

Online Education: Student Expectations and Experiences

Phase Four: Survey Results Submitted to the Indiana University Office of Online Education

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Table of Contents

Executive Summary	5
Key Findings	6
Introduction	1
Objectives & research questions	1
Methodology	3
Literature review	3
Survey development	3
Sampling and distribution	4
Data analysis	4
Survey findings	6
Respondent demographics	6
Reasons for taking IU Online courses and factors contributing to satisfaction and dissatisfaction	
Communication within IU Online courses	13
Overall satisfaction with IU Online	18
Defining quality in online education	20
Meeting expectations for quality in online education	22
Differences Across Demographics	23
Discussion	25
Recommendations	26
Sampling and distribution	26
Revision of survey instrument	26
Creating a long-term sustainable plan for ongoing survey implementation	27
Appendix: Survey Instrument	29

List of Figures

Figure 1. Age of survey respondents6
Figure 2. Races/ethnicities of survey respondents6
Figure 3. Genders of survey respondents7
Figure 4. Campus of enrollment for survey respondents8
Figure 5. Number of IU Online courses in which respondents were enrolled for Fall 202010
Figure 6. Number of semesters/summer sessions in which respondents had enrolled overall $\dots 10$
Figure 7. Respondents who had previously taken online courses through another
college/university10
Figure 8. Rankings of reasons for taking IU Online course
Figure 9. Rankings of factors contributing to course satisfaction12
Figure 10. Rankings of factors contributing to course dissatisfaction13
Figure 11. Satisfaction with communication with IU Online instructors14
Figure 12. Satisfaction in communication with IU Online students17
Figure 13. Respondents recommending their IU Online program to a peer/colleague19
Figure 14. Meeting respondents' expectations for quality in online education22

List of Tables

Table 1. Employment statuses of survey respondents	7
Table 2. Programs of study of survey respondents	9
Table 3. Modes of communication with IU Online instructors	14
Table 4. Modes of communication with IU Online students	16
Table 5. Cross-tabulation results for respondents who had/had not previously taken online	
courses	24

Executive Summary

This report presents a summary of Phase Three activities and the findings of the survey data collected as part of Phase Four of the research study conducted by the Center for Evaluation, Policy, and Research on student expectations and experiences for the Indiana University Office of Online Education. The purposes of the study are to (1) increase knowledge and understanding of undergraduate students' expectations and experiences with fully online degree programs at Indiana University and (2) develop a valid and meaningful process for systematically measuring students' expectations and experiences in online courses. The key research questions for the study are (1) what are students' expectations of online education courses? and (2) how do students define value and quality in online courses?

The third and fourth phases of the research were completed to utilize learnings from the previous phases to create a survey instrument and then to pilot that instrument with a sample of students in IU Online programs. Online surveys were distributed to a sample of 500 undergraduate students enrolled in fully online courses in November 2020. This report contains an overview of the survey development and methodology, survey results, discussion of findings, and recommendations for moving forward with ongoing survey implementation.

Based on a review of the literature and the findings from interviews conducted in Phase Two of the research, we identified indicators of program quality in online education and created a survey instrument to probe students' perceptions of quality in those areas based on their experiences learning online. Demographic questions were also included to allow for further analysis based on certain respondent characteristics. Survey items were organized into the following areas:

- Demographics (age, race/ethnicity, gender, employment status, campus and program of enrollment)
- Level of experience with online learning (with IU Online and with other providers)
- Reasons for taking courses with IU Online and factors contributing to satisfaction and dissatisfaction
- Communication within IU Online courses (with instructors and with students)
- Overall satisfaction and perceptions of program quality

Below are key findings from the survey data related to the research questions, with additional findings and detail presented throughout the associated sections of the report:

Key Findings

- 1. What are students' expectations of online education courses?
 - Opportunities for career advancement. Survey respondents identified career advancement as the most important factor in their decision to take IU Online courses.
 - Convenience and flexibility. Survey respondents identified convenience and flexibility as important factors in their decision to take IU Online courses and as a primary reason they would recommend their program to a colleague or peer.
- 2. How do students define value and quality in online courses?
 - Relevant content and manageable workload. Survey respondents identified
 relevant course content as the most important factor in their satisfaction with IU
 Online courses, and the course workload as the most important factor in their
 dissatisfaction with IU Online courses.
 - Effective and communicative instructors. Survey respondents identified
 instructors as an important factor in both their satisfaction and dissatisfaction
 with IU Online courses, and most were satisfied with their communications with
 their instructors, indicating timeliness of communication as a primary reason for
 their level of satisfaction.

Introduction

The Indiana University Office of Online Education (OOE) collaborates with all IU campuses to provide academic programs and services that give students a high-quality, interactive, and engaging experience. OOE is housed in University Academic Affairs. To the public, it is known as IU Online. OOE acts as a curricular clearinghouse and provides seamless, shared services for IU's online students (https://teachingonline.iu.edu/about/staff/index.html).

The Office of Online Education collaborated with the Center for Evaluation, Policy and Research (CEPR) to conduct a multi-phase research study to increase knowledge and understanding of undergraduate students' expectations and experiences with fully online degree programs at Indiana University. A brief description of each phase of the research study follows.

Objectives & research questions

The study stems from lack of research in the field related to defining and assessing the quality of online courses from the students' perspectives. This study does not address the quality of specific online courses; rather, it examines students' general expectations of and experiences with online education. The primary objectives of this study are to: (1) increase our knowledge and understanding of how undergraduate students enrolled in fully online programs define value and quality in online courses and, (2) develop a valid and meaningful process for systematically measuring students' expectations and experiences in online courses. The overarching questions framing the study include the following:

- What are students' expectations of online education courses?
 - Do these expectations differ across time? By degree program? By other demographic and background characteristics?
 - To what extent, and in what ways, do students' expectations for online education programs align with their experiences with these programs? Does the alignment (or nonalignment) impact students' perceptions of quality and value?
- How do students define value and quality in online courses?
 - o What key factors and variables do students use to assess value and quality?
 - Do the factors that determine value and quality change over time (e.g., is quality defined differently at the beginning of a course, as compared to the middle or end of a course)

 To what extent, and in what ways, do students' definitions of value and quality differ based on various factors (e.g., number of previous online courses completed, degree program, demographic characteristics, etc.)

