

UNDERSTANDING STUDENT EXPERIENCES IN ONLINE COURSES

Quantitative Analysis September 2022

Prepared For:

Carrie Miller, Ph.D. Minnesota State University, Mankato, Minnesota

Prepared By: The Center for Excellence in Scholarship and Research Minnesota State University, Mankato, Minnesota

Project Team

Carrie Miller, Ph.D.

Instructional Designer | IT Solutions Carrie.Miller@mnsu.edu

507.389.1531

Michael Manderfeld

Instructional Designer | IT Solutions Michael.Manderfeld@mnsu.edu

507.389.2773



Report Team

Daniel Houlihan, Ph.D.

Professor & Director | CESR daniel.houlihan@mnsu.edu 507.389.6278

CESR CENTER FOR EXCELLENCE

IN SCHOLARSHIP and RESEARCH

MINNESOTA STATE UNIVERSITY, MANKATO

Melissa Schneider

Research Consultant | CESR melissa.schneider@mnsu.edu

The Center for Excellence in Scholarship and Research (CESR) is a research consulting service housed within Minnesota State University, Mankato. CESR, comprised of faculty and graduate students, seeks to help advance the careers of faculty, staff, and graduate students. CESR offers a wide range of services to both faculty and students including manuscript editing, research design, and data analysis.



3

Table of Contents

Questionnaire	5
Demographic Results	9
Course Introduction/Course Overview – Item Breakdown	15
Course Introduction/Course Overview – Item Comparison	24
Course Learning Objectives – Item Breakdown	26
Course Learning Objectives – Item Comparison	
Assessments, Feedback, & Grading – Item Breakdown	32
Assessment, Feedback & Grading – Item Comparison	37
Course Resources & Materials – Item Breakdown	
Course Resources & Materials – Item Comparison	45
Course Activities, Instructor Presence and Communication, & Interaction with Other	
Course Activities, Instructor Presence and Communication, & Interaction with Other	-
Technology Use in Course	63
Technology Use in Course – Item Comparison	69
Student Resources – Item Breakdown	71
Student Resources – Item Comparison	74
Course Organization – Item Breakdown	76
Course Organization – Item Comparison	83
Results by Ethnicity	85

Questionnaire

Demographic

- Q1: Ethnicity?
- Q2: Gender?
- Q3: What is your age?
- Q4: What year are you in school?
- Q5: How many fully online courses have you taken?
- Q6: When did you take your most recent online course?

Course Introduction/Course Overview

Q7.1: It was easy to get started and find information in the course.

Q7.2: I understood the purpose of course resources.

Q7.3: I understood what behavior was expected of me in the online classroom.

Q7.4: The course introduction made me aware of the course and institutional policies. **Q7.5:** It was clear what technologies I needed to complete the course and how to obtain these.

Q7.6: The course content clearly stated the prerequisites and required competency that I would need in order to complete the course successfully.

Q7.7: The content clearly stated the technical skills that I needed in order to complete the course successfully.

Q7.8: The instructor introduction was appropriate.

Q7.9: I was prompted to introduce myself to my classmates at the beginning of the course.

Course Learning Objectives

Q8.1: The learning objectives for the course clearly stated what I would do during the course.

Q8.2: I understood what the learning objectives/purpose was for all of the modules in the course.

Q8.3: The activities during the course helped me reach the learning objectives for each module and for the course.

Q8.4: The objectives of the course were appropriate for my level.

Assessments, Feedback, & Grading

Q9.1: The assessments during the course accurately measured my progress towards the learning objectives.

Q9.2: The course grading policy was clear and easy to access.

Q9.3: The course documentation clearly described course grading/feedback system. **Q9.4:** There were a variety of types of assessment throughout the course (papers, exams, projects, etc.).

Q9.5: Up-to-date grades were available throughout the course.

Course Resources & Materials

Q10.1: The resources in the course provided appropriate information to help me reach the learning objectives.

Q10.2: The materials were relevant to the activities and assessments in the course.

Q10.3: The instructor cited all of the resources that they included in the course.

Q10.4: The materials in the course were up-to-date and relevant.

Q10.5: There were a variety of materials and resources included in the course.

Q10.6: It was easy to tell the difference between required and optional information.

Course Activities, Instructors Presence and Communication, & Interaction with Others

Q11.1: The activities in the course helped me reach the learning objectives.

Q11.2: The course used realistic assignments that motivated me to do my best work.

Q11.3: The activities encouraged me to engage with learning.



Q11.4: Feedback was delivered in a timely fashion and within the limits described in the course documentations.

Q11.5: Feedback was informative, supportive, and articulate.

Q11.6: The course documentation described the expectations for my performance in the online classroom.

Q11.7: The instructor was enthusiastic about online teaching.

Q11.8: The instructor was accessible to me outside of the course (both online and in person).

Q11.9: The amount of contact with the instructor was satisfactory (email, discussions, face to face meetings, etc.)

Q11.10: Instructor effectively communicated any changes/clarifications regarding course requirements

Q11.11: The course allowed me to take responsibility for my own learning.

Q11.12: The course was structured so that I could discuss assignments with other students.

Q11.13: I felt comfortable interacting with the instructor and other students.

Q11.14: This course included activities and assignments that provided me with opportunities to interact with other students.

Technology Use in Course

Q12.1: Technological tools were used appropriately for the course content.

Q12.2: Technological tools helped me reach the learning objectives and enhanced the learning experience.

Q12.3: Technological requirements were clearly stated, with links or documentation to support and any necessary software.

Q12.4: The technology tools for the course were easy to obtain.

Q12.5: The technologies and links in the course were up-to-date and functioned correctly.

Q12.6: The documentation provided information and/or links to the policy statements of technology tools in the course.



Student Resources

Q13.1: The course provided information on technical support.

Q13.2: Accessibility policies and resources were available through the course information.

Q13.3: There was information in the course for academic and student services that could help me succeed.

Course Organization

Q14.1: The course was easy to navigate. It was easy to find information throughout the course.

Q14.2: The sequence of online course activities was effectively organized and easy to follow.

Q14.3: The course contained information about the accessibility of the technologies in the course.

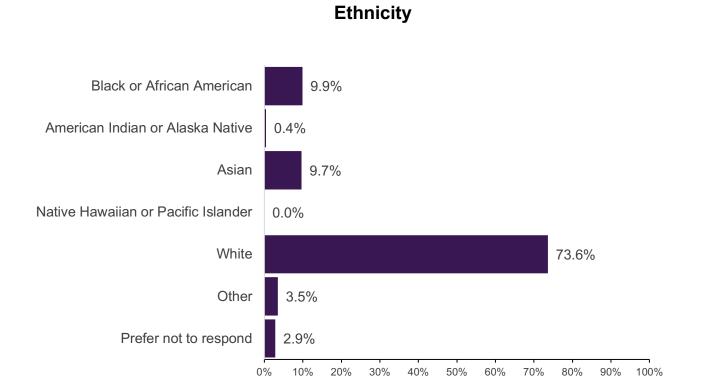
Q14.4: There were multiple formats for course materials (audio, written, video, etc.).

Q14.5: The course provided an efficient learning environment.

Q14.6: The course is organized in a logical manner that facilitates information retrieval.

Q14.7: The multimedia in the course was easy to use.

Demographic Results



Black or African American
American Indian or Alaska Native
Asian

American Indian or Alaska Native	0.44%	2
Asian	9.67%	44
Native Hawaiian or Pacific Islander	0.00%	0
White	73.63%	335
Other	3.52%	16
Prefer not to respond	2.86%	13

Percent

9.89%

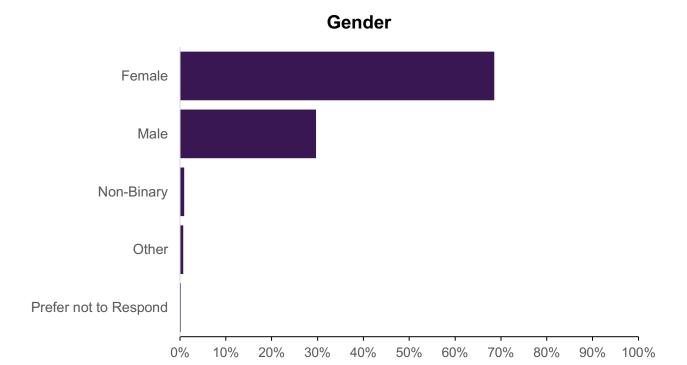
Total:455

Responses

45



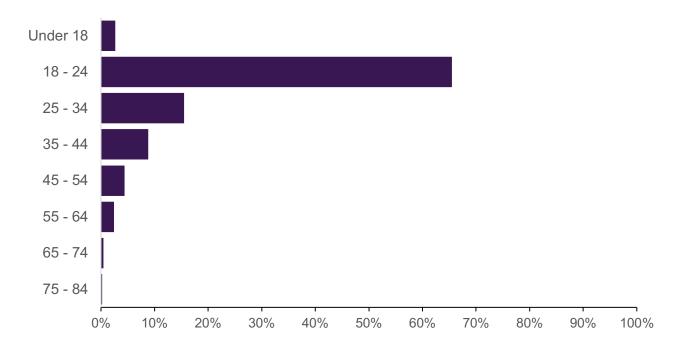
Category



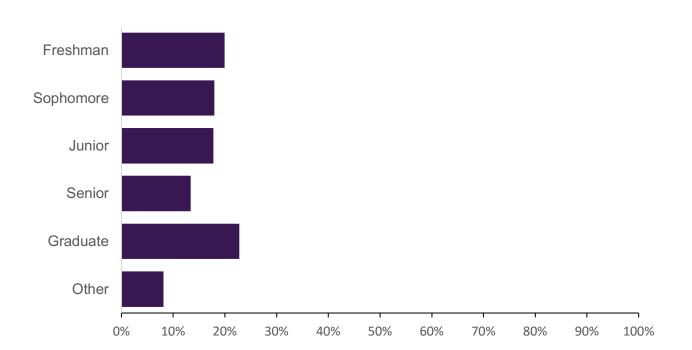
Category	Percent	Responses
Female	68.5%	305
Male	29.7%	132
Non-Binary	0.9%	4
Other	0.7%	3
Prefer not to respond	0.2%	1



What is your age?

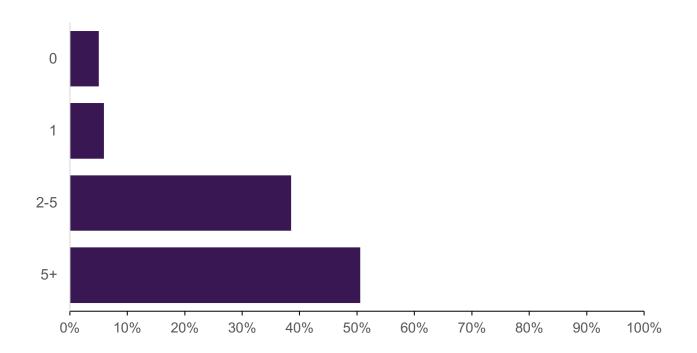


Category	Percent	Responses
Under 18	2.65%	12
18 - 24	65.49%	296
25 - 34	15.49%	70
35 - 44	8.85%	40
45 - 54	4.42%	20
55 - 64	2.43%	11
65 - 74	0.44%	2
75 - 84	0.22%	1



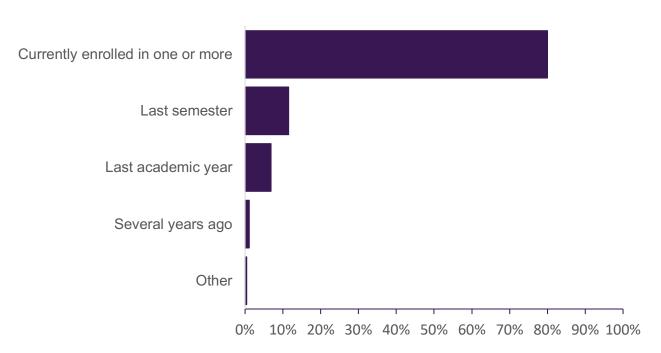
What year are you in school?

Category	Percent	Responses
Freshman	19.96%	91
Sophomore	17.98%	82
Junior	17.76%	81
Senior	13.38%	61
Graduate	22.81%	104
Other	8.11%	37



How many fully online courses have you taken?

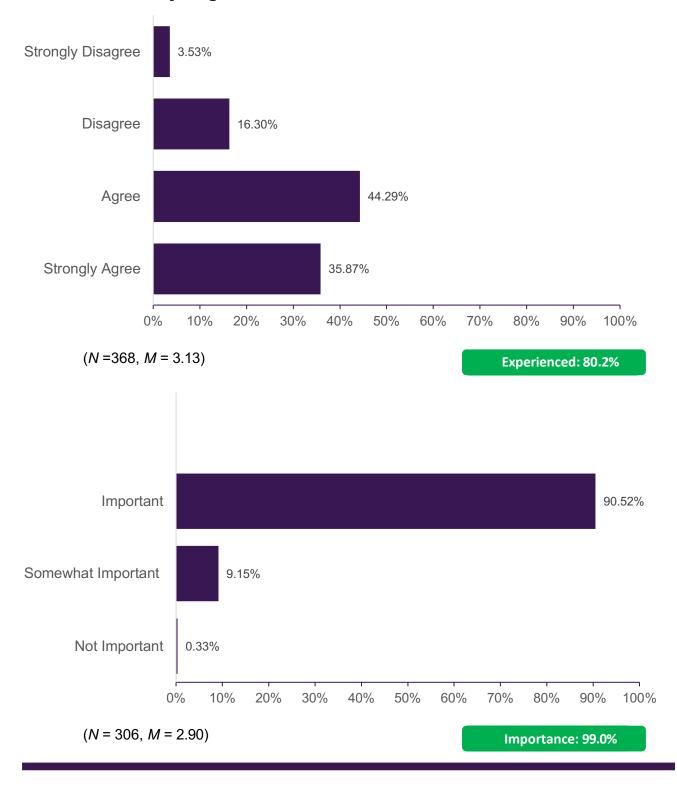
Category	Percent	Responses
0	5.03%	23
1	5.91%	27
2 – 5	38.51%	176
5+	50.55%	231
		Total: 157



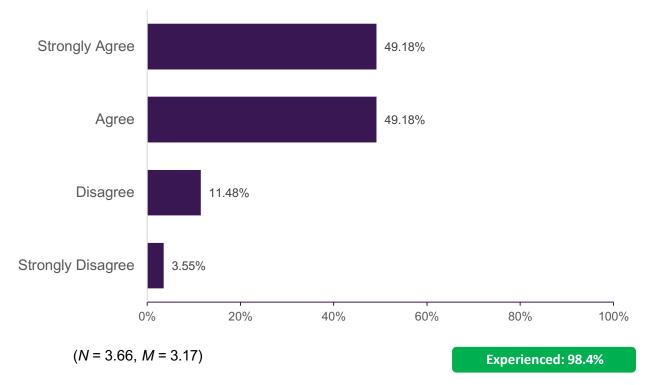
When did you take your most recent online course?

Category	Percent	Responses
Currently enrolled	80.0%	348
Last semester	11.49%	50
Last academic year	6.90%	30
Several years ago	1.15%	5
Other	0.46%	2

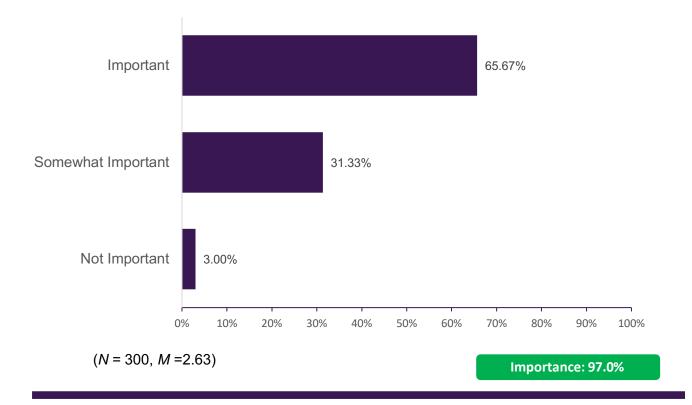
Course Introduction/Course Overview – Item Breakdown

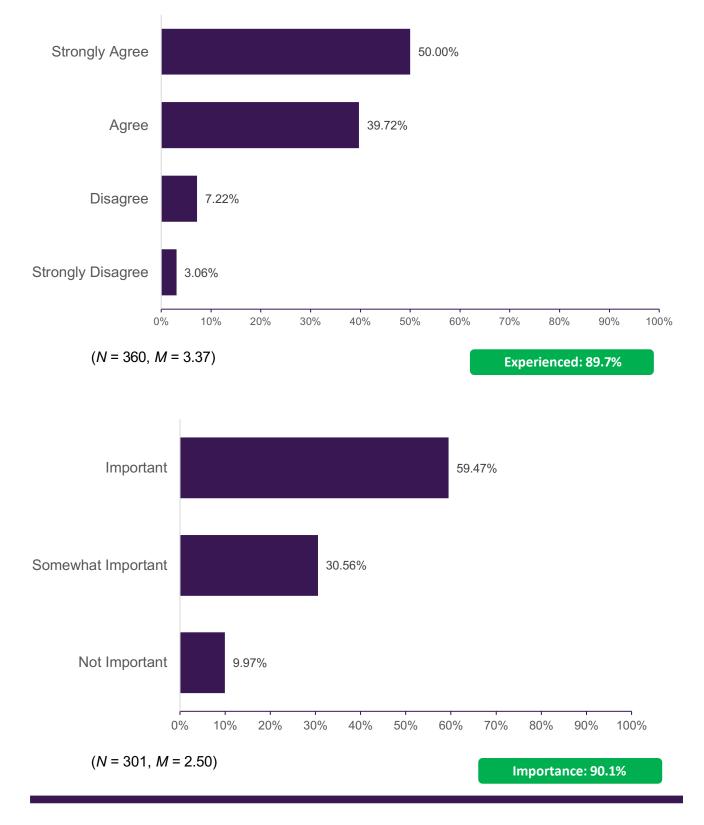


It was easy to get started and find information in the course.

