactive Elements of the course were:

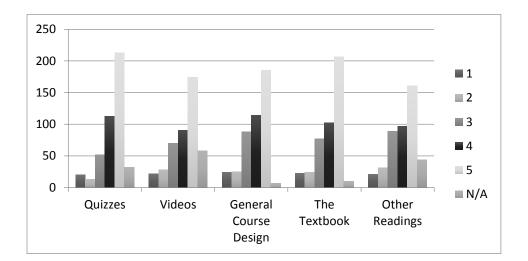
- The most interactive element of the course was the online learning portal ALEKS.
- The feedback from my instructor and fellow students is better received and understood because I have the ability to read what was said and the time to ask the questions necessary for my understanding to emerge, without the anxiety that accompanies attempting to gain this type of feedback in person.

A minimum of 250 words to answer a question. I could have answered it in a hundred or less. Then she wants you to respond to 4 people over a series of days.
250 X 4 = 1000 plus 250 = 1250 words or more in order to get a perfect score of 10.

Rate the following instructional elements of this online course related to your learning.

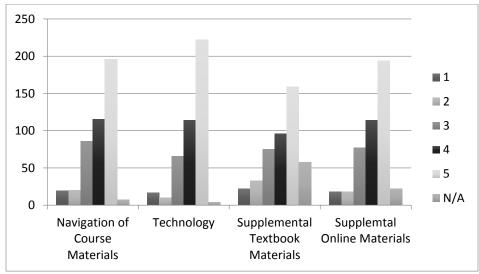
1= This element did not support my learning at all.

5 = This element supported my learning a great deal.



1= This element did not support my learning at all.

5 = This element supported my learning a great deal.



[Quizzes] Standard Deviation: 1.38 Mean: 2.97 Rate the following instructional elements of this online course related to your learning [Videos] Mean: 2.49 Standard Deviation: 1.68 Rate the following instructional elements of this online course related to your learning [General Course Design] Mean: 2.95 Standard Deviation: 1.12 Rate the following instructional elements of this online course related to your learning [The Textbook] Mean: 3.03 Standard Deviation: 1.15 Rate the following instructional elements of this online course related to your learning [Other Readings] Mean: 2.54 Standard Deviation: 1.54 Rate the following instructional elements of this online course related to your learning [Navigation of Course Materials] Mean: 3.02 Standard Deviation: 1.09 Rate the following instructional elements of this online course related to your learning [Technology] Mean: 3.12 Standard Deviation: 1.15 Rate the following instructional elements of this online course related to your learning [Supplemental Textbook Materials] Mean: 2.43 Standard Deviation: 1.65 Rate the following instructional elements of this online course related to your learning [Supplemental Online Resources] Mean: 2.91 Standard Deviation: 1.30 Rate the following interactive elements of this online course related to your learning [Group Projects] Mean: 1.25 Standard Deviation: 1.78

Rate the following instructional elements of this online course related to your learning

The instructional elements that scored the highest which supported student learning were the *textbook* (Mean=3.03), the *navigation of the course* (Mean=3.02) and the *technology* (Mean 3.12). Students scored *group projects* (Mean 1.25) as the element that supported their learning the least. This affirms that well-designed online courses are easier to navigate for students.

								· · ·		
	Quizzes	Videos	Design	Textbook	Readings	Navigation	Technology	Supplemental TM	Supplemental OR	Projects
Quizzes	1									
Videos	0.24	1								
Design	0.42	0.39	1							
Textbook	0.44	0.26	0.53	1						
Readings	0.29	0.41	0.47	0.42	1					
Navigation	0.44	0.33	<mark>0.69</mark>	0.55	0.45	1				
Technology	0.33	0.25	0.51	0.40	0.31	0.53	1			
Supplemental TM	0.28	0.30	0.39	0.42	0.52	0.38	0.38	1		
Supplemental OR	0.33	0.28	0.48	0.44	0.42	0.49	<mark>0.61</mark>	0.55	1	

Correlation Coefficient Matrix (-1 to 1)

There was very little correlation among students' perceptions of the instructional course elements related to their learning. The data above reveals that students indicated that the overall *course design* and the *navigation of the course* (0.60) are more highly correlated than any other of the instructional elements. The second highest correlation was between the *course navigation* and the *supplemental online resources* (0.61).

