How Does Class Participation Relate to Academic Behaviors and Outcomes for First-Year College Students?

Skyfactor Research Note
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For those who teach in a classroom, the positive benefits of engaging and participating in class are quite apparent. However, is this importance echoed in national data on first-year college students?

This note explores class participation in first-year college students using a national dataset of 147,121 first-year students from 128 colleges and universities in the United States. Specifically, this note explores differences between students based on their self-reported degree of class participation.

Key Points:

- Students who report higher levels of class participation are more likely to report high levels of self-discipline and stronger time management skills.
- Students who report higher levels of class participation are more likely to engage in positive academic behaviors.
- Students who report participating in class frequently are more likely to have higher term-GPAs and higher rates of retention.

Key Questions:

1. To what degree do first-year students report participate in class?
2. What are the characteristics of students who report high levels of class participation compared to moderate or low levels of class participation?
3. How is class participation related to key outcomes?

To what degree do first-year students report participating in class?

When asked, “To what degree are you the kind of person who participates in class?”, approximately 58% of first-year respondents indicated extremely (either 6 or 7 on a seven-point scale), 39% moderately (%3, 4, or 5), and 3% not at all (%1 or 2). This is shown in figure 1 below.

Figure 1: Degree of class participation

Percentage of first-year students responding indicating themselves as having a low (1-2), moderate (3-5), or high (6-7) degree of participation.
What are the characteristics of students who report high levels of class participation compared to moderate or low levels of class participation?

Students who report higher levels of class participation are more likely to rate their academic abilities as very good or excellent than those students reporting lower levels of class participation.

Figure 2 below shows the percentage of first-year students responding averaging 6 or higher (extremely) on questions related to academic skills by their level of class participation. Each of these questions addresses a different aspect of students’ academic skills that impact their overall academic success. A difference exists between students with high class participation and students with low class participation in each of these areas, particularly in the area of problem solving.

- 21% more students with high class participation rated their problem-solving skills as very good or excellent than those with low class participation.
- 15% more students with high class participation rated their reading comprehension as very good or excellent than those with low class participation.
- 15% more students with high class participation rated their writing composition as very good or excellent than those with low class participation.
- 7% more students with high class participation rated their reading comprehension as very good or excellent than those with low class participation.

**Figure 2: Academic Skills and Class Participation**

Percentage of first-year students responding 6 or 7 (high) on questions related to their assessment of their academic skills by level of class participation.

![Bar chart showing the percentage of students rating their academic skills as very good or excellent by level of class participation.](chart.png)
Students with high levels of participation in class are more likely to report strong academic behaviors than those with low levels of class participation.

Figure 3 below shows the percentage of first-year students responding 6 or 7 (extremely) on questions related to basic academic behaviors divided by class participation. The largest difference that we observe is in note-taking, with high participation students rating themselves higher when asked “To what degree are you the kind of person who: takes good notes in class?” than low participation students.

- 11% more students with high class participation indicated a high rate of class attendance than those with low class participation.
- 15% more students with high class participation indicated a high frequency of turning in required homework assignments than those with low class participation.
- 30% more students with high class participation gave themselves a high score on taking good notes in class than those with low class participation.

**Figure 3: Basic Academic Behaviors and Class Participation**
Percentage of first-year students responding averaging 6 or higher (extremely) on questions related to positive basic academic behaviors by level of class participation.

Students with high levels of participation in class are more likely to report positive advanced academic behaviors than those with low levels of class participation.

Figure 4 below shows the percentage of first-year students responding averaging 6 or higher (extremely) on questions related to advanced academic behaviors divided by class participation. The most striking difference was found in how frequently students communicate with instructors outside of class and whether they spent enough study time to earn good grades.
• 46% more students with high class participation rated themselves as spending sufficient study time to earn good grades than those with low class participation.
• 47% more students with high class participation rated themselves highly when asked about communicating with instructors outside of class than those with low class participation.
• 44% more students with high class participation rated themselves highly when asked about whether they work on large projects in advance than those with low class participation.
• 26% more students with high class participation rated themselves as highly likely to read the assigned reading within a day before class than those with low class participation.

Figure 4: Advanced Academic Behaviors and Class Participation
Percentage of first-year students responding averaging 6 or higher (extremely) on questions related to positive advanced academic behaviors by level of class participation.

Students who participate in class frequently are more likely to report high levels of self-discipline.

Figure 5 below shows the percentage of first-year students responding averaging 6 or higher (extremely) on questions related to self-discipline divided by class participation group. Follow-through has the largest difference between class participation groups with three quarters of high participation students claiming high follow-through compared to just under half of low participation students. All of these questions have at least a 20% difference between each class participation level indicating that there are significant differences in this aspect of student characteristics.

• 20% more students with high class participation gave themselves a high rating on dependability than those with low class participation.
• 27% more students with high class participation gave themselves a high rating on following through with what they say they are going to do than those with low class participation.
• 24% more students with high class participation gave themselves a high rating on self-discipline than those with low class participation.

