STUDENT EXPERIENCE OF INSTRUCTION

2020W REPORT TO SENATE

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EXECUTIVE SUMMARY

This report summarizes the results for 8,200 Student Experience of Instruction (SEI) reports, for 7,087 course sections in which the University Module Items (UMI) were administered during 2020W1 and 2020W2 sessions. During this period, the majority of instruction at UBC was offered fully online. About half of the SEI ratings in 2020W had an interpolated median of 4.5 or higher for all UMI questions (on a 5-point scale), with favourable ratings (sum of 'agree' and 'strongly agree' responses) greater than 75%. This represents a remarkable achievement given the challenges and uncertainties that faculty and TAs teaching courses experienced, and shows evidence of the care and attention devoted to supporting students in their continued learning activities despite challenging circumstances. On the other hand, less than 10% of the ratings had an interpolated median below 3.5 and with favourable rating of less than 50%. Both of these results are similar to those obtained in previous years. For all University Module Items (UMI), there were no statistically significant differences between SEI score distributions in the 2020 Winter Terms when compared to the corresponding Winter Terms of 2019.

Overall, 51% of surveys in Term 1 (2020W1) met or exceeded the university's recommended minimum response rate, slightly lower than 57% in Term 1 of the previous year (2019W). However, in Term 2 only 40% of the ratings met or exceeded the university's recommended minimum response rates a modest improvement when compared to the 32% reported in Term 2 of 2019 (interrupted in March 2020 by COVID19 restrictions).

1. SCOPE OF IMPLEMENTATION

8,200 Student Experience of Instruction (SEI) reports were submitted to the University, for 7,087 course sections in which the University Module Items (UMI) were administered in 2020W. This represents a 2.8% increase in the number of course sections, but slight decrease in the number of submitted ratings, compared to the 8,241 ratings in 2019W. 3,850 of the 2020W SEI reports (47%) were from winter Term 1, and 4,350 (53%) from Term 2.

A summary of the scope of implementation, by Faculty and year level, is shown in Table 1.

Table 1. Scope of 2020W Implementation[1]

FACULTY	NUMBER OF INSTRUCTORS EVALUATED[2]					
	100 Level	200 Level	300 Level	400 Level	Grad	Total
Applied Science	98	180	170	187	356	991
Arts	699	391	839	410	419	2,758
Commerce	61	144	245	158	134	742
Dentistry	3	10	7	126	18	164
Education	28	21	292	265	238	844
Forestry	17	38	40	46	55	196
Land & Food Systems	10	21	59	45	44	179
Law	0	39	67	79	51	236
Medicine[3]	11	19	75	118	318	541
Pharmaceutical Sciences	29	23	40	8	4	104
Science	388	237	326	171	211	1,333
Vantage College	72	40	0	0	0	112
TOTAL	1,416	1,163	2,160	1,613	1,848	8,200

[1] In accordance with the Senate Policy, courses of an independent nature, sections with very small enrolments and those where other forms of evaluation are more appropriate are not included in this analysis.

[2] Unique course section/instructor combination.

[3] Includes Medicine courses evaluated by Science.

2. RESPONSE RATES

Percentage of SEI reports with response rates that met or exceeded the recommended minimum response rates are shown in Tables 2 and 3, for Terms 1 and 2, respectively; including comparative data for 2019W. Overall, response rates are lower in Term 2 compared to Term 1. In Term 1 (2020 W1), 51% of evaluations met/exceeded the recommended minimum response rates, compared to 57% in winter Term 1 of 2019. However, response rates are comparable in sections with 100 or more students (last two columns of Table 2). It is worth noting that winter Term 1 of 2019 was the last, fully in-person, academic Term before the COVID-19 epidemic.

Table 2. Sections Meeting or Exceeding the Recommended Response Rate in 2020 Term 1

Class Size[1]	Course Sections	Number of Evaluations	Total Enrolment	Recommended Minimum Response Rate[1]	% meeting minimum recommended	
					2020W1	2019W1
≤ 10	217	248	1,751	75%	27%	37%
11 -19	592	678	8,903	65%	27%	37%
20 -34	956	1,026	25,243	55%	31%	41%
35 - 49	561	618	22,984	40%	56%	63%
50 -74	355	397	21,513	35%	57%	57%
75 -99	163	184	14,135	25%	84%	92%
100 -149	260	325	31,289	20%	91%	93%
150 - 299	239	319	49,439	15%	92%	87%
300 - 499	31	45	10,527	10%	100%	100%
> 500	4	10	4,153	5%	100%	100%
Overall	3,378	3,850	189,937		51%	57%