Instructional Elements – Additional Comments

In addition to the above data concerning the Instructional Elements of the course, 12 students (2.8% of total respondents) provided written feedback about the Instructional Elements of the course. 67% of those comments contained negative reviews of the materials. 16% of the overall comments were directed at ALEKS- a supplemental Math Program. One student wrote, "ALEKS and its textbook are by far the worst program I have ever used for math. The textbook and "explanations" were laughably difficult to understand. ALEKS video tutorials were the most numbingly complicated. To compare the two, MyMathLab was far more intuitive. Just make relatable video lectures. It's very simple." Another said, "ALEKS is both terrible and wonderful. It seeks to explain the learning materials, but it does not necessarily help one to understand. I had to use a lot of additional online resources to stay up-to –speed."

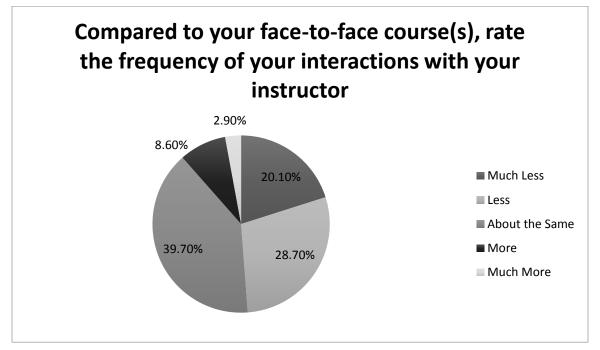
25% of the comments included feedback about the course quizzes. One respondent wrote, "I found it baffling that we could not see the results- the correct answers- so that we could know what exactly we answered incorrectly." While another said, "The quizzes were not under 'quizzes' so I missed a couple of them," and another said, "I learned much from the quizzes."

Another 25% of written comments had general things to say about the Instructional Elements of the course. One wrote, "No supplemental online resources were provided other than what came with the ebook. It was a music class, so Youtube videos of songs and performances, or google lectures, or other articles all may have been helpful." Another student wrote, "I used as much of these resources that were available and it did not help me." The only thing that helped me was the tutor and I was frustrated that I had to go and see a tutor." A third student wrote, "Online classes seem to offer more resources to assist me in my learning than in any classroom experience I have ever had. I always feel like I understand or can understand the material.

Other individual comments included:

- Our teacher provided us with everything we needed in order to understand the subject better,
- The Blackboard was a little difficult to navigate at first.
- Material was great.

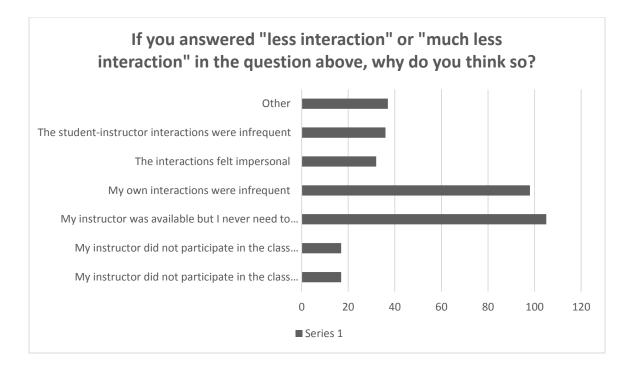
- The videos came from Youtube. Produced and filmed by the Average Joe for his personal use. Not to be analyzed by a class.
- I found the textbook and content to be really interesting and easy to read and understand.
- I learned so much about Sociology Scholars and their contributions.

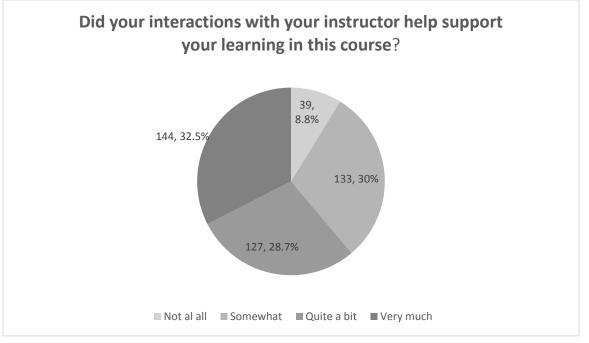


Compared to your face-to-face course(s), rate the frequency of your interactions with your instructor (0-4).

Mean: 1.44 Standard Deviation: 0.99

Students' perceptions of frequency of interactions with the instructors in online courses was less than in face-to-face courses although nearly 40% of students reported that it was about the same. Almost 50% of students thought the interactions were "less" or "much less" than in face-to-face courses.

