September 2024

# Why Do Students Choose to Recommend Some Professors:

## Understanding Student Perception of Instructors through Mixed-Methods Research

*Paloma Benavides, PhD*
*Elizabeth Lawner, PhD*
*Meghan Snow, EdD*

Funded by

ACUE Association of College and University Educators

Lumina FOUNDATION

# EXECUTIVE SUMMARY

Decades of research have identified instructional practices that improve student engagement, persistence, learning, course completion, and retention (e.g., Armbruster et al., 2009; Burrowes, 2003; Freeman et al., 2011; Mazur, 2009). However, when recommending a professor to peers, do students recognize the value of these practices, or do they recommend the easy grader? Do students care about who can bring the topic to life? And to what extent does effective teaching inform students' recommendations? Moreover, if students do consider evidence-based practices when recommending instructors, do they consider the full scope of effective teaching practices, or do they focus on specific areas such as instructors' ability to engage students in active learning?

This study utilizes data from the ACUE Student Survey, which comprehensively captures information about students' learning experiences and perceptions of their instructors. Through the analyses of both quantitative ratings and qualitative open-ended responses, this study aims to identify the key factors that shape students' likelihood of recommending their instructors.

The primary objective of this research is to identify recurring themes in student feedback about their likelihood of recommending an instructor and examine their relationships with student, course, and instructor characteristics. To achieve this goal, we employ a mixed-methods approach, specifically the Meaning Extraction Method (MEM) (Chung & Pennebaker, 2008). Through this approach, we aim to examine whether certain student demographic factors, instructor characteristics, and course features are associated with specific themes identified in students' responses and ratings of instructors. Additionally, we intend to determine the relationship between the identified themes and students' ratings of their instructors, elucidating the main factors influencing students' evaluations.

The main themes identified in students' responses were instructional clarity, student support, perceived attributes of the instructor, and active learning. Students' race/ethnicity and class standing had the greatest influence on the extent to which students touched on particular themes in their comments about their instructors. Other student characteristics, such as age; course format; institution type; and instructor discipline, type, and experience also impacted students' feedback. Notably, instructor gender and race/ethnicity did not significantly affect students' comments or ratings of their instructors.

> In summary, students value instructors who they perceive to be **clear** in their communication, **supportive** in their approach, proactive in implementing **active learning** strategies, and exhibit personal and professional **attributes that positively influence their learning experience**. The themes identified highlight the importance of instructors' interactions with students.

This study contributes to the field of higher education by providing valuable insights into student engagement and satisfaction, thereby informing faculty development efforts and more supportive teaching practices. The main themes highlight the importance of clear communication, supportive interactions, and engaging teaching methods in fostering a positive learning environment, suggesting that higher education institutions could improve student satisfaction by better supporting instructors' development in those areas. Moreover, the differences in the use of themes by student, course, institution, and instructor characteristics indicate that students prioritize various aspects of instruction depending on demographic differences and academic context, and this multidimensional nature of students' needs and

perceptions should be considered when evaluating and supporting instructor effectiveness and student success across diverse populations.

# METHODS

## Data Collection and Participants

The study utilized data from a survey (Association of College and University Educators, 2022) administered to students of some of the faculty (N = 131) completing ACUE's comprehensive Effective Practice Framework courses at 22 higher education institutions (sixteen 4-year and six 2-year institutions), of which 1,388 responses were deemed adequate for analysis. The survey included a 5-point Likert scale question on the likelihood of recommending the instructor ("How likely are you to recommend this instructor to a friend?") and an open-ended question asking students to elaborate on their rating ("Please elaborate on your choice for the previous question.").

## Analytic Approach

MEM was employed to analyze the open-ended responses using a mixed-methods approach. Utilizing dimension reduction techniques, word clusters (called factors) representing semantic patterns that indicate the presence of underlying themes were identified. Themes scores were computed for each factor based on word relevance and frequency. The comments most closely fitting each factor were qualitatively analyzed through open coding to define sub-themes and main themes. Frequency estimates were calculated to represent the proportion of comments containing each theme, allowing comments to include multiple themes.

Follow-up analyses used theme scores to explore associations between themes and student, instructor, and course characteristics through linear regressions, controlling for factors such as course size and format, student college generation, age, and instructors' disciplines. Binary variables were created for each theme to determine if student, instructor, or course characteristics, or the themes themselves, explained variations in instructor recommendation scores, with all analyses controlling for student, instructor, and course characteristics.

