

Survey of Student Perceptions of Instruction and Learning Fall 2020

Executive Summary

Pamplin USPC conducted a survey of Pamplin undergrads to evaluate instruction and learning in fall 2020. The survey had 346 student respondents. The sample of respondents was representative of the student body by major and was somewhat weighted towards seniors in 2020-21. About 80% of students rated their internet access as satisfactory all or most of the time. About 20% rated their access as satisfactory half of the time or less.

About two-thirds of the respondents prefer in-person instruction to hybrid or all online instruction. Among those preferring in-person instruction, the most commonly cited reasons were difficulties focusing on online material, the desire to interact with faculty and other students, and the need to ask questions and discuss course material. Given that online instruction is necessary during fall 2020, slightly more than half of the respondents prefer live online lectures to pre-recorded lectures (53% to 47%). Among those preferring live lectures, the most commonly cited reason was the ability to ask questions. Among those preferring pre-recorded lectures, the most commonly cited reason was the greater time flexibility pre-recorded material provides the student.

The survey asked what aspects of instruction in fall 2020 are most effective or ineffective. Respondents stated that technical delivery and faculty were most effective and that peer support was least effective. The survey also examined the use of some tools in online instruction (in-class polling, breakout rooms, group assignments, and requiring student cameras). Requiring that students have their cameras on was the least popular tool. In general, tools are popular with some students but unpopular with others. The difference in opinion about the usefulness of these tools suggests that faculty discretion is important in the use of each tool.

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The Pamplin Undergraduate Studies and Policy Committee (USPC) conducted a survey of Pamplin undergraduates focusing on their academic experience in fall 2020. The survey asked students to describe their experiences with Pamplin courses. The survey consisted of 16 questions with 12 objective questions and four open-ended questions. The USPC survey was open from October 26th to November 8th. The Pamplin student body received two e-mail messages about the survey with daily reminders on businfo requesting their participation. In total 346 students in Pamplin undergraduate courses completed the survey. We present and discuss the results below. Note that some students elected not to respond to some questions.

The first two questions provide demographic information about the composition of the students who responded to the survey. Question 1 asked for students to identify their major. Our assumption is that students answered by listing their primary major if the student is double majoring within Pamplin. The table below shows that the largest major in the survey sample was BIT, followed by FIN, ACIS, and MKTGT. The last column on the right provides a percentage breakdown of the total Pamplin undergraduate student body (primary majors only). Comparing the survey percentage composition to the student body percentage shows that BIT majors are modestly underrepresented in the survey by about 3.4% and that ACIS and FIN are modestly overrepresented by about 7.9% and 3.3% respectively. Pre-business majors are also underrepresented in the survey by 12%.

Q1. What is your major?	Survey		Pamplin percentages*
	Frequency	Percentage	
ACIS	62	17.9%	10%
BIT	81	23.4%	26.8%
BUS	12	3.5%	15.5%
FIN	73	21.1%	17.8%
HTM	16	4.6%	4.0%
MKTGT	49	14.2%	12.8%
MGT	35	10.1%	9.5%
REAL	6	1.7%	3.5%
Other	12	3.5%	
Total	346	100%	100%

* based on Fall 2020 enrollments

Question 2 asked survey respondents for their class designation. Almost 40% of respondents are seniors in fall 2020. Comparing the survey composition to the overall Pamplin percentages, shows that freshman are underrepresented in the survey.¹ This might plausibly occur because freshman generally take fewer Pamplin courses. Sophomores and juniors completed the survey in approximately the same proportion as they are part of the Pamplin student body, and seniors are

¹ The Pamplin percentages are based on class codes which can misclassify students who enter with AP credits, transfer credits that do not get them out of a VT course, and students who change to a Pamplin major from another college.

overrepresented in the survey. The substantial presence of seniors implies that the students in the survey are likely to be enrolled in several Pamplin courses in fall 2020.²

Q2. What is your class designation?	Survey		Pamplin percentages
	Frequency	Percentage	
Freshman	64	18.5%	24.8%
Sophomore	75	21.7%	21.3%
Junior	71	20.5%	22.5%
Senior	136	39.3%	31.3%
Total	346	100%	100%

Question 4 asks whether survey respondents had any experience with online courses at VT prior to spring 2020. We expect that students who had previously completed an online course would be more comfortable with the requirements of that mode of instruction. About 60% of respondents had taken a prior online course at VT, while about 40% of survey respondents had not taken a prior online course at VT.

