

Student Preferences for Small and Large Class Sizes

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Abstract

This study was conducted to examine class size preferences of college students as well as reasons behind these preferences. A survey was distributed to 162 students asking about their preference for enrolling in a large (75 students) or small (35 students) section for different courses. Subjects were also asked additional questions about why they preferred a large or small section and about their assumptions about large and small classes. It was found that students preferred smaller classes more for major-related courses than for general education and non-interesting required courses, although the strength of the preference changed depending on the order of the questions. The open-ended questions revealed that students liked small classes because of the professor-student interaction and the better learning environment but enjoyed large classes for reasons related to having more students in class and having decreased responsibility. The implications of these preferences were discussed.

Keywords: class size, large classes, teaching, student preferences

1. Student Preferences for Small and Large Class Sizes

Educators and administrators in higher education are often concerned with class size due to the monetary costs and benefits of smaller versus larger class enrollments. An additional concern is that the size of a class may affect a student's ability to learn. According to Raimondo, Esposito, and Gershenberg (1990) there is a negative relationship between class size in an introductory course and subsequent performance in an intermediate course depending on the course content. However, there have been mixed results regarding the effect of class size on student performance (e.g, Kokkelenberg, Dillon, & Christy, 2008; Toth & Montagna, 2002; Williams, Cook, Quinn, & Jensen, 1985), and results likely depend on other variables that affect a student's ability to process and learn information, such as instructor quality, course content, and exam difficulty. Although issues of budget and of learning are important, students' preferences for and assumptions about larger or smaller class sizes should also be considered, as these preferences might affect students' attitudes and motivation, along with students' investment in their education. A related issue to consider is whether class size preference differs for major versus non-major courses or for required versus non-required courses. Previous studies have explored the various factors that may contribute to student class size preferences.

When students enter a classroom, they likely have a preconceived notion of how the size of the class will determine the learning environment. Theory and research has supported the conclusion that active learning in higher education, with activities and discussions during which students must participate instead of being lectured to by instructors, can help students learn and remember information more effectively (Butler, Phillmann, & Smart, 2001; McKeachie, 2002; Yoder & Hochevar, 2005). However, this type of learning is typically assumed to be easier to foster in smaller classes, with lower student: teacher ratios, classroom discussions, and activities involving more students, compared to larger classes. In regard to student preference of class sizes, research has found that overall students provide more negative evaluations of large class sizes (Bedard & Kuhn, 2008) and prefer smaller class sizes (Feigenbaum & Friend, 1992), suggesting that they too might enjoy the active learning style often seen in smaller classes.

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Studies have found that a variety of variables influence student preferences. Feigenbaum and Friend (1992) found that student attitudes toward academic achievement and class enrollment in a specific course may influence their overall preferred class size. They concluded that, in a sample of psychology students, upper level students preferred large classes and lower level students preferred smaller classes. Another study suggested that students feel a sense of community in smaller classes and therefore feel more comfortable speaking out (Harfitt, 2012). Also, in one of the first studies conducted regarding class size, students most often mentioned having a personal relationship with the professor when asked why they would prefer a smaller class (Edmonson & Mulder, 1924). These studies suggested possible reasons that students may select smaller class sizes and the type of students that may have these particular preferences.

Previous research asking students why they were dissatisfied with large classes has indicated several practical and logistical reasons that large classes are disliked. Primarily among these is that there is less student-faculty interaction and more anonymity. However, other reasons include distraction in the environment, lower quality of learning, lower responsibility and the effect that lowered responsibility could have on learning (Carbone & Greenberg, 1998; Wulff, Nyquist, & Abbott, 1987).