# KEY FINDINGS

The initial analysis revealed that students' perceptions of their instructors were positive overall, with an average recommendation score of 4.55 (*SD* = 0.91). Among the respondents, 89% were identified as Recommenders, rating their instructors 4 or 5, while 11% were Non-recommenders, rating their instructors below 4.

## Identified Themes from Student Feedback about Instructors

Seventeen distinct themes (see Table 1) were identified and subsequently grouped based on their commonalities into the following four main themes:

**Main 1 – Instructional Clarity (40% of comments):** This theme includes students' comments about their instructors' communication of course content, expectations, and assignments in a clear and comprehensible manner.

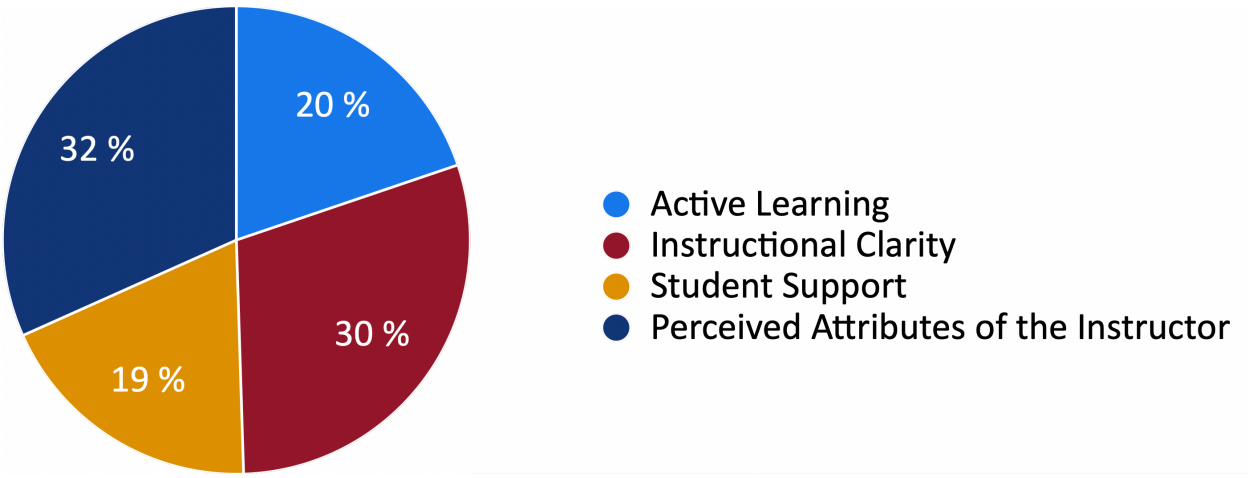
**Main 2 – Student Support (25% of comments):** This theme covers students' comments about the resources and assistance their instructors provided to support their academic success and growth, as well as the perception that their instructors care about them.

**Main 3 – Perceived Attributes of the Instructor (32% of comments):** This theme includes students' comments about their instructors' personal qualities and professional attributes that they perceive to influence their learning and satisfaction, such as professionalism and kindness.

**Main 4 – Active Learning (28% of comments):** This theme encompasses students' comments about instructional methods that make them feel engaged and make the learning process more interactive and relevant.

Further analysis, focusing solely on Non-recommenders, revealed that students' perceptions of instructors are negative when encountering deficient course structure and clarity, a lack of support and engagement from instructors, and an overall unsatisfactory learning experience.

*Figure 1: Estimated frequency[1] of student comments belonging to each main theme.*




[1] The estimated frequencies in the graph have been adjusted to total 100% to better illustrate the proportion of comments in each main theme. This adjustment is necessary because individual comments can include multiple themes depending on length and content, resulting in unadjusted proportions exceeding 100%.