Q4. Have you completed any VT online courses prior to Spring 2020?	Frequency	Percentage
Yes	208	60.1%
No	138	39.9%
Total	346	100%

Question 5 enquires about the adequacy of the student’s internet access to participate in Zoom courses or courses using other high-band width mediums. Slightly more than a quarter of survey respondents report that the internet access is always adequate, and slightly more than half report that their internet access is adequate most of the time. Unfortunately, these findings imply that close to 20% of students have internet access that is adequate half of the time or less. This result poses a substantial problem for instruction that relies entirely or primarily on internet access and high-band width activities.

Q5. My internet access is sufficient to participate fully in online Zoom courses, meetings and other high-band width activities.	Frequency	Percentage
Always	95	27.5%
Most of the time	186	53.8%
About half the time	24	6.9%
Sometimes	34	9.8%
Never	7	2.0%

² The survey also contained question 3 that asked students to indicate if they were low-income (21.7% of respondents), minority (23.7%), first generation (21.1%), students with disabilities (5.5%), or international students (3.2%). Respondents might identify with more than one of these categories or none of these categories. These percentages are reasonably comparable to Pamplin overall. We do not discuss or present more information on these breakdowns since they are not used elsewhere in the presentation.

Question 6 asks students which teaching mode they prefer – hybrid, in-person, or online. Roughly 65% of survey respondents prefer all in-person instruction. About 15% prefer a hybrid alternative, and just under 20% prefer that instruction be all online. This question did not ask students about the desirability or practicality of conducting all in-person instruction in the current environment. In designing the survey, the USPC viewed our role as determining what students prefer. We leave the question of what to offer to the senior administration of VT, our dean and department heads, and to individual faculty.

Q6. Which teaching model do you prefer?	Frequency	Percentage
Hybrid	53	15.3%
In-person	229	66.2%
Online	64	18.5%

Question 7 asked students to explain their preference for a particular modality per Question 6. Committee members examined the student responses for this and other open-ended questions. The responses were analyzed and categorized according to the content of the response. Many respondents, particularly those choosing in-person instruction, gave multiple reasons for their preference among modalities. The question did not direct students to rank the reasons given. In tabulating student responses, we noted each reason mentioned for their preference among modalities. Thus, the total number of comments in the in-person category exceeds the number of students preferring that modality. The table with the responses to question 7 is on page 5.

Among students preferring in-person instruction, the majority indicated that they have substantial problems focusing on Zoom lectures and recordings (Zoom fatigue) especially when they have several classes using live or recorded lectures. Many of these students stated that they pay far more attention when they are in a classroom setting. 53% of respondents cited this factor. The next most important factor in the preference for in-person classes is the ability to develop personal relationships with faculty and other students. Our presentation here combines these into a single category. If we had separated the 60 responses, about one-third noted only the importance of relationships with other students, about one-third only mentioned relationships with faculty, and about one-third mentioned relationships with both other students and faculty. The third most important factor in student preferences for in-person instruction is the enhanced ability to ask questions and participate in discussions with faculty and other students. Some of the responses seemed to be emotional reactions to the current environment.

Q7. Explain your preference in Question 6	N=53	N=229	N=64
	Advantages of hybrid	Advantages of in-person	Advantages of online
Allows the student to do classwork on their own schedule	15		17
Allows for repeat viewing of lectures	3		2
Flexibility in accommodating different learning styles and desired work pace	9		20
Covid-19 concerns	3		7
Combines the advantages of in-person and online	16		
Allows students to reside in other locations than the NRV			8
Eliminates or reduces travel time	1		6
Difficulties in focusing on online recordings and superiority of in-person classes in improving focus		121	
Increases motivation and feelings of engagement		38	
Faculty presentations are much better than online recordings		27	
Need the opportunity to ask questions and discuss topics and generally participate		49	
Importance of relationships with faculty and student colleagues		60	
Forces the student to adopt structure to their lives		21	

The two primary reasons cited for preferring the hybrid mode were that it allowed students to combine the advantages of in-person and online instruction and that the hybrid mode allowed students to accommodate their own particular schedules. Students preferring online instruction cited flexible schedules and the ability to adjust to their learning style and desired pace of work as the two most important factors. Given that many courses will be offered online in spring 2021, faculty teaching online might look to create additional opportunities to accommodate different learning styles into their course plans and assignments.