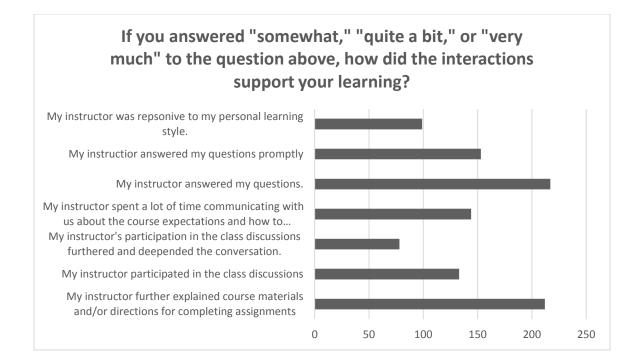




Did your interactions with your instructor help support your learning in this course? (0-3)

Mean: 1.86 Standard Deviation: 0.97

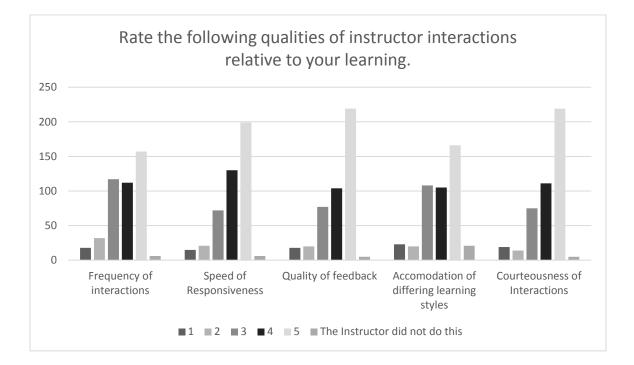
Over half (59%) of surveyed students felt their interactions with their instructor supported their learning "quite a bit" or "very much." Only 9% of students did not feel that their instructor interactions supported their learning at all. The above data also indicate that most students do not reach out to their instructors even though the instructors are available.

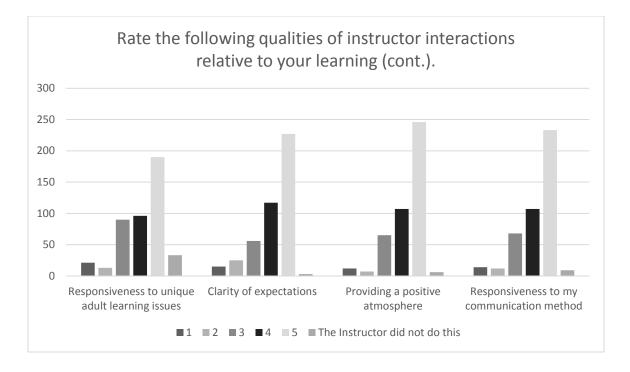


Rate the following qualities of instructor interactions relative to your learning

1= This element did not support my learning at all.

5 = This element supported my learning a great deal.





Rate the following qualities of instructor interactions relative to your learning. [Frequency of interactions] (0-4).

Mean: 2.78 Standard Deviation: 1.19

Rate the following qualities of instructor interactions relative to your learning. [Speed of responsiveness] (0-4).

Mean: <mark>3.05</mark>

Standard Deviation: 1.13

Rate the following qualities of instructor interactions relative to your learning. [Quality of feedback] (0-4).

Mean: 3.08 St

Standard Deviation: 1.16

Rate the following qualities of instructor interactions relative to your learning. [Accommodation of differing learning styles] (0-4).

Mean: 2.71 Standard Deviation: 1.38

Rate the following qualities of instructor interactions relative to your learning. [Courteousness of interactions] (0-4).

Mean: <mark>3.11</mark>

Standard Deviation: 1.14

Rate the following qualities of instructor interactions relative to your learning. [Responsiveness to unique adult learner issues] (0-4).

Mean: 2.74 Standard Deviation: 1.51

Rate the following qualities of instructor interactions relative to your learning. [Clarity of expectations] (0-4).

Mean: 3.16

Standard Deviation: 1.10

Rate the following qualities of instructor interactions relative to your learning. [Providing a positive atmosphere] (0-4).

Mean: 3.25 Standard Deviation: 1.06

Students reported that providing a positive atmosphere (Mean=3.25), clarity of expectations (Mean=3.16), courteousness of interactions (Mean=3.11), quality of feedback (Mean=3.08) and speed of responsiveness (Mean=3.05) were the most highly connected to their learning in terms of the quality of instructor interactions. The other elements all rated as supportive to learning as well. In addition, between 2 and 7 students reported that their instructor "did not do this" in each area.