CEPR is utilizing multiple research methods to conduct a four-phase study addressing these questions. These phases include:

- 1. Development of detailed protocols and instruments,
- 2. Qualitative interviews for the purposes of addressing key questions, and informing the development of a subsequent survey for broader data collection,
- 3. Development of a student survey and plans for implementation, and
- 4. Piloting the survey, analyzing data, and creating a long-term, sustainable plan for ongoing survey implementation.

This report presents activities conducted related to Phases Three and Four of the research study. Phase Three activities included development of an online survey for students currently enrolled in IU Online programs. Phase Four activities included piloting the survey with a sample of IU Online students, analyzing survey results, and presenting findings with recommendations for ongoing survey data collection. We provide an overview of the methodology of phases three and four of the study, survey findings, and recommendations for next steps based on these findings.

Methodology

Literature review

To begin this study, researchers conducted a review of scholarship in online education at the postsecondary level. The detailed literature review is included in the report on Phase Two of the project and is summarized here. Although there are few studies focusing on the perspectives of online students in examining quality in online education, scholars have identified several aspects related to quality in online learning from the provider standpoint. These include the institution's reputation, curriculum and instruction, staff support, learning support, technology support, QA mechanism, and student outcomes (Jung, 2010; Kirkpatrick, 2005). From the student perspective, it is also important to consider students' prior experiences and their self-efficacy with online learning (Arbaugh, 2004). Based on these studies, the researchers identified several indicators of online learning program quality to include in research instruments that would probe the perspectives of students enrolled in online courses.

Survey development

During phase two of this study, researchers interviewed 20 students currently enrolled in undergraduate IU Online programs, using a semi-structured interview protocol based on the review of the literature on quality in online education. Analysis of the interview data subsequently informed the creation of the survey protocol to be piloted with a larger sample of IU Online students. Specifically, we identified factors contributing to students' satisfaction and dissatisfaction with their online courses/programs and crafted survey items asking respondents to how or to what extent these factors impacted their online learning experiences. For example, most interviewees described their most valuable or enjoyable online courses as having interesting, challenging, or relevant content, and most also commented on how the quality of their online instructors was a key factor in their satisfaction in online courses. Thus, several of the survey items asked respondents to rank how these factors contributed to their satisfaction or dissatisfaction with IU Online courses. Additionally, most interviewees discussed the importance of communication in their online programs, between students and instructors and among students. Therefore, a series of survey questions probed further on issues of communication for students in online courses, including modes of communication, satisfaction with communication, and open-ended questions on reasons for level of satisfaction.

The survey also included basic demographic questions for respondents to indicate their age range, race/ethnicity, gender identity, and employment status, as well as questions with regard

to their IU Online campus of enrollment, number of courses taken, and previous experience with online education. These questions allowed for cross-tabulation analysis of certain other survey responses, to determine if significant differences exist among responses based on these categories. The instrument was reviewed and revised based on input from IUOOE before final distribution. The full survey instrument is included in the appendix.

Sampling and distribution

The IU Office of Online Education provided a sample of 500 students enrolled in fully online undergraduate programs across the six regional campuses (IU East, IUPUI, IU Kokomo, IU South Bend, IU Northwest, and IU Southeast). The sample distribution across the campuses represented the overall distribution of enrollment in IU Online undergraduate programs for fall 2020.

Using the Qualtrics survey platform, the survey invitation and link were distributed to the full sample (494 valid email addresses) on November 3, 2020. Over the next four weeks, four email reminders were sent to those who had not yet completed the survey, and the survey was closed on November 30. Out of the entire sample of 494, a total of 122 responded to the survey, for a response rate of 25%.

Incentives were offered to respondents who completed the survey. Both the email survey invitation and the online survey included information about the incentives: \$10 electronic Amazon gift cards offered to the first 200 respondents who chose to enter their name and email address upon survey completion in order to receive the gift cards. Out of those who responded to the survey, 115 opted to receive the incentive.

Data analysis

After the survey closed, all partial responses were recorded and included with the survey data. Please note that all respondents did not answer all questions; frequencies and percentages for each survey item are based on the number of responses to that item only. All survey data were downloaded into Excel files for further analysis. Quantitative data included responses to questions on respondent demographics, rank-order questions related to reasons for taking courses with IU Online and factors related to satisfaction and dissatisfaction, modes and levels of satisfaction with communication with instructors and other students, and yes/no questions related to whether respondents would recommend their IU Online program and whether their expectations were met. Frequencies and percentages were calculated for the quantitative data, as well as cross-tabulations of responses based on demographic data. Qualitative data included

responses to the open-ended survey items, in which respondents were asked to elaborate on responses to several questions related to their satisfaction/dissatisfaction with their online learning experiences. Text responses were analyzed using qualitative coding procedures, with researchers identifying themes within responses to each open-ended question, grouping responses according to these themes, and calculating frequencies and percentages for each theme based on the number of responses. When considering the findings, outlined in the following section, one must keep in mind that these are based on analyses of pilot survey data, primarily meant to inform revision and future administration of the survey instrument. While there may be some important data points that will be of interest to online education administrators and instructors, these findings should not be compared to results of revised surveys that will ultimately be distributed to wider samples of online students.

Survey findings

Respondent demographics

At the beginning of the survey, respondents were asked several common demographic questions, including their age range, race/ethnicity, gender, and current employment status. These data not only illustrate the characteristics of survey respondents but also allow for further analysis based on the information provided. The tables and figures included in the following section outline the demographic breakdown of survey respondents.

As indicated in Figure 1, over half of all respondents fell within two age ranges: 29% were 18-24 and 36% were 25-34.

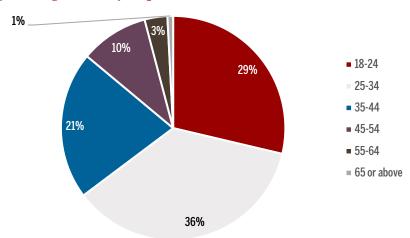


Figure 1. Age of survey respondents

Figure 2 illustrates the racial/ethnic categories selected by survey respondents. A majority (85%) would describe themselves as White.