Although large class sizes may be disliked, there are also reasons that students prefer larger class sizes. For example, Messineo, Gaither, Bott, and Ritchey (2007) found that experienced students (i.e., students who have had at least a semester of college-level coursework) were more likely to prefer larger classes and to expect a passive learning environment in these classes. The students were also less committed to the course. The experienced students said they would be more likely to skip classes, to view group work as a waste of time, and to want to be told what to know more so than inexperienced students. This suggests that students may have chosen larger classes with the expectation of a higher grade with less effort. Feigenbaum and Friend (1992) supported this conclusion, finding that students preferred classes with lower workloads and higher average grades. Feigenbaum and Friend also found that previous experience with large classes was positively correlated with an overall preference for large classes. Wulff et al. (1987), in asking students what they liked about large classes, found that participants appreciated the lack of pressure found in large classes, as well as the opportunity to encounter more students, to be more independent, and to skip classes more often. Therefore, there are certainly reasons that students choose to enroll in courses with a large class size over courses with a small class size.

As stated above, previous research has examined how class sizes affect student performance (Kokkelenberg et al., 2008; Raimondo et al., 1990; Toth & Montagna, 2002; Williams et al., 1985), but we wanted to focus on student preferences for different class sizes, including why students liked both large and small classes. Research examining what students think about class size had focused mainly on what students say about large classes. The purpose of the current study was to examine class size preferences in university students, including what they perceive to be the advantages of both small and large classes. Also, unlike previous studies, students were asked to rate preferences for class sizes for different types of classes, to examine whether course type modified preferences. Participants were asked what class size they preferred, why they preferred certain class sizes, and their experiences with various class sizes. It was hypothesized that students would have a general preference for smaller classes, although it was believed that not all students would necessarily dislike larger class sections. It was also hypothesized that students would prefer a smaller class size for a major-related course compared to a required or general education course. To determine if students had prior beliefs about large class sizes that might have affected their preferences, students' beliefs and perceptions were analyzed both with open-ended responses about reasons for class preferences and a list of possible assumptions with which a participant could agree or disagree.

2. Methods

2.1 Participants

In total, 162 undergraduate students at a midsize state university on the East Coast participated in the study of class size preferences. Participants were recruited in campus buildings at tables advertising the need for participants in a study on class size preferences. The average age of the students was 20.25 ($SD = 2.69$).

Of the participants, 40% were men, 55% were women, and 5% did not report their sex. Participants were first-year students (32.9%), sophomores (22.7%), juniors (22.7%) and seniors (21.5%). Participants were also from a variety of majors and departments. The largest single majors represented were psychology (17.9%) and criminal justice (8.0%), and business students (14.2%; accounting, business, finance, management, marketing, etc.) and education students (12.4%; elementary education, special education, secondary education) were also prevalent.

Ethnicity was not assessed in the study, but it was assumed the ethnicity mimics that of the general population at the university, which is about 80% Caucasian, 7% African-American, 6% Hispanic, 2% Asian, and 4% other races/unknown.

2.2 Materials

A survey was provided to participants, which included both demographic information as well as questions relating to class size. The demographics portion of the survey consisted of questions asking about grade point average (GPA), year of school, age, and gender. This information was included to determine differences in class size preferences across demographic groups in addition to examining whether GPA resulted in differential preferences.

The next section of the survey included a variety of questions devised to assess different aspects of preferences and experiences with different class sizes, both through ratings as well as through free-response answers. The first three questions asked participants to rate preferences of class size based on a registration scenario where the student could register for one of two different sections of a course, one with 75 students (large) and one with 35 students (small). The scenario specified that the class was being taught by the same professor and that both sections fit into the student's schedule. The course enrollments of 75 and 35 were chosen because they were common enrollment totals at the university. After describing the registration scenario, probes asked participants to identify their class preference for three class types: a major class the student wants to take, a general education class the student wants to take, and a required class that the student was not particularly interested in but needs to take. For example, one question asked, "If the course is a class in your major that you want to take, would you prefer the larger section or smaller section?" and the participant answered using a 6-point Likert-type scale from 1 (*much prefer smaller*) to 6 (*much prefer larger*). Throughout the paper, these three questions will be identified as an "interesting major course", an "interesting general education course", and a "non-interesting required course". When asked in this way, the "non-interesting but required" course could include a required course in either the student's major or the general education curriculum in which the student was not interested. The three questions differed in order between two forms of the survey, where one form asked about a non-interesting required course, an interesting general education course, and then an interesting major course, and a second form asked first about an interesting general education course, then the interesting major course, and finally the non-interesting required course. The different forms were used in order to be able to examine if question order, or a contrast effect, impacted response patterns. Additionally, after each of the ratings, participants were asked an open-ended question about why they preferred the smaller or larger section of the course.