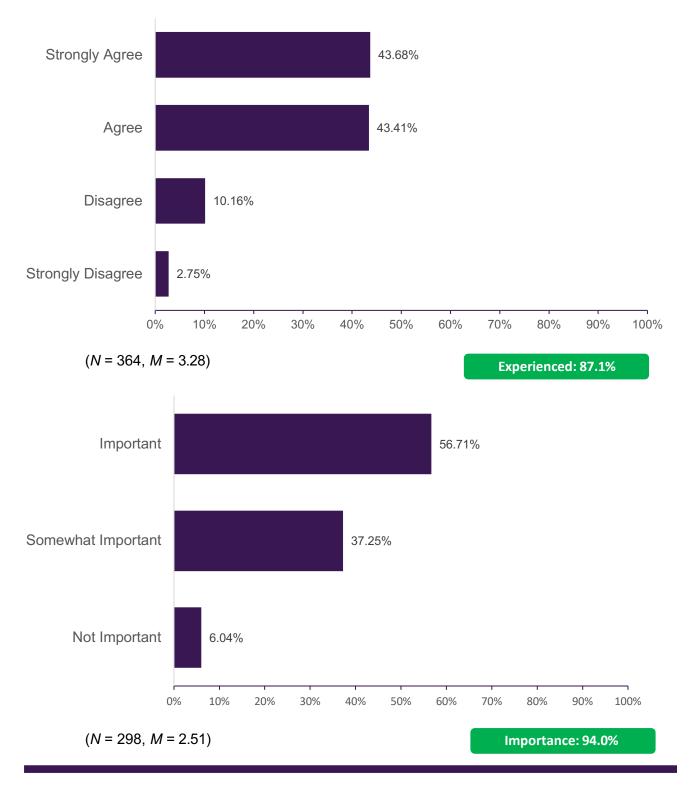


I understood the purpose of course resources.

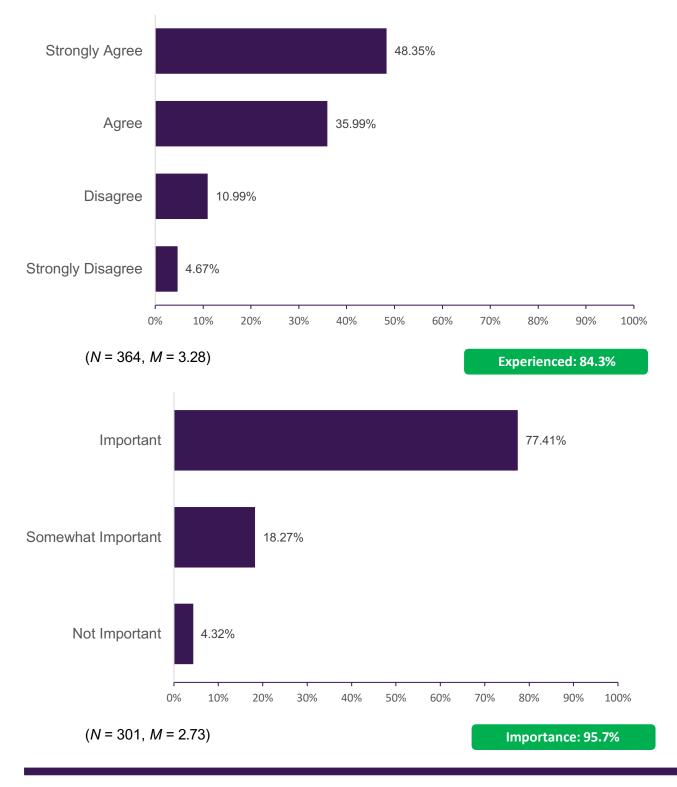




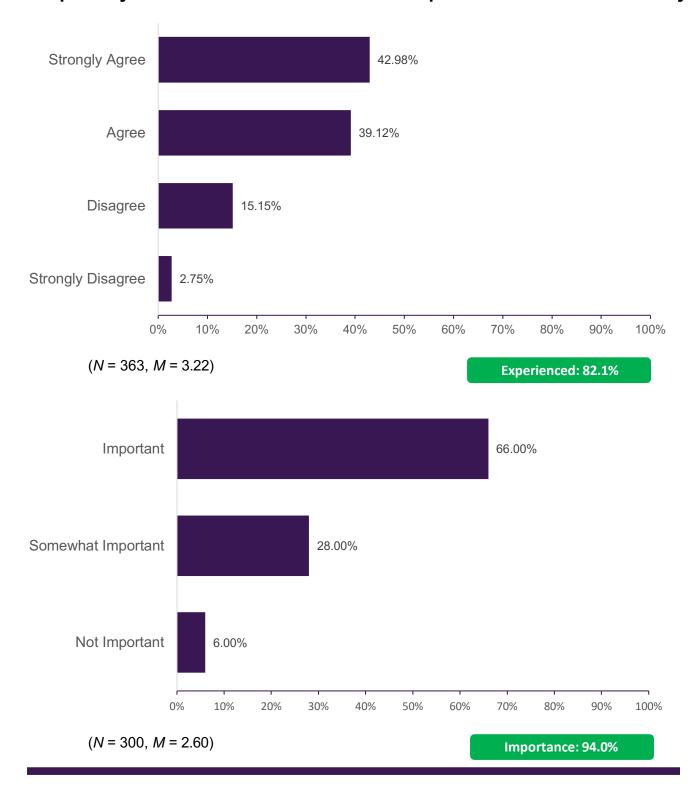
I understood what behavior was expected of me in the online classroom.



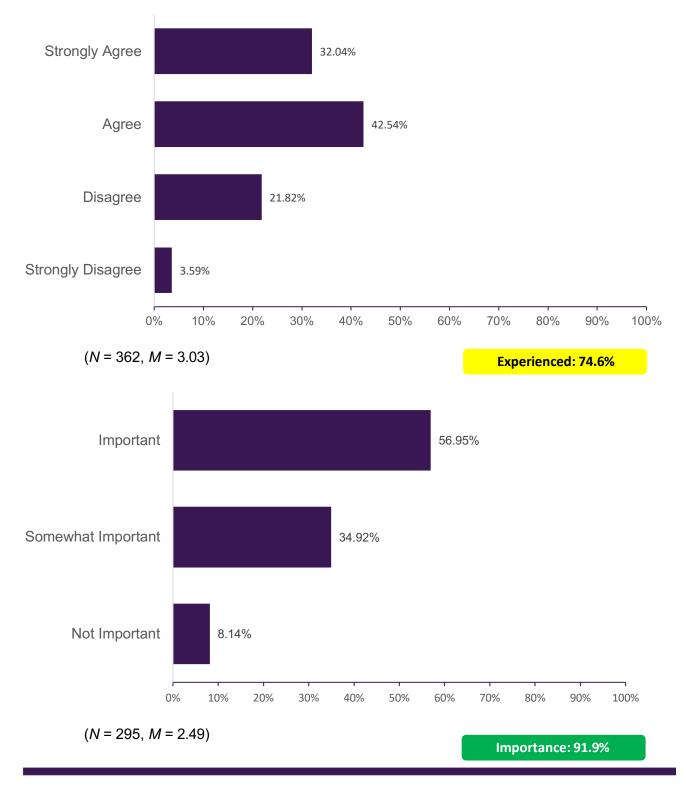
The course introduction made me aware of the course and institutional policies.



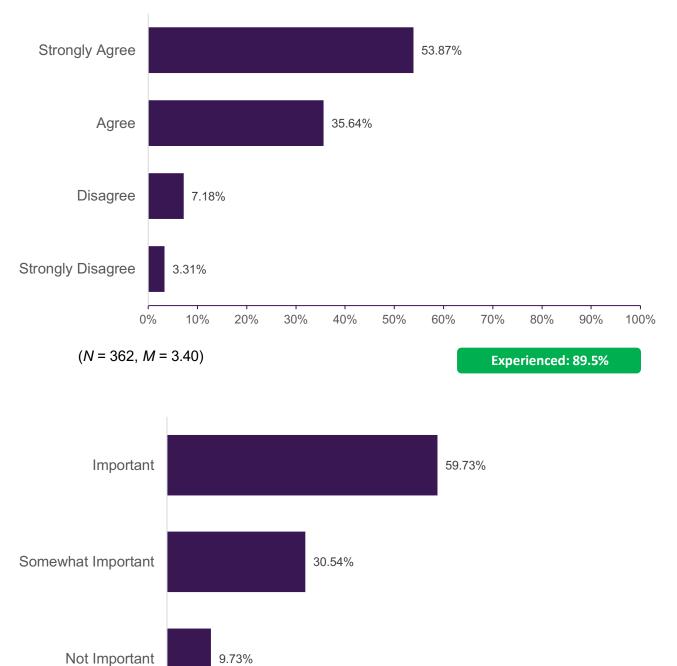
It was clear what technologies I needed to complete the course and how to obtain these.



The course content clearly stated the prerequisites and required competency that I would need in order to complete the course successfully.



The content clearly stated the technical skills that I needed in order to complete the course successfully.



40%

60%

80%

Importance: 90.3%

The instructor introduction was appropriate.

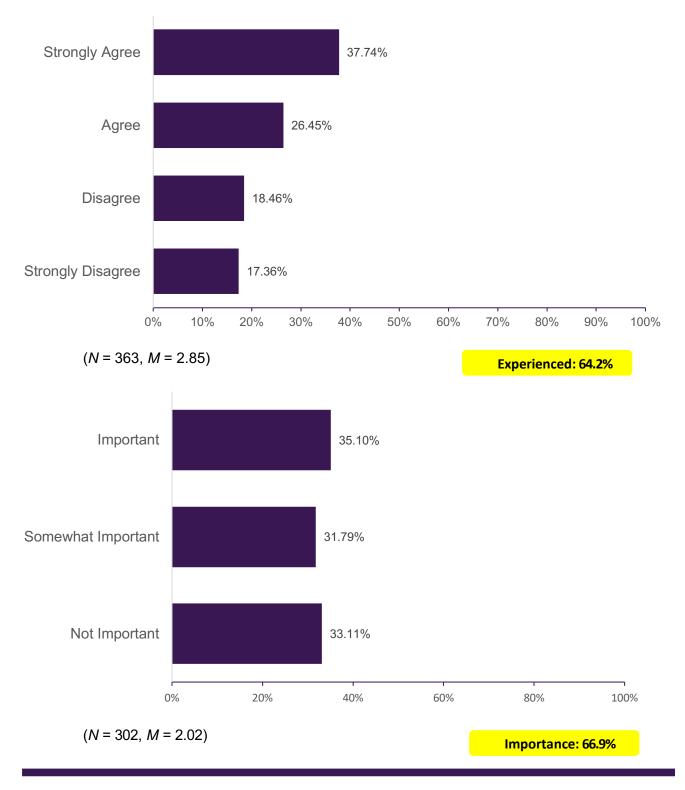


0%

(N = 298, M = 2.50)

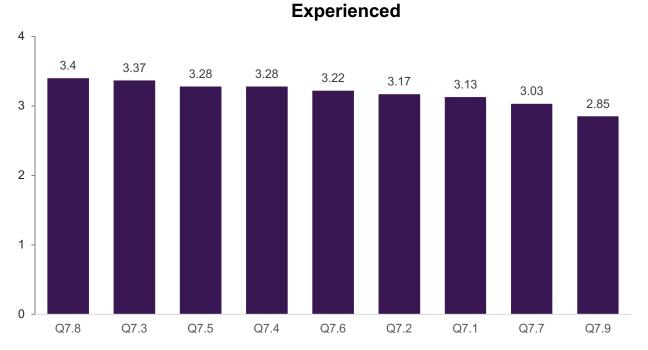
20%

100%

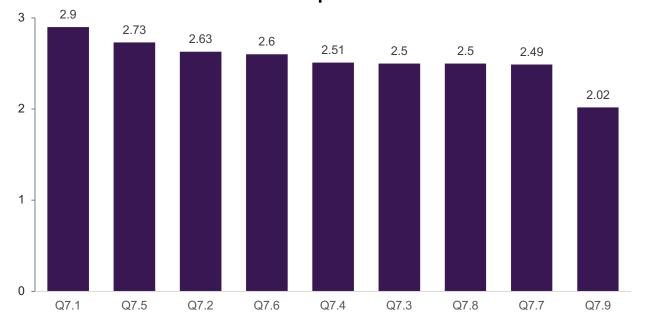


I was prompted to introduce myself to my classmates at the beginning of the course.

Course Introduction/Course Overview – Item Comparison



Importance



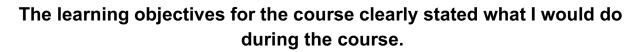
There was a moderate, positive relationship between student experience and importance (r = 0.36). The more participants agreed with the **course introduction/course overview** items, the more they indicated that the items were important to their experience.

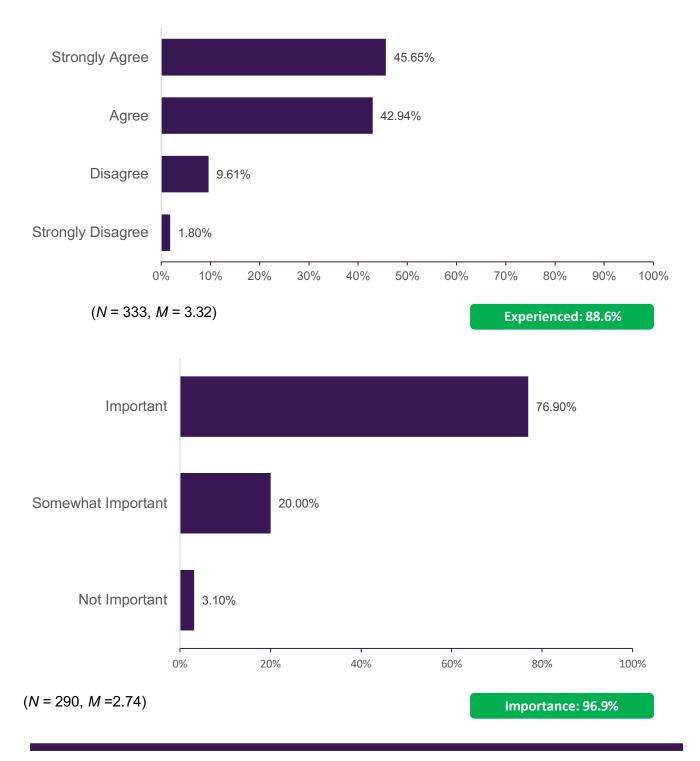


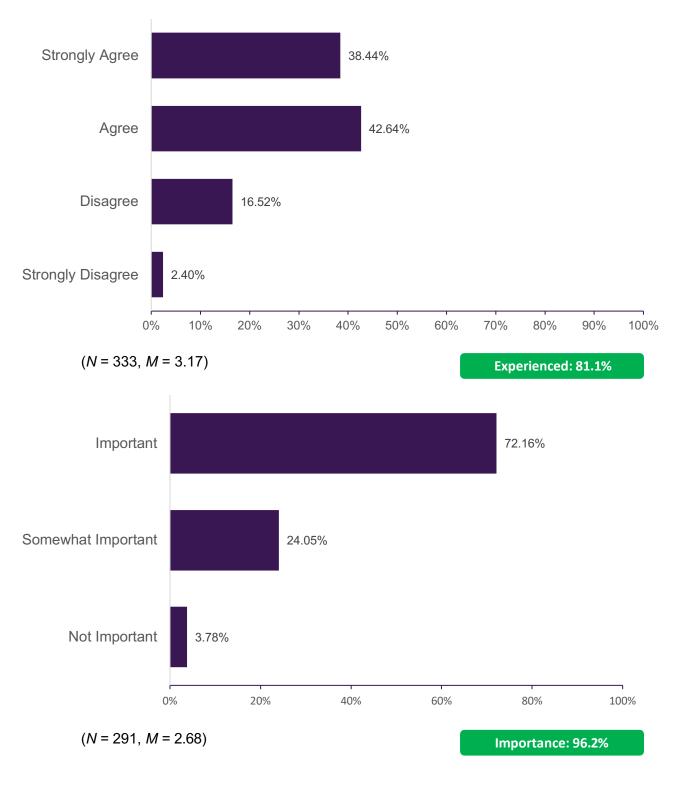
Course Introduction/Course Overview Items Ranked by Experience

Item	Experienced	Importance
Q7.3 I understood what behavior was expected of me in the online classroom.	89.72%	90.03%
Q7.8 The instructor introduction was appropriate.	89.51%	90.27%
Q7.4 The course introduction made me aware of the course and institutional policies.	87.09%	93.96%
Q7.2 I understood the purpose of course resources.	84.97%	97.00%
Q7.5 It was clear what technologies I needed to complete the course and how to obtain these.	84.34%	95.68%
Q7.6 The course content clearly stated the prerequisites and required competency that I would need in order to complete the course successfully.	82.10%	94.00%
Q7.1 It was easy to get started and find information in the course.	80.16%	99.67%
Q7.7 The content clearly stated the technical skills that I needed in order to complete the course successfully.	74.58%	91.87%
Q7.9 I was prompted to introduce myself to my classmates at the beginning of the course.	64.19%	66.89%

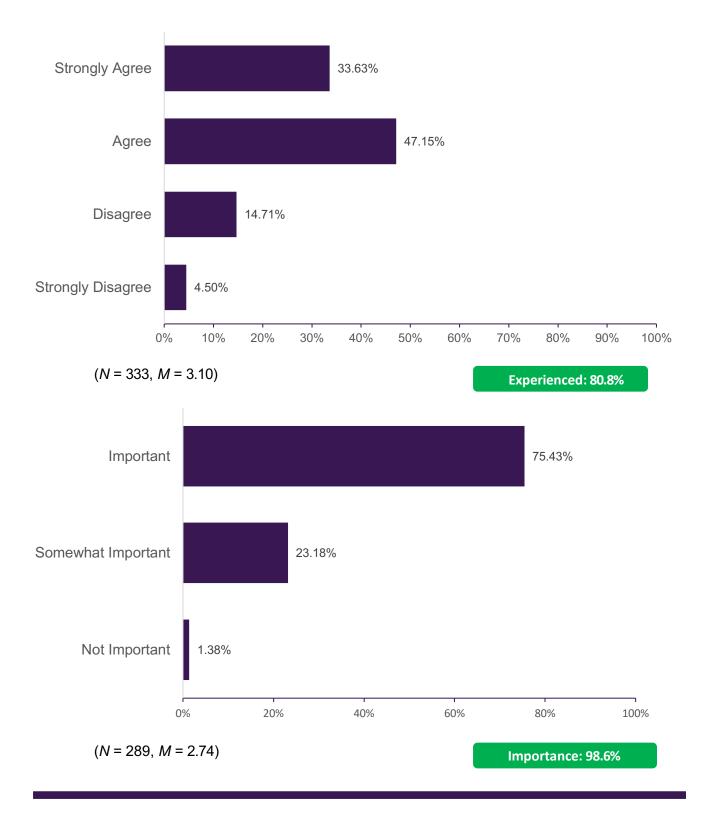
Course Learning Objectives - Item Breakdown



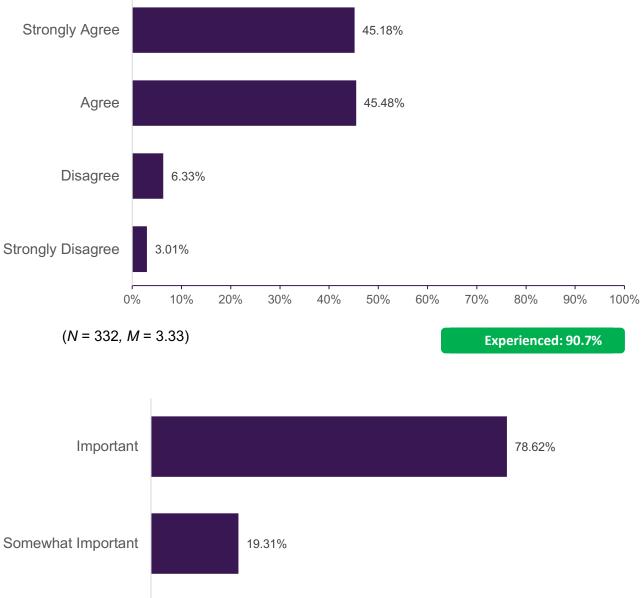




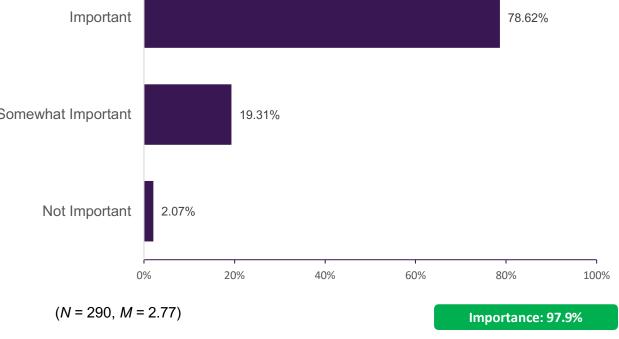
I understood what the learning objectives/purpose was for all of the modules in the course.