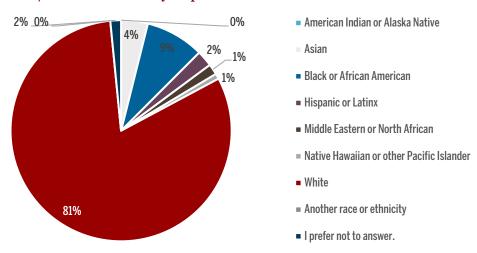
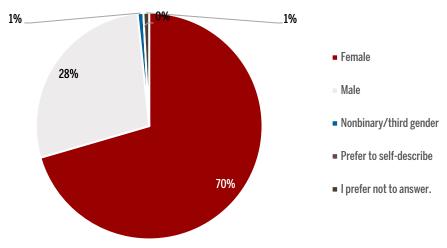


Figure 2. Races/ethnicities of survey respondents

Figure 3 depicts the genders of survey respondents. Of 122 respondents, 70% identified as female.

Figure 3. Genders of survey respondents



Respondents were asked to select their current employment status. Please note that respondents could select more than one option, thus percentages may exceed 100. Most respondents (61%) indicated that they were employed for pay, full-time (35+ hours/week). Table 1 illustrates full data on survey respondents' employment statuses.

Table 1. Employment statuses of survey respondents

What is your current employment status? Select all that apply.	Frequency	Percentage
Employed for pay, full-time (35+ hours/week)	75	61%
Employed for pay, part-time	16	13%
Full-time student, not employed	21	17%
Full-time student, employed in academic work (e.g., research assistant)	1	1%
Unpaid internship	3	2%
Stay-at-home parent	9	7%
Unemployed	8	7%
Retired	3	2%

N=122

Additional questions asked respondents to indicate their IU Online campus of enrollment, program of study, number of courses taken in Fall 2020, number of semesters or summer sessions taken with IU Online, and previous experience with online coursework through another college or university.

Figure 4 breaks down the campuses of enrollment for survey respondents. A majority of them (58%) indicated that they were enrolled at IU East.

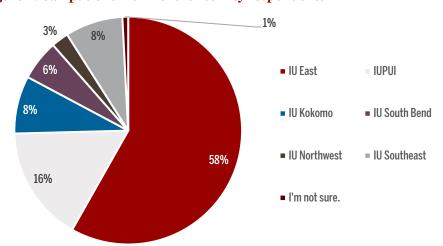


Figure 4. Campus of enrollment for survey respondents

Respondents selected among 27 options to indicate their current program of study. These are listed with corresponding response frequencies in Table 2. Please note that programs of study selected by zero respondents have been excluded from Table 2, and the full list of programs included in the survey can be found in the appendix. The programs of study represented most frequently among survey respondents included Business Administration (22%), Mathematics (15%) and General Studies (13%).

Table 2. Programs of study of survey respondents

What is your program of study?	Frequency	Percentage
Applied Health Science	1	1%
Applied Science	2	2%
Business Administration	27	22%
Communication Studies	3	2%
Criminal Justice	5	4%
English	6	5%
General Studies	16	13%
Health Information Administration/ Health Information Management	3	2%
History	1	1%
Histotechnology	1	1%
Human Resource Management	1	1%
Informatics	6	5%
Mathematics	18	15%
Medical Coding	2	2%
Medication Imaging Technology	1	1%
Natural Science and Mathematics	1	1%
Political Science	1	1%
Psychology	13	11%
RN to BSN	9	7%
Sociology	1	1%
Sustainability Studies	1	1%
Other program not listed	3	2%

N=122

As illustrated in Figures 5 and 6, respectively, most survey respondents (62%) were taking three or more courses with IU Online in Fall 2020, and 39% had enrolled in their first IU Online course(s) in Fall 2020. Another 30% had taken four or more semesters/summer sessions with IU Online.

Figure 5. Number of IU Online courses in which respondents were enrolled for Fall 2020

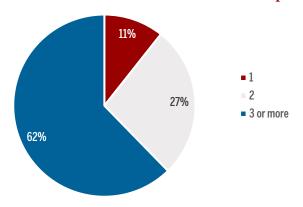
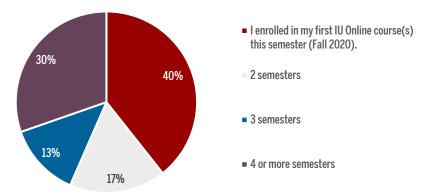
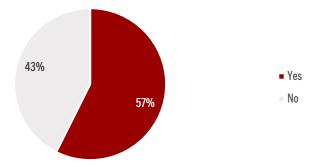


Figure 6. Number of semesters/summer sessions in which respondents had enrolled overall



Finally, respondents were asked whether they had previously taken online courses with any other college or university. Over half (57%) responded that they had (see Figure 7), and in an open-ended follow-up question, these respondents were asked to indicate where they had taken other online courses. Of the 68 respondents who provided this information, over half (51%) indicated that they had taken online courses through Ivy Tech. Other colleges/universities identified by two or more respondents included Indiana Wesleyan, Vincennes University, Penn State, and University of Phoenix.

Figure 7. Respondents who had previously taken online courses through another college/university



Reasons for taking IU Online courses and factors contributing to satisfaction and dissatisfaction

Survey respondents were asked to rank eight factors, from most to least important, in their decisions to take courses with IU Online. These factors included career advancement, convenience/flexibility, cost of the program, educational advancement, personal interest, recommended by a peer or colleague, reputation of the program, and other reason (text entry). Among 122 respondents, nearly two-thirds (62%) ranked career advancement as either the most or second-most important factor in their decision. Over half of respondents (58%) ranked convenience/flexibility as either the most or second-most important factor. Respondents overwhelmingly (88%) ranked "other reason" as the least important factor, so we consider the factors ranked as second or third-least important (seven or six, on the eight-point scale) to illustrate which of the predetermined items were deemed less important. Among these, over three-quarters (78%) ranked recommendation of a peer or colleague as less important and approximately another half of respondents (52%) ranked reputation of IU as a less important factor in their decision to take courses with IU Online. Figure 8 depicts the full results of this survey question.