[1] Zumrawi, A., Bates, S. & Schroeder, M (2014). What response rates are needed to make reliable inferences from student evaluations of teaching? Educational Research and Evaluation: An International Journal on Theory and Practice, 20:7-8, 557-563

As evident in table 2, more than two thirds of the sections in Term 1, with less than 35 students, did not meet the recommended minimum response rate.; these sections accounted for 19% of the total enrollment in the Term. In Term 2 (Table 3), 40% of SEI reports met or exceeded the minimum recommended response rates, which is a modest improvement compared to the 32% in Term 2 of 2019. Nonetheless, in Term 2 more than half of the sections with less than 75 students, did not meet the minimum recommended response rate. These sections accounted for 47% of the total enrollment in the Term.

Table 3. Sections Meeting or Exceeding the Recommended Response Rate in 2020 Term 2

Class Size[1]	Course Sections	Number of Evaluations	Total Enrolment	Recommended Minimum Response Rate	% meeting minimum recommended	
					2020W2	2019W2
≤ 10	378	455	3,015	75%	21%	19%
11 -19	736	834	11,089	65%	21%	11%
20 -34	962	1088	25,222	55%	27%	16%
35 – 49	552	608	22,437	40%	42%	32%
50 -74	400	514	23,872	35%	40%	34%
75 -99	213	250	18,493	25%	68%	66%
100 -149	237	289	28,743	20%	85%	80%
150 - 299	212	292	43,293	15%	93%	88%
300 - 499	18	19	6,145	10%	100%	100%
> 500	1	1	937	5%	100%	100%
Overall	3,709	4,350	183,246		40%	32%

3. **RESULTS**

Statistics reported and used to summarize instructor ratings in this section include: The Interpolated Median (IM), Dispersion Index (DI), and Percent Favorable Rating (PFR).

The interpolated median (adjusted median) is an appropriate measure for the center of the data, and is computed by adjusting the customary median (50% percentile). The extent of the adjustment depends on the distribution of SEI ratings relative to the customary median i.e., how many of the students' scores are greater than, equal to, or less than the customary median.

The dispersion index is a measure of variability in student scores. It ranges in value from zero to 1.0. A value of zero is obtained when all student respondents agree on the same rating. A value of 1.0, on the other hand, occurs when respondents split 50/50 between scores of strongly disagree and strongly agree. (This rarely happens in practice; values for the dispersion index in 2020W range from 0 - 0.88, but dispersion was higher than 0.8 in only 31 of 3,680 evaluations that met the minimum expected response rates).

Percent favourable rating reflects the ratio of students who responded with 'Agree' or 'Strongly Agree' as a percentage of all respondents.

The IM scores for the 6 UMI questions by year level, are shown in Tables 4 and 5 for Term 1 and Term 2, respectively. Average percent favourable rating (agree and strongly agree) is given in parenthesis. For all UMI questions, there were no significant differences in the distributions of SEI ratings between the corresponding Terms of 2020 and 2019. The percentiles of the distributions are shown, by academic Term, in Appendix A.

Table 4. 2020 Term 1 IM Score and (Percent Favourable Rating) by Year Level[1, 2,3]

UMI	Year Levels						2019W1 Median
	100 Level	200 Level	300 Level	400 Level	Grad	Overall	
1. The instructor made it clear what students were expected to learn	4.3 (82%)	4.3 (81%)	4.4 (82%)	4.4 (84%)	4.5 (86%)	4.4 (83%)	4.3
2. The instructor communicated the subject matter effectively	4.3 (79%)	4.3 (78%)	4.3 (79%)	4.4 (82%)	4.5 (85%)	4.3 (80%)	4.3
3. The instructor helped inspire interest in learning the subject matter	4.2 (72%)	4.3 (74%)	4.4 (78%)	4.5 (80%)	4.6 (85%)	4.3 (76%)	4.3
4. Overall evaluation of student learning (through exams, essays, presentations, etc.) was fair	4.2 (77%)	4.2 (75%)	4.4 (80%)	4.5 (83%)	4.6 (87%)	4.3 (79%)	4.3
5. The instructor showed concern for student learning	4.2 (78%)	4.3 (81%)	4.5 (83%)	4.5 (85%)	4.6 (90%)	4.4 (82%)	4.3
6. Overall the instructor was an effective teacher	4.3 (79%)	4.3 (79%)	4.4 (80%)	4.4 (83%)	4.6 (87%)	4.3 (81%)	4.3

[1] Based on a 5-point scale, where 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree
[2] Interpolated Median
[3] Percent favourable rating (in parenthesis) defined as the percentage of respondents who rated the instructor a 4 or 5.