The next grouping of questions required participants to rate on a scale from 0 (*never*) to 3 (*often*) as to how frequently they had experienced five different class sizes. Class size was defined as very small (15 students or less), small (15–30), medium (30–45), large (45–80), and very large (80 students or more). Again, these class size definitions were chosen to match the various class sizes offered to the students at their university. The participants were then asked to choose what type of class sizes they liked the best in addition to an open-ended question about why the participant chose this class size. Finally, the survey asked about five possible assumptions the participants might make about large class sizes such as: "assume the exams will be multiple choice" and "assume that participation in class will not be required". These five questions, all of which are listed in Results, were rated as true or false.

2.3 Procedure

Participants were recruited from two areas of the university: the first area was in the lobby of an academic building, and the second was the lobby of the student union building. Research assistants had a table set up with signs asking for participants to complete a survey about class size preferences. Participants were given an informed consent sheet to keep and then asked to fill out the survey, which took about 10 minutes. As an incentive for participating in the study, participants were offered candy. Participants were recruited in this manner in order to have responses from a wide variety of students at the university. Using an introductory psychology research pool would have oversampled first-year students unlikely to have had much experience with different class sizes. Based on the demographic of the resulting sample, this volunteer method seemed to catch a wide variety of students, both in progress toward the degree and in major.

2.4 Data Coding

To catalogue the reasons behind the preferences for small and large classes, students were asked open-ended questions about their preferences for the smaller or larger class for each of the three different course types.

A coding rubric was developed and used to identify themes in the open-ended responses, with more than one code being given to a participant if they had more than one theme to their answers. The codes were developed after two researchers skimmed through many surveys and created a list of recurring themes. These themes were then revised after all four researchers applied them to 20 surveys and noted any confusion or overlap between the codes. The final list of themes included professor attention, student attention/anonymity, student number, general attention/anonymity, difficulty/easiness, distraction, responsibility, practicality, and learning environment. Also, because students were asked to provide reasons for preferences for each of the three class types, answers were coded for whether they included a reference to that class type as a reason for their preference. After this list was derived, each of the surveys was coded independently by two researchers with surveys randomly distributed so researchers were paired equally often with the other three researchers. After the individual coding, all four researchers met to discuss all surveys. If the two original coders did not agree on the codes, the response was discussed among all four researchers to determine the themes present in the answer. Interrater reliability was not calculated but based on an overall impression, agreement for the attention codes (i.e., professor attention, student attention, and general attention) was very high, although more discussion occurred about some of the other themes when survey responses were ambiguous as to their meaning. The ambiguity often came from short responses or poor handwriting, but coding the themes of these responses was still an interesting and informative analysis to help identify student logic and reasoning regarding their understanding of the benefits of large and small classes.

3. Results

3.1 Class Size Experience

To make sure students had experience with both large and small classes, responses for the items about which class sizes students had experienced were analyzed. Of the 157 students who answered these questions, 22.8% of the participants had never had a very small course (defined as 15 students or less), and 3.7% had never had a small class (15-30 students). Overall, almost all students had had at least one course with fewer than 30 students, as only three students (1.9%) reported never having neither a small nor very small course. Also, 15.4% of the students reported not having a very large course (80 students or more), and 9.9% reported not having been in a large course (45–80 students). Again, almost all students had had at least one large course of over 45 students, as only eight students (5.1%) reported never having neither a large nor very large course. The percentage of students who reported having a certain class size *sometimes* or *often* were as follows: 37.0% for very small courses, 74.7% for small courses, 75.9% for medium courses, 66.7% for large courses, and 53.1% for very large courses. Thus, it seems that most students had had experiences with many different class sizes, and were therefore able to report about their preferences accurately. However, analyses regarding class size preferences and assumptions were run both for all participants and for the 131 participants who had experienced very small/small, medium, and large/very large class sizes (of the original 162 participants, 5 were dropped for not answering any questions about class size experiences, 15 were dropped for not experiencing a medium class size, 8 were dropped for not experiencing a large or very large course, and 3 were dropped for not experiencing a small or very small course). The pattern of results did not differ when using this reduced sample, so the full sample was used in reporting all results to increase power.