Question 8 asked whether students preferred live lectures or prerecorded lectures in online instruction if the quality were the same. By a 53% to 47% margin, respondents preferred live lectures. Unlike the preference for modality which was substantial, the preference for live over prerecorded lectures was relatively small.

Q8. For online courses, do you prefer live lectures or pre-recorded lectures of the same quality?	Frequency	Percentage
Live lectures	180	52.6%
Pre-recorded lectures	162	47.4%
Total	342	100%

Question 9 followed up on the preference for live versus pre-recorded lectures by asking students to discuss the reason(s) for their preference in question 8. Like question 7, some respondents cited multiple reasons for their preference in question 9 responses. The table on the next page provides some common responses. 53 students preferring live recordings cited the ability to ask questions and receive immediate answers as the primary advantage. The second most commonly cited reason for preferring live lectures is that they impose a schedule on students that improves their productivity. The most commonly cited reason for preferring pre-recorded lectures (70 respondents) is the flexibility to listen to lectures when it is convenient. The next most cited reason (63) is that pre-recorded lectures provide students with the opportunity to proceed through lecture material at their own pace and to pause and replay lectures when needed. Finally, 43 students stated that they take better and more organized notes when they listen to pre-recorded lectures. Given the necessity to use online instruction in many courses, faculty might look to combine the best of both methods by creating pre-recorded lectures to present fact-based information which can be digested at a student's own pace and at convenient times while offering more time for discussion in some courses and elaborating on more complex problems in courses that feature more quantitative reasoning and analysis.

Q9. Why do you prefer [choice of the previous question]?	Students preferring live lectures	Students preferring pre-recorded lectures
Live lectures give you a chance to ask questions and get real-time answers	53	
Live lectures impose a schedule on students that is helpful	22	
More likely to watch live lectures	6	
Pre-recorded lectures give the students more time flexibility		70
Pre-recorded lectures give students an opportunity to move at their own pace (pause recording and replay)		63
Students take better notes with pre-recorded lectures		43
Pre-recorded lectures are shorter than live lectures and improve student focus and retention		9

Question 10 asks students to rate 5 factors that affect the success of online learning. The factors are personal factors, technical delivery, peer support, the instructor, and administrative issues. The most important are the faculty member and personal factors. While technical delivery clearly also matters, students rated it as slightly less important than faculty and personal considerations.

Q10. Rate the level of importance for each factor that influences online learning.	5 Very important	4	3	2	1 Not important at all	Average
Personal factors	199	94	23	8	6	4.43
Technical delivery	164	107	42	14	2	4.27
Peer support	127	79	80	28	15	3.84
Instructor	212	76	32	7	1	4.50
Administrative	110	78	87	46	8	3.72
Other	29	5	29	2	39	2.84

Question 11 builds on the answers to question 10 by asking how Pamplin faculty in general are doing with regard to each factor. Students rated technical delivery as what Pamplin does best. Faculty performance and personal considerations scored about equally. Peer support in an online environment is what we have been least successful in managing this fall. Almost 69% rated their Pamplin classes as a 1, 2, or 3 (the weaker ratings) in terms of peer support. Concerns about this item show up in responses to questions 7 and 12.

Q11. How is Pamplin doing on each fact that influences online learning?	5 Very well	4	3	2	1 Very poor	Average
Personal factors	63	92	102	36	35	3.34
Technical delivery	62	137	82	26	18	3.61
Peer support	26	76	108	63	54	2.87
Instructor	50	107	95	52	23	3.33
Administrative	44	99	98	52	34	3.20
Other	15	14	32	1	31	2.80

Question 12 asked students to rate the importance of interaction with other students. 68% of respondents rated student interaction as either important or very important (levels 4 and 5 in the 5-point scale). This finding is expected.