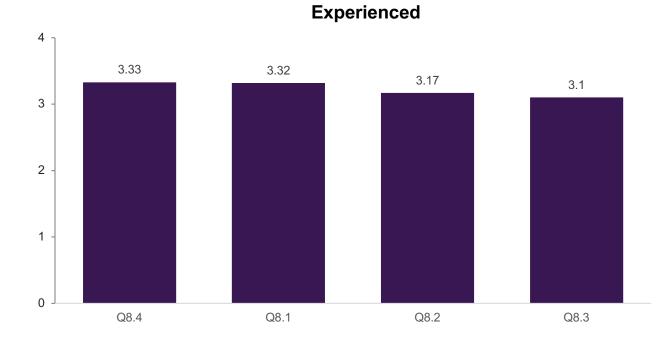
The activities during the course helped me reach the learning objectives for each module and for the course.

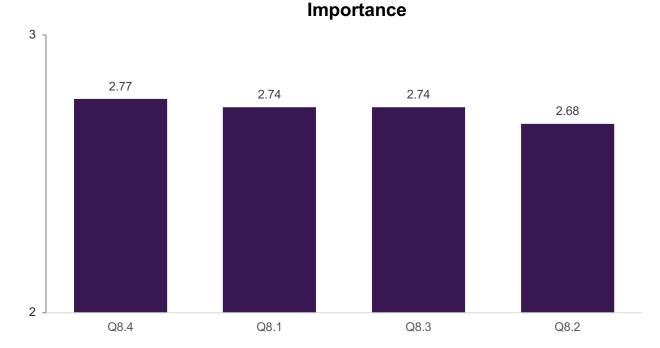


The objectives of the course were appropriate for my level.



Course Learning Objectives – Item Comparison





There was a small, positive relationship between student experience and importance (r = 0.19). The more participants agreed with the **course learning objectives**, the more they indicated that the items were important to their experience.

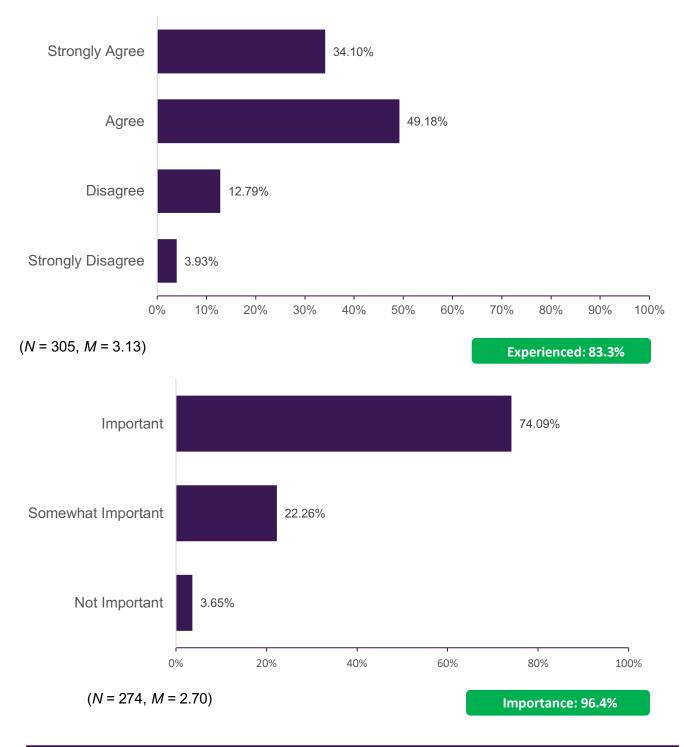


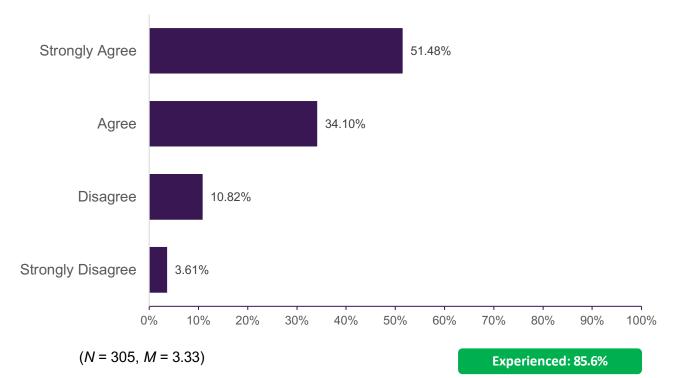
Course Learning Objectives Items Ranked by Experience

Item	Experienced	Importance
Q8.4 The objectives of the course were appropriate for my level.	90.66%	97.93%
Q8.1 The learning objectives for the course clearly stated what I would do during the course.	88.59%	96.90%
Q8.2 I understood what the learning objectives/purpose was for all of the modules in the course.	81.08%	96.22%
Q8.3 The activities during the course helped me reach the learning objectives for each module and for the course.	80.78%	98.62%

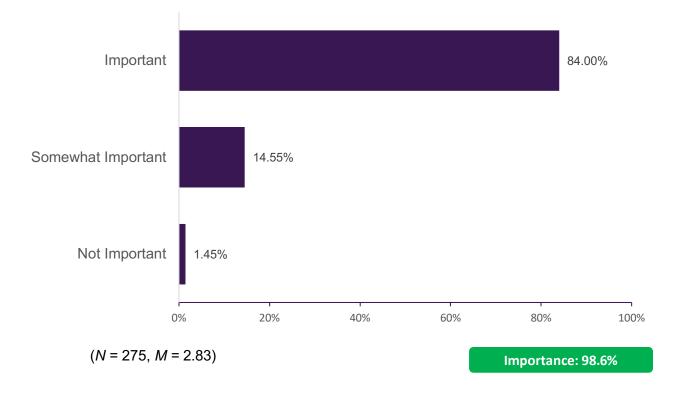
Assessments, Feedback, & Grading – Item Breakdown

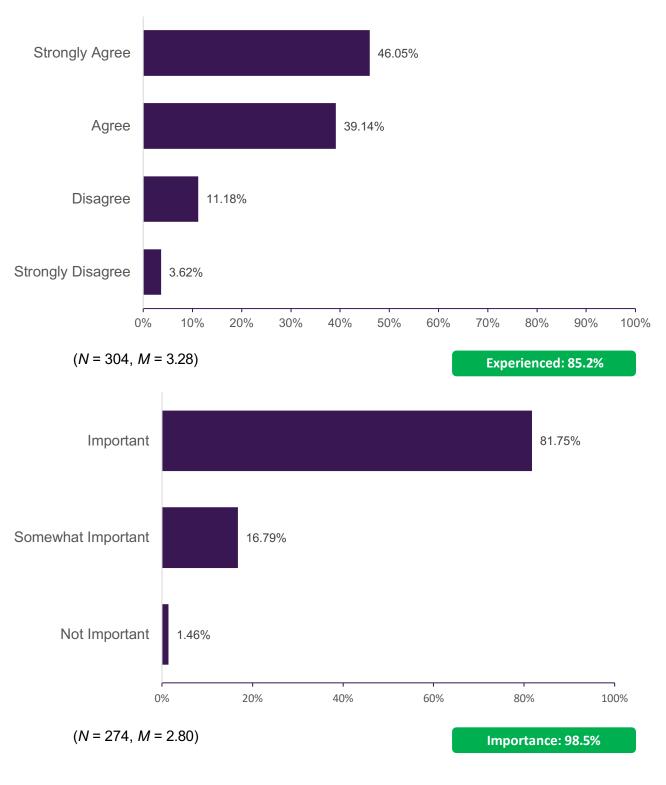
The assessments during the course accurately measured my progress towards the learning objectives.



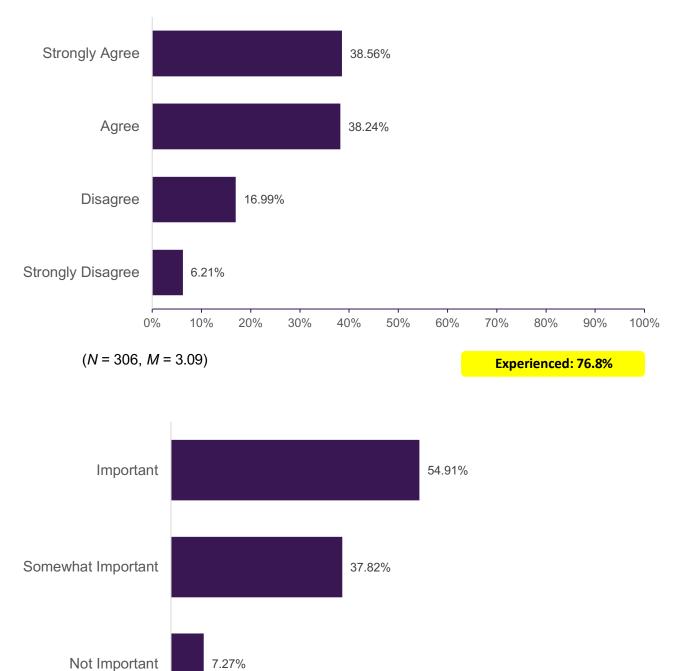


The course grading policy was clear and easy to access.





The course documentation clearly described course grading/feedback system.



40%

60%

80%

Importance: 92.7%

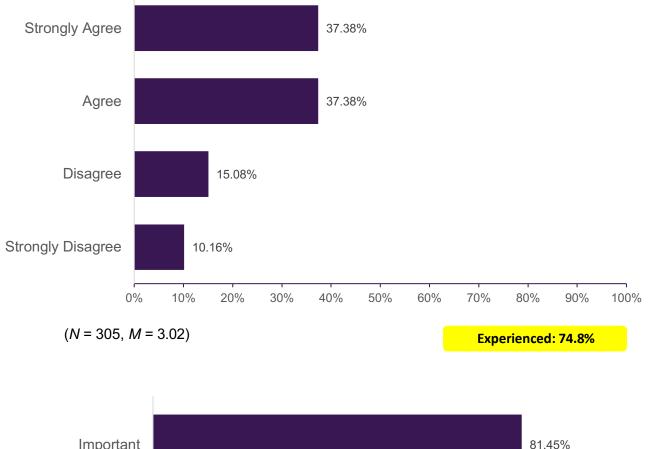
There were a variety of types of assessment throughout the course (papers, exams, projects, etc.).

0%

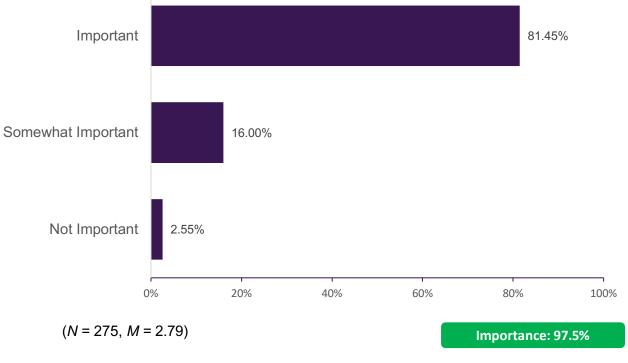
(N = 275 M = 2.48)

20%

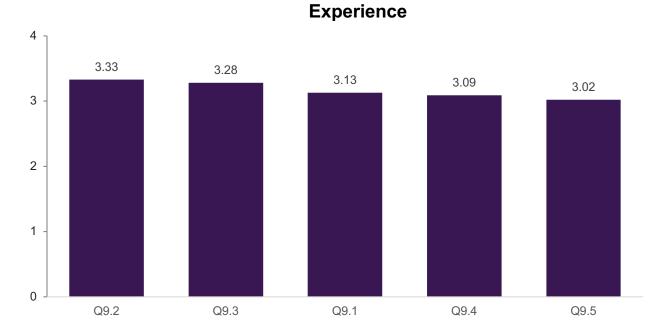
100%



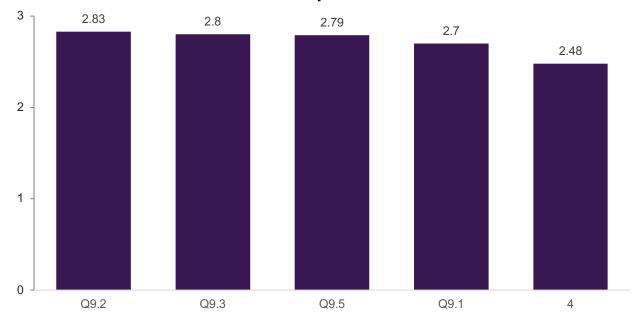
Up-to-date grades were available throughout the course.



Assessment, Feedback & Grading – Item Comparison



Importance



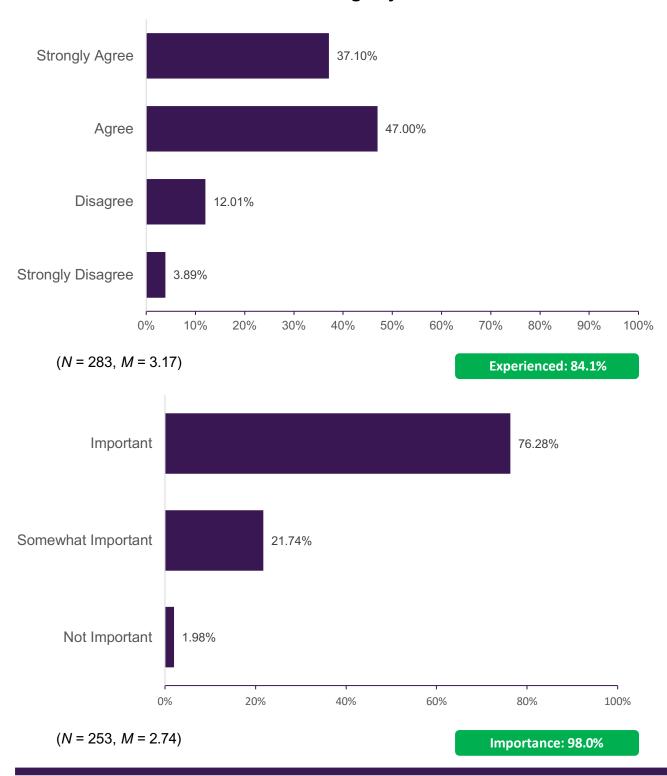
There was a small, positive relationship between student experience and importance (r = 0.20). The more participants agreed with the **assessment**, **feedback**, **and grading** items, the more they indicated that the items were important to their experience.