	Frequency	Speed	Quality	Accommodation	Courteousness	Responsiveness	Clarity	Atmosphere
Frequency	1							
Speed	0.66	1						
Quality	0.71	<mark>0.76</mark>	1					
Accommodation	0.60	0.64	0.66	1				
Courteousness	0.65	<mark>0.72</mark>	<mark>0.78</mark>	0.62	1			
Responsiveness	0.51	0.55	0.57	<mark>0.76</mark>	0.60	1		
Clarity	0.65	0.65	<mark>0.74</mark>	0.57	<mark>0.72</mark>	0.53	1	
Atmosphere	0.66	0.63	<mark>0.70</mark>	0.55	<mark>0.72</mark>	0.50	0.75	1

Correlation Coefficient Matrix (-1 to 1)

The highest correlations between elements of instructor interactions were between *speed* and *quality* (0.76), *quality* and *courteousness* (0.78) and *accommodation* and *responsiveness* (0.76). This suggests that students perceive instructors who respond quickly to be more courteous or that courteous instructors respond quickly. In addition, it suggests that students report that courteousness is correlated to the quality of the feedback. From this data, it is recommended that instructors take care in being courteous, timely, and clear. In addition, instructors should give consistent, quality feedback to students.

Instructor Interactions – Additional Comments

In addition to answering Likert-style questions about the frequency of interactions with instructors and the relationship between learning and those interactions, students provided detailed written feedback about why they thought their instructors' interactions were less frequent than in their face-to-face courses and how they thought their interactions supported their learning. Overall, 35 students provided written feedback about instructor interactions. 24 of these were positive and 11 were negative.

These comments ranged in focus from "instructor availability" (14%) to "lack of instructor availability" (5%). One student wrote, "Professor XXX has done more than any other instructor to make herself available," while another said, "I never interacted with my instructor." Students indicated that "timeliness" (9%) was important to them, as was "clarity" in expectations of the course and assignments (17%). One respondent wrote, "The one time I had a meaningful conversation with my instructor was when I found him at the tutoring center. I had to go two hours out of my way because my instructor did not respond to my communication promptly." One student wrote, "She answered my questions within the same day. That was awesome." Another said," She let me know exactly what I was doing wrong, so I could correct my mistakes." 20% of respondents wrote that their instructors were "dedicated, helpful, or empathic," while 9% of respondents felt their instructors "didn't care about them, was unfair in grading, or only provided generic feedback to students." One student reported, "My instructor is habitually dedicated to his students and is one of the reasons I took his class. I knew I would be hearing from him a lot even though we didn't meet in a classroom, "and another said, "My Professor made it very clear in all her weekly announcements that she was available for any questions, concerns or help

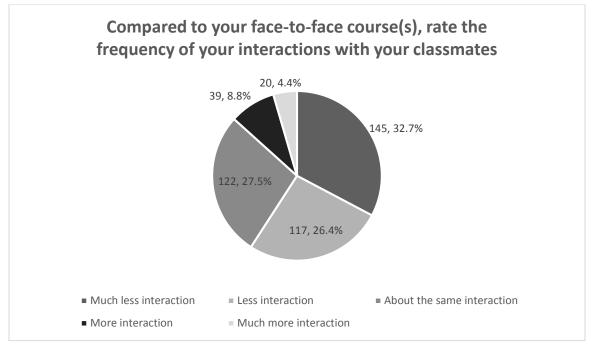
that we might need. Every time I contacted her, she always replied in a timely manner with all the information that I needed and sometimes more. "

In addition, the following are other additional positive comments about instructor interactions.

- I was able to bring my grades up through interactions with the instructor and got feedback on the discussion board.
- My instructor did answer any questions I had and was patient with my work.
- The feedback was very useful.
- I like the open communication and the feedback was exceptional.
- My online instructors follow up with me if they detect I am having troubles, they email me and ask me if I am having trouble, they warn me of deadlines and provide other chances to make up assignments.
- My instructor was available when I needed him to be.
- If I reached out, she answered questions
- During the synchronous sessions the instructor provided very clear information for expectations of tests.

The following are other additional negative comments about instructor interactions.

- She helped me the best she could. I struggle with math. I should never have taken it online. I need the ability to ask questions.
- This person is very difficult to communication with. She has very bad researching skills.
- The only problem I had was my teacher was not able to help if there was a problem with the Aleks math program.
- This is the worst class I have ever taken.
- He doesn't seem to care. He only wants his paycheck.
- The teacher would send a generic email every so often reminding students of some things to work on, that's about all the interaction except maybe at the beginning when reminding about books.