Table 5. 2020 Term 2 IM Score and (Percent Favourable Rating) by Year Level[1, 2,3]

UMI	Year Levels						2019W2 Median
	100 Level	200 Level	300 Level	400 Level	Grad	Overall	
1. The instructor made it clear what students were expected to learn	4.3 (83%)	4.3 (84%)	4.3 (84%)	4.3 (83%)	4.4 (88%)	4.3 (84%)	4.4
2. The instructor communicated the subject matter effectively	4.2 (80%)	4.3 (81%)	4.3 (81%)	4.3 (82%)	4.4 (86%)	4.3 (82%)	4.4
3. The instructor helped inspire interest in learning the subject matter	4.2 (76%)	4.2 (77%)	4.3 (81%)	4.3 (81%)	4.5 (86%)	4.3 (81%)	4.4
4. Overall evaluation of student learning (through exams, essays, presentations, etc.) was fair	4.3 (82%)	4.3 (81%)	4.4 (83%)	4.4 (86%)	4.5 (88%)	4.4 (84%)	4.4
5. The instructor showed concern for student learning	4.3 (82%)	4.4 (83%)	4.4 (85%)	4.4 (87%)	4.6 (90%)	4.4 (86%)	4.5
6. Overall the instructor was an effective teacher	4.3 (81%)	4.3 (81%)	4.3 (82%)	4.3 (83%)	4.5 (87%)	4.3 (83%)	4.4

[1] Based on a 5-point scale, where 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree
[2] Interpolated Median
[3] Percent favourable rating (in parenthesis) defined as the percentage of respondents who rated the instructor a 4 or 5.

4. MAGNITUDE AND VARIABILITY OF RATINGS

In this section we consider all 3 key statistics (IM, DI and PFR) in summarizing SEI ratings. Table 6 provides an analysis of UMI question 5 ('The instructor showed concern for student learning') in Term 1, for evaluations meeting minimum response rates. Average percent favourable rating, within each cell in the Table, is given in parenthesis.

As an example of how to interpret the data in Table 6, consider the middle row in the Table. There are 235 SEI reports within this rating band of UMI 5 score between 3.5 and 4.0. Of these, 128 have a dispersion index between 0.4 and 0.55, and within these 128 reports, there is (on average) 64% of respondents who rated their experience of instruction favourably (the sum of 'agree' and 'strongly agree' categories on UMI 5).

Thus, it would be plausible, within this subset of the dataset, to find a median UMI score of e.g. 3.7, where more than two thirds of the student respondents rated their experience favourably. This illustrates the additional insight gained from considering both the interpolated median of the UMI score and the variability in instructor rating that this measure of dispersion provides, rather than relying on a single metric alone.

Table 6: 2020 Winter Term 1 - Distribution of Instructor Ratings for UMI Question 5 for Surveys Meeting the Recommended response Rate (% favourable rating in parenthesis).

| IMedian	Variability in SEI Rating (dispersion)								Total
	0	< 0.2	0.2 - 0.3	0.3 - 0.4	0.4 -0.55	0.55-0.70	0.7-0.85	> 0.85	
	Number of Evaluations (% Favourable Rating in Parenthesis)								
< 5.0	31 (100%)	291 (99%)	360 (97%)	249 (91%)	83 (85%)	10 (77%)	1 (67%)		1,025
< 4.5			73 (96%)	246 (87%)	253 (78%)	37 (72%)	3 (63%)		612
< 4.0			4 (77%)	28 (68%)	128 (64%)	69 (59%)	6 (57%)		235
< 3.5				3 (40%)	18 (42%)	25 (40%)	6 (42%)		52
< 3.0					2 (19%)	16 (26%)	5 (30%)		23
									1,947

As would be expected, favourable rating decreases – on average - as dispersion increases in the first three rows (IM of 3.5 or more), but increases with dispersion in the lower two rows (IM

less than 3.5). Thus, evaluations in the upper left cells have high ratings, with low variability, resulting in higher percentages of favourable ratings. Whereas the lower left cells show low ratings, with low variability in students' scores, resulting in low percentages of favourable ratings. Furthermore, SEI evaluations in the bottom two rows, corresponding to an IM of less than 3.5, have percent favourable ratings not exceeding 50%.