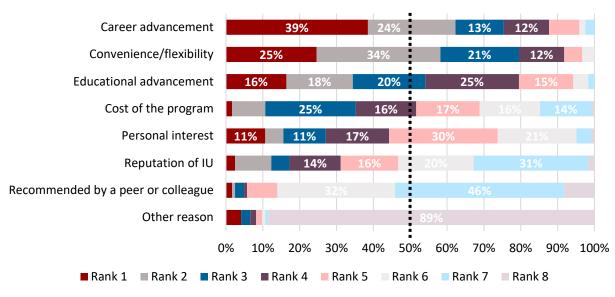


Figure 8. Rankings of reasons for taking IU Online course

Note: For readability, data labels are only displayed for rankings with greater than 10% of respondents. Black dotted line indicates the median ranking where it passes through each bar (e.g., for "Career advancement" and "Personal Interest" the median responses were Rank 2 and Rank 5, respectively).

To provide more information on the factors contributing to IU Online students' satisfaction with their courses, survey respondents were asked to rank five factors from most to least important. These factors related to online coursework included applicable or practical content, easy-to-complete requirements, interesting content, organization of course, and quality of instructor(s). Over half (57%) of the 122 survey respondents ranked applicable or practical course content as the most or second-most important factor contributing to their satisfaction with IU Online courses, and over one-third (42%) ranked quality of instructor(s) as the most or second-most important factor. At the other end of the scale, over half of respondents (53%) ranked easy-to-complete requirements as either the least or second-least important factor contributing to their satisfaction with IU Online courses. Figure 9 depicts the full results of this survey question.

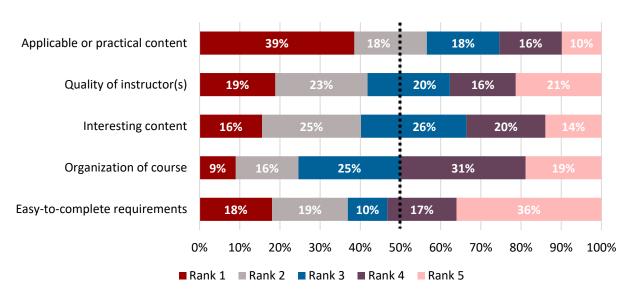


Figure 9. Rankings of factors contributing to course satisfaction

Note: Black dotted line indicates the median ranking where it passes through each bar (e.g., for "Applicable or practical content" and "Interesting content" the median responses were Rank 2 and Rank 3, respectively).

Respondents were also asked to rank the importance of factors contributing to their dissatisfaction with IU Online courses. These factors included course workload, instructor issues, organization of course, technology or platform issues, and unclear course requirements. Over two-thirds of respondents (70%) indicated that course workload was the most or second-most important factor in their dissatisfaction with IU Online courses, and nearly half (47%) ranked instructor issues as the most or second-most important factor. Over half of respondents each ranked technology or platform issues (59%) or unclear course requirements (56%) as the least or second-least important factors contributing to their dissatisfaction with IU Online courses. Figure 10 depicts the full results of this survey question.

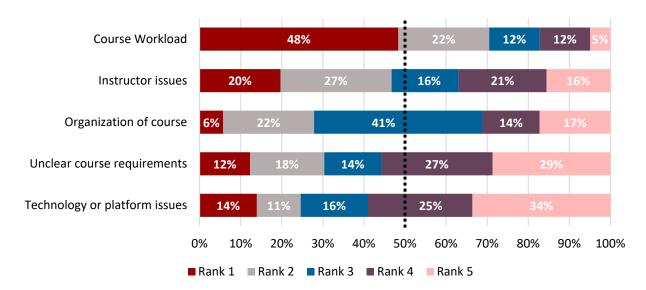


Figure 10. Rankings of factors contributing to course dissatisfaction

Note: Black dotted line indicates the median ranking where it passes through each bar (e.g., for "Course workload" and "Unclear course requirements" the median responses were Rank 2 and Rank 4, respectively).

Communication within IU Online courses

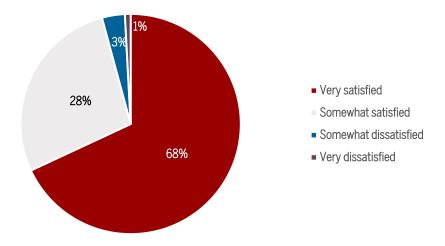
To investigate communication within IU Online courses, the survey included questions with regard to modes of communication and satisfaction with communications, with separate questions related to communication with instructors and with other online students.

Respondents were asked to choose among several methods of communication to indicate how they normally communicate with IU Online instructors (see Table 3); please note that they could choose more than one option, thus percentages exceed 100. Most respondents use either direct messages in Canvas (81%) or email (70%) to communicate with IU Online instructors. Only 2% responded that they do not normally communicate with IU Online instructors. Furthermore, over two-thirds of respondents (68%) indicated that they were very satisfied with their communication with IU Online instructors and another 28% indicated that they were somewhat satisfied (see Figure 11).

Table 3. Modes of communication with IU Online instructors

How do you normally communicate with IU Online instructors?	Frequency	Percentage
Direct messages in Canvas	99	81%
Discussion boards	30	25%
Email	85	70%
In-person meetings	1	1%
Skype, Zoom, or phone conversations	21	17%
Texts or messages on another platform (e.g., WhatsApp)	5	4%
Other	0	0%
I do not normally communicate with IU Online instructors.	3	2%

Figure 11. Satisfaction with communication with IU Online instructors



In an open-ended question linked to each respondent's indicated level of satisfaction with their communication with IU Online instructors, survey respondents were asked to elaborate on their reasons for their chosen level of satisfaction. These 106 qualitative responses were analyzed and grouped according to thematic content and the respondent's level of satisfaction. Over half of respondents (58%) commented on the timeliness of communication as the reason for their level of satisfaction in communicating with their IU Online instructors. Of these, most (82%) had indicated that they were very satisfied, and another 18% were somewhat satisfied. The following are selected examples of comments related to timeliness from those who were very satisfied in their communications with IU Online instructors:

"Any time I've reached out, both have been very quick to respond and resolve my issue."

"Instructor responded within the time period she said she would at the start of the semester."

"The professors are clear on when they are available. They provide a timely response."