Compared to your face-to-face course(s), rate the frequency of your interactions with your classmates (0-4).

Mean: 1.26 Standard Deviation: 1.13

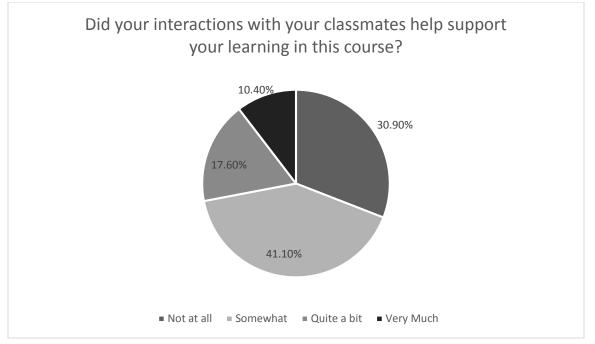
Students report that their interactions with classmates is less in the online environment than in the face-to-face environment. Only 13% of all students surveyed reported that they had "more" or "much more" interactions with classmates in the online environment. More than half felt the interactions were "less" or "much less."

Student Interactions – Additional Comments

Eight additional written comments were provided by the respondents about their interactions with their classmates. Most (63%) of these were neutral. One student wrote, "We were able to give input on certain assignments, where we could discuss our answers but I don't think we had any other interactions." And another wrote, "We interact in class daily, online maybe once every two weeks. It wasn't bad because I got to meet a few classmates at an extra credit assignment." One student wrote that there were, "more encouraged opportunities of interaction through use of discussion boards and collaborative sessions."

50% of the comments were about the discussion board. One student wrote, "We had discussion boards that were quite interesting." And another said, "I would post on the Discussion Board but wasn't really interested in the topic, so didn't really check back to see if anyone responded to me. Might be helpful if we were notified when someone posts on our threads, rather than having to check after the fact." One wrote, "All feedback posts helped to improve my learning."

Two comments focused on interactive elements of the course. One said, "I did not speak to one person from my class, even during the group project. No one in my group participated but me." Another wrote, "I had a student find me and call me asking for aid because to instructor was not responding to him as well."



Did your interactions with your classmates help support your learning in this course (0-3). Mean: 1.08 Standard Deviation: 0.94

Rate the following qualities of student interactions related to your learning. [Frequency of interactions] (0-4).

Mean: 2.20 Standard Deviation: 1.48

Rate the following qualities of student interactions related to your learning. [Speed of responsiveness] (0-4).

Mean: 2.14 Standard Deviation: 1.53

Rate the following qualities of student interactions related to your learning. [Quality of feedback] (0-4).

Mean: 2.29 Standard Deviation: 1.53

Rate the following qualities of student interactions related to your learning. [Courteousness of interactions] (0-4).

Mean: 2.61 Standard Deviation: 1.50

Rate the following qualities of student interactions related to your learning. [Providing a positive atmosphere] (0-4).

Mean: 2.65 Standard Deviation: 1.52

Rate the following qualities of student interactions related to your learning. [Responsiveness to my communication method] (0-4).

Mean: 2.44 Standard Deviation: 1.57

	Frequency	Speed	Quality	Accommodation	Courteousness	Responsiveness
Frequency	1					
Speed	0.81	1				
Quality	0.82	0.84	1			
Accommodation	0.72	0.74	0.78	1		
Courteousness	0.74	0.73	0.78	<mark>0.90</mark>	1	
Responsiveness	0.78	0.80	0.82	0.80	0.83	1

Correlation Coefficient Matrix (-1 to 1)

The highest correlation coefficient was between the *courteousness* of students' responses and the *accommodation of learning styles*. The other correlations were unremarkable.

Student Interactions – Additional Comments

15 students (3.4% of total respondents) provided additional feedback about whether or not their interactions with fellow classmates supported their learning. Just over half of those (53%) were positive while 40% were negative. An additional 7% of comments were neutral.

The positive comments primarily centered around student feedback and responses on the discussion boards. One student wrote, "I just want to say that the interactions was on a whole other level! It was a great experience and the feedback was done in a very non-judgmental, polite and encouraging way."