*Table 1: Sub-themes included in each of the main themes identified.*

| ***Themes Identified*** | ***Estimated Frequency*** |
|---|---|
| **MAIN THEME 1: INSTRUCTIONAL CLARITY** | *40%* |
| Clear Assignment Expectations and Feedback | 13% |
| Simplified Complex Concepts | 10% |
| Clear Course Expectations and Instructions | 9% |
| Exam Readiness and Clarity | 6% |
| Detailed Explanations | 2% |
| **MAIN THEME 2: STUDENT SUPPORT** | *25%* |
| Perceptions of Care | 13% |
| Learning Resources and Guidance | 8% |
| Extra Credit Opportunities | 3% |
| Responsive Email Communication | 1% |
| **MAIN THEME 3: PERCEIVED ATTRIBUTES OF THE INSTRUCTOR** | *32%* |
| Instructor "Teaching Style" | 11% |
| Encouraging and Welcoming Instructor | 7% |
| "Best" Instructor | 6% |
| Professional and Informative Instructor | 4% |
| Kind Instructor | 4% |
| **MAIN THEME 4: ACTIVE LEARNING** | *23%* |
| Engaging Class Experience | 11% |
| Openness to Questions | 8% |
| Real-World Application of Content | 4% |

*Note: Percentages not adjusted*

## Impact of Student Characteristics on Evaluations of Instructors

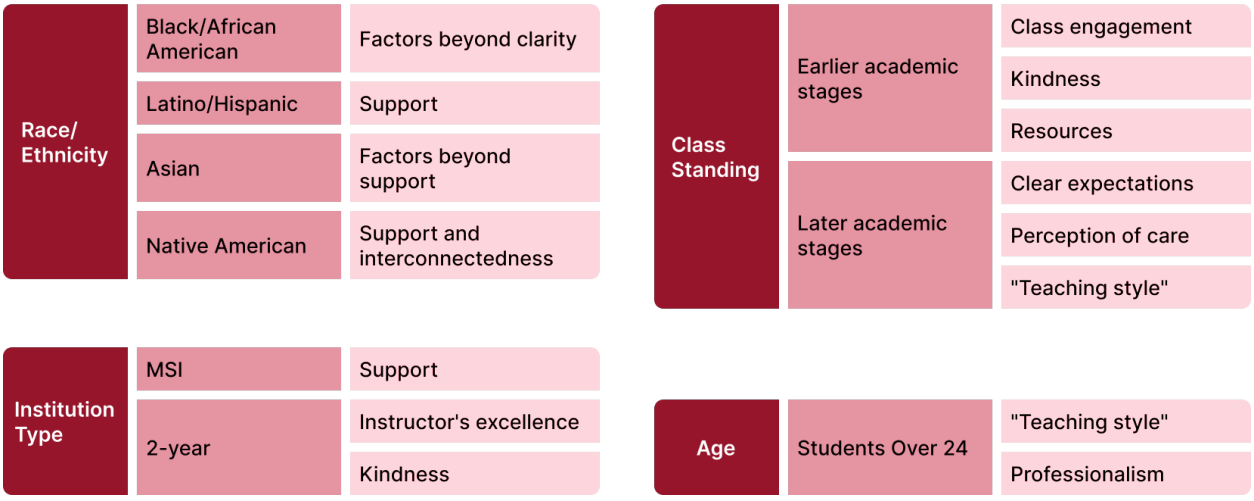
Based on the associations between student characteristics and theme scores, it was observed that students' race/ethnicity and class standing are significantly associated with instructors' features and course experiences students focus on or consider as most important. Black students, for instance, appeared to prioritize factors beyond instructional clarity, as reflected by fewer comments pertaining to this main theme compared to students from other racial groups. Conversely, Latino students seemed to place a greater emphasis on the instructors' student support, while Asian students appeared to prioritize

other factors, reflected in fewer comments on this theme. Similarly, Native American students were observed to prioritize their instructors' support and feelings of interconnectedness. White students' evaluations did not significantly differ from those of students from other racial groups across most sub-themes, except for a tendency to comment less frequently about the resources and guidance provided by their instructors.

Age also played a role in students' evaluations, with older students (over 24 years old) showing a tendency to consider the perceived teaching style and professionalism of instructors more frequently than their younger counterparts. Additionally, students attending Minority-Serving Institutions (MSIs) tended to prioritize instructor support more heavily than those from other institutions. Likewise, differences were observed between students from 2-year and 4-year institutions, with the former placing greater value on the perceptions of the instructors' excellence and kindness in their ratings.

Finally, class year also influenced students' feedback, with those earlier in their college career mentioning class engagement, instructor kindness, and the resources provided by their instructors more frequently. Conversely, students in later academic stages highlighted the clear expectations, whether instructors cared about students, and the teaching style of instructors in their evaluations.