"Their responses are received within 24 hours and not a couple of days."

"My teachers are usually very fast and clear with their responses to my concerns."

In contrast, those who indicated that they were somewhat satisfied in their communications with IU Online instructors more often commented on lack of or problems related to timeliness. See the following comments, for example:

"Some instructors are vague and take too long to communicate."

"Sometimes the teacher is too busy to respond. When they do, it's usually later than warranted."

"I have an instructor who takes several days to reply to messages."

Aside from timeliness, respondents also commented on the frequency or ease of communication with instructors (20%) and the quality of communication (17%) as reasons for their level of satisfaction in communication with IU Online instructors. Examples of responses in each of these thematic areas follow, with respondents' corresponding levels of satisfaction in parentheses.

Frequency or ease of communication

"Doesn't reply to comments on submissions." (somewhat dissatisfied)

"One instructor would not respond to emails." (somewhat satisfied)

"Some instructors answered my messages while others did not." (somewhat satisfied)

"Very responsive and thorough with their communication." (very satisfied)

"They were easy to work with and helpful when necessary." (very satisfied)

"Canvas inbox allows messages to stand alone, not get lost in email." (very satisfied)

Quality of communication

"Sometimes they respond without fully addressing my question." (somewhat satisfied)

"Not a lot of feedback on lessons or assignments." (somewhat satisfied)

"All the instructors have done an excellent job making the content practical, in-depth, and organized." (very satisfied)

"Most of the instructors were helpful when you did not understand the assignment." (very satisfied)

"They understand being 100% isn't the easiest, especially being a full-time employee." (very satisfied)

Another 5% of respondents indicated other reasons for their levels of satisfaction in communications with IU Online instructors that were general or did not fit into the above themes.

Table 4. Modes of communication with IU Online students

How do you normally communicate with other IU Online students?	Frequency	Percentage
Direct messages in Canvas	48	39%
Discussion boards	68	56%
Email	31	25%
In-person meetings	2	2%
Skype, Zoom, or phone conversations	7	6%
Texts or messages on another platform (e.g., WhatsApp)	10	8%
Other	2	2%
I do not normally communicate with other IU Online students.	22	18%

Respondents were asked a similar set of questions related to their modes of and satisfaction with communications with other IU Online students (see Table 4). With regard to modes of communication, respondents could select more than one option, thus percentages exceed 100%. Over half of respondents (56%) indicated that they use discussion boards to communicate with other IU Online students, over a third (39%) use direct messages in Canvas, and one quarter (25%) use email for this communication. Among 122 respondents, 18% indicated that they do not normally communicate with other IU Online students. Reported levels of satisfaction with communication with other IU Online students were lower than for the instructor

communication, with over half of 100 respondents (53%) reporting that they were very satisfied, and another 42% reporting that they were somewhat satisfied in their communications with other IU Online students (see Figure 12).

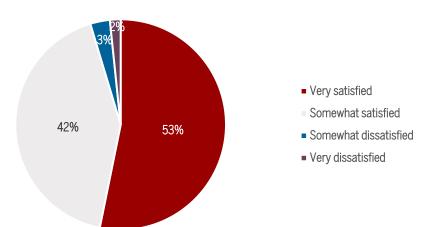


Figure 12. Satisfaction in communication with IU Online students

Following the question on level of satisfaction with their communication with other IU Online students, respondents were asked to elaborate on their answers. These 83 substantive text responses were analyzed for thematic content and categorized into several broad themes. Nearly half of respondents (47%) commented on the content or style of communication with other IU Online students; of these, most had indicated that they were either very satisfied (62%) or somewhat satisfied (36%) with these communications. Examples of respondents' remarks in this area follow:

"All the communication I have with other students is academic, so there is not time wasted in frivolous matters." (very satisfied)

"I feel they have been supportive." (very satisfied)

"This interaction with students is nice. It is fun to talk to other students who may relate to my experience." (very satisfied)

"Most of them respond back in a timely manner when working on group projects." (very satisfied)

"We don't know each other yet, so some students don't reply to emails." (somewhat satisfied)

"Differing views can be difficult to share in an online platform without potential confusion or misunderstandings, especially during COVID and a contentious general election." (somewhat satisfied)

One quarter of respondents (25%) commented on the platform for communication as a reason for their level of satisfaction in communication with other IU Online students. Of these, most (81%) had indicated that they were very satisfied with these communications. Examples of responses related to communication platforms follow:

"Canvas is easy and convenient." (very satisfied)

"There are multiple methods of communication that help with the asynchronous format of the courses and program." (very satisfied)

"Discussion boards generally provided platform for stimulating discussion." (very satisfied)

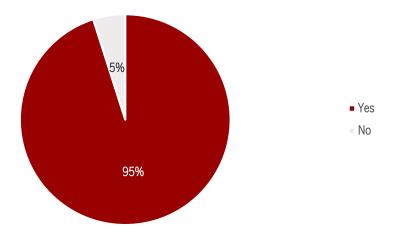
"We chat with each other through Canvas, and sometimes it's not convenient due to not receiving notifications." (somewhat satisfied)

Finally, a few respondents (14%) who had indicated that they were either somewhat satisfied (83%) or somewhat dissatisfied (17%) in their communications with other IU Online students remarked that many courses required this communication. For example, one commented, "Not sure forced interaction is productive or helpful," and another stated, "most of the communication is just a requirement of the classes and students don't usually put their best into it." A few respondents (5%) commented that they would like to have more communication with their fellow IU Online students, and the remaining 8% of respondents reported "no issues" in communications with other IU Online students.

Overall satisfaction with IU Online

Survey respondents were asked whether they would recommend their IU Online program to a friend or colleague. A majority of the 122 respondents (95%) answered that they would (see Figure 13). In an open-ended follow up question, respondents were asked why they would or would not recommend their program. These text responses were analyzed and grouped into thematic categories, and some respondents included comments that spanned multiple themes, thus percentages exceed 100%.





Of the 104 respondents who provided their reasons for recommending their online programs, over half (59%) remarked on the convenience or flexibility provided by online courses. Examples of these comments include the following:

"The flexibility without having to be in person [for] classes is great for people who work full time or have children."

"Work at your own pace from wherever you are."