3.2 Preferred Class Size

When asked what class size a student likes the best overall, 33.3% ($n = 54$) said they preferred very small classes, 28.4% ($n = 46$) preferred small classes, and 26.5% ($n = 43$) preferred medium-sized classes. Only a few students said they preferred large (3.1%, $n = 5$) or very large (4.3%, $n = 7$) classes. This pattern did not differ by gender, $\chi^2(5, n = 148) = 3.84, p = .57$, or by class standing (first-year, sophomore, junior, senior), $\chi^2(15, n = 152) = 13.0, p = .61$, and was not correlated with GPA (Spearman $r = -.08, n = 119, p = .35$).

Ratings for class size preference by class type are given in Table 1. Although students generally preferred smaller classes for interesting major courses than for required and general education courses, there were students who “much preferred” the smaller section and “much preferred” the larger section for all three types of courses.

To analyze the effect of class size preference based on the type of class as well as to examine any contrast effect in question order, a 3 (class type) by 2 (form) mixed-model ANOVA was performed. For these ratings, the mid-point of the scale was 3.5, indicative of no preference for either the small or large section of the course. This analysis revealed a significant main effect for preferred class type, $F(2, 316) = 75.48, p < .001$, partial $\eta^2 = .32$.

The average preference rating for interesting major classes that participants wanted to take was 1.98 ($SD = 1.04$), which based on a Bonferroni post-hoc test, was significantly smaller than the preference rating for interesting general education courses ($M = 3.25$, $SD = 1.47$; $p < .001$) and non-interesting required courses ($M = 3.75$, $SD = 1.64$; $p < .001$). However, the general education and required course preference ratings were not significantly different ($p = .06$). A main effect was found between forms, $F(1, 158) = 4.57$, $p = .034$, partial $\eta^2 = .03$. Participants filling out Form A were found to prefer slightly, but significantly, larger class sizes ($M = 3.09$, $SD = 1.56$) than students filling out Form B ($M = 2.75$, $SD = 1.61$). An interaction between the form administered and class type was also found to be significant $F(2, 316) = 3.30$, $p = .038$, partial $\eta^2 = .02$. Figure 1 depicts the means for each class by form. A series of independent sample t -tests revealed that the mean preference rating for the interesting general education courses was not different from Form A ($M = 3.24$, $SD = 1.45$) to Form B ($M = 3.31$, $SD = 1.53$), $t(160) = -.33$, $p = .74$, $d = .05$, but that the average preference for the non-interesting required course was smaller when asked first (Form B, $M = 3.29$, $SD = 1.73$ versus Form A, $M = 3.95$, $SD = 1.58$), $t(158) = 2.34$, $p = .02$, $d = -.41$, and the average preference for the interesting major course was smaller when asked last (Form B, $M = 1.65$, $SD = .89$ versus Form A, $M = 2.14$, $SD = 1.06$), $t(160) = 2.73$, $p = .007$, $d = -.46$.

3.3 Reasons for Preferences

In total, 113 students provided reasons for liking both small and large classes, 44 students provided reasons for liking small classes only, and 5 students provided reasons for liking large classes only. Examples of the responses, by theme, are given in Table 2 along with the frequency of occurrence as a reason a student preferred large or small classes. The most frequent theme for small class preference was higher levels of professor attention, which was mentioned almost 60% of the time by students preferring small classes. The second most common reason was a better learning environment with 32.5% of students who preferred small classes giving this response. When students preferred large classes, the most commonly mentioned reasons were related to class content (31.6%), decreased responsibility (e.g., being able to skip class and not needing to pay attention; 28.8%), and student number (e.g., having more students in class to increase diversity, help to meet people; 25.4%). Course content seemed especially relevant for large classes, such that students said they prefer a large class because it was “just general education” and they did not need the individual instruction that would be provided by a small section.