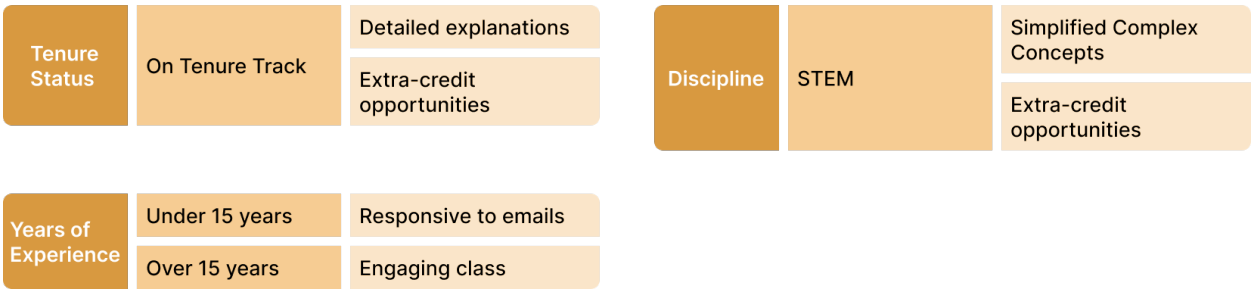
### Students are more likely to comment on...




## Impact of Instructor Characteristics on Evaluations of Instructors

The analysis of instructor characteristics revealed that tenure status, discipline, and years of experience were the most influential factors affecting the themes commented on by students, particularly concerning instructional clarity and student support. These findings may suggest that students are more influenced by their instructors' professional attributes and expertise rather than by other demographic characteristics. It is possible that tenure status, discipline, and/or years of experience are otherwise impacting the instructors' approach to teaching. Interestingly, instructors' race/ethnicity and gender did not significantly impact students' perceptions, indicating a potential lack of bias in their evaluations. This importantly suggests that students' assessments of their instructors are primarily driven by their teaching practices and professional experience rather than personal demographics.

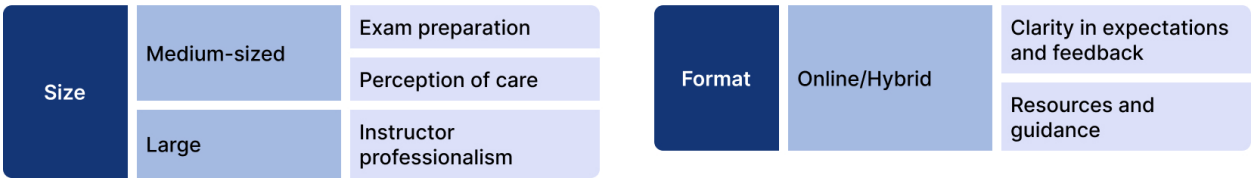
### Students of these instructors are more likely to comment on...




## Impact of Course Characteristics on Evaluations of Instructors

The analysis revealed that course format and course size significantly impacted student feedback. Students in online/hybrid courses, compared to those in face-to-face courses, commented more frequently on clarity in assignment expectations and feedback, and the learning resources and guidance provided. Regarding course size, students in medium-sized courses (21–100 students) commented more about exam preparation and their perception that the instructor cares about students but described their instructors less frequently as professional and informative than those in larger courses (over 100 students). This suggests that students in online environments value clear communication and support; findings on course size are more challenging to interpret and warrant further study.

### Students in these courses are more likely to comment on...




## Differences in Instructor Recommendation Scores Based on Student, Instructor, and Course Characteristics

The analysis of instructor recommendation scores revealed important differences based on student, instructor, and course characteristics:

### Student Characteristics

Latino students and students of other races rated their instructors higher compared to White students. In the case of student age, students over 24 years old tended to rate their instructors higher than younger students. Similarly, students from MSIs also rated their instructors higher than those from other institutions, as well as students in later academic stages, who gave higher ratings compared to first-year students.

### Instructor Characteristics

Non-tenure-track instructors received higher recommendation scores from their students compared to instructors on a tenure track. Likewise, instructors with less than 15 years of experience tended to have higher recommendation scores than those with more than 15 years of experience.

### Course Characteristics

Instructors teaching face-to-face courses were rated more favorably by their students compared to those teaching online or hybrid courses. Similarly, instructors teaching smaller class sizes (fewer than 100 students) received higher ratings compared to those teaching larger classes (over 100 students).