"Because it fits with my lifestyle."

"Love how easy you make getting into and working the classes."

"It is convenient and still as effective as in-person schooling."

Respondents (42%) also commented on the quality of the courses or program in their reasons for recommending their IU Online programs. These comments included the following, for example:

"This program has a lot of opportunities for everyone."

"Great education offered online, not a degree mill."

"I'm learning what I sought to learn."

"This program offers a high-quality education at a top-notch university."

"It is engaging and has great materials."

About a fifth of respondents (21%) included remarks on the quality of their IU Online instructors and/or advisors among their reasons for recommending their programs. They stated, for example:

"I am happy with the responses that I get from my professors."

"Overall a good college. Love my advisor and my instructors/classes so far."

"The administration does a great job! The faculty also does a great job with their content."

"The teachers actually want you to succeed."

Another 14% of respondents commented on the affordability of their online program. All of these responses also included reference to at least one additional reason for recommending their online program. For example, these responses included the following:

"Cheaper than other institutions, wide program variety."

"Convenience and lower-priced."

"Great instructors and online class organization, flexibility of the program, and overall cost of the program."

The remaining 16% of responses included comments that could not be classified into any of the above categories or comments that indicated overall or general satisfaction with their IU Online program as reasons for recommending the program.

Respondents who indicated that they would not recommend their IU Online program were also asked why they would not recommend the program. Six provided responses to this question, and their reasons included lack of availability of a program they preferred, instructor quality or timeliness, applicability of required courses, and that their friends/colleagues would not be interested.

Defining quality in online education

In an open-ended question, respondents were asked how they would define quality in online education. These 105 text responses were analyzed and grouped for thematic content, and there were a wide variety of themes that emerged, with many responses including more than one thematic category, thus percentages exceed 100%. Respondents most frequently remarked on the quality, applicability, or relevance of course or program content in their definitions of quality

in online education, with 42% of responses in this thematic area. Several examples of these responses follow:

"Learning relevant content that can be applied in today's workforce."

"The material learned and the overall organization and understanding of the assignments."

"Quality instructional material that pertains to course objectives and real-life application."

"All my courses go towards my degree, and I'm learning what I need to."

"Ability to gain necessary knowledge on the subject at the end of the semester."

Nearly one-third of respondents (30%) commented on instructors in their definitions of quality in online education. Examples of responses in this area follow:

"Quality in lecture videos and availability of professors."

"Getting good direction and support when needed."

"Engagement with material through online means. No one aspect defines it, so long as the instructor manages to make the material engaging."

"Engaging instructors that provide excellent response times and try to involve students to participate actively"

"Assignments posted on time, great communication from teachers."

Additional themes identified in the responses defining quality in online education included the following, with frequencies and examples provided in each area:

Convenience/flexibility (15%)

"Being able to work/study on your time is what makes it high-quality."

"Maintaining the learning quality while increasing flexibility."

Comparability of online learning to in-person learning (10%)

"You are still required to do the same materials as someone in person. The quality is still there."

Additional resources (7%)

"Effective communication and resources in place for assistance."

Personal characteristics of students (6%)

"Excellent if self-disciplined"

Technology or learning platform (4%)

"When the instructor and program provides many different forms of media and opportunities to engage with the content."

Finally, one-fifth of respondents (20%) provided comments that were either very general in nature, such as "good," 9/10," or "excellent IU quality," or that could not be categorized into the above identified themes.

Meeting expectations for quality in online education

Respondents were asked whether IU met their expectations for quality in online education. Among 121 responses, the majority (94%) indicated that IU did meet their expectations, and only 6% indicated that they did not (see Figure 14). In open-ended follow-up questions, respondents were asked to elaborate on how IU did or did not meet their expectations for quality in online education. Of those who indicated that IU did meet their expectations, 88 provided responses commenting on how. These text responses were analyzed and grouped into several themes, and some responses included comments in more than one area, thus percentages exceed 100%.

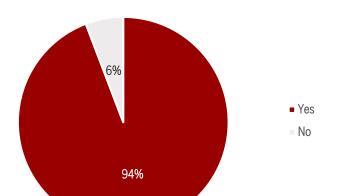


Figure 14. Meeting respondents' expectations for quality in online education

Over one-third of respondents (36%) remarked that the content of their courses or program had contributed to IU meeting their expectations for quality in online education. Several examples follow of responses in this area:

"Same IU curriculum."

"Content was great and I could apply it to my current career."

"Courses well-organized, clear communication and expectations, relevant content."

"No issues with any of the courses. All course content is easy to access and I feel I am given what I need to complete my assignments."

Over one-quarter of respondents (28%) commented on instructors or advisors as related to IU meeting their expectations for quality in online education. Several examples follow:

"Most classes are taught very well and clearly, and when I am struggling, it is easy for me to reach out and get help."

"Always being available for questions and communication is great."

"The professors were very organized."

Another 20% of respondents indicated that convenience and/or flexibility had contributed to IU meeting their expectations for online education. They said, for example, "Studies are intense, but very convenient," and "IU provided the necessary tools for me to advance my student career. I can work completely remote and still accomplish my academic goals."

Additionally, respondents identified the following ways in which IU had met their expectations for quality in online learning: opportunities for learning and/or personal growth (14%) and affordability (5%). The remaining 22% of respondents included very general comments or remarks in other areas that could not be classified into the above identified themes with regard to how IU met their expectations for quality in online education.

Of those respondents who indicated that IU had not met their expectations for quality in online education, six elaborated on how. All of these six respondents included remarks with regard to quality of instructors or instruction, such as lack or timeliness of communication or a desire for more guidance from instructors.

Differences Across Demographics

Four survey questions were examined to discover if there were differences in responses based on seven demographic markers. The questions included those on level of satisfaction with communications with IU Online instructors and with fellow students, whether respondents would recommend their IU Online program, and whether IU Online met their expectations for quality in online education. The demographic markers included gender, age, race/ethnicity, employment status, IU campus location, length of online enrollment, and if previous online courses had been taken. Some questions did show differences in responses but did not have

large enough N values to be considered a quality sample size. There was one demographic marker, respondents having previous online course experience or not, that showed differences in all four of the key questions.