To gauge student preferences in a more structured way, students responded to items about the assumptions they make about large classes. Importantly, these items were assessed after students had already been asked the free response questions. When thinking of large classes, when compared to smaller classes, 75.3% assumed the exams would be multiple choice, but only 35.2% of students assumed the class would be easier. The “easier” question was asked prior to the “multiple choice” question so students would not necessarily answer the question about the class being easier by thinking about the multiple choice exams. Other assumptions asked about participation and accountability in the class, and 75.6% of students assumed the professor would not know who they were in a larger class, 53.7% assumed that participation in class would not be required, and 55.6% assumed that the professor would not know if they skipped class.

4. Discussion

When asked what class size was preferred overall, most of students said that they preferred small class sizes. However, when asked if they would prefer to enroll in the larger or smaller section of a course, the average rating was fairly neutral for interesting general education courses and non-interesting required courses, indicating that, on average, students did not have a very strong preference for smaller class sizes for these courses. Participants did have a stronger preference for smaller sections for interesting major courses. This difference does not seem to be driven solely by the idea that major courses would be more interesting, as students found larger classes more acceptable for interesting general education courses. The difference, then, may be more directly related to major courses, a hypothesis that could use further study, but is somewhat supported by the qualitative analysis of why students preferred classes. Professor contact was one of the most often mentioned benefits of small classes, and students may want more direct contact with professors in their field of interest than in another area.

Although student class preference differed depending on which type of class they were taking, preferences did not seem to differ by year in school or experience, as has been found with some past studies (Feigenbaum & Friend, 1992; Messineo et al., 2007). Preferences also did not correlate with GPA. Although it is possible that there is no relationship between GPA and class size preferences, this lack of relationship might have been due to the missing data for the GPA variable.

In the current study, 23.4% of participants were missing GPA data, either because they were new first-year students without a GPA or they were an upper-level student who failed to report their GPA. Additionally, a student's self-report of their GPA might not be completely accurate. Thus, more research would be necessary to examine the relationship between GPA and preferred class sizes. Importantly, the relationship between class size preference and GPA could be different than the relationship between actual class size and grades in the class.

Two separate forms were used in this study, where the order of the questions varied, and student's preferences changed slightly, though significantly, between these two forms. In both forms, the smaller class sizes were preferred for the interesting major course compared to the other two course types. However, ratings for the interesting general education course did not differ across forms, but for the non-interesting required courses and interesting major courses, Form B resulted in significantly smaller class size preferences than Form A. Although the same questions were asked, these results suggest that the order of the questions might have provided a contrast effect. When a non-interesting required course was asked about last (Form A), students found larger class sizes to be acceptable, after already thinking about major and general education courses that they would be more interested in. Also, when asked about a non-interesting required course and an interesting general education course first (Form B), the students had even stronger preferences for a smaller class for major courses (asked last). This finding suggests that when completing class size research, it is important to consider any order or contrast effects in asking survey questions.

Students generally preferred smaller courses, especially in their major, and they provided several reasons for preferring small courses. The most frequently mentioned reasons included professor attention and the learning environment, as well as lower levels of distraction. This was consistent with previous findings that students feel a sense of community in smaller classes and are more comfortable overall (Harfitt, 2012). Also, although past research has focused more on what students dislike about large classes than what they like about small classes, these findings about small courses corroborate the idea that students dislike large classes because of the lack of attention from the instructor, the impersonal nature of the courses, and the high noise levels in the classrooms (Wulff et al., 1987). The current study suggests that students also feel they can "learn better" and get better information in a small classroom environment, although whether that is actually the case is an empirical question whose answer should not be based on student opinions.

Students also made assumptions and had reasons for why they preferred large classes, most notably the decrease in responsibility in large classrooms and the usefulness of having more students in class. Both of these advantages have been noted by students as an advantage of large classes in past research studies (Messineo et al., 2007; Wulff et al., 1987). Additionally, because of how the questions were worded, many students said that they did not mind large classes for certain types of content, such as general education classes or classes they were not interested in. Although these general education courses are an important aspect of a students' education at liberal arts colleges and universities, students did not seem to put the same emphasis on their importance, at least as indicated by some of judgments and comments suggesting that large courses are "fine" for these content areas.