As evident in Table 6, most of the low ratings with low dispersion index (lower left cells of the Table) are from surveys that did not meet the minimum recommended response rates, i.e., few or no evaluations that met the minimum recommended response rates are found in these cells.

Low ratings with high dispersion should be interpreted within context, considering factors such as response rate, class size and the magnitude of the dispersion. Few, if any, SEI ratings with extreme dispersion index, met the minimum recommended response rate (last column in Table 6). It is worth noting that such extreme distributions, indicative of polarized ratings, are not common and mostly occur in smaller classes; often where the minimum recommended response rate is not met. Figure 1 is a graphical depiction of the data in Table 6, plotting two of the key statistics – IM against PFR.

Figure 1: Graphical Depiction of the UMI 5 Ratings in 2020 Winter Term 1 (Table 6).
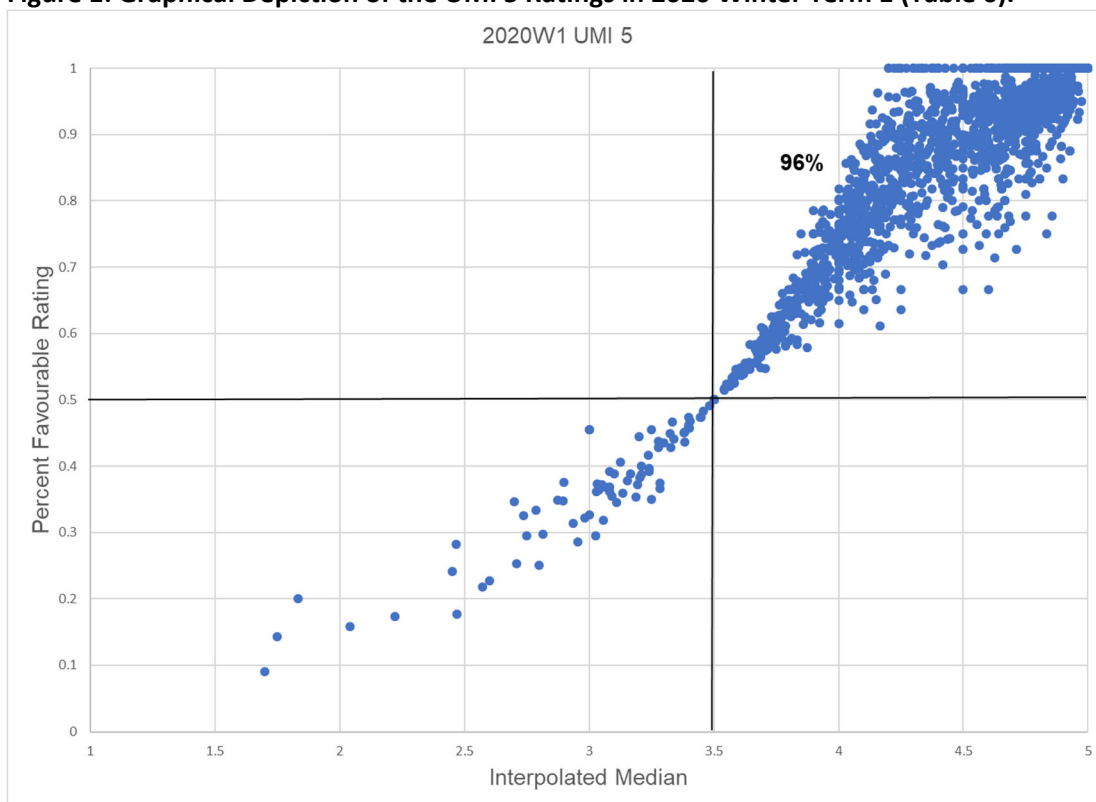
As evident in Figure 1, the pivot point in the relationship between IM and PFR, on a 5-point scale, is an IM of 3.5 and 50% favourable rating. The relationship between the two metrics is such that, no instructor evaluation with an IM below 3.5 would have favourable ratings above 50%, nor would evaluations with an IM above 3.5 ever have favourable ratings below 50%.

As such, the upper right quadrant in Figure 1 corresponds to the first three rows in Table 6. 96% of Term 1 UMI 5 ratings are in this quadrant. Likewise, the lower left quadrant (with 4% of the ratings) corresponds to the bottom two rows in the Table and includes evaluations with favourable ratings not exceeding 50%.