Other positive comments were:

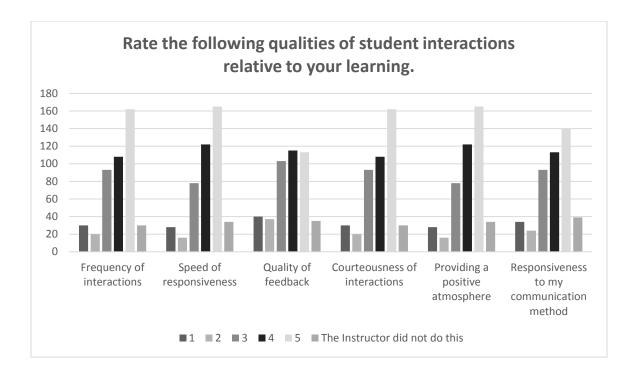
- I read the posts. Some classmates have really good points of view and constructive essays.
- Students were well at explaining the subjects.
- They were empathic but honest.
- Discussion Board comments are invaluable to my learning experience.
- The discussion boards provided other's opinions and feedback of various subjects which helped tremendously.
- They often provided feedback that I would not have.

The negative comments varied greatly about student interactions and learning. One student wrote, "Unfortunately, my classmates were giving sometimes incorrect answers to my assigned questions but I could not learn from the other groups. The main problem was that many of the students were posting their answers at the last moment and that is why it was impossible to learn from them in the proper time." Another said, "I had issues with the grammar used on the boards even after the instructor told us to use proper grammar and to check our spelling. That's me with any written interaction." 13% of the comments focused on how much interaction was required. One wrote, "Everyone gave two responses because they had to. It was an extra hassle," while another wrote, "She wanted us to have a back and forth communication with our classmates. I just wanted to do my assignment and be done with it. It would not have been a problem communicating with my classmates. However, 250 words each time your respond to a classmate is a bit much."

The other negative comments were:

- We were all lost on what to do.
- The was no interaction with classmates.

The one neutral comment said, "I didn't get much feedback on Blackboard from the other students, but I was able to read what they wrote and get a better understanding of the assignment."



Sixty-six students (15.1% of total respondents) wrote additional feedback at the end of the survey. Nearly half of these (49%) were positive. Most of these were general, overview comments about the course or the experience. There were comments such as, "I really enjoyed this class. I will recommend this instructor, " and "I had a very good experience for my first online class." One wrote, "This was a really good course and I am really looking forward to the next semester." And another said, "I enjoyed this class and have already recommended it to many of my friends who are also studying in the medical field as well."

22% of the additional comments had to do with the instructor, the instruction or interactions with the instructor. Of these, 62% were positive and 28% were negative. The positive comments ranged from glowing, "The teacher exposed me to things I did not know existed in the school. She really wants her students to participate in their learning and in teaching others what they have learned. She showed how unity can help students succeed." Another wrote, "I really enjoyed her as an instructor and recommended her to others. I wish I could take another class with her. May I add, she communicates back and gives positive feedback to your questions? I appreciate her." One other said, "I thoroughly wish all of the my courses were like this one. Although it was the last of my courses, I finally felt like I was being taught and someone cared. Thank you"

Some of the negative comments were extreme. One student said, "Professor XXX is in my opinion by far the worst instructor the city colleges has employed," and "This was my least favorite online class I've taken through HWC. The instructor was not invested in this class

and it showed. It felt like she was doing the least amount of work possible in order to get paid. She was not motivating or encouraging. I felt like I could have done better and enjoyed learning more with another instructor."

Other comments included:

- Professor XXX is a really great teacher and he has always been very supportive throughout the semester. He makes me feel as if he really cares about my learning and he always has a positive attitude.
- Professor XXX should be cautious of her mistakes on important documents (e.g. syllabus and discussion board deadlines). We're deducted points for inaccuracies in our assignments, but it's ok for professors to do the same? She wasn't the most open to acknowledging those mistakes, either. Her emails would be very short and accusatory.
- The course lacks proper instruction. There is a great lack of communication between students and instructor, which leads to miscommunication about how and when assignments are to be done. In fact, I have had such extreme communication issues from the beginning of the semester, although I am sure it is not personal. I am starting to take it personally, like the teacher does not want me to succeed.
- Professor XXX is a very good professor. After taking his online course I am going to take more online courses.
- The professor was very detailed and responsive in his explanation.
- There is no clear information on who we reach out to when we have to complain about our professor. The entire class was complaining about Professor XXX not responding. It was documented all over Blackboard café forum by the students in the discussion board section. We received no help from him.
- I have taken an online class before and I had to drop it because the instructor was so disconnected from the students. I was lost but now I have taken this class online and met Professor XXX, I think I will try online classes again. I really enjoyed her as my instructor and recommend her to others. I wish I could take another course with her. May I add, she communicates back and gives positive feedback to your questions? I appreciate her.
- Overall the teacher was very good at responding quickly when I messaged her. I like that in an online teacher.
- Someone should review the instructor, Professor XXXX, and his syllabus. I do not think he is a proper instructor and should not be teaching this level of a course. I apologize for the negativity but it is the truth.