It is interesting to point out that, although students named various reasons for liking larger classes, students did not cite course easiness as one of those reasons. About a third of the students assumed larger classes would be easier when directly asked, and only a few students mentioned easiness as a reason they preferred large classes in their open-ended responses. However, as noted above, many students did assume that larger classes would have lower responsibility (i.e., be easier to skip and would require less active participation on their part), which suggests that they assumed that they would have less work to do in larger courses. Students did assume exams would be multiple choice, although whether multiple choice exams are seen as easier than essay exams would vary by student. These findings were consistent with previous research that students prefer classes with lower workloads (Feigenbaum & Friend, 1992), even though students may not outright say that the courses are "easier." Although it may be generally true that large classes involve less interaction and more passivity, many instructors have tried to increase the active learning environment in large classrooms. Classroom response technology (e.g., clickers) is one common way of taking attendance and requiring participation in classrooms that can easily be used in large settings with multiple benefits (Kay & LeSage, 2009). According to Powell, Straub, Rodriguez, and VanHorn (2011), clickers were found to increase academic performance, as well as increase perceptions of "fun" which may result in students preferring to come to class more often. The university the current participants attended presently employs this technology. The fact that students might have experienced this type of technology could explain why many students do not assume that participation and attendance is optional in larger classes.

There were several limitations to this study. Several issues existed with the use of these open-ended questions because of the difficulty of coding qualitative data. Interrater reliability of the qualitative coding was not directly assessed. However, multiple raters were used for every survey in order to keep ratings as consistent as possible. Although some student responses were very clear, there were certainly times when the meaning of a participant's response was ambiguous and hard to code. Coding of qualitative responses was based on the researchers' understanding of what was meant by a particular remark or phrase, but the meaning of the participant could have been different than interpreted. Coding themes were also developed based on the student responses. The researchers felt that the themes captured the ideas written by the subjects, but there could be other important themes that were not mentioned by the current participants. A fair number of students left the free response questions blank, especially after stating a preference for large classes, and it is possible that these students might have had something different to say about their class preferences if they had taken the time to think about why they preferred a particular class size. It is also possible that participants wrote free responses after reading the list of possible assumptions about large classes, using these ideas to help fill in what a participant might like or dislike about each class size rather than thinking of their own opinions. However, the order of the questions was meant to try to minimize this effect. With a larger sample, it could also be possible to divide some themes into smaller categories, though this would likely decrease the reliability of the coding. In the current study, although the exact percentages of responses might have varied slightly depending on coding consistency and the identified theme groups, the general pattern of frequency of responses was consistent with the overall themes discussed by the students.

As with other studies about class size, the definitions of *small* and *large* were dependent upon the size of the university. Class sizes of 20 to 40 were very common at the university the students attended, in part depending on one's major, with the largest class sizes frequently being around 120-130 and a maximum class size of around 200. The most common preference of student in the current study was a small or medium course, defined in the study as 15 to 30 and 30 to 45 students, respectively, which were the class sizes with which the students had had the most exposure. However, at other college and universities, courses can be much larger and much smaller, which may affect those students' preferences. Students also enroll at colleges and universities, in part because of the size of the school, and thus would have some information about the class sizes, classrooms, and lecture halls on the campus before even attending the university. Students may prefer a particular class size because of exposure to classes of that size as well as because of their initial preferences to enroll at a university with larger or smaller enrollments and class sizes. The generalizability of the current study findings to other colleges with either larger or smaller average course size is not clear, although the results in the current study do replicate results from past research at different universities as discussed above.