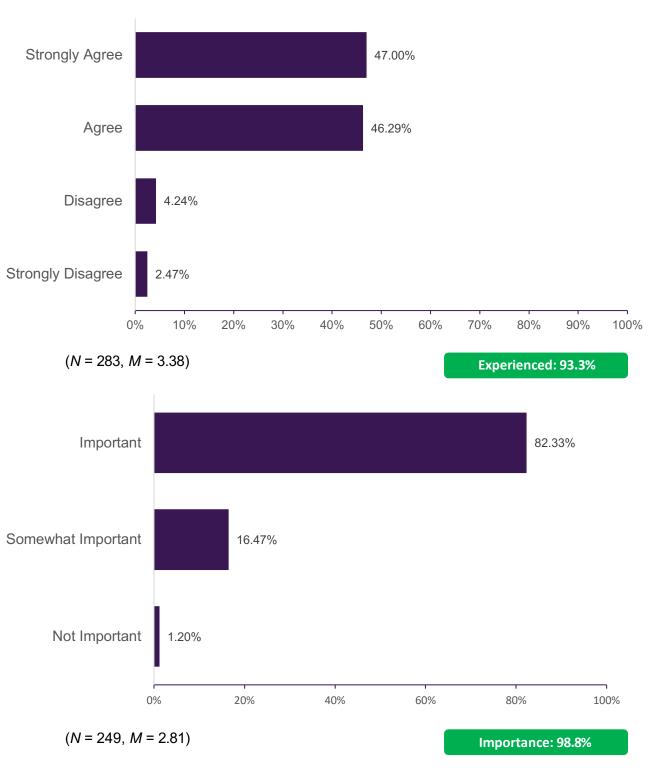
Assessment, Feedback, & Grading Items Ranked by Experience

Item	Experienced	Importance
Q9.2 The course grading policy was clear and easy to access.	85.57%	98.55%
Q9.3 The course documentation clearly described course grading/feedback system.	85.20%	98.54%
Q9.1 The assessments during the course accurately measured my progress towards the learning objectives.	83.28%	96.35%
Q9.4 There were a variety of types of assessment throughout the course (papers, exams, projects, etc.).	76.80%	92.73%
Q9.5 Up-to-date grades were available throughout the course.	74.75%	97.45%

Course Resources & Materials - Item Breakdown

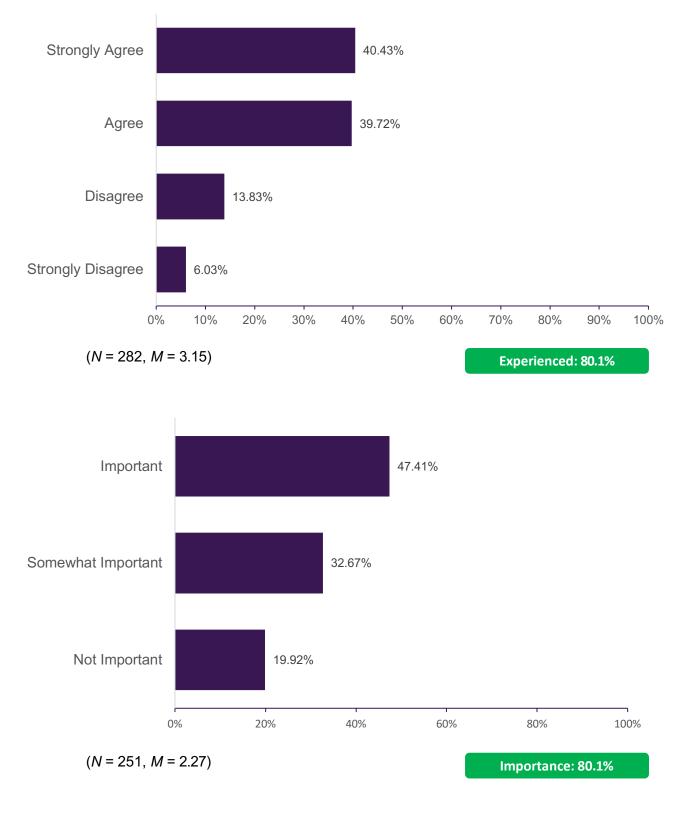


The resources in the course provided appropriate information to help me reach the learning objectives.



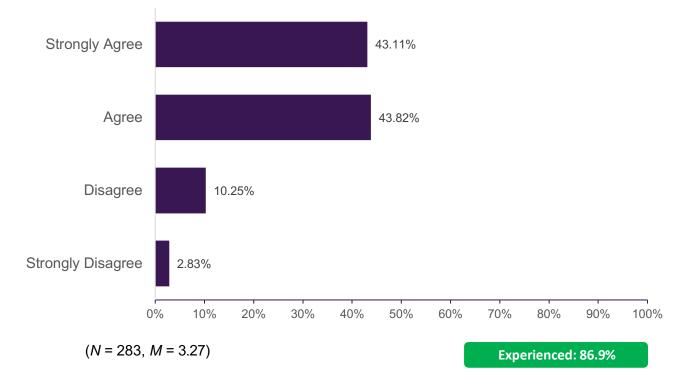
The materials were relevant to the activities and assessments in the course.

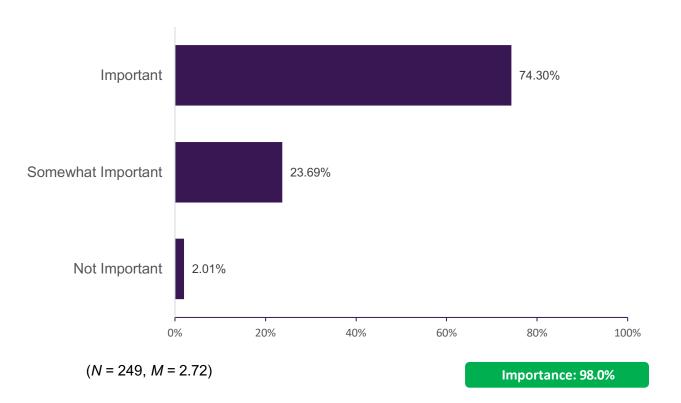
CESR



The instructor cited all of the resources that they included in the course.

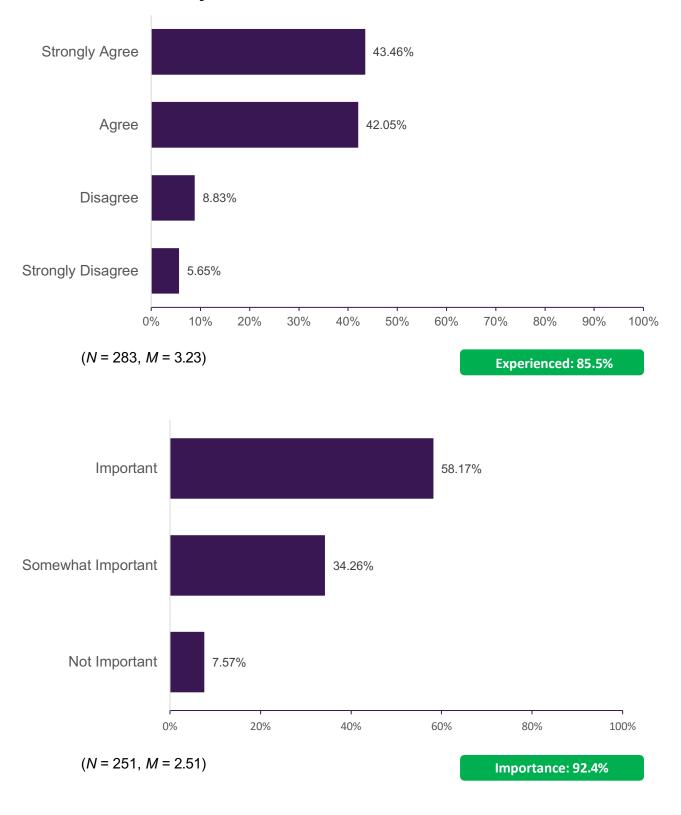
41



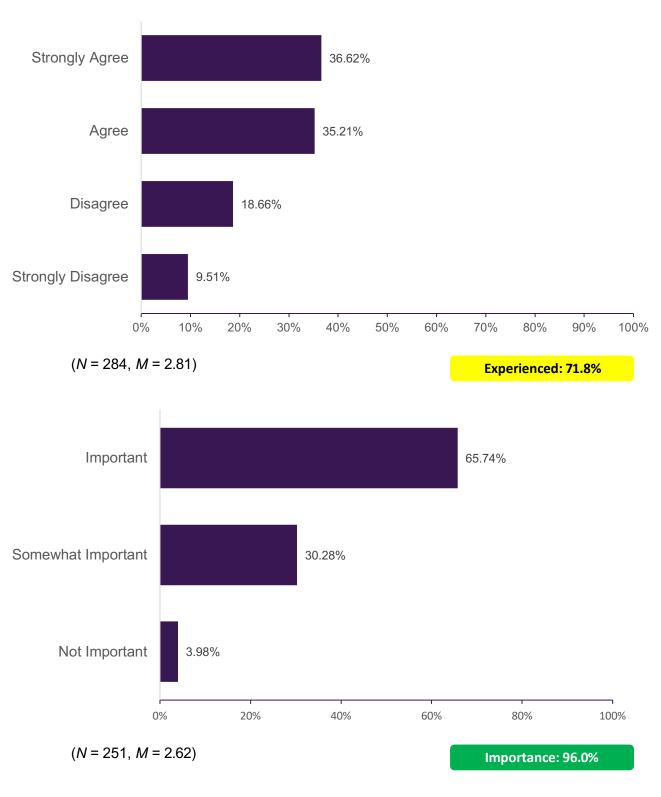


The materials in the course were up-to-date and relevant.

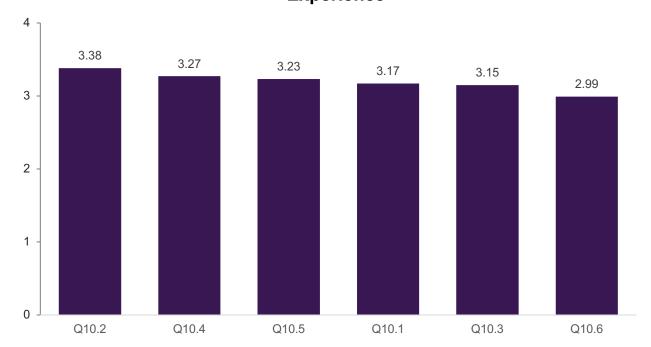




There were a variety of materials and resources included in the course.



It was easy to tell the difference between required and optional information.



Course Resources & Materials – Item Comparison Experience

3 2.81 2.74 2.72 2.62 2.51 2.27 2 1 0 Q10.2 Q10.1 Q10.4 Q10.6 Q10.5 Q10.3

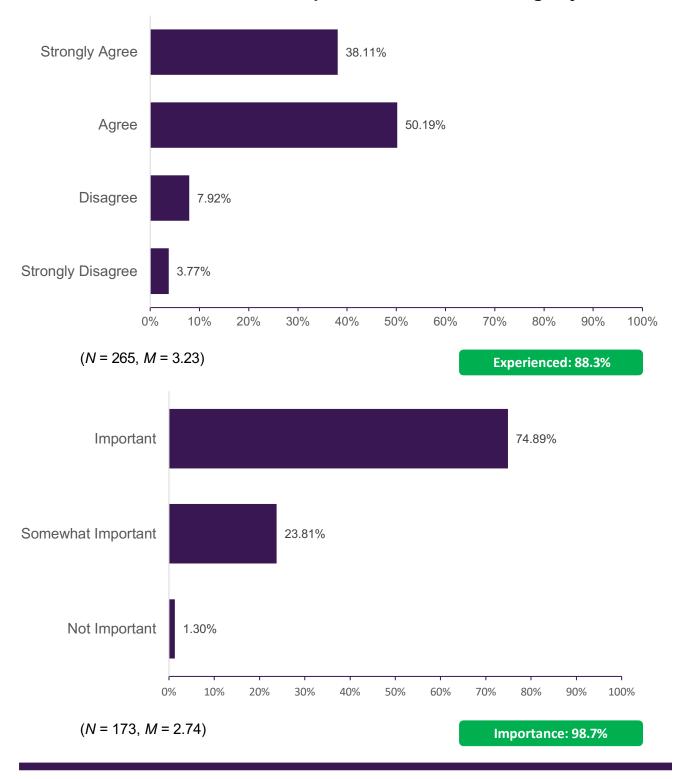
There was a small, positive relationship between student experience and importance (r = .0.31). The more participants agreed with the **course resources and materials** items, the more they indicated that the items were important to their experience.

Importance

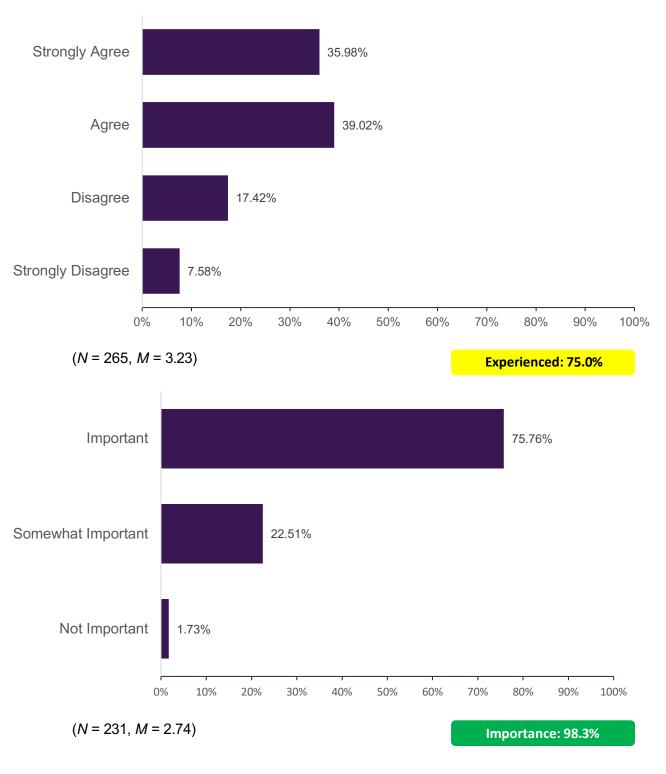
Course Resources & Materials Items Ranked by Experienced

Item	Experienced	Importance
Q10.2 The materials were relevant to the activities and assessments in the course.	93.29%	98.80%
Q10.4 The materials in the course were up-to-date and relevant.	86.93%	97.99%
Q10.5 There were a variety of materials and resources included in the course.	85.51%	92.43%
Q10.1 The resources in the course provided appropriate information to help me reach the learning objectives.	84.10%	98.02%
Q10.3 The instructor cited all of the resources that they included in the course.	80.14%	80.08%
Q10.6 It was easy to tell the difference between required and optional information.	71.83%	96.02%

Course Activities, Instructor Presence and Communication, & Interaction with Others – Item Breakdown

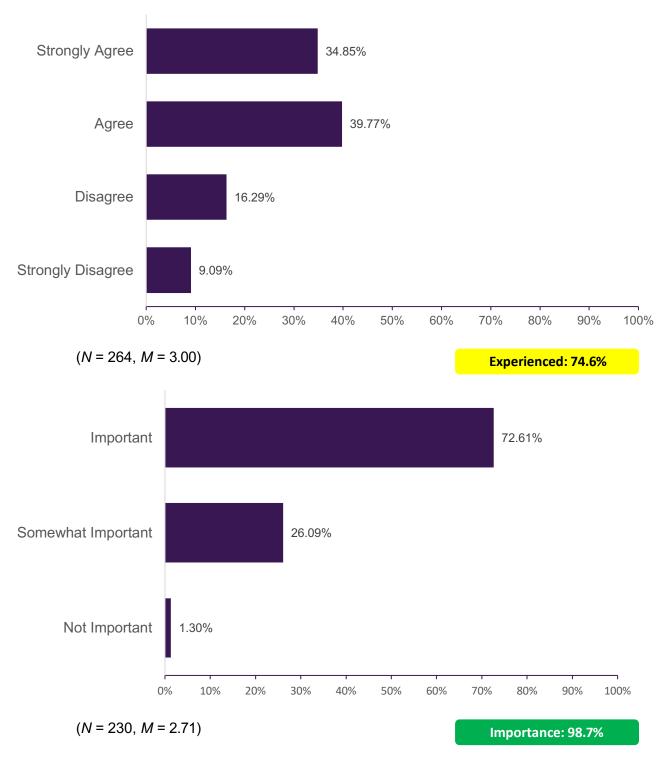


The activities in the course helped me reach the learning objectives.

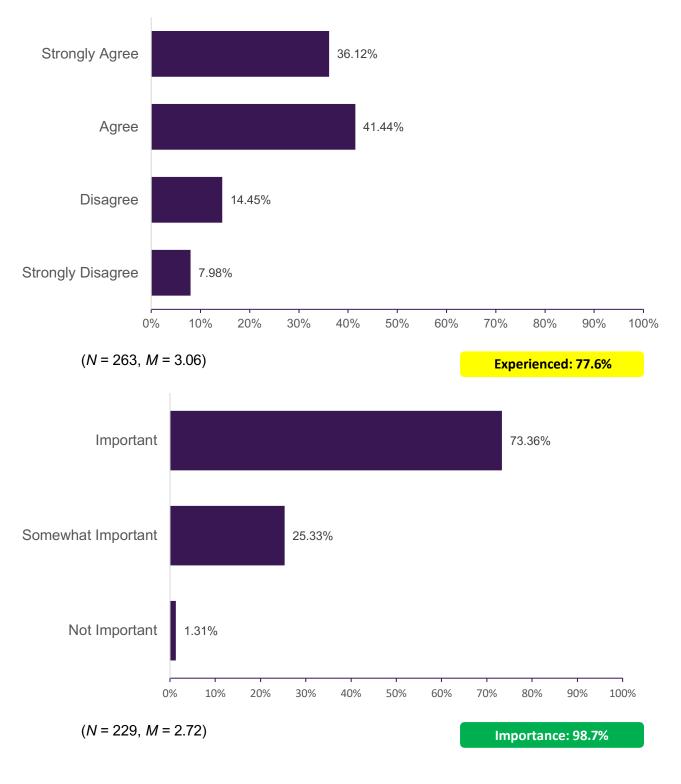


The course used realistic assignments that motivated me to do my best work.

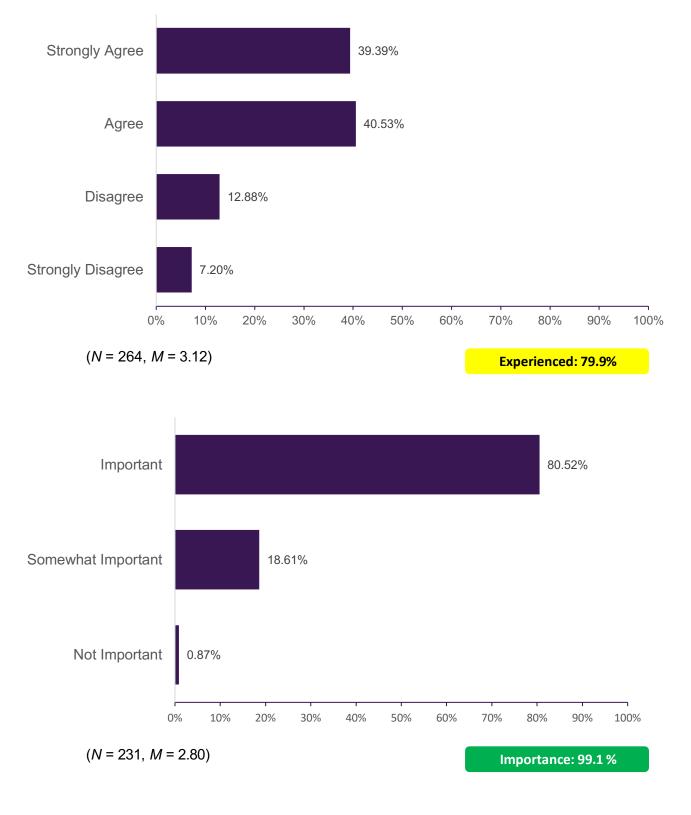
48



The activities encouraged me to engage with learning.