For the two questions on satisfaction with communication, somewhat satisfied and very satisfied were added together to create an overall satisfaction rating. Satisfaction with both instructor communication and student communication came out with larger satisfaction percentages for those with previous online course experience (as seen in Table 5).

Table 5 also displays the higher percentage of those with previous online course experiences responding 'yes' when asked if they would recommend IU Online to a friend or colleague as well as IU Online meeting their expectations for quality in online education.

Table 5. Cross-tabulation results for respondents who had/had not previously taken online courses

Previously Taken Online Courses	Overall Satisfaction – Communication with Instructors	Overall Satisfaction – Communication with Students	Would Recommend to Friend/Colleague	Met Expectations for Quality
Yes	99%	98%	96%	97%
No	92%	90%	94%	90%

Discussion

Overall, the survey results reflect the earlier findings from interviews with a smaller sample of IU Online students and provide some additional information with regard to students' perspectives in online learning and how these relate to their experiences. The following section summarizes comparisons between the interview and survey findings and provides recommendations for moving forward with survey revision and administration.

Similar to interviewees, survey respondents frequently cited the convenience or flexibility offered by online education as key factors in both their decision to enroll in IU Online courses and their overall satisfaction with their online learning program. However, over two-thirds of survey respondents indicated that career advancement was the most or second-most important reason they chose to take courses with IU Online. Over half of respondents identified applicable or practical course content as a primary factor in their satisfaction with IU Online courses, and these responses were echoed in both interview findings and qualitative survey responses related to overall satisfaction and quality in online education. These results may reveal a more nuanced finding with regard to how IU Online students perceive applicable/practical course content; if career advancement is a highly important reason for choosing an online education program, and relevance of content is a key factor contributing to students' satisfaction, then it may follow that IU Online students frame their thinking about program content in terms of how/if it will help them in their career paths.

Another theme that emerged across both interview and survey responses was the importance of instructors to IU Online students' experiences and satisfaction with their online learning programs. Survey results indicated that the qualities and/or practices of instructors were important factors in both students' satisfaction and dissatisfaction with their IU Online courses, which reflected interview findings related to students' positive and negative course experiences. Furthermore, because interviewees identified communication with instructors as a key aspect of the quality of their online learning experiences, survey items were included to probe this idea further. Over two-thirds of survey respondents indicated that they were very satisfied in their communications with instructors, and a majority of these respondents elaborated that the timeliness of these communications was a primary reason for this satisfaction. Again, the survey findings echo those of the interviews, in which instructor communication, specifically the timeliness of that communication, factored heavily into IU Online students' perspectives of quality in their online learning experiences.

Recommendations

Sampling and distribution

The larger sample size for the survey allowed for deeper analysis of responses to certain survey items based on demographic differences among respondents. As summarized in the findings, most of these analyses did not yield any significant differences among demographic groups, with the exception of those who had taken other online courses versus those who had not. Respondents who have previously taken online courses had higher rates of their expectations being met, higher levels of satisfaction, and were more likely to recommend IU Online to their friends and colleagues. Moving forward, having a larger number of survey respondents and consecutive sets of data from multiple survey administrations may help to reveal differences in both satisfaction and experiences between different demographic segments of IU Online students. Furthermore, increasing the sample size and planning for regular survey distribution will allow researchers to consider how/if students' perspectives may shift over time or during different points in the academic year or semester, which requires examination of longitudinal data.

From our understanding, the distribution of this survey in early November 2020 followed previous administration of one or more additional surveys administered to IU Online students through the IU Office of Online Education. Despite offering a monetary incentive for completion of this survey, we did not achieve the 40% response rate for which we had hoped, and we did not reach the threshold that would have used our entire incentive allotment. For future survey administration, we recommend continuing to offer monetary incentives to a portion of survey respondents as well as carefully considering the timing of survey administration to mitigate the effects of survey fatigue on potential respondents.

Revision of survey instrument

An additional factor that may have influenced the survey response rate was the length of the survey and structure of questions. The survey included five open-ended questions allowing for text entry, and while these were not forced-response questions, and the quality and rate of responses to these questions may indicate that respondents chose to respond briefly or not at all to those at the end of the survey. Furthermore, some results of the open-ended questions yielded information that reiterated responses to previous questions. For example, respondents were asked why they would or would not recommend their IU Online programs to colleagues or peers, 110 responded, and they indicated convenience/flexibility and the quality of program/courses

as primary reasons, with a small number (12%) providing responses that were nonspecific (e.g., "overall good program"). At the end of the survey, respondents were asked how IU did or did not meet their expectations for quality in online education. Comparatively, fewer respondents chose to answer this question (94), with a higher percentage (22%) providing nonspecific responses (, e.g., "met the criteria mentioned previously"), and similar thematic categories indicated for those who did respond (content/course quality and convenience).

In another open-ended question, respondents were asked how they would define quality in online education. Among the 105 responses, 42% indicated the course or program content quality, applicability or relevance, and 30% indicated that instructors were linked to their definitions of quality in online education. Twenty percent of respondents provided answers that were general or nonspecific, such as "good," "exceptional," or "not quite as good as in-person." Again, the information captured by this question repeats the trends found among previous responses, including data resulting from questions related to program satisfaction and instructor communication. In future survey administration, we recommend limiting the number of open-ended questions and linking these questions clearly with a response to a closed-ended question, such as asking for respondents to explain why they would or would not recommend their online program to others.

Creating a long-term sustainable plan for ongoing survey implementation

Moving forward, we propose the following steps to begin ongoing survey implementation:

- Revision of the survey instrument, with collaboration and feedback among CEPR
 researchers and IUOOE. We recommend minor revisions to reduce the potential for
 redundancy and fewer open-ended questions, to shorten survey response time.
- Distribution of survey to all IU Online students enrolled in fully online undergraduate
 education programs. We recommend timing the survey distribution during the early to
 middle part of a semester and planning carefully to avoid overlap with other surveys that
 may be distributed to the same population. We also recommend continuing to offer
 incentives for survey completion to boost response rates.
- Analysis of survey data and reporting of findings. We seek feedback from IUOOE on the
 present report and plan to incorporate and adjust accordingly in reporting on future
 survey administration. We plan to continue to present quantitative and qualitative
 findings in both visual and narrative form. With a larger sample size, we anticipate that
 we will continue to conduct cross-tabulation analysis to determine any differences across

demographic groups. After implementation of a finalized survey instrument over consecutive semesters and/or academic years, we anticipate conducting analyses to compare results over time and present longitudinal trends in the data.