Past research has suggested that large classes can be taught well, and that students can enjoy large classes as much as they do small ones (Wulff et al., 1987). However, one of the major disadvantages of larger classes, in the current study as well as past research, was the lack of individual faculty-student interaction. This creates a different kind of learning environment in the classroom, and along with other issues such as lower responsibility and higher distraction levels, provides an atmosphere that students sometimes do and sometimes do not enjoy. One of the moderators of this relationship, as seen in the current study, was the topic and content of the course. Students' expectations about a course may affect their opinions of the course as well, with the idea that students like courses that meet their expectations. For example, Trees and Jackson (2007) found that students liked the use of clickers in the classroom when they wanted to be involved and engaged in the class, so students who wanted a large classroom in order to disengage may not favor the use of technology meant to force their participation. Although research on whether class size affects learning is important, it is also important for faculty and administration at colleges and universities to consider the attitudes and opinions of students when it comes to what class sizes they prefer to experience and why. Understanding the students' reasoning and opinions about what they expect and what they like and dislike about large classes can help to foster student motivation and learning in these settings and help increase the retention rate at a university.

Acknowledgement

Many thanks to Kathryn De Meglio, Jennifer Rodriguez, and Kaitlin Dougherty, former undergraduate research assistants who helped with data collection, data entry, and preliminary analyses.

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Table 1: Frequency of Preference Ratings for Each Class Type

Preference Rating	Interesting General Education Course	Interesting Major Course	Non-interesting but Required Course
1 – much prefer smaller section	13.6%	37.0%	14.2%
2 – prefer smaller section	19.8%	40.7%	11.1%
3 – slightly prefer smaller section	24.7%	13.0%	14.2%
4 – slightly prefer larger section	19.1%	6.2%	20.4%
5 – prefer larger section	15.4%	2.5%	23.5%
6 – much prefer larger section	7.4%	0.6%	15.4%
Mean (SD)	3.25 (1.47)	1.98 (1.04)	3.75 (1.64)

Note. In each question, subjects were choosing between a predefined large course with 75 students or a small course with 35 students.

Table 2: Frequency of Reasons Why Students Preferred Small and Large Classes

Theme (and definition)	Examples	Small Classes Percentage	Examples	Large Classes Percentage
Professor Attention (contact with the professor)	“more individual attention”, “more one-on-one”, “like to know my professor”, “want the best instruction and help”	59.2%	“don’t need direct interaction with professor”, “more professor accessibility”	4.2%
General Attention or Anonymity (more or less attention but without a reference to from whom)	“like to be a face and a name, not a number”, “allowed to interact more”, “more personal”, “want more attention”, “more intimate”	10.2%	“rather just be invisible”, “feelless a afraid of answering questions and being judged”, “not as intimate”, “less personal”, “less attention focused on me”, “hide in the crowd”	12.7%
Student Attention or Anonymity (more or less contact with other students)	“get familiar with students”, “get to know everyone”, “enjoy it due to my relationship between my classmates”	4.5%	“lets me blend in”, “less focus on me personally”	1.7%
Student Number (reason related to benefits of having fewer or more students in class)	“allow for more students to get involved in the lecture”, “fewer students”, “get to know other students”	1.9%	“enjoy the atmosphere of more students”, “more ideas from more students”, “more diverse”, “get to know people”, “so many people to ask for help”, “more opportunity to know people I can get notes from”	25.4%
Learning Environment (creating a better environment or atmosphere for learning)	“easier to learn”, “better discussions”, “more cohesive learning”, “more hands on experience”, “more interactive”, “more tailored to the students”, “to soak up as much as possible”	33.1%	“much happier feel toward the class”, “not a lot of focus on students”, “better for group discussion”, “can almost learn at your own pace”	4.2%
Distraction (distraction in the classroom environment)	“can focus better”, “less distractions”, “easier to pay attention”	14.0%	“be less distracted”	0.8%
Responsibility (more or less responsibility on students to be active and involved)	“more involved”, “more likely to participate”, “have to participate and pay attention”, “less goofing off”	8.2%	“can skip class”, “do not have to participate”, “can zone out”, “chances of being picked to answer questions is smaller”, “don’t feel like I have to be prepared for lecture on a daily basis”	28.0%
Practicality Issues (reference class procedures or policies)	“more detailed projects can get accomplished”, “more detailed information”, “easier to keep everyone on the same page”, “more hands on, big classes don’t work”	3.2%	“will be lecture and just a general overview”, “enjoy lectures better”, “multiple choice exams”, “no essays”, “can print out pages and study easier”, “don’t do a group project”, “more opportunity to take”	13.6%
Easiness/Difficulty (reference to amount of work or effort needed)	“easier”	0.6%	“it would be easier in a lecture course and not as much work”, “tend to be easier”, “less intense”	7.6%
Mentions Type of Class (includes class content as reason for preferring class)	“It’s in my major”, “If it’s something I’m interested in...”, “Because in general education classes...”	17.2%	“If it’s not a class I’m interested in, I would not care too much about the class size”, “I’m taking it to get it over with”, “Gen ed doesn’t need to be a smaller class”	31.6%
Other	Various answers	8.9%	Various answers	10.2%
No Answer	Prefers small courses but does not provide a reason why	7.6%	Prefers large courses but does not provide a reason why	15.3%