Figure 2 is a closer look at the SEI ratings in the upper right quadrant of Figure 1. 52% of the UMI 5 ratings in Term 1 are in the upper rightmost sub-quadrant of Figure 2, with low dispersions and IM above 4.5. Almost 80% of the UMI 5 ratings in Term 1 are in the two upper right sub-quadrants, with IM above 4.0 and over 75% favourable rating.

This visualization illustrates a remarkable feature that is often obscured in Tables of data: in about four-fifths of all evaluations in Winter Term 1, 75% or more student respondents 'agree' or 'strongly agree' that the instructor showed concern for student learning. Given the circumstances under which these courses took place, this is a significant achievement.

Figure 2: 2020 Winter Term 1- SEI Ratings in the Upper Quadrant
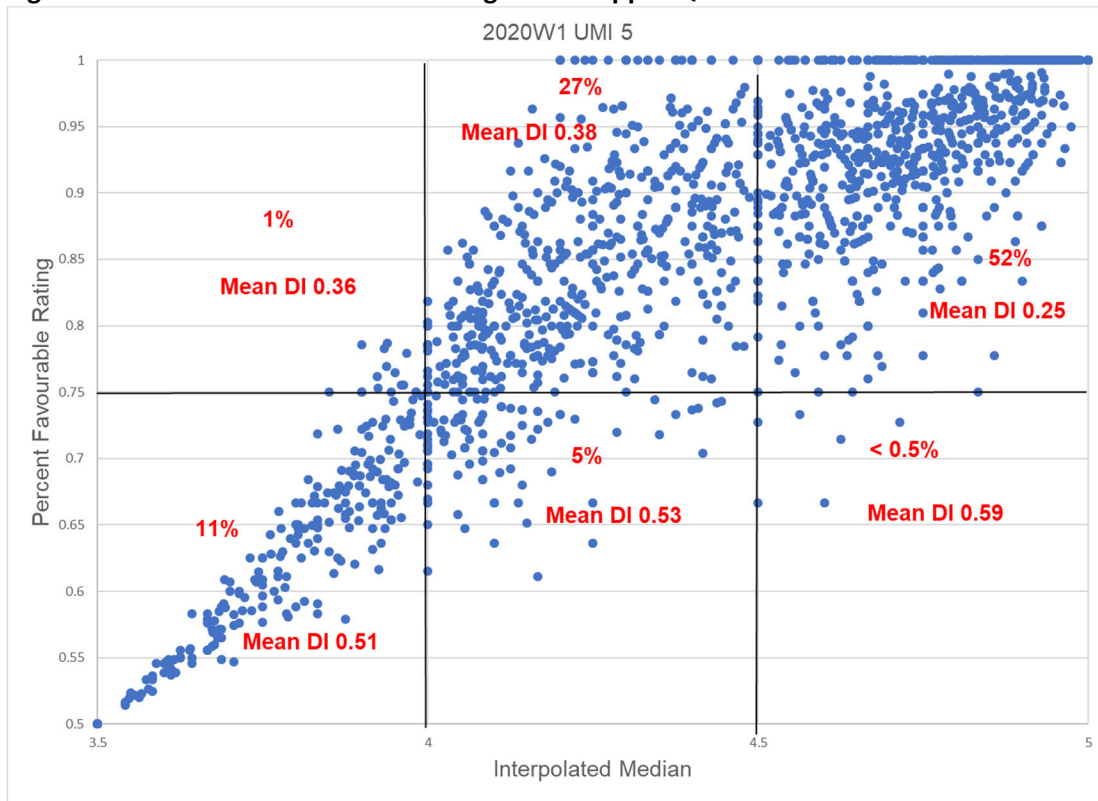
Term 2 data for UMI question 5 is qualitatively equivalent; a summary and a graphical representation is shown in Appendix B. Graphical representation of SEI ratings for UMI questions 1, 2, 3 and 6 are shown in Appendix C. UMI question 4 has been consistently answered by fewer students and was not included in this analysis (and this question will be replaced in the UMI set from 2021).