In addition, 15 of the additional comments (23%) were suggestions for improvement. One student wrote, "Online classes need more feedback from instructors and more interaction." Another said, "I encourage the administration to refine the class a bit, and the technology."

Another wrote about response time, "Response time from the instructor to the student needs to be revised. There are times when one needs help within hours rather than days." One wrote "If the school listed where we can send complaints of a teacher, we would have told about how the teacher ghosted us. Maybe we could have learned more as well."

Additional suggestions for improvement were:

- There should be at least four scheduled face-to-face meetings with predetermined dates.
- I think the most important thing would be to offer more online sessions so students can have their questions answered in real-time, not just twice a semester.
- I feel like if you cannot take a course during the summer 8 week class, then you should not be able to take the course online.
- It would be incredible if you would offer more classes online, maybe physics and math classes that don't have a lab component.
- If there were instructional videos, that would have been helpful.
- I was disappointed that for most of the quizzes, except for this last one, we weren't able to find out which questions we got wrong in order to learn from our mistakes. I would understand if you were to wait an release the answers after all three attempts were made, but even then we didn't get the answers.
- I think examples should be provided with explanations. That would be helpful.
- I haven't been able to complete the word because the wrong lab was posted online and we didn't know if we had the materials until the week of the lab experiment because the lessons were released weekly instead of all at once at the beginning of the semester. I think we could have figure out which supplies we had and adjusted the labs so we didn't miss out.
- Unfortunately, not enough later evening and weekend courses are available for many classes. It makes it really difficult for individuals working full-time to have access to the classroom experience, which I think, is equally important as the online courses.
- More online classes should be offered in the summer.

Recommendations

Based on the data collected in this survey, the HWC Assessment Committee recommends the following:

Design

- 1. Reconsider the use of group projects as a natural and regular part of course design. More conversation is needed around the topic of group projects and learning.
- 2. Ensure clarity in design
- 3. Ensure ease in navigation
- 4. Design professional-quality descriptive videos with explanations both for course navigation and to cover content.

Interaction

- 1. Encourage instructors to be courteous, timely, and clear with students.
- 2. Provide consistent and quality feedback as a regular practice.
- 3. Manage the discussion board by facilitating the conversations, and ensuring accuracy between students.
- 4. Engage in more conversation about the number of discussion board forums and the length of responses required so that they promote learning and are not too onerous for students.

Administration

- 1. There needs to be ongoing conversations about creating a system for addressing student concerns about their online faculty.
- 2. In the online orientation, ensure additional ways explaining to students that online courses are a lot of work, and require a large time commitment.
- 3. Engage in thoughtful refection about the myriad reasons that students take online courses. There is no ONE profile of the online learner

Students

- 1. Remind students that they will get out of the course what they put into it.
- 2. Remind students of the helpful and supportive resources that are available to them throughout the semester.

Appendix A – Survey Questions

Survey of Learning in Online Courses at HWC

Thank you SO MUCH for volunteering to participate in the 2016 HWC Survey of Learning in Online Courses. Your participation will help to inform curriculum development, pedagogical practices, and policy decisions at Harold Washington College. Your participation is voluntary and your responses confidential. You can stop your participation at any time. And whether you participate in the survey or not, it will have no impact on your grade. We will only analyze the data in the aggregate (the big picture), not individual responses.

What is your student ID#?

Enter your 9-digit student ID (no dashes). Providing this information allows us to reduce the time of this survey and improve its reliability. Again, this information is anonymous and not linked to individual student performance.

- 1. Have you taken (or are you currently taking) any face-to-face courses at any of the City Colleges of Chicago?
- 2. Why are you taking this course online?

(Choose all that apply.)

- 1. I have personal time constraints
- 2. I have many family obligations
- 3. My work schedule interferes with going to classes at specific times
- 4. The distance required to travel to school is too great
- 5. I have had prior positive experiences in online learning
- 6. I am a self-directed learner
- 7. The online section was the only one available to me when I registered
- 8. I prefer learning in private
- 9. I don't really know

Comments:

- 3. Compared to your face-to-face course(s), rate your learning in this course.
 - 1. Much less learning than in my face-to-face course(s).
 - 2. Less learning than in my face-to-face course(s).
 - 3. About the same learning as in my face-to-face course(s).
 - 4. More learning than in my face-to-face course(s).
 - 5. Much more learning than in my face-to-face course(s).
 - Comments:
- Compared to your face-to-face course(s), rate your level of personal activity in this course.
 - 1. Much less than in my face-to-face course(s).
 - 2. Less than in my face-to-face course(s).
 - 3. About the same as in my face-to-face course(s).
 - 4. More than in my face-to-face course(s).
 - 5. Much more than in my face-to-face course(s).