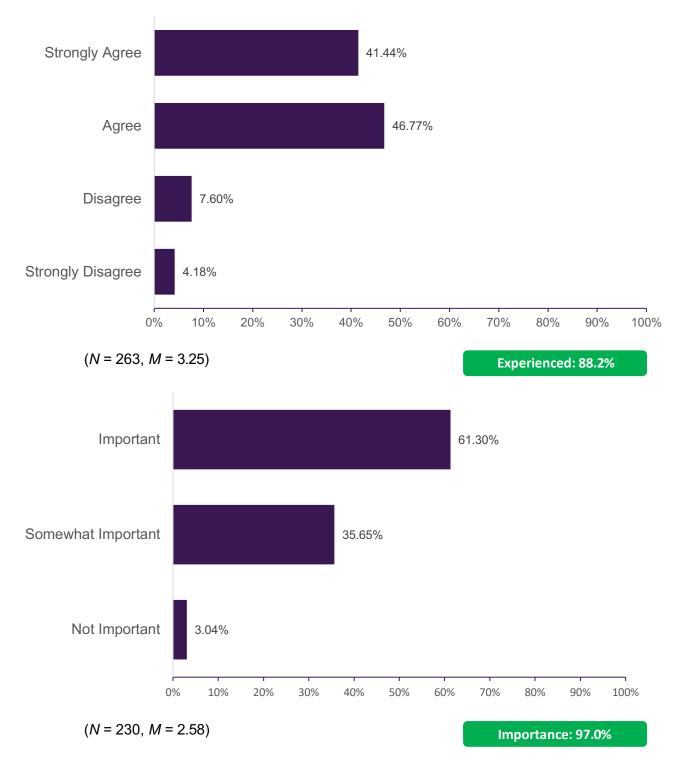


Feedback was delivered in a timely fashion and within the limits described in the course documentations.



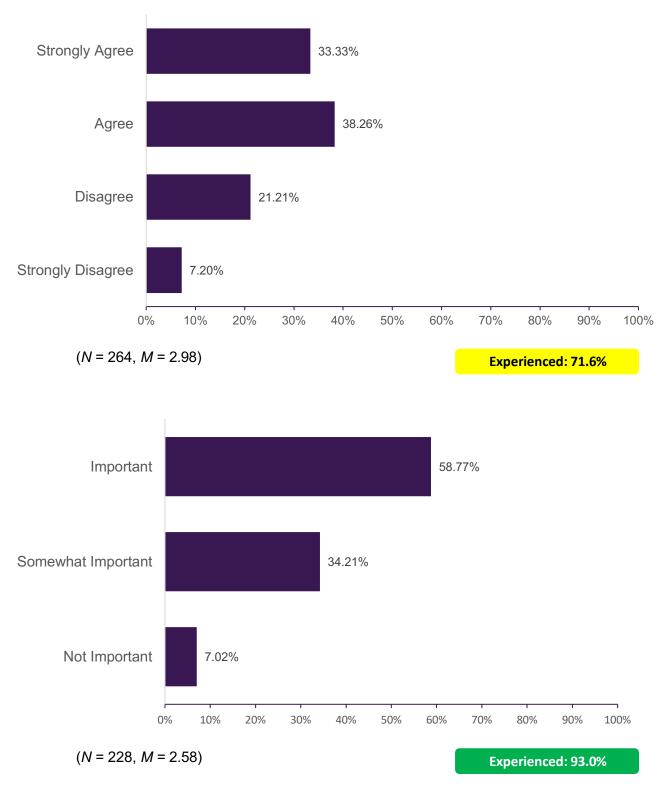
Feedback was informative, supportive, and articulate.

2022



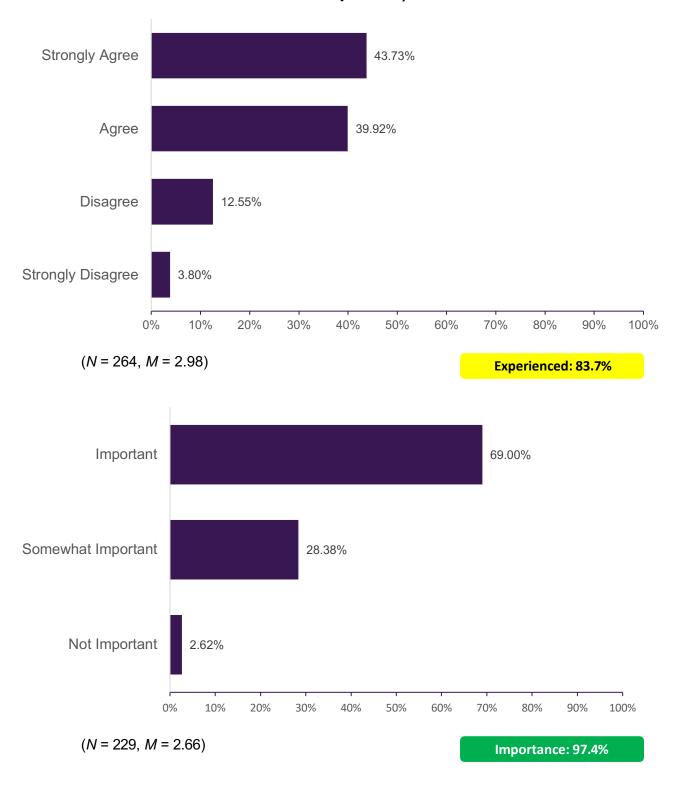
The course documentation described the expectations for my performance in the online classroom.

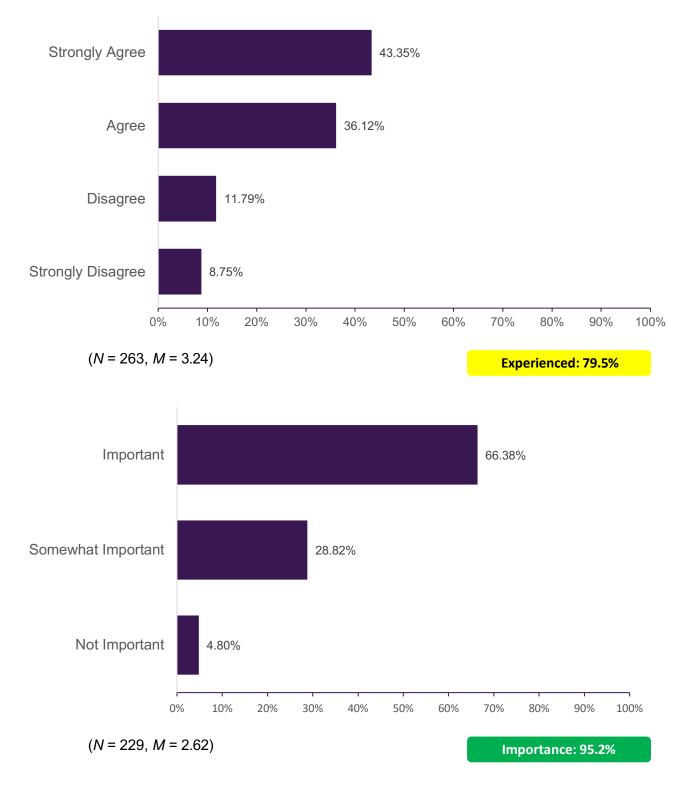




The instructor was enthusiastic about online teaching.

⁵⁴ The instructor was accessible to me outside of the course (both online and in person).





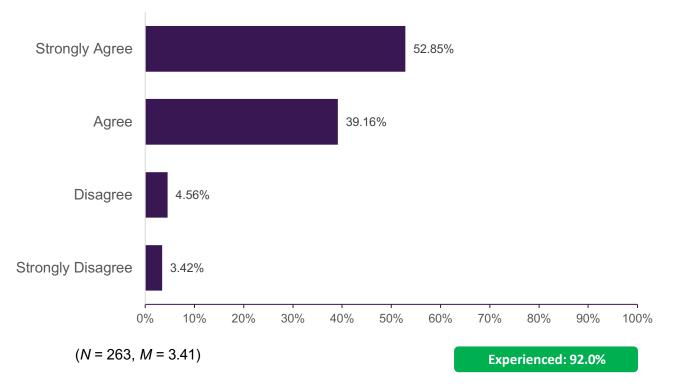
The amount of contact with the instructor was satisfactory (email, discussions, face to face meetings, etc.)



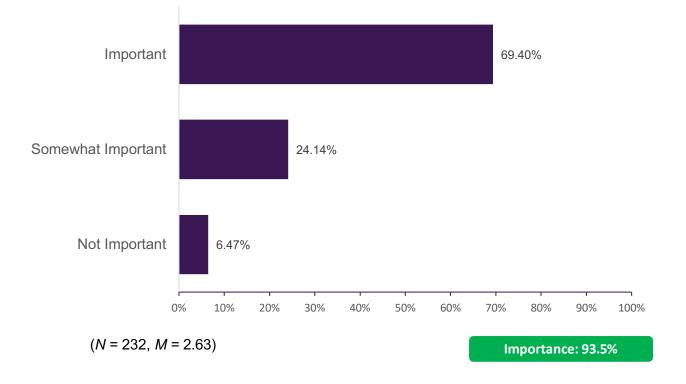
Instructor effectively communicated any changes/clarifications regarding course requirements.

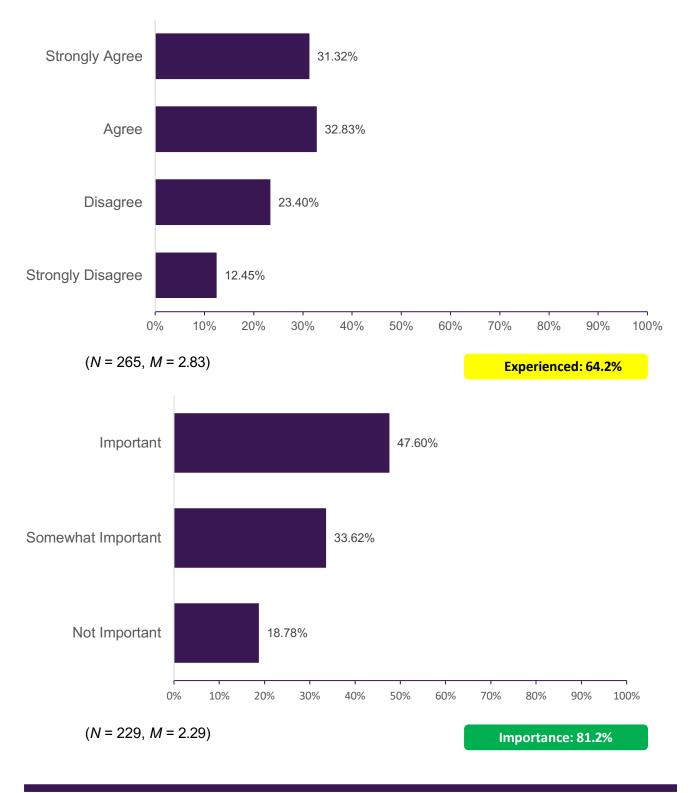
CESR

56

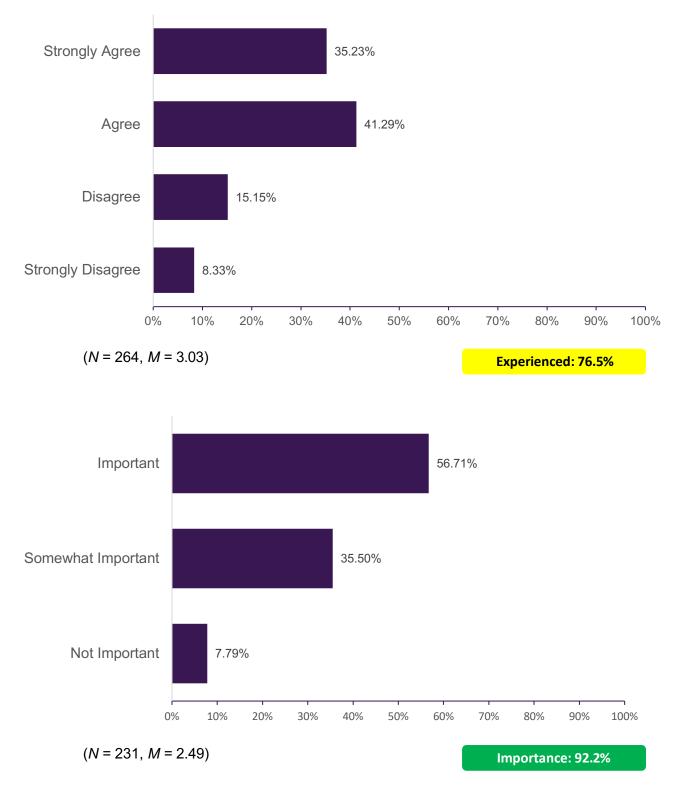


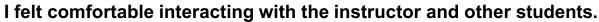
The course allowed me to take responsibility for my own learning.

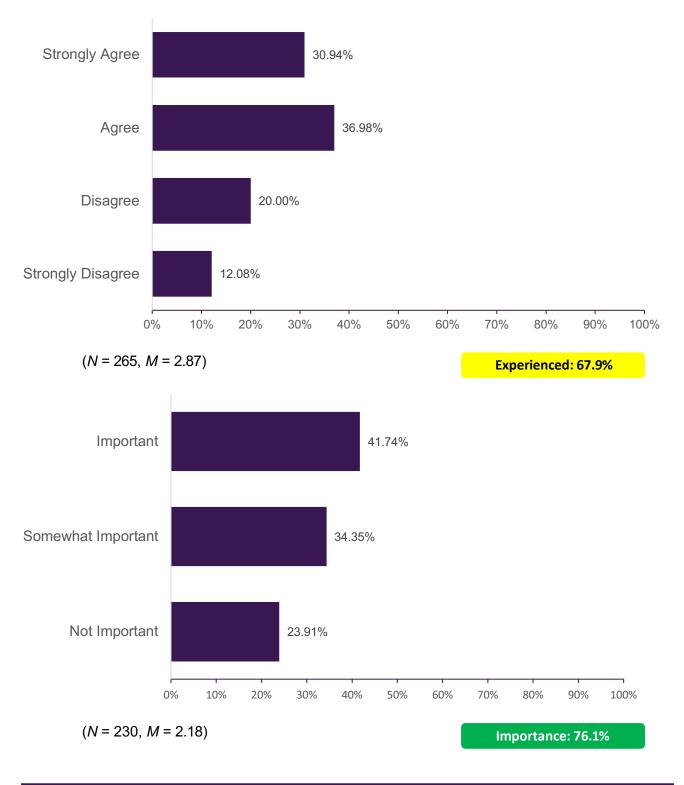




The course was structured so that I could discuss assignments with other students.





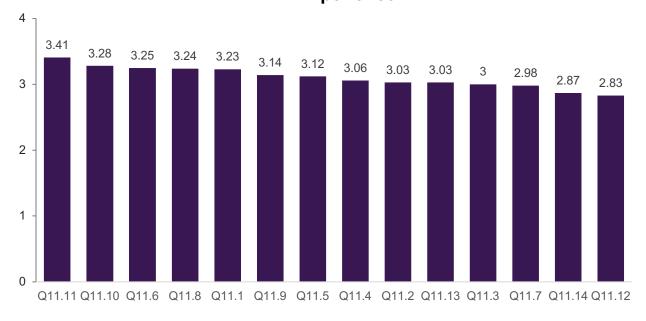


This course included activities and assignments that provided me with opportunities to interact with other students.

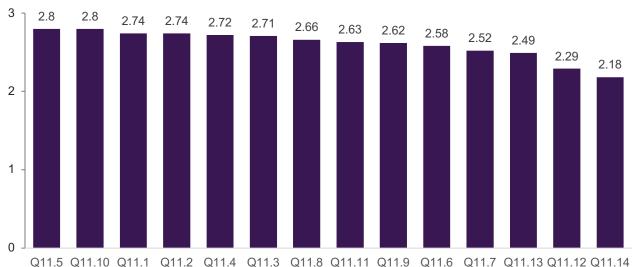
CESR

60

Course Activities, Instructor Presence and Communication, & Interaction with Others – Item Comparison



Experience



There was a small, positive relationship between student experience and importance (r = 0.29). The more participants agreed with the **course activities**, **instructor presence and communication**, **and interaction with others** items, the more they indicated that the items were important to their experience.