## Impact of Themes on Instructor Recommendation Scores

Certain themes significantly influenced instructor recommendation scores. Particularly, themes related to student support and the instructor's perceived attributes had a more significant impact on recommendation scores compared to other themes. This was also observed in sub-themes concerning instructors' clear assignment expectations and feedback and simplified explanations of complex concepts. These findings indicate that students highly value the support they receive from their instructors, professionalism, excellence, and teaching style, along with some aspects of instructional clarity. These factors greatly affect students' willingness to recommend their instructors to their peers.

# CONCLUSIONS

The findings of this study highlight the multidimensional nature of student perceptions of their instructors. Overall, students' evaluations were highly positive, with a significant majority expressing satisfaction and willingness to recommend their instructors. Analysis of student feedback identified four main themes: instructional clarity, student support, perceived attributes of the instructor, and active learning. These themes highlight the importance of clear communication, supportive interactions, and engaging teaching methods in fostering a positive learning environment.

These findings also reveal that student demographics, instructor attributes, and course characteristics are significantly associated with student evaluations of instructors. For instance, Latino and older students, those from MSIs, and those in later academic stages tend to rate their instructors more favorably. Similarly, non-tenure-track instructors and those with fewer years of experience received higher recommendation scores. Likewise, face-to-face courses and smaller class sizes were associated with higher instructor ratings. Moreover, these characteristics also influence the themes students comment on more frequently when evaluating their instructors, with different student groups prioritizing various aspects of instruction depending on their cultural differences and academic context.

# IMPLICATIONS

The insights obtained through this study have important implications for higher education at large.

> Understanding the diverse factors that impact **student perceptions** can inform **student success** and **faculty development** efforts aiming to enhance teaching effectiveness and foster **more positive learning environments**.

Higher education institutions should prioritize clear and supportive practices and support instructors to engage in instructional methods that significantly impact student satisfaction. This research also provides insight into the multidimensional nature of students' needs and perceptions that should be considered when evaluating and supporting instructor performance to cultivate effective teaching practices, improve overall instructional quality, and promote student success across diverse populations.

Thus, student feedback serves as a valuable peer-to-peer resource, guiding fellow students to courses where they will have the opportunity to experience a quality learning environment.

> These findings also suggest that when it comes to **recommendations**, students base their advice on the **quality of teaching** and **learning** and the **supportiveness** of the educational experience.

# REFERENCES


**Armbruster, P., Patel, M., Johnson, E., & Weiss, M.** (2009). Active learning and student-centered pedagogy improve student attitudes and performance in introductory biology. *CBE Life Sciences Education, 8,* 203–213. https://doi.org/10.1187/cbe.09-03-0025

**Association of College and University Educators.** (2022*). ACUE student survey shows no evidence of bias*. https://acue.org/wp-content/uploads/2022/12/ACUE_22_Student-Survey-Bias-Brief-2022_v2-2.pdf

**Burrowes, P. A.** (2003). A student-centered approach to teaching general biology that really works: Lord's constructivist model put to a test. *The American Biology Teacher, 65*, 491–502. https://doi.org/10.2307/4451548

**Chung, C. K., and Pennebaker, J. W.** (2008). Revealing dimensions of thinking in open-ended self-descriptions: an automated meaning extraction method for natural language. *Journal of Research in Personality, 42* (1), 96–132. doi:10.1016/J.JRP.2007.04.006

**Freeman, S., Haak, D., & Wenderoth, M. P.** (2011). Increased course structure improves performance in introductory biology. *CBE Life Sciences Education, 10*, 175–186. https://doi.org/10.1187/cbe.10-08-0105

**Mazur, E.** (2009). Farewell, lecture? *Science, 323*(5910), 50–51. https://doi.org/10.1126/science.1168927

# APPENDIX: SUMMARY FINDINGS

## Differences by Student Gender and Race/Ethnicity

| Context | Theme | Female | Male | Asian | Black/African American | Hispanic/ Latino | White |
|---|---|---|---|---|---|---|---|
| Instructional Clarity | Clear Course Expectations and Instructions | | | | Less Frequent b = -0.26 *** | | |
| | Exam Readiness and Clarity | | | | Less Frequent b = -0.08 * | | |
| Student Support | Perceptions of Care | More Frequent b = 0.29 * | Less Frequent b = -0.31 ** | | | | |
| | Learning Resources and Guidance | | | | | More Frequent b = 0.18 ** | Less Frequent b = -0.10 * |
| | Extra Credit Opportunities | | | Less Frequent b = -0.13 ** | | More Frequent b = 0.09 * | |
| | Responsive Email Communication | | | Less Frequent b = -18.25 ** | | | |
| Perceived Attributes of the Instructor | Encouraging and Welcoming Instructor | | | | Less Frequent b = -0.14 * | More Frequent b = 0.12 * | |
| | "Best" Instructor | More Frequent b = 0.07 * | Less Frequent b = -0.14 *** | | | | |
| Active Learning | Openness to Questions | More Frequent b = 0.18 * | | | | | |