Appendix: Survey Instrument

Introduction

Researchers at Indiana University are conducting a study of quality in online education from the perspectives of IU Online students. You are invited to participate in this survey because you are enrolled in a fully online undergraduate education program with IU Online. We hope you will consider this opportunity to share your valuable ideas about quality in online education to help Indiana University improve in this area.

Participation in this survey is completely voluntary, and the survey should take about 10-15 minutes to complete. Any information provided will be held confidential and will not be shared with anyone associated with Indiana University in a way that could potentially identify you.

The first 200 respondents will receive a \$10 Amazon gift card, which will be emailed to you if you provide your name and email address upon completion of the survey.

If you have any questions regarding the study, please contact one of the researchers at: cechesnu@indiana.edu or aruddy@indiana.edu.

Thank you for your consideration, and we appreciate your contribution to this important research.

Q1 W	at is your age range?
(18-24
(25-34
(35-44
(45-54
(55-64
(65 or above

22 How would you describe yourself? Select all that apply.				
	American Indian or Alaska Native			
	Asian			
	Black or African American			
	Hispanic or Latinx			
	Middle Eastern or North African			
	Native Hawaiian or other Pacific Islander			
	White			
	Another race or ethnicity			
	I prefer not to answer.			
Q3 What is y	our gender?			
O Fema	ale			
O Male				
O Nonb	pinary/third gender			
O Prefe	r to self-describe			
O I pref	O I prefer not to answer.			

Q4	Q4 What is your current employment status? Select all that apply.			
		Employed for pay, full-time (35+ hours/week)		
		Employed for pay, part-time		
		Full-time student, not employed		
		Full-time student, employed in academic work (e.g., research assistant)		
		Unpaid internship		
		Stay-at-home parent		
		Unemployed		
		Retired		
Q5	Q5 At which IU campus are you currently enrolled for online courses?			
	O IU Eas	et en		
	O IUPUI			
	O IU Kol	komo		
	O IU Sou	nth Bend		
	O IU Noi	rthwest		
	O IU Southeast			
	○ I'm not sure.			

Q6 What is your program of study?
O Applied Computer Science
O Applied Health Science
O Applied Science
O Business Administration
O Communication Studies
Criminal Justice
O Data Science
○ English
General Studies
O Health Information Administration/Health Information Management
Health Sciences
O History
○ Histotechnology
O Human Resource Management
○ Informatics
InformaticsLabor Studies
O Labor Studies
Labor StudiesMathematics
Labor StudiesMathematicsMedical Coding

OPsychology	
O Pure Mathematics	
O RN to BSN	
○ Sociology	
O Sustainability Studies	
Other program not listed	
Q7 How many courses are you taking with IU Online this semester (Fall 2020)?	
\bigcirc 1	
\bigcirc 2	
O 3 or more	
Q8 How many semesters/summer sessions have you taken with IU Online?	
I enrolled in my first IU Online course(s) this semester (Fall 2020).	
O 2 semesters	
○ 3 semesters	
O 4 or more semesters	

Q9 Have you previously taken online courses with any other college or university?		
○ Yes		
○ No		
Q10 Please tell us where you have previously taken online courses.		
Q11 Why are you taking courses with IU Online? Please rank the following factors, using drag and drop to place the most important at the top (1) and the least important at the bottom (8). Career advancementConvenience/flexibilityCost of the programEducational advancementPersonal interestRecommended by a peer or colleagueReputation of IUOther reason		
Q12 Please rank how each of these factors contributes to your <u>satisfaction</u> with IU Online courses, using drag and drop to place the most important at the top (1) and least important at the bottom (5). Applicable or practical content Easy-to-complete requirements Interesting content Organization of course Quality of instructor(s)		
Q13 Please rank how each of these factors contributes to your <u>dissatisfaction</u> with IU Online courses, using drag and drop to place the most important at the top (1) and least important at the bottom (5). Course workload Instructor issues Organization of course Technology or platform issues Unclear course requirements		

Q14 How do y	you normally communicate with IU Online instructors? Select all that apply.	
	Direct messages in Canvas	
	Discussion boards	
	Email	
	In-person meetings	
	Skype, Zoom, or phone conversations	
	Texts or messages on another platform (e.g., WhatsApp)	
	Other	
	I do not normally communicate with IU Online instructors.	
Q15 Overall, how satisfied have you been with your communication with IU Online instructors?		
O Very satisfied		
O Somewhat satisfied		
O Somewhat dissatisfied		
O Very d	issatisfied	
Q16 Why were you [choice from Q15] with your communication with IU Online instructors?		

Q17 How do y	ou normally communicate with other IU Online students? Select all that apply.	
	Direct messages in Canvas	
	Discussion boards	
	Email	
	In-person meetings	
	Skype, Zoom, or phone conversations	
	Texts or messages on another platform (e.g., WhatsApp)	
	Other	
	I do not normally communicate with other IU Online students.	
Q18 Overall, l students?	now satisfied have you been with your communication with other IU Online	
O Very s	atisfied	
O Somewhat satisfied		
○ Somewhat dissatisfied		
O Very d	issatisfied	
Q19 Why wer	e you [choice from Q18] with your communication with other IU Online students?	
Q20 Would yo	ou recommend your IU Online program to a friend or colleague?	
○ Yes		
○ No		

Q21 Why would you recommend this program?
Q22 Why wouldn't you recommend this program?
Q23 How do you define quality in online education?
Q24 Did IU meet your expectations for quality in online education? O Yes
O No Q25 How did IU meet your expectations for quality in online education?
Q27 How did IU not meet your expectations for quality in online education?
Q28 We appreciate your time spent completing this survey. If you are among the first 200 respondents, you will receive a \$10 Amazon gift card if you provide your name and email address. After the survey has closed, gift cards will be emailed to the first 200 respondents to complete the survey. To complete and submit, please click on the right arrow below.
○ First name
O Last name
○ Email