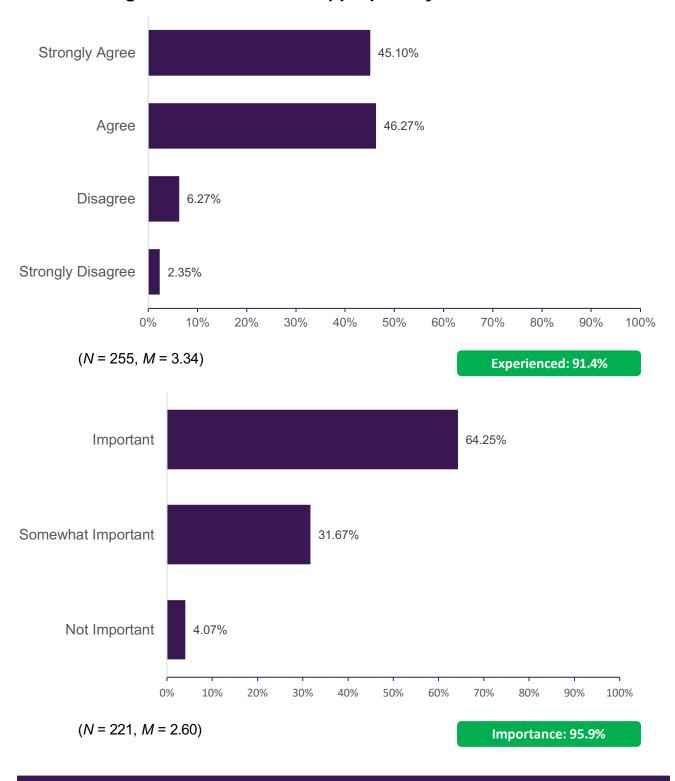
Importance

61

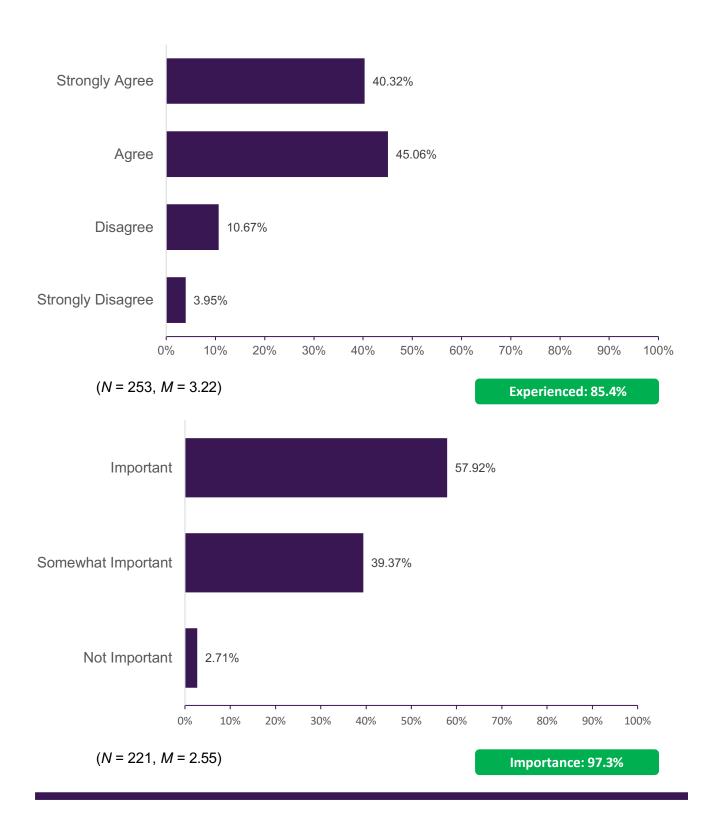
Course Activities, Instructor Presences and Communication, & Interaction with Others Items Ranked by Experience

Item	Experience d	Importance
Q11.11 The course allowed me to take responsibility for my own learning.	92.02%	93.53%
Q11.1 The activities in the course helped me reach the learning objectives.	88.30%	98.70%
Q11.6 The course documentation described the expectations for my performance in the online classroom.	88.21%	96.96%
Q11.10 Instructor effectively communicated any changes/clarifications regarding course requirements.	85.17%	97.82%
Q11.8 The instructor was accessible to me outside of the course (both online and in person).	83.65%	97.38%
Q11.5 Feedback was informative, supportive, and articulate.	79.92%	99.13%
Q11.9 The amount of contact with the instructor was satisfactory (email, discussions, face to face meetings, etc.)	79.47%	95.20%
Q11.4 Feedback was delivered in a timely fashion and within the limits described in the course documentations.	77.57%	98.69%
Q11.13 I felt comfortable interacting with the instructor and other students.	76.52%	92.21%
Q11.2 The course used realistic assignments that motivated me to do my best work.	75.00%	98.27%
Q11.3 The activities encouraged me to engage with learning.	74.62%	98.70%
Q11.7 The instructor was enthusiastic about online teaching.	71.59%	92.98%
Q11.14 This course included activities and assignments that provided me with opportunities to interact with other students.	67.92%	76.09%
Q11.12 The course was structured so that I could discuss assignments with other students.	64.15%	81.22%

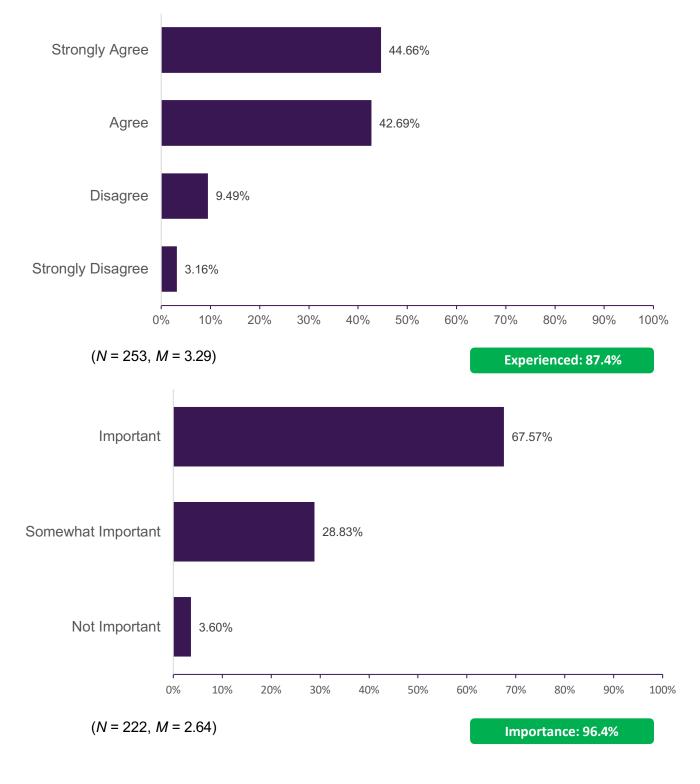
Technology Use in Course



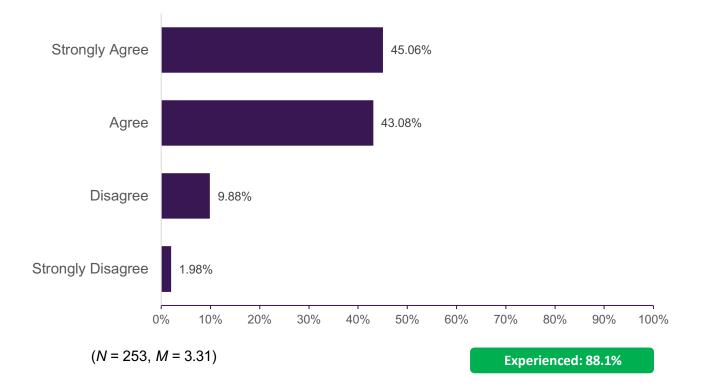
Technological tools were used appropriately for the course content.

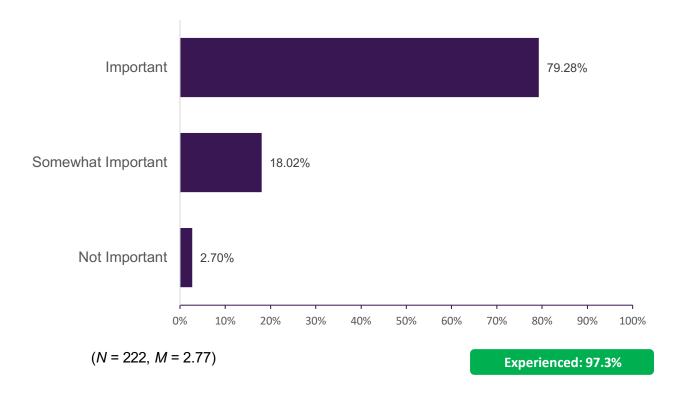


Technological tools helped me reach the learning objectives and enhanced the learning experience.



Technological requirements were clearly stated, with links or documentation to support and any necessary software.







The technologies and links in the course were up-to-date and functioned correctly.

0%

(N = 222, M = 2.77)

10%

20%

30%

40%

50%

60%

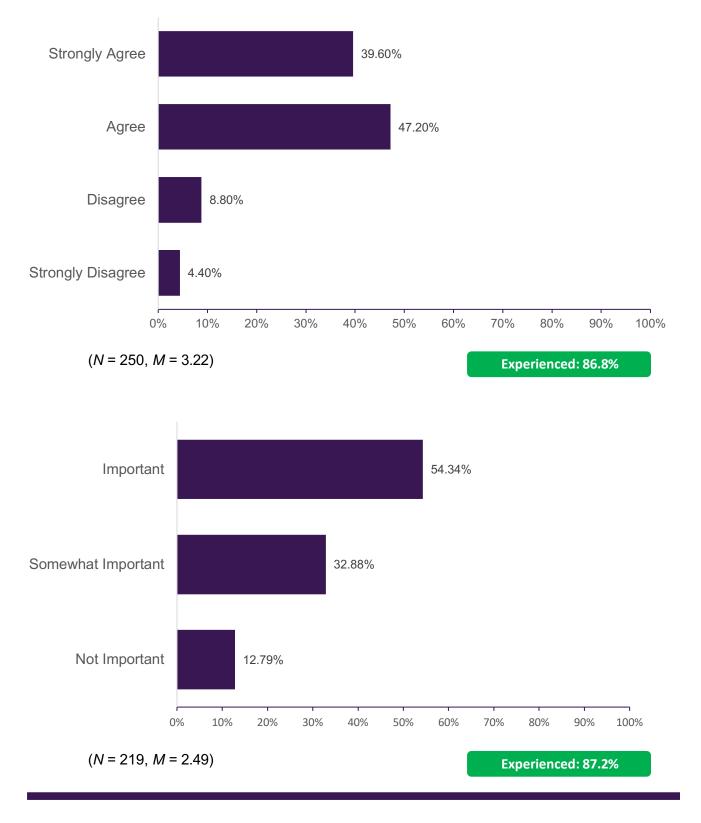
70%

100%

90%

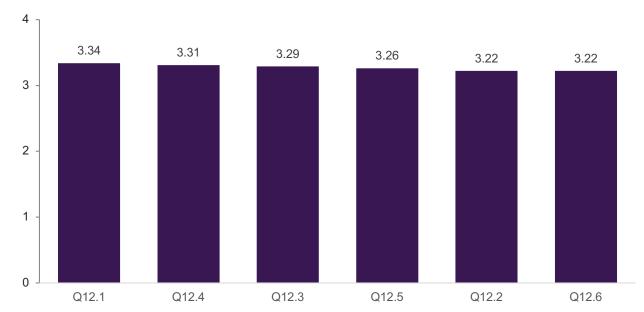
80%

Importance: 98.2%



The documentation provided information and/or links to the policy statements of technology tools in the course.

Technology Use in Course – Item Comparison



Experience

3 2.77 2.77 2.64 2.6 2.55 2.42 2 1 0 Q12.4 3 2 Q12.5 1 6

There was a moderate, positive relationship between student experience and importance (r = 0.42). The more participants agreed with the **technology use in course** items, the more they indicated that the items were important to their experience.

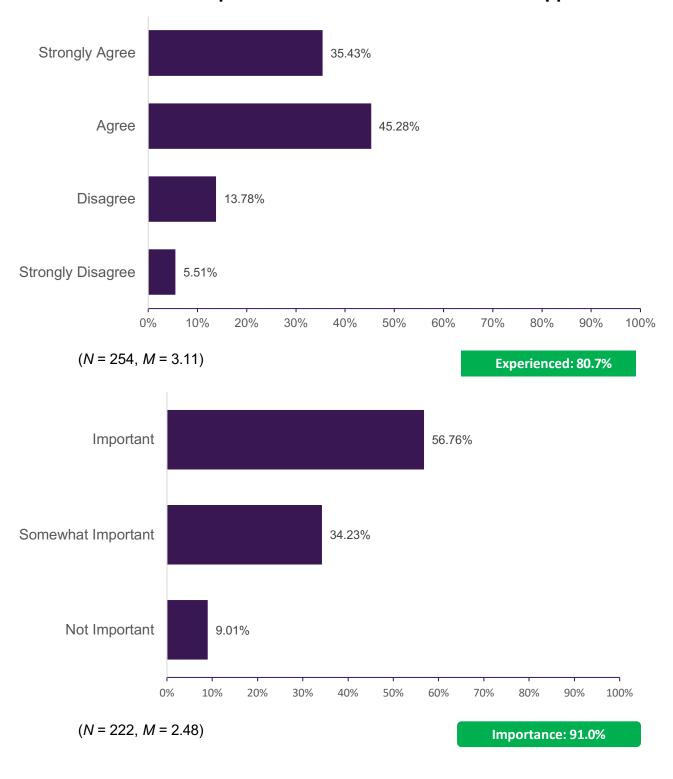


Importance

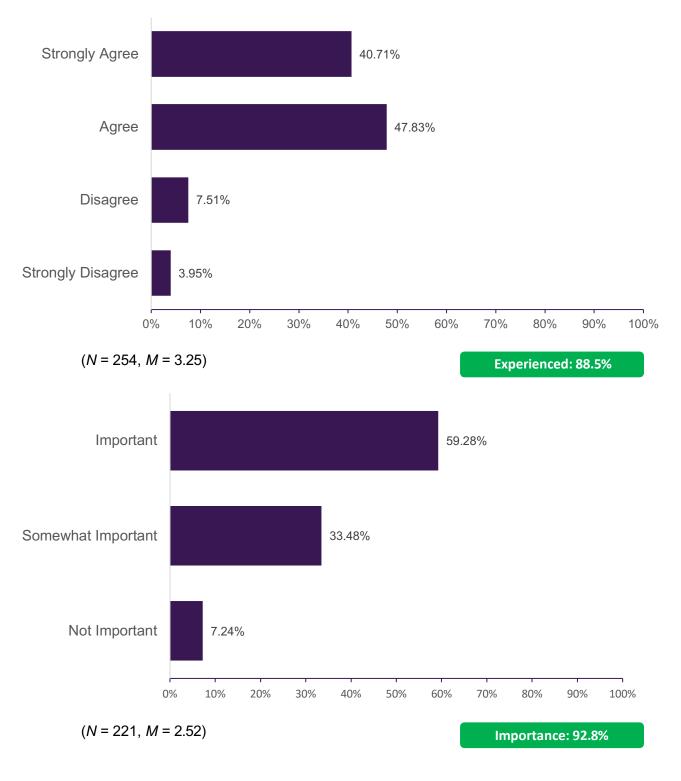
Technology Use in Course Items Ranked by Experience

Item	Experienced	Importance
12.1 Technological tools were used appropriately for the course content.	91.37%	95.93%
12.4 The technology tools for the course were easy to obtain.	88.14%	97.30%
12.5 The technologies and links in the course were up- to-date and functioned correctly.	87.40%	98.20%
12.3 Technological requirements were clearly stated, with links or documentation to support and any necessary software.	87.35%	96.40%
12.6 The documentation provided information and/or links to the policy statements of technology tools in the course.	86.80%	87.21%
12.2 Technological tools helped me reach the learning objectives and enhanced the learning experience.	85.38%	97.29%

Student Resources – Item Breakdown



The course provided information on technical support.



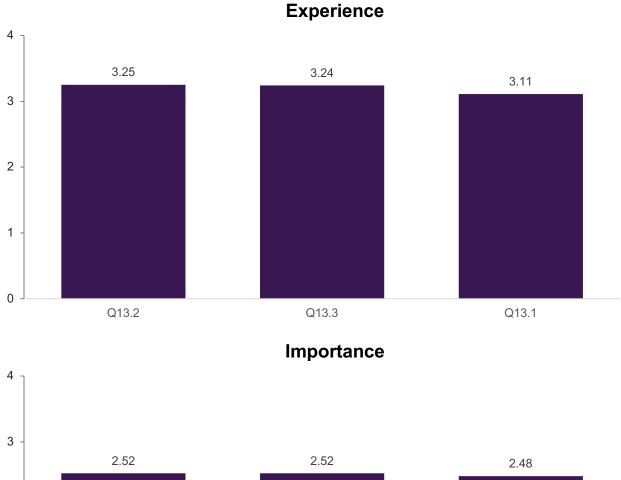
Accessibility policies and resources were available through the course information.

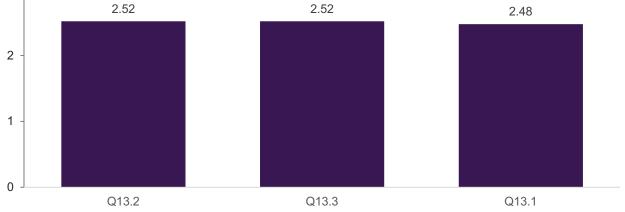




There was information in the course for academic and student services that could help me succeed.

Student Resources – Item Comparison





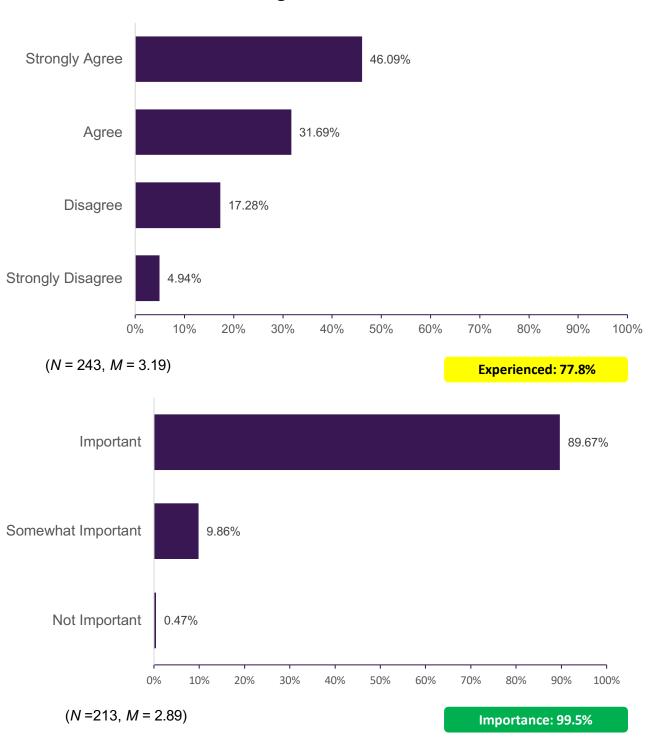
There was a moderate, positive relationship between student experience and importance (r = 0.33). The more participants agreed with the **student resource** items, the more they indicated that the items were important to their experience.