5. LOOKING FORWARDS

The Student Evaluation of Teaching Working Group Recommendations were endorsed by both UBC Vancouver and UBC Okanagan Senates in May 2020. A committee was tasked with planning for the implementation of the Working Group recommended changes to the UMI questions. The recommended new questions were tested and refined in a series of sessions with faculty and students, including a pilot survey in the summer of 2021. A set of new 6 UMI questions (on a 5-point Likert scale) and 3 open-ended questions were approved by both the UBC-Vancouver Senate Teaching and Learning Committee and the UBC-Okanagan Learning and Research Committee in August 2021. Five of these six were rewordings of the current questions; UMI 4 was replaced. The following new UMI questions will be implemented across both campuses starting in Fall 2021:

1. Throughout the term, the instructor explained course requirements so it was clear to me what I was expected to learn.
2. The instructor conducted this course in such a way that I was motivated to learn.
3. The instructor presented the course material in a way that I could understand.
4. Considering the type of class (e.g., large lecture, seminar, studio), the instructor provided useful feedback that helped me understand how my learning progressed during this course.
5. The instructor showed genuine interest in supporting my learning throughout this course.
6. Overall, I learned a great deal from this instructor.

As well, a set of three open-ended questions are included on surveys on both campuses starting in Fall 2021:
1. Please identify what you consider to be the strengths of this course.
2. Please provide suggestions on how this course might be improved.
3. Do you have any suggestions for what the instructor could have done differently to further support your learning?
4.

For more information on these changes see
https://seoi.ubc.ca/files/2021/09/One-Pager-SEI-Changes-Faculty.pdf

Information about Student Experience of Instruction at UBC is available at
https://seoi.ubc.ca/.

APPENDIX A

2020W UMI Interpolated Median Percentiles

UMI	Term	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile	Interquartile Range
1	2020W1	3.3	4.0	4.4	4.7	4.9	0.7
	2020W2	3.3	4.0	4.5	4.8	5.0	0.7
2	2020W1	3.2	4.0	4.4	4.8	4.9	0.8
	2020W2	3.2	4.0	4.5	4.8	5.0	0.8
3	2020W1	3.1	4.0	4.5	4.8	5.0	0.8
	2020W2	3.1	4.0	4.5	4.8	5.0	0.8
4	2020W1	3.3	4.1	4.5	4.8	5.0	0.7
	2020W2	3.4	4.1	4.5	4.8	5.0	0.7
5	2020W1	3.5	4.1	4.5	4.8	5.0	0.7
	2020W2	3.4	4.1	4.6	4.8	5.0	0.7
6	2020W1	3.2	4.0	4.5	4.8	5.0	0.8
	2020W2	3.2	4.0	4.5	4.8	5.0	0.8

APPENDIX B

2020 Winter Term 2 - Distribution of Instructor Ratings for UMI Question 5 for Surveys Meeting the Recommended response Rate (% favourable rating in parenthesis).

| IMedian	Variability in Instructor Rating (dispersion)								Total
	0	< 0.2	0.2 - 0.3	0.3 - 0.4	0.4 -0.55	0.55-0.70	0.7-0.85	> 0.85	**Total**
	Number of Evaluations (% Favourable Rating in Parenthesis)								
< 5.0	37 (100%)	294 (99%)	327 (97%)	219 (91%)	82 (84%)	10 (76%)			**969**
< 4.5		2 (100%)	47 (96%)	193 (87%)	217 (79%)	40 (72%)	1 (63%)		**500**
< 4.0			5 (75%)	15 (68%)	106 (64%)	45 (59%)	5 (60%)		**176**
< 3.5			1 (14%)	4 (40%)	17 (44%)	29 (42%)	5 (45%)		**56**
< 3.0				1 (0%)	9 (8%)	16 (20%)	6 (29%)		**32**
									1,733