Q12. How important is the ability to interact with other students in your classes to you?	5 Very important	4	3	2	1 Not important	Average
Personal interaction	130	96	55	27	22	3.86

Question 13 followed up on question 12 and provided respondents a chance to indicate activities that improve student interaction. Only 120 students responded to this question. About 25% identified breakout rooms as a useful tool for creating more engagement in classes. Assignment of group projects was the second most common suggestion for improving engagement.

Question 13: What are your suggestions for increasing student interaction in an online environment?			
Categories and themes of student comments	Number	Percentage	Notes
1. Zoom breakout rooms	29	24.2%	
2. Group projects	15	12.5%	
3. Online instruction activities to improve student Interaction	18	15.0%	Require camera on (5) Encourage students to participate in class discussions (5) Add discussion boards (5) Direct calling on students (2) Offer extra credit for interaction (1)
4. Additional class forums to support student interactions	16	13.3%	Create study groups at start of semester (7) Create ways for students to share contact information (6) Hold small student gatherings safely (3)
Other comments not directly related to question	42	35.0%	Go back to in-person classes (16) No idea how to improve (12) Interaction cannot be improved (8) Not concerned with increasing interaction (6)

Question 14 asks how students feel about use of some tools in online instruction – polling during class, breakout rooms, group projects, student cameras, and calling on individual students (all but polling are mentioned in the responses to question 13). The wording of the question asks about effectiveness of the tools in increasing engagement. We should note that effectiveness in the eyes of students and in the eyes of faculty may not always be the same and that a tool could be useful for some purpose other than increasing engagement.

In looking at student responses for each of the tools, respondents clearly have widely varying opinions. Some students seem to like each of the tools and find the tool to contribute to the classroom experience while other students appear to deeply dislike the same tool (e.g., compare the numbers of students rating each tool as 5 vs 1). Overall, in-class polling received the highest rating while use of student cameras and calling on students received the least favorable responses. The use of breakout rooms and group assignments mentioned by students in question 13 is viewed as effective or very effective by some students but as ineffective by a roughly equal number of other students. For example, 120 students rated breakout rooms as effective (a 4 or 5) versus 116 students that rated breakout rooms as ineffective (a 1 or 2). Anecdotally, members of the committee have seen examples of a difference in the reaction to calling on students in both

online and in-person settings. This may be an example of a device for generating student participation that works quite differently in the two settings.

Q14. Rate the extent to which you have found the following class activities to be effective in increasing your engagement in online synchronous classes.	5 Very effective	4	3	2	1 Not effective at all	Average
Polling during lectures	82	83	51	28	37	3.52
In-class breakout rooms	47	73	59	52	64	2.96
Group assignment and projects	41	70	72	52	55	2.97
Lectures that require student cameras	39	56	61	39	101	2.64
Lectures in which the professor calls on individual students	41	48	44	47	101	2.58
Other factors	2	10	13	4	34	2.08

The results do not control for the effectiveness of faculty in utilizing these tools. Some faculty may find a particular tool to be an important aid in increasing student participation and engagement while others do not. The difference in faculty success with these tools may be influenced by type of subject matter, level of a course, presentation style, and faculty experience with the tool.

The online experience this fall makes communication between faculty and students through means other than personal contact both more important and more difficult than in the past. Question 15 asks students to rate Pamplin faculty as a whole in terms of communications about topics related to class administration, assignments, and class activities. In general, the respondents had positive evaluations of Pamplin faculty as evidenced by the large number of 4 and 5 (effective and very effective) as ratings. However, there are a disconcerting number of 1's and 2's for most of the items (ineffective and very ineffective).

Q15. Rate the overall communication from your professors this fall for the following topics.	5 Very effective	4	3	2	1 Very ineffective	Average
Class lectures	83	125	62	35	20	3.66
Assignments	81	111	66	47	18	3.59
Due dates	93	102	62	41	26	3.60
Grading	76	90	82	46	27	3.44
Required technology	95	113	69	27	16	3.76
Organization of Canvas sites	81	99	72	36	35	3.48
Expectations of the classes	71	110	80	35	27	3.50
Other	14	6	25	3	35	2.53

NOTE: SPOT evaluations for the fall will include some new questions about technology, Canvas, and Zoom. We expect the responses to these questions to help individual faculty make appropriate decisions.