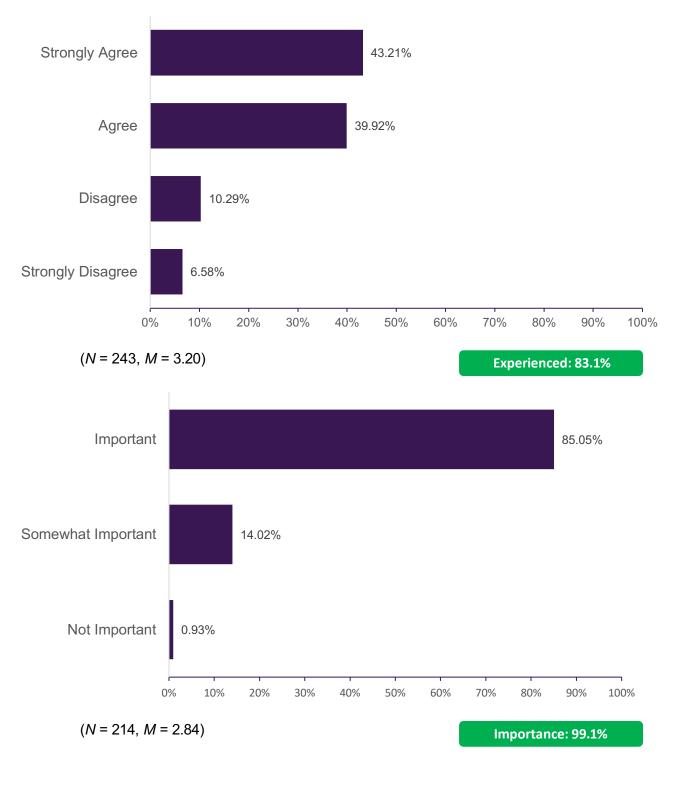
Student Resources Items Ranked by Experienced

Item	Experienced	Importance
Q13.2: Accessibility policies and resources were available through the course information.	88.54%	92.76%
Q13.3: There was information in the course for academic and student services that could help me succeed.	84.71%	92.38%
Q13.1: The course provided information on technical support.	80.71%	90.99%

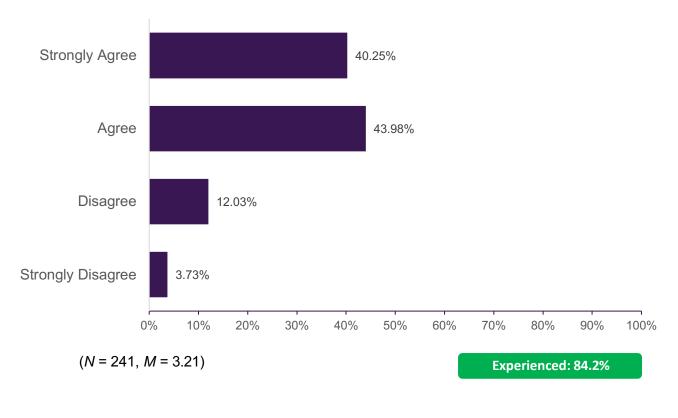
Course Organization – Item Breakdown



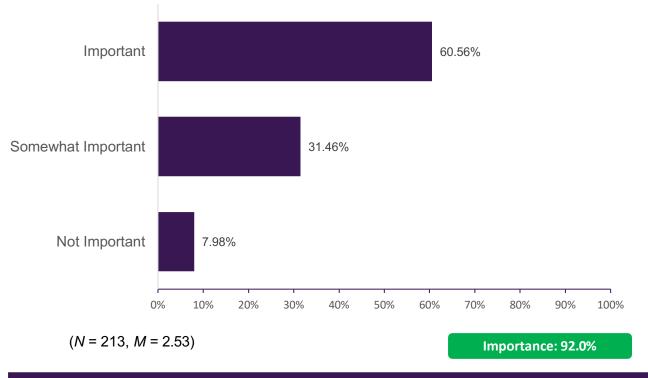
The course was easy to navigate. It was easy to find information throughout the course.

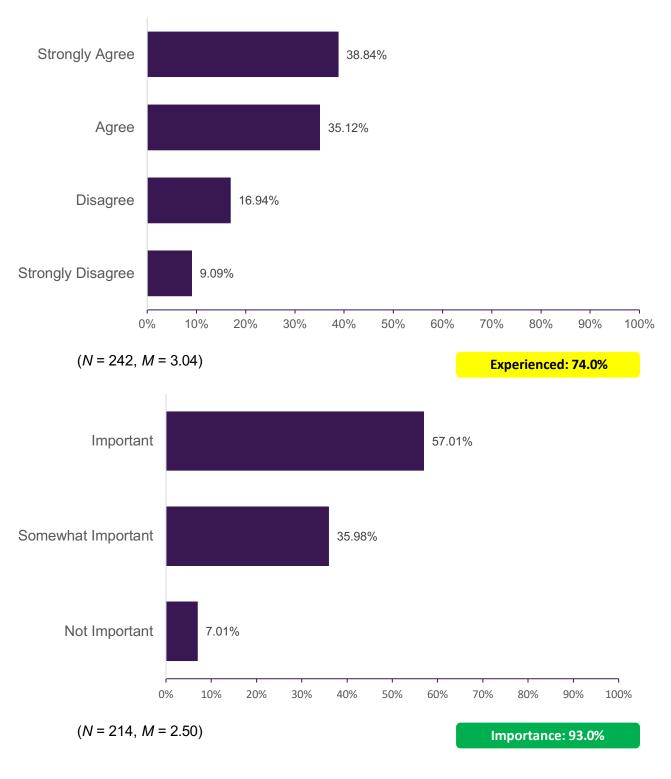


The sequence of online course activities was effectively organized and easy to follow.

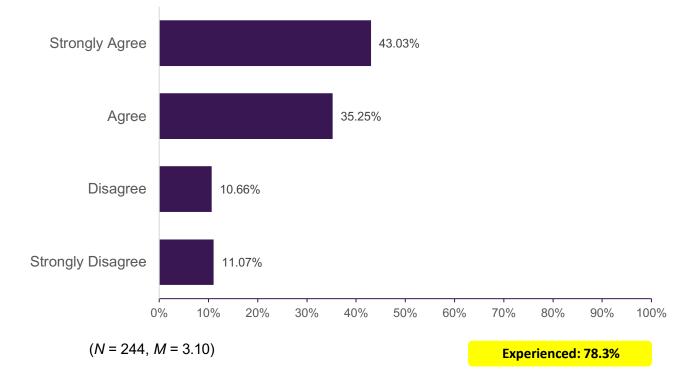


The course contained information about the accessibility of the technologies in the course.

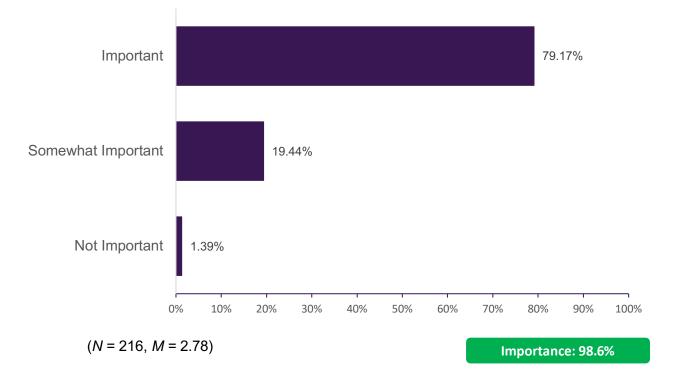




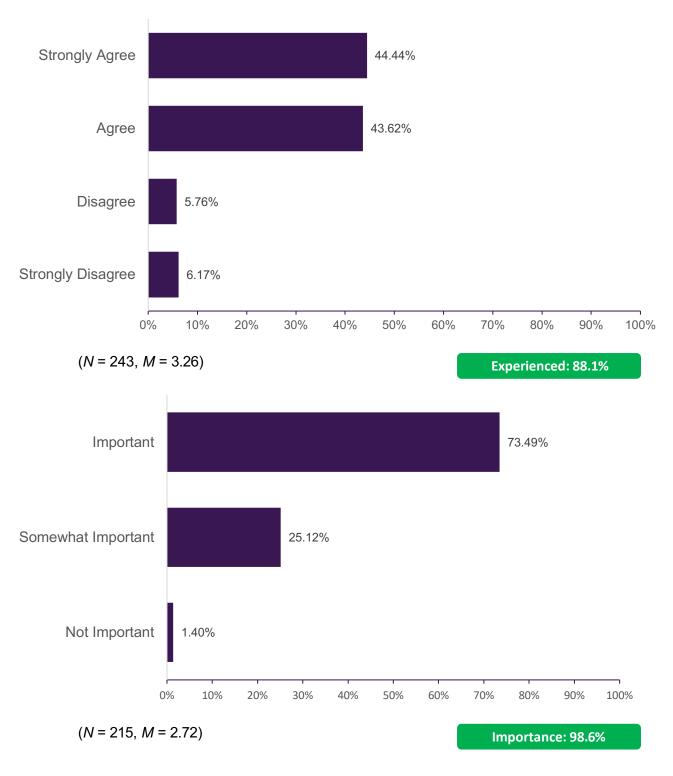
There were multiple formats for course materials (audio, written, video, etc.).



The course provided an efficient learning environment.



The course is organized in a logical manner that facilitates information retrieval.

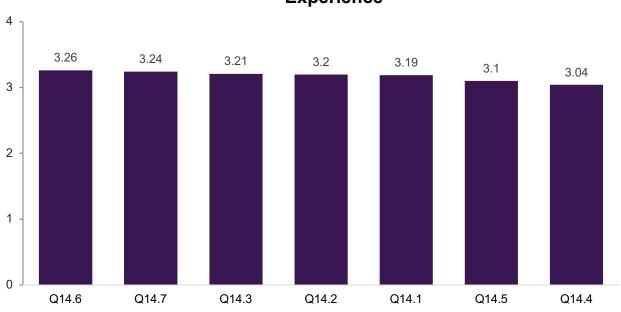


CEST CEST CONTRACT CONTRACT OF A CONTRACT OF



The multimedia in the course was easy to use.

Course Organization – Item Comparison



4 2.89 3 2.84 2.78 2.72 2.68 2.53 2.5 2 1 0 Q14.1 Q14.2 Q14.5 Q14.6 Q14.7 Q14.3 Q14.4

Importance

There was a moderate, positive relationship between student experience and importance (r = 0.36). The more participants agreed with the **course organization** items, the more they indicated that the items were important to their experience.



Experience

Course Organization Items Ranked by Experience

Item	Experienced	Importance
Q14.6 The course is organized in a logical manner that facilitates information retrieval.	88.07%	98.60%
Q14.7 The multimedia in the course was easy to use.	86.36%	97.20%
Q14.3 The course contained information about the accessibility of the technologies in the course.	84.23%	92.02%
Q14.2 The sequence of online course activities was effectively organized and easy to follow.	83.13%	99.07%
Q14.5 The course provided an efficient learning environment.	78.28%	98.61%
Q14.1 The course was easy to navigate. It was easy to find information throughout the course.	77.78%	99.53%
Q14.4 There were multiple formats for course materials (audio, written, video, etc.).	73.97%	92.99%

Results by Ethnicity

Course Introduction/Course Overview		Eth	Ethnicity	
Course introduction/	Course Overview	White	Students of color	Total
	Strongly Disagree	7	2	9
	Disagree	46	3	49
	Agree	110	33	143
	Strongly Agree	97	28	125
Q7.1 It was easy to	% Experienced	79.6%	92.4%	82.2%
get started and find information in the	Total	260	66	326
course.	Not Important	0	0	0
	Somewhat Important	18	7	25
	Important	214	41	255
	% Important	100.0%	100.0%	100.0%
	Total	232	48	280
	Strongly Disagree	9	0	9
	Disagree	27	6	33
	Agree	129	31	160
	Strongly Agree	94	29	123
Q7.2 I understood	% Favorable	86.1%	90.9%	87.1%
the purpose of	Total	259	66	325
course resources.	Not Important	7	0	7
	Somewhat Important	79	11	90
	Important	145	34	179
	% Important	96.97	100.0%	97.5%
	Total	231	45	276

		Ethr	nicity	Total
Course Introduction	Course Overview	White	Students of color	Total
	Strongly Disagree	8	1	9
	Disagree	20	2	22
	Agree	97	26	123
	Strongly Agree	132	36	168
Q7.3 I understood	% Favorable	89.1%	95.4%	90.4%
that behavior was expected of me in	Total	257	65	322
the online classroom.	Not Important	26	2	28
	Somewhat Important	77	7	84
	Important	127	36	163
	% Important	88.7%	95.5%	89.8%
	Total	230	45	275
	Strongly Disagree	7	0	7
	Disagree	28	1	29
	Agree	109	33	142
	Strongly Agree	115	32	147
Q7.4 The course introduction made	% Favorable	86.5%	98.5%	88.9%
me aware of the	Total	259	66	325
course and institutional policies.	Not Important	16	1	17
	Somewhat Important	95	10	105
	Important	119	35	154
	% Important	93.0%	97.8%	93.8%
	Total	230	46	276

Course Introduction/Course Overview		Ethnicity		Total
Course introduction	Course Overview	White	Students of color	TOLAT
	Strongly Disagree	16	0	16
	Disagree	28	4	32
	Agree	85	29	114
	Strongly Agree	130	33	163
Q7. 5 It was clear	% Favorable	83.0%	93.9%	85.2%
what technologies I needed to complete	Total	259	66	325
the course and how to obtain these.	Not Important	11	1	12
	Somewhat Important	46	8	54
	Important	174	37	211
	% Important	95.2%	97.8%	95.7%
	Total	231	46	277
	Strongly Disagree	7	0	7
	Disagree	46	6	52
	Agree	96	24	120
Q7.6 The course content clearly	Strongly Agree	110	36	146
stated the prerequisites and	% Favorable	79.5%	90.9%	81.9%
required	Total	259	66	325
competency that I would need in order	Not Important	15	2	17
to complete the course successfully	Somewhat Important	74	8	82
	Important	142	36	178
	% Important	93.5%	95.7%	93.9%
	Total	231	46	277

Course Introduction		Ethr	Ethnicity	
Course introduction	Course Overview	White	Students of color	Total
	Strongly Disagree	11	1	12
	Disagree	65	4	69
	Agree	106	32	138
	Strongly Agree	76	29	105
Q7.7 The content clearly stated the	% Favorable	70.5%	92.4%	75.0%
technical skills that I needed in order to	Total	258	66	324
complete the course	Not Important	23	0	23
successfully.	Somewhat Important	87	9	96
	Important	117	36	153
	% Important	89.9%	100%	91.5%
	Total	227	45	272
	Strongly Disagree	11	0	11
	Disagree	16	3	19
	Agree	87	26	113
	Strongly Agree	145	37	182
Q7.8 The instructor	% Favorable	89.6%	95.5%	90.8%
introduction was	Total	259	66	325
appropriate.	Not Important	25	2	27
	Somewhat Important	74	10	84
	Important	129	34	163
	% Important	89.0%	95.7%	90.2%
	Total	228	46	274

Course Introduction/Course Overview		Ethnicity		Total
		White	Students of color	TOLAT
	Strongly Disagree	49	5	54
	Disagree	47	13	60
	Agree	60	23	83
	Strongly Agree	103	25	128
Q7.9 The content clearly stated the	% Favorable	62.9%	72.7%	64.9%
technical skills that I needed in order to	Total	259	66	325
complete the course	Not Important	83	8	91
successfully	Somewhat Important	76	13	89
	Important	72	25	97
	% Important	64.1%	82.6%	67.1%
	Total	231	46	277

Course Learnin	a Obiostivos	Eth	nicity	Total
Course Learnin	g Objectives	White	Students of color	TOLAI
	Strongly Disagree	6	0	6
	Disagree	24	3	27
	Agree	101	27	128
	Strongly Agree	117	34	151
Q8.1 The learning objectives for the	% Favorable	87.9%	95.3%	89.5%
course clearly stated what I would do	Total	248	64	312
during	Not Important	8	0	8
the course.	Somewhat Important	45	10	55
	Important	174	37	211
	% Important	96.5%	100.0%	97.1%
	Total	227	47	274
	Strongly Disagree	8	0	8
	Disagree	43	4	47
	Agree	99	31	130
	Strongly Agree	98	28	126
Q8. 2 I understood what the learning	% Favorable	79.4%	93.7%	82.3%
objectives/purpose was for all of the	Total	248	63	311
modules in the	Not Important	9	0	9
course.	Somewhat Important	57	11	68
	Important	162	36	198
	% Important	96.1%	100.0%	96.7%
	Total	228	47	275

Course Learnin	a Obiectives	Ethr	nicity	Tatal
Course Learnin	g Objectives	White	Students of color	Total
	Strongly Disagree	14	0	14
	Disagree	40	2	42
	Agree	112	35	147
Q8.3 The activities	Strongly Agree	82	27	109
during the	% Favorable	78.2%	96.9%	82.1%
course helped me reach the	Total	248	64	312
learning objectives for each module and	Not Important	2	0	2
for the course.	Somewhat Important	53	13	66
	Important	171	34	205
	% Important	99.1%	100.0%	99.3%
	Total	226	47	273
	Strongly Disagree	10	0	10
	Disagree	18	1	19
	Agree	110	27	137
	Strongly Agree	109	36	145
Q8.4 The objectives	% Favorable	88.7%	98.4%	90.7%
of the course were appropriate for my	Total	247	64	311
level.	Not Important	2	3	5
	Somewhat Important	50	4	54
	Important	175	40	215
	% Important	99.2%	93.7%	98.2%
	Total	227	47	274

Accessment Food	haak 8 Crading	Ethi	nicity	Total
Assessment, Feed	back, & Grading	White	Students of color	Total
	Strongly Disagree	11	0	11
	Disagree	35	2	37
	Agree	112	28	140
	Strongly Agree	74	29	103
Q9.1 The assessments during the course	% Favorable	80.2%	96.6%	83.5%
accurately measured my progress towards	Total	232	59	291
the learning objectives.	Not Important	4	3	7
	Somewhat Important	44	15	59
	Important	168	28	196
	% Important	98.1%	93.5%	97.3%
	Total	216	46	262
	Strongly Disagree	10	0	10
	Disagree	27	2	29
	Agree	78	20	98
	Strongly Agree	118	36	154
Q9.2 The course	% Favorable	84.1%	96.6%	86.6%
grading policy was clear and easy to	Total	233	58	291
access.	Not Important	3	0	3
	Somewhat Important	26	11	37
	Important	188	35	223
	% Important	98.6%	100%	98.9%
	Total	217	46	263

According to East	haak ⁸ Crading	Eth	nicity	Total
Assessment, Feed	back, & Grading	White	Students of color	Total
	Strongly Disagree	9	1	10
	Disagree	30	2	32
	Agree	93	18	111
	Strongly Agree	101	36	137
Q9.3 The course documentation	% Favorable	83.3%	94.7%	85.5%
clearly described course	Total	233	57	290
grading/feedback	Not Important	1	2	3
system.	Somewhat Important	36	8	44
	Important	179	36	215
	% Important	99.5%	95.7%	98.8%
	Total	216	46	262
	Strongly Disagree	19	0	19
	Disagree	41	7	48
	Agree	92	20	112
Q9.4 There were a	Strongly Agree	81	32	113
variety of types of assessment	% Favorable	74.2%	88.1%	77.1%
throughout the	Total	233	59	292
course (papers, exams, projects,	Not Important	19	0	19
etc.)	Somewhat Important	91	10	101
	Important	107	36	143
	% Important	91.2%	100.0%	92.8%
	Total	217	46	263