Note. The percentages represent the percentage of students who preferred a small ($N = 157$) or a large ($N = 118$) class across the three different class types. The percentages add to more than 100% because students were allowed to state more than one reason for preferring a particular class size.

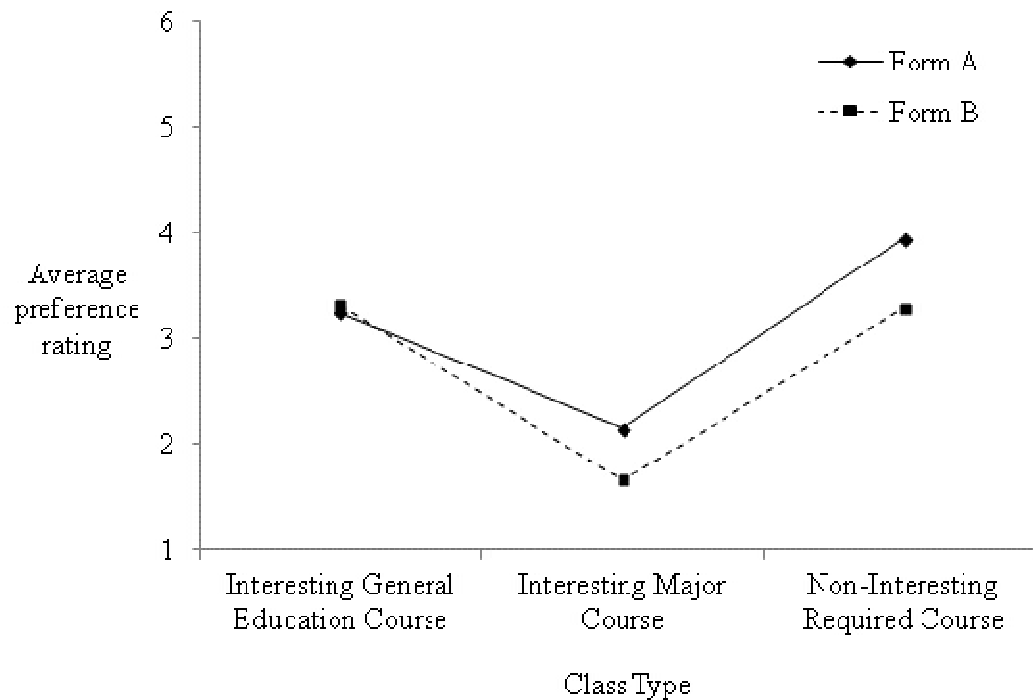


Figure 1: Ratings of preference for the smaller versus larger section of a course based on the type of class and question order (Form). On the rating scale, 1 = much prefer smaller section and 6 = much prefer larger section. No neutral option was provided, although an average of 3.5 would be the mid-point of the scale. Interesting General Education Course = A general educational course you want to take. Interesting Major Course = a class in your major that you want to take. Non-Interesting Required Course = A class you are not particularly interested in but need to take. Form A order was General Education, Major, Required course. Form B order was Required, General Education, Major course.