## Differences by Student Demographic and Enrollment Characteristics

| Context | Theme | Over 24 years old | First Generation | Institution Type (4-year) | MSI | Enrollment Status | Class Standing (First-year) |
|---|---|---|---|---|---|---|---|
| Instructional Clarity | Clear Assignment Expectations and Feedback | | | | Less Frequent b = -0.26 *** | | |
| | Simplified Complex Concepts | | | Less Frequent b = -0.26 *** | | | |
| | Clear Course Expectations and Instruction | | | | | | More Frequent for: Graduate (**), b = 0.44 |
| Student Support | Perceptions of Care | | | | More Frequent b = 0.22 * | | More Frequent for: Senior (**), b = 0.66 Graduate (*), b = 0.50 |
| | Learning Resources and Guidance | | More Frequent b = 0.12 ** | | More Frequent b = 0.12 ** | | Less Frequent for: Sophomore (*), b = -0.13 |
| | Extra Credit Opportunities | | | More Frequent b = 0.14 *** | | | |
| Active Learning | Engaging Class Experience | Less Frequent b = -0.26 * | | Less Frequent b = -0.26 * | | | Less Frequent for: Graduate (*), b = -0.66 |
| | Openness to Questions | | | | Less Frequent b = -0.19 * | | |

## Differences by Student Demographic and Enrollment Characteristics - continued

| Context | Theme | Over 24 years old | First Generation | Institution Type (4-year) | MSI | Enrollment Status | Class Standing (First-year) |
|---|---|---|---|---|---|---|---|
| Perceived Attributes of the Instructor | Instructor "Teaching Style" | More Frequent b = 0.24 *** | | | | | More Frequent for: Graduate (*), b = 0.24 |
| | "Best" Instructor | | | Less Frequent b = -0.07 * | | | |
| | Professional and Informative Instructor | More Frequent b = 0.12 ** | | | More Frequent b = 0.07 * | | |
| | Kind Instructor | | | Less Frequent b = -0.18 *** | | | Less Frequent for: Junior (*), b = -0.13 Senior (***), b = -0.23 Graduate (**), b = -0.19 Other (**), b = -0.25 |

## Differences by Instructor Demographics

| Context | Theme | Female | Male | Race/Ethnicity (White) | Tenure (On tenure track) | Discipline (STEM) | Years of Experience (>15 years) |
|---|---|---|---|---|---|---|---|
| Instructional Clarity | Simplified Complex Concepts | | | | | More Frequent b = 0.71 *** | |
| | Detailed Explanations | | | | More Frequent b = 0.03 * | | |
| Student Support | Extra Credit Opportunities | | | | More Frequent b = 0.10 * | More Frequent b = 0.12 * | |
| | Responsive Email Communication | | | | | | Less Frequent b = -30.25 ** |
| Perceived Attributes of the Instructor | "Best" Instructor | More Frequent b = 0.08 * | | | | | |
| Active Learning | Engaging Class Experience | | | More Frequent b = 0.3 ** | | | More Frequent b = 0.30 * |

## Differences by Enrollment Characteristics

| Context | Theme | Course Format (Face-to-face) | Course Size (Over 100 students) |
|---|---|---|---|
| Instructional Clarity | Clear Assignment Expectations and Feedback | Less Frequent b = -0.31 *** | |
| | Exam Readiness and Clarity | | More Frequent for: 21-100 students (**), b = 0.33 |
| Student Support | Perceptions of Care | | More Frequent for: 21-100 students (**), b = 0.29 |
| | Learning Resources and Guidance | Less Frequent b = -0.17 ** | |
| Perceived Attributes of the Instructor | "Best" Instructor | More Frequent b = 0.08 * | |
| | Professional and Informative Instructor | | Less Frequent for: 21-100 students (**), b = 0.07 |