Assessment, Feedback, & Grading		Ethnicity		Total
		White	Students of color	TOLAT
	Strongly Disagree	29	2	31
	Disagree	39	4	43
	Agree	87	19	106
	Strongly Agree	77	34	111
Q9.5 Up-to-date	% Favorable	70.7%	89.83%	74.6%
grades were available throughout	Total	232	59	291
the course.	Not Important	4	1	5
	Somewhat Important	35	6	41
	Important	178	39	217
	% Important	98.2%	97.8%	98.1%
	Total	217	46	263

Course Resources & Materials		Ethi	nicity	Total
Course Resource		White	Students of color	Total
	Strongly Disagree	10	0	10
	Disagree	28	4	32
	Agree	102	23	125
Q10.1 The resources	Strongly Agree	74	29	103
in the course provided	% Favorable	82.2%	92.9%	84.4%
appropriate	Total	214	56	270
information to help me reach the	Not Important	4	1	5
learning objectives.	Somewhat Important	43	8	51
	Important	150	36	186
	% Important	97.9%	97.8%	97.9%
	Total	197	45	242
	Strongly Disagree	6	1	7
	Disagree	11	1	12
	Agree	97	24	121
	Strongly Agree	99	31	130
Q10.2 The materials were relevant to the	% Favorable	92.0%	96.5%	93.0%
activities and	Total	213	57	270
assessments in the course.	Not Important	0	2	2
	Somewhat Important	34	6	40
	Important	162	34	196
	% Important	100%	95.2%	99.2%
	Total	196	42	238

Course Resources & Materials		Ethr	nicity	- ()
Course Resource	s & materials	White	Students of color	Total
	Strongly Disagree	14	2	16
	Disagree	35	3	38
	Agree	83	22	105
	Strongly Agree	80	30	110
Q10.3The instructor cited all of the	% Favorable	76.9%	91.2%	79.9%
resources that they	Total	212	57	269
included in the course.	Not Important	46	3	49
	Somewhat Important	66	11	77
	Important	83	31	114
	% Important	76.4%	93.3%	79.6%
	Total	195	45	240
	Strongly Disagree	7	1	8
	Disagree	26	2	28
	Agree	91	23	114
	Strongly Agree	89	31	120
Q10.4 The materials	% Favorable	84.5%	94.7%	86.7%
in the course were up-to-date and relevant.	Total	213	57	270
	Not Important	4	0	4
	Somewhat Important	46	9	55
	Important	144	35	179
	% Important	97.9%	100.0%	98.3%
	Total	194	44	238

Course Resources & Materials		Ethi	nicity	Tatal
Course Resource	s & Materials	White	Students of color	Total
	Strongly Disagree	15	0	15
	Disagree	22	1	23
	Agree	93	22	115
	Strongly Agree	84	33	117
Q10.5 There were a	% Favorable	82.7%	98.2%	85.9%
variety of materials and resources	Total	214	56	270
included in the course.	Not Important	11	6	17
	Somewhat Important	77	6	83
	Important	108	32	140
	% Important	94.4%	86.4%	92.9%
	Total	196	44	240
	Strongly Disagree	22	3	25
	Disagree	45	5	50
	Agree	72	23	95
	Strongly Agree	75	26	101
Q10.6 It was easy to tell the difference	% Favorable	68.7%	86.0%	72.3%
between required	Total	214	57	271
and optional information.	Not Important	7	1	8
	Somewhat Important	62	10	72
	Important	127	33	160
	% Important	96.4%	97.7%	96.7%
	Total	196	44	240

Course Activities, Instructor Presence and Communication, & Interaction with		Eth	nnicity	Total
Others		White	Students of color	Totai
	Strongly Disagree	9	0	9
	Disagree	17	4	21
	Agree	98	27	125
	Strongly Agree	72	27	99
Q11. 1 The activities	% Favorable	86.7%	93.1%	88.2%
in the course helped me reach the	Total	196	58	254
learning objectives.	Not Important	2	0	2
	Somewhat Important	40	13	53
	Important	135	32	167
	% Important	98.9%	100.0%	99.1%
	Total	177	45	222
	Strongly Disagree	17	1	18
	Disagree	40	3	43
	Agree	71	28	99
	Strongly Agree	68	25	93
Q11.2 The course used realistic	% Favorable	70.9%	93.0%	75.9%
assignments that	Total	196	57	253
motivated me to do my best work.	Not Important	1	2	3
	Somewhat Important	40	10	50
	Important	136	33	169
	% Important	99.4%	95.6%	98.6%
	Total	177	45	222

Course Activities, Instructor Presence and Communication, & Interaction with		Et	Ethnicity	
Other		White	Students of color	Total
	Strongly Disagree	19	2	21
	Disagree	37	3	40
	Agree	78	24	102
	Strongly Agree	62	28	90
Q11.3 The activities	% Favorable	71.4%	91.2%	75.9%
encouraged me to	Total	196	57	253
engage with learning.	Not Important	2	1	3
	Somewhat Important	50	9	59
	Important	124	35	159
	% Important	98.7%	97.8%	98.6%
	Total	176	45	221
	Strongly Disagree	17	3	20
	Disagree	35	1	36
	Agree	77	26	103
Q11.4 Feedback was	Strongly Agree	65	28	93
delivered in a timely fashion and	% Favorable	73.2%	93.1%	77.8%
within the	Total	194	58	252
limits described in the course	Not Important	1	1	2
documentations.	Somewhat Important	45	11	56
	Important	131	32	163
	% Important	99.4%	97.7%	99.1%
	Total	177	44	221

Course Activities, Instructor Presence and Communication, & Interaction with		E	thnicity	Total
Othe		White	Students of color	Total
	Strongly Disagree	17	2	19
	Disagree	29	2	31
	Agree	79	24	103
	Strongly Agree	71	29	100
Q11.5 Feedback was	% Favorable	76.5%	93.0%	80.2%
informative, supportive, and	Total	196	57	253
articulate.	Not Important	0	1	1
	Somewhat Important	32	10	42
	Important	145	34	179
	% Important	100.0%	97.8%	99.5%
	Total	177	45	222
	Strongly Disagree	9	2	11
	Disagree	17	0	17
	Agree	87	29	116
Q11.6 The course	Strongly Agree	82	26	108
documentation described the	% Favorable	86.7%	96.5%	88.9%
expectations for my	Total	195	57	252
performance in the online classroom.	Not Important	5	1	6
	Somewhat Important	65	14	79
	Important	106	30	136
	% Important	97.2%	97.8%	97.2%
	Total	176	45	221

Course Activities, Instruc	tor Presence and	Eth	nnicity	
-	Communication, & Interaction with Others		Students of color	Total
	Strongly Disagree	17	0	17
	Disagree	48	5	53
	Agree	71	28	99
	Strongly Agree	59	25	84
	% Favorable	66.7%	91.4%	72.3%
Q11.7 The instructor was enthusiastic about	Total	195	58	253
online teaching.	Not Important	15	1	16
	Somewhat Important	63	13	76
	Important	98	30	128
	% Important	91.5%	97.7%	92.7%
	Total	176	44	220
	Strongly Disagree	9	1	10
	Disagree	28	4	32
	Agree	78	21	99
	Strongly Agree	79	32	111
Q11.8 The instructor	% Favorable	80.9%	91.3%	83.3%
was accessible to me outside of the course	Total	194	58	252
(both online and in person).	Not Important	4	1	5
	Somewhat Important	53	10	63
	Important	118	34	152
	% Important	97.7%	97.8%	97.7%
	Total	175	45	220

Course Activities, Instructor Presence and Communication, & Interaction with		E	Ethnicity	Total
Others		White	Students of color	Total
	Strongly Disagree	19	1	20
	Disagree	28	3	31
	Agree	68	22	90
	Strongly Agree	79	32	111
Q11.9 The amount of contact with the	% Favorable	75.8%	93.1%	79.8%
instructor was satisfactory (email,	Total	194	58	252
discussions, face to	Not Important	9	1	10
face meetings, etc.)	Somewhat Important	53	11	64
	Important	115	31	146
	% Important	94.9%	97.7%	95.5%
	Total	177	43	220
	Strongly Disagree	14	1	15
	Disagree	17	5	22
	Agree	69	21	90
	Strongly Agree	94	31	125
Q11.10 Instructor effectively	% Favorable	84.0%	89.7%	85.3%
communicated any changes/clarifications	Total	194	58	252
regarding course	Not Important	2	1	3
requirements.	Somewhat Important	28	6	34
	Important	145	38	183
	% Important	98.9%	97.8%	98.6%
	Total	175	45	220

Course Activities, Instructor Presence and Communication, & Interaction with		E	Ethnicity	
Other		White	Students of color	Total
	Strongly Disagree	7	1	8
	Disagree	8	2	10
	Agree	73	24	97
	Strongly Agree	107	31	138
Q11.11 The course	% Favorable	92.3%	94.8%	92.9%
allowed me to take responsibility for	Total	195	58	253
my own learning	Not Important	11	3	14
	Somewhat Important	43	10	53
	Important	124	32	156
	% Important	93.8%	93.3%	93.7%
	Total	178	45	223
	Strongly Disagree	30	2	32
	Disagree	49	9	58
	Agree	55	28	83
	Strongly Agree	62	19	81
Q11.12The course was structured so	% Favorable	59.7%	81.0%	64.6%
that I could discuss	Total	196	58	254
assignments with other students.	Not Important	39	3	42
	Somewhat Important	57	16	73
	Important	79	26	105
	% Important	77.7%	93.3%	80.9%
	Total	175	45	220

Course Activities, Instructor Presence and Communication, & Interaction with		E	Ethnicity	
others		White	Students of color	Total
	Strongly Disagree	21	0	21
	Disagree	31	7	38
	Agree	75	29	104
	Strongly Agree	67	22	89
Q11.13 I felt	% Favorable	73.2%	87.9%	76.6%
comfortable interacting with the	Total	194	58	252
instructor and other students.	Not Important	17	0	17
	Somewhat Important	61	17	78
	Important	99	28	127
	% Important	90.4%	100.0%	92.3%
	Total	177	45	222
	Strongly Disagree	30	1	31
	Disagree	43	7	50
	Agree	66	28	94
Q11.14 This course	Strongly Agree	57	22	79
included activities and assignments that	% Favorable	62.8%	86.2%	68.1%
provided me	Total	196	58	254
with opportunities to interact with other students.	Not Important	49	4	53
	Somewhat Important	59	17	76
	Important	68	24	92
	% Important	72.2%	91.1%	76.0%
	Total	176	45	221



Technology Use in Course		Ethnicity		Total
rechnology US	e in Course	White	Students of color	TOLAT
	Strongly Disagree	5	0	5
	Disagree	10	4	14
	Agree	91	20	111
	Strongly Agree	81	32	113
12.1 Technological	% Favorable	92.0%	92.9%	92.2%
tools were used appropriately for the	Total	187	56	243
course content.	Not Important	7	2	9
	Somewhat Important	61	7	68
	Important	101	34	135
	% Important	95.9%	95.3%	95.8%
	Total	169	43	212
	Strongly Disagree	7	1	8
	Disagree	22	2	24
	Agree	89	21	110
<i></i>	Strongly Agree	67	32	99
12.2 Technological tools helped me	% Favorable	84.3%	94.6%	86.7%
reach the learning objectives and	Total	185	56	241
enhanced the learning experience.	Not Important	4	2	6
	Somewhat Important	71	11	82
	Important	93	30	123
	% Important	97.6%	95.3%	97.2%
	Total	168	43	211

Technology Use in Course		E	thnicity	Total
Technology US	e in Course	White	Students of color	Total
	Strongly Disagree	8	0	8
	Disagree	16	5	21
	Agree	82	20	102
12.3 Technological	Strongly Agree	79	31	110
requirements were	% Favorable	87.0%	91.1%	88.0%
clearly stated, with links or	Total	185	56	241
documentation to support and any	Not Important	4	2	6
necessary software.	Somewhat Important	52	8	60
	Important	113	33	146
	% Important	97.6%	95.3%	97.2%
	Total	169	43	212
	Strongly Disagree	4	0	4
	Disagree	18	5	23
	Agree	78	25	103
	Strongly Agree	85	26	111
12.4 The technology	% Favorable	88.1%	91.1%	88.8%
tools for the course	Total	185	56	241
were easy to obtain.	Not Important	3	2	5
	Somewhat Important	33	5	38
	Important	133	36	169
	% Important	98.2%	95.3%	97.6%
	Total	169	43	212



Technology Use in Course		Ethnicity		Tatal
		White	Students of color	Total
	Strongly Disagree	9	1	10
	Disagree	17	2	19
	Agree	81	25	106
	Strongly Agree	79	28	107
12.5 The technologies and	% Favorable	86.0%	94.6%	88.0%
links in the course	Total	186	56	242
were up to-date and functioned correctly.	Not Important	2	1	3
	Somewhat Important	30	10	40
	Important	137	32	169
	% Important	98.8%	97.7%	98.6%
	Total	169	43	212
	Strongly Disagree	9	1	10
	Disagree	20	1	21
	Agree	86	25	111
12.6 The	Strongly Agree	68	29	97
documentation provided information	% Favorable	84.2%	96.4%	87.0%
and/or links to the policy statements of technology tools in the course.	Total	183	56	239
	Not Important	23	2	25
	Somewhat Important	62	9	71
	Important	82	32	114
	% Important	86.2%	95.3%	88.1%
	Total	167	43	210

Student Resources		Ethnicity		Total
		White	Students of color	lotai
	Strongly Disagree	12	1	13
	Disagree	30	1	31
	Agree	84	25	109
	Strongly Agree	60	29	89
13.1 The course	% Favorable	77.4%	96.4%	81.8%
provided information	Total	186	56	242
on technical support.	Not Important	19	0	19
	Somewhat Important	64	11	75
	Important	87	31	118
	% Important	88.8%	100.0%	91.0%
	Total	170	42	212
	Strongly Disagree	7	2	9
	Disagree	17	0	17
	Agree	85	28	113
	Strongly Agree	76	26	102
13.2 Accessibility policies and	% Favorable	87.0%	96.4%	89.2%
resources were available through the course information.	Total	185	56	241
	Not Important	15	0	15
	Somewhat Important	60	11	71
	Important	93	31	124
	% Important	91.0%	100.0%	92.9%
	Total	168	42	210

Student Resources		Ethnicity		Total
		White	Students of color	TOtal
	Strongly Disagree	6	0	6
	Disagree	27	2	29
	Agree	79	23	102
13.3 There was information in the course for academic and student services that could help me succeed.	Strongly Agree	75	31	106
	% Favorable	82.4%	96.4%	85.6%
	Total	187	56	243
	Not Important	15	1	16
	Somewhat Important	60	11	71
	Important	95	31	126
	% Important	91.2%	97.7%	92.5%
	Total	170	43	213

Course Organization		Ethnicity		Total
		White	Students of color	Total
	Strongly Disagree	9	1	10
	Disagree	31	6	37
	Agree	55	18	73
	Strongly Agree	83	28	111
14.1 The course was easy to navigate. It	% Favorable	77.5%	86.8%	<mark>79.7%</mark>
was easy to find information	Total	178	53	231
throughout the	Not Important	0	0	0
course.	Somewhat Important	16	5	21
	Important	147	35	182
	% Important	100.0%	100.0%	100.0%
	Total	163	40	203
	Strongly Disagree	14	2	16
	Disagree	18	3	21
	Agree	70	20	90
	Strongly Agree	76	28	104
14.2 The sequence of online course activities was effectively organized and easy to follow.	% Favorable	82.0%	90.6%	84.0%
	Total	178	53	231
	Not Important	1	0	1
	Somewhat Important	21	7	28
	Important	141	34	175
	% Important	99.4%	100.%	99.5%
	Total	163	41	204

Course Organization		Ethnicity		Total
		White	Students of color	Total
	Strongly Disagree	7	1	8
	Disagree	24	2	26
	Agree	74	25	99
	Strongly Agree	71	25	96
14.3 The course contained	% Favorable	82.4%	94.3%	85.2%
information about the accessibility of the	Total	176	53	229
technologies in the	Not Important	15	1	16
course.	Somewhat Important	58	7	65
	Important	89	33	122
	% Important	90.7%	97.6%	92.1%
	Total	162	41	203
	Strongly Disagree	20	2	22
	Disagree	36	1	37
	Agree	59	19	78
	Strongly Agree	62	31	93
14.4 There were multiple formats for	% Favorable	68.4%	94.3%	74.3%
(audio, written, video, etc.).	Total	177	53	230
	Not Important	12	1	13
	Somewhat Important	65	10	75
	Important	85	31	116
	% Important	92.6%	97.6%	93.6%
	Total	162	42	204

Course Organization		Ethnicity		Total
		White	Students of color	Total
	Strongly Disagree	22	1	23
	Disagree	20	2	22
	Agree	63	20	83
	Strongly Agree	73	30	103
14.5 The course	% Favorable	76.4%	94.3%	80.5%
provided an efficient learning	Total	178	53	231
environment.	Not Important	1	2	3
	Somewhat Important	34	7	41
	Important	129	33	162
	% Important	99.4%	95.2%	98.5%
	Total	164	42	206
	Strongly Disagree	10	3	13
	Disagree	12	1	13
	Agree	78	21	99
	Strongly Agree	78	28	106
14.6 The course is organized in a	% Favorable	87.6%	92.5%	88.7%
logical manner that	Total	178	53	231
facilitates information retrieval.	Not Important	2	0	2
	Somewhat Important	45	9	54
	Important	117	32	149
	% Important	98.8%	100.0%	99.0%
	Total	164	41	205

Course Organization		Ethnicity		Total
		White	Students of color	TOLAT
	Strongly Disagree	5	1	6
	Disagree	18	4	22
	Agree	81	23	104
14.7 The multimedia in the course was easy to use.	Strongly Agree	73	25	98
	% Favorable	87.0%	90.6%	87.8%
	Total	177	53	230
	Not Important	5	0	5
	Somewhat Important	50	6	56
	Important	108	35	143
	% Important	96.9%	100.0%	97.5%
	Total	163	41	204