Graphical Depiction of the 2020 Winter Term 2 Instructor Ratings for UMI 5

2020W2 UMI 5
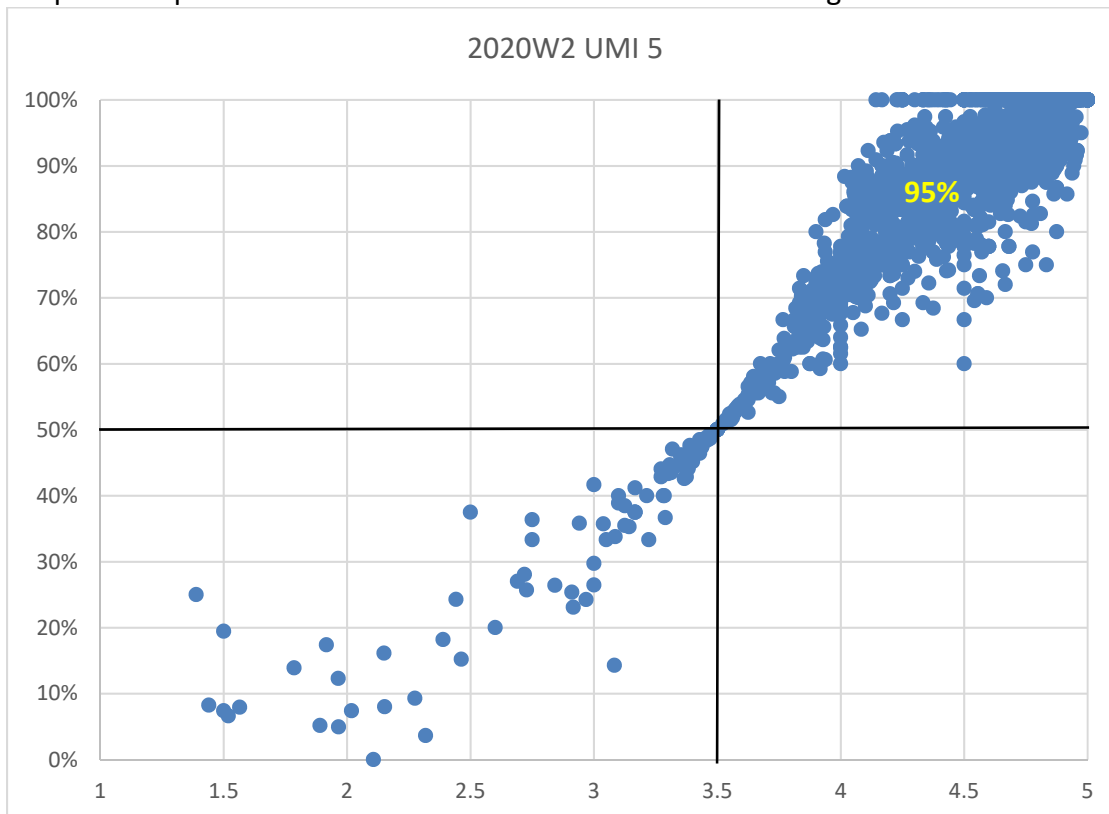
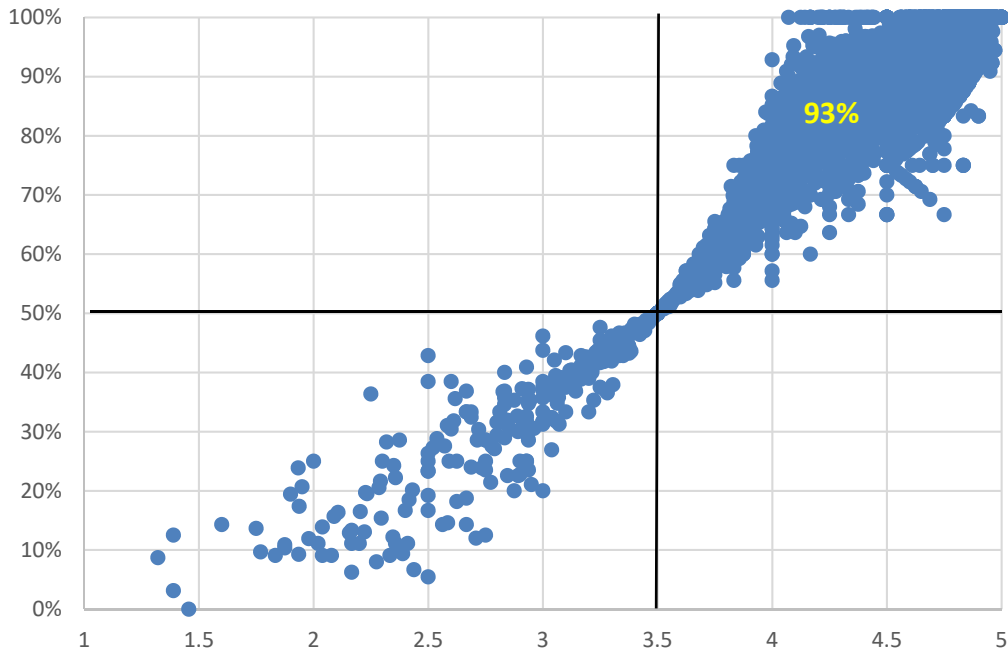# APPENDIX C