- a. Reading
- b. Interactions with other students
- c. Interactions with the learning materials
- d. Interactions with the instructor
- e. Interactions with the instructor
- f. Writing
- g. Researching

Comments:

Rate the following interactive elements of this online course related to your learning.
1= This element did not support my learning at all

5=This element supported my learning a great deal

- a. Collaborate Sessions
- b. Feedback from fellow students
- c. Feedback from the instructor
- d. Group Discussions
- e. Group Projects

Comments:

6. Rate the following instructional elements of this online course related to your learning.

1= This element did not support my learning at all

- 5=This element supported my learning a great deal
 - a. Quizzes
 - b. Videos
 - c. General Course Design
 - d. The Textbook
 - e. Other Readings
 - f. Navigation of Course Materials
 - g. Technology
 - h. Supplemental Textbook Materials
 - i. Supplemental Online Resources

Comments:

7. Compared to your face-to-face course(s), rate the frequency of your interactions with your instructor.

Interactions include but are not limited to: the telephone, collaborate sessions, email exchanges, discussion board conversations, announcements, etc.

- a. Much less interaction than in my face-to-face course(s).
- b. Less interaction than in my face-to-face course(s).
- c. About the same amount of interaction as in my face-to-face course(s).
- d. More interaction than in my face-to-face course(s).
- e. Much more interaction than in my face-to-face course(s).
- 8. If you answered "less interaction" or "much less interaction" in the question above, why do you think so? (Check all that apply)
 - a. My instructor did not participate in the class discussions.
 - b. My instructor did not respond to me when I reached out.
 - c. My instructor was available but I never needed to reach out and communicate.
 - d. My own interactions were infrequent.

- e. The interactions felt impersonal.
- f. The student-instructor interactions were infrequent.
- 9. Did your interactions with your instructor help support your learning in this course?
 - a. Not at all
 - b. Somewhat
 - c. Quite a bit
 - d. Very Much

Comments:

- 10. If you answered "somewhat," "quite a bit, " or "very much" to the question above, how did the interactions support your learning? (Check all that apply)
 - a. My instructor further explained course materials and/or directions for completing assignments.
 - b. My instructor participated in the class discussions.
 - c. My instructor's participation in the class discussion furthered and deepened the discussions.
 - d. My instructor spent a lot of time communicating with us about the course expectations and how to achieve them.
 - e. My instructor answered my questions.
 - f. My instructor answered my questions promptly.
 - g. My instructor was responsive to my personal learning style.

Comments:

- 11. Compared to your face-to-face course(s), rate the frequency of your interactions with your classmates.
 - a. Much less interaction than in my face-to-face course(s).
 - b. Less interaction than in my face-to-face course(s).
 - c. About the same amount of interaction as in my face-to-face course(s).
 - d. More interaction than in my face-to-face course(s).
 - e. Much more interaction than in my face-to-face course(s).

Comments:

- 12. Did your interactions with your classmates help support your learning in this course.
 - a. Not at all
 - b. Somewhat
 - c. Quite a Bit
 - d. Very Much

Comments:

13. Rate the following qualities of instructor interactions relative to your learning.

1=This quality did not support my learning at all

- 5=This quality supported my learning a great deal
 - a. Frequency of interactions
 - b. Speed of responsiveness
 - c. Quality of feedback
 - d. Accommodation of differing learning styles
 - e. Courteousness of interactions
 - f. Responsiveness to unique adult learner issues
 - g. Clarity of expectations
 - h. Providing a positive atmosphere
 - i. Responsiveness to my communication method

- 14. Rate the following qualities of student interactions related to your learning.
 - 1=This quality did not support my learning at all
 - 5=This quality supported my learning a great deal
 - a. Frequency of interactions
 - b. Speed of responsiveness
 - c. Quality of feedback
 - d. Courteousness of interactions
 - e. Providing a positive atmosphere
 - f. Responsiveness to my communication method

Comments:

Thank you for participating in this survey of learning in online courses.

If you have any additional comments or feedback about the online courses offered through Harold Washington College, please add that below.

Additional Feedback:

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