Question 16 is somewhat different from the other questions. The nature of this question is that it is both open-ended and that it is very broadly focused. Thus we present the information in a different format.

Question #16: If you could change one aspect of your courses to improve your online learning experience in Pamplin, what would it be?

As with the other open-ended questions, student responses were read, analyzed, and categorized according to the content of the response. I omit numbers of responses here because this question lacks the specificity of those above and will generate highly varied reactions. We split the responses into four categories – Faculty and class-related, Class administration, Canvas/Zoom issues, and Workload and assignments. We provide some brief comments after each category.

Faculty and Class - Related

- Clearer schedule with learning targets and due dates given ahead of time – weekly highlight announcement helps
- Better (and earlier) communication from professor – i.e., scheduling, grading, office hours
- More engaged faculty
- More leniency and consideration from professors – i.e., schedule, grading, class procedures
- More interactive teaching
- Some faculty change schedules too often
- Mandatory office hours for all faculty
- More effective delivery of hybrid classes - microphones do not work when professor walks around in the classroom (students on Zoom cannot hear)

COMMENTS: The feedback suggests that many of us should evaluate our communication strategy for our classes. The lack of multiple weekly meetings makes us more reliant on digital communication. E-mail and Canvas announcements can help, but both can be overused. Another option is to ensure all important course dates appear on the Canvas calendar by setting due dates on quizzes and assignments or adding events directly to the calendar. Faculty using the hybrid method may need to modify some classroom behaviors to accommodate online students. Moving around while we lecture or lead class discussion or writing on a board work well for students in the classroom but do not work well for online students.

Class administration

- Mandatory camera usage by students (see question 14)
- Smaller classes or more small group meetings
- No webcam/lockdown browser monitoring during exams
- No breakout rooms

COMMENTS: The use of student cameras during class sessions, breakout rooms, LockDown Browser, and Respondus Monitor are controversial among our students. Faculty need the freedom to act in the manner that maximizes the value of their class sessions and provides reasonable security for testing. Some faculty may find it appropriate to reevaluate their policies. For test security, faculty may be able to reduce test anxiety by discussing some items that

Respondus Monitor is intended to catch. Many students seem to misunderstand its purpose and how many faculty use it. Faculty may also wish to turn off the option that prompts students whenever their face is not fully viewable by their webcam. When students write on paper to solve problems, many will lower their heads naturally. This results in very frequent prompts which can be disruptive.

Canvas/Zoom issues

- More technology/Canvas/Zoom training for professors
- More standardized Canvas sites
- Better organization of Canvas sites
- Homogenize the method by which Zoom lectures are offered
- More consistency in using Canvas instead of outside platforms

COMMENTS: Organization of Canvas sites is an ongoing concern among students. The students on the Task Force in spring 2020 also highlighted disorganization and lack of standardization as problems. Please consider customizing your Canvas site to facilitate student use. Use of Pages and Modules in Canvas can be useful tools to organize material. Please try to avoid dumping documents into the Files folder unless you have created a well-organized sub-folder system. Parts of your Canvas site may look different in your students' view. You can request a guest account and use it to log in as a student to see exactly how your course will look to your students. Consider reviewing your Canvas site the first day of class and visiting it periodically in your lectures. These steps will help guide students in how to access material in your Canvas site.

Workload/Assignments

- Fewer assignments and exams/Less workload/less busywork – i.e., pre-recorded video + live Zoom should not exceed hours you would normally spend in a live class
- No (or less) group work
- Assignments that are tailored to online learning rather than migrating old assignments online or assigning all publisher provided exercises
- More time during exams

COMMENT: The students on the Task Force in spring 2020 endorsed the use of more low weighted assignments, quizzes, and problem sets/homework in place of a small number of highly weighted exams. Apparently, many faculty followed that recommendation. We are now seeing that we can overuse the low weight assignments as well. Consider offering some flexibility in the grading if these assignments are for formative assessment purposes. Additionally, faculty may want to consider whether some assignments that worked effectively in in-person instruction translate effectively to an online setting. Some assignments may not work well online. Obviously, this is a decision that needs to be evaluated by each faculty member based on their choice of modality, the course they are teaching, their classroom style, and the assignments they use.