Graphical depiction of the distribution of the 2020W (both Terms) ratings for UMI question 1, 2, 3 and 6.
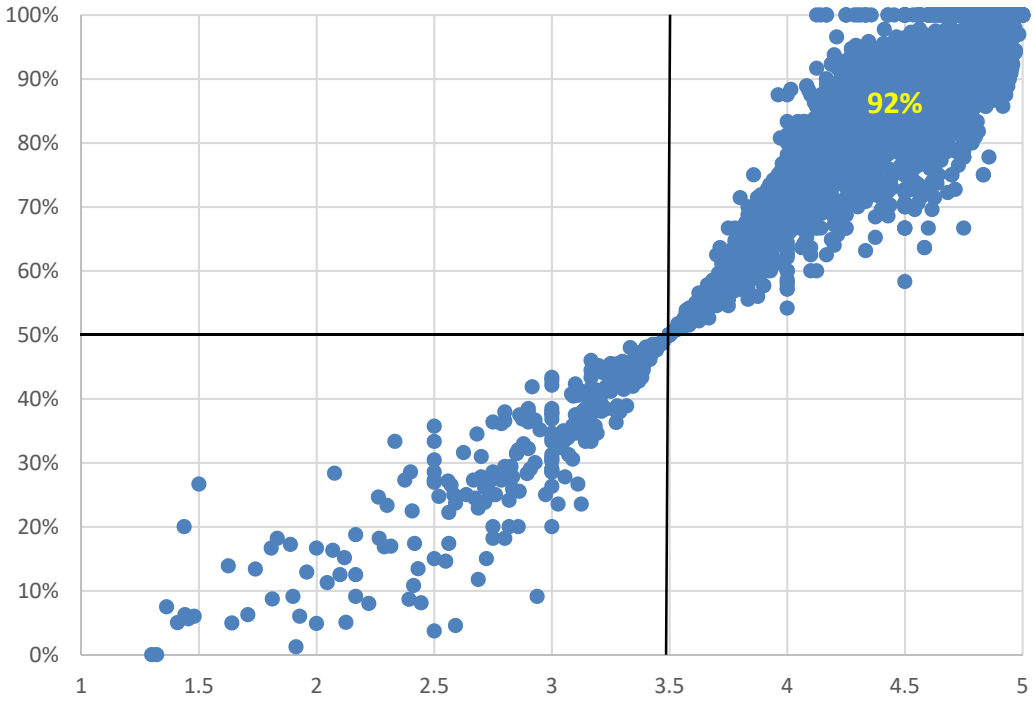
2020W UMI 1
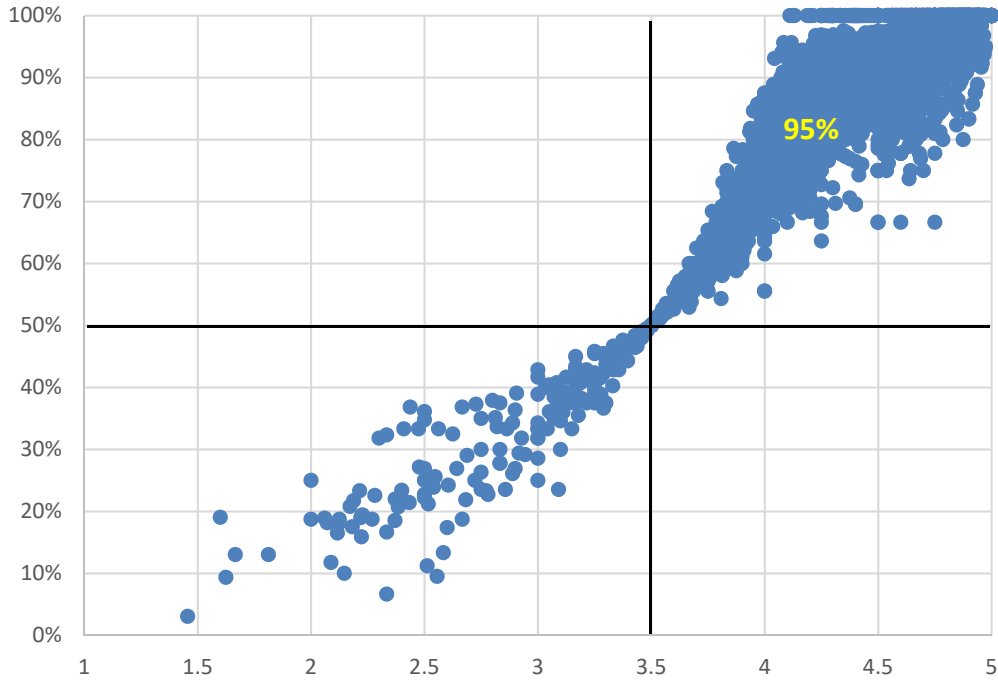
2020W UMI 2

2020W UMI 3

2020W UMI 6