**Figure 5: Self-Discipline and Class Participation**
Percentage of first-year students responding averaging 6 or higher (extremely) on questions related to self-discipline by level of class participation.

**Students who participate in class frequently are more likely to report high levels of time-management skills.**

Figure 6 below shows the percentage of first-year students responding averaging 6 or higher (extremely) on questions related to time-management skills by class participation. We see the largest difference in balancing of time with 63% of high class participation students rating themselves highly compared to only 34% of low class participation students.

• 29% more students with high class participation gave themselves a high rating on balancing time between classes and other activities than those with low class participation.
• 26% more students with high class participation gave themselves a high rating on planning out their time than those with low class participation.
• 20% more students with high class participation gave themselves a high rating on making “to-do” lists than those with low class participation.
Figure 6: Time-Management and Class Participation

Percentage of first-year students responding averaging 6 or higher (extremely) on questions related to time-management by level of class participation.

Class Participation and Key Outcomes

Students with the highest class participation rates were more likely to have both higher term GPAs and higher rates of retention than students reporting lower levels of class participation.

Figure 9 below shows the average GPA for both high school and the fall term divided by level of class participation. Figure 10 below shows the percentage of first-year students returning for the spring semester or for both spring and the following fall semester.

- Students reporting high levels of class participation earned an average fall-term GPA of 2.96, compared to 2.87 for students reporting moderate levels of class participation and 2.69 for students reporting low levels of class participation. A similar trend exists regarding spring-term GPA.
- For both spring persistence and fall retention, students reporting high and moderate levels of class participation had similar rates, approximately 92% and 77%, respectively. However, students reporting low levels of class participation averaged an 87% spring persistence rate and a 72% fall-to-fall retention rate.
Figure 9: Term GPA and Class Participation
Average fall-term and spring-term GPA by degree of class participation.

![Bar Chart: Fall-Term GPA and Spring-Term GPA by Class Participation]

- Low Participation: Fall Term GPA = 2.69, Spring Term GPA = 2.63
- Moderate Participation: Fall Term GPA = 2.87, Spring Term GPA = 2.81
- High Participation: Fall Term GPA = 2.96, Spring Term GPA = 2.87

Figure 10: Persistence and Retention by Class Participation
Percentage of first-year students returning for the spring semester and next academic year by level of class participation.

![Bar Chart: Fall-to-Spring Persistence Rate and Fall-to-Fall Retention Rate]

- Low Participation: Fall-to-Spring Persistence Rate = 87%, Fall-to-Fall Retention Rate = 72%
- Moderate Participation: Fall-to-Spring Persistence Rate = 91%, Fall-to-Fall Retention Rate = 77%
- High Participation: Fall-to-Spring Persistence Rate = 92%, Fall-to-Fall Retention Rate = 77%
Conclusion

Frequency of class participation is linked with higher self-assessment of academic behaviors including math, writing, reading and problem solving. Students who reported more frequently participating in class are also more likely to attend class, take good notes, study, and turn in homework nearly always than those who report participating with less frequency. Only 4% of those who indicated the lowest level of class participation reported communicating with their instructors nearly always compared to more than half of respondents with the highest levels of class participation. Those who participate in class with the least frequency were more likely to report spending less time studying for tests both in high school and college. Lastly, those with lower levels of participation had lower high school and college GPAs and were somewhat less likely to return for a later semester.
About the Data

The data used in this research note is from the 2014-2015 Mapworks Fall Transition Survey. The survey was jointly designed by the survey development team at Skyfactor and researchers at Ball State University. The Transition Survey measures the behaviors and expectations of students entering a college or university. Data is typically collected beginning three to four weeks into the fall term via Skyfactor’s online survey system. The data in this note is from 147,121 first-year college students from 128 two and four-year institutions in the United States. The note also used student profile data uploaded by participating institutions during the 2014-2015 academic year, including but not limited to term GPA and retention.

About Skyfactor

Skyfactor (formerly EBI MAP-Works) and Ball State University partnered to create Mapworks. Mapworks capitalizes on Ball State’s 20 years of experience with the original MAP (Making Achievement Possible) and Skyfactor’s 14 years of experience with national benchmarking assessments.

Mapworks® is a research-based, comprehensive, student retention and success platform created through a partnership between Skyfactor and Ball State University. It capitalizes on Ball State’s 20+ years of experience with the original Making Achievement Possible (MAP) program and Skyfactor’s expertise in national benchmarking assessments. Mapworks leverages predictive analytics to identify at-risk students. It presents that information in a format that makes it easy for an institution’s faculty and staff to focus on the needs of students early in the term and to have a positive impact on student success and retention.
For more information about Skyfactor Mapworks and services, to schedule a demonstration, or to sign up for a webinar, please write to us at info@Skyfactor.com or visit Skyfactor.com