

The Impact of Peer Catalysts on Major Confidence, Professional Identity, and Co-Curricular Engagement in First-Year Business Education

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Abstract

Many first-year business students struggle with confidence in their chosen major, forming a sense of professional identity, and getting involved in business-related activities outside the classroom. Traditional faculty instruction does not always leave enough time and support for these areas. This longitudinal mixed-methods study looks at the results of implementing trained Peer Catalysts (PCs) into every section of a first-year business course at a northeastern university. Using four years of survey data (2021–2025), we compared student outcomes before and after PCs were introduced. We also conducted interviews with faculty and PCs to better understand how the program works in practice. The study focuses on three main outcomes: confidence in major choice, participation in business-related co-curricular activities, and business competencies. Regression results show that the presence of PCs is linked to higher major confidence and greater involvement in out-of-class school activities. It is also weakly linked to business competencies. Interviews with faculty highlight PCs making the classroom feel more welcoming, encouraging peer-to-peer learning, and acting as relatable role models. Interviews with PCs show they benefit as well with personal growth in leadership, mentoring, and professional identity. Overall, the findings suggest that structured peer support may be associated with stronger major confidence, greater co-curricular engagement, and more positive perceptions of the first-year experience. These findings suggest that information systems and business schools can use peer facilitation as a practical, student-centered way to strengthen belonging, persistence, and early career preparation.

Keywords: peer-assisted learning, first-year business education, student growth, professional identity development

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1. INTRODUCTION

Starting college as a business major can feel overwhelming, especially for information systems students who are entering a field that is rapidly changing and seems to have high barriers to entry. This is compounded by the rise in anxiety of students in general (Tan, et al., 2023). Such first-year students are not only learning new academic content, but also trying to understand their place in the business world, build a sense of professional identity, and get involved in career-related activities. In fact, Willcoxson, et al. (2011) found that feeling unconfident in their major can lead to first-year students' dissatisfaction with college overall, leading to program attrition. They also found that first-year students are also much more likely to leave when they feel unconfident in their academic ability and there is inadequate support for their improvement. While introductory courses cover key subjects like accounting, economics, management, and marketing, they often leave little time to support these personal and professional areas. As a result, students may understand course material but still feel unsure about their major, especially those that are viewed as complex or highly technical, feel uncomfortable with professional communication, and be unaware of opportunities outside the classroom. Severiens, et al. (2015) found students' perceptions play a significant role in their academic success, especially in student-centered classes and even more so in smaller classes.

To address this, Quinnipiac University introduced Peer Catalysts (PCs) into SB101, a required first-year business course focused on teamwork and professional development. PCs are trained undergraduate and graduate students who support first-years through discussions, group work, and reflection, while also modeling professional behavior and sharing guidance about navigating business school. Unlike traditional tutors, PCs act as near-peer mentors. Their recent experience having taken the course makes them more relatable and helps create a more comfortable classroom environment. They also introduce students to the "hidden curriculum" of college, including internships, networking, and extracurricular opportunities that are not always explicitly taught (Jack, 2019; NASEM, 2020). When PCs are part of a class, they help to ensure increased engagement of students throughout the class, helping to engage groups during in-class activities, ensure teams are functioning well in and out of class, and facilitating individual participation in and out of the class.

Research on near-peer learning supports this approach, showing that students often respond better to guidance from peers who are slightly more advanced but still relatable. These relationships can increase confidence, participation, and overall engagement, especially during the first year when students are still adjusting to college life (Terrion & Leonard, 2007; Dawson et al., 2014).

This study examines the impact of PCs in SB101 using a natural comparison between courses without PCs (Fall 2021–Fall 2023) and those with them (Fall 2023– Spring 2026). In Fall 2023, when the PC program was first piloted in the class, only four sections had PCs, while the rest did not. It focuses on three key outcomes: increased confidence in major choice, increased elevator pitch confidence, and participation in business-related co-curricular activities. Using regression analysis and qualitative interviews, this study explores whether PCs influence these outcomes and how they shape the first-year experience. The findings provide insight into how structured peer support can strengthen student confidence, engagement, and early professional development in business education.

2. LITERATURE REVIEW

Co-curricular involvement is widely recognized as a key predictor of student engagement and long-term success in college, especially during the first year when students are still determining their academic fit. Student involvement theory suggests that learning and development increase when students invest time

and energy outside the classroom (Astin, 1984; Astin, 1993). In business education, co-curricular activities often act as a bridge between academic learning and career preparation. Through clubs, networking events, and professional programs, students begin to build connections, develop communication skills, and gain exposure to real-world business environments.

Research on retention and persistence further supports this idea. Students are more likely to remain committed to their academic path when they feel both academically and socially integrated into their institution (Tinto, 1993; Seidman, 2005). Participation in co-curricular activities strengthens this integration by helping students form relationships and feel connected to their academic community. A stronger sense of belonging has also been linked to increased motivation and continued engagement over time (Strayhorn, 2012). For first-year business students in particular, these early experiences can shape how they view their major and their future career path (Maguire, 2018).

For information systems, this is an essential step in the development of students considering related majors. Riemenschneider and Armstrong (2021) identified seven dimensions that contribute to professional identity for information systems professionals: continuous learning, creativity and logic, extent of change, stress, technology and business integration, time pressure, and breadth of knowledge, skills, and abilities. This range of components makes recruitment and retention of students more difficult, especially as compared to other more common and concrete disciplines, as students are faced with a large number of requirements to try to reach unclear career opportunities. This is further complicated in that information systems professional identities change as technology and organizational needs evolve (Alvarex, 2008). Thus, first-year professional development is particularly important to information systems programs.

From a career development perspective, co-curricular involvement also plays a critical role in shaping professional identity. Social Cognitive Career Theory explains that students are more likely to pursue career paths when they have higher self-efficacy, positive outcome expectations, and access to social support (Lent, Brown, & Hackett, 1994). Co-curricular activities contribute to all three. For example, attending networking events allows students to practice professional communication, observe different career paths, and better understand how classroom learning connects to real-world outcomes. This is especially important during the first year, when many students have limited knowledge of career opportunities within business. Without exposure to these experiences, students may feel disconnected from their major and view it as only a set of required courses. In contrast, students who are actively involved tend to develop greater clarity, confidence, and motivation because they can see how their academic work aligns with future goals (Kuh, 1995; Pascarella & Terenzini, 2005).

Despite the clear benefits, many first-year students do not participate in co-curricular activities even when opportunities are available. One major barrier is a lack of awareness. Students often do not know what opportunities exist or how to get involved. This connects to the concept of the "hidden curriculum," which refers to the unwritten knowledge about how to succeed in college, including which organizations to join and how to build professional networks (Pascarella & Terenzini, 2005). Students who enter college with more social capital or guidance are more likely to access these opportunities early, while others may fall behind simply because they lack information. In addition to awareness, feelings of intimidation and uncertainty can prevent students from engaging. Research on student engagement emphasizes that participation is influenced not only by individual motivation, but also by how accessible and welcoming opportunities appear (Kuh, 2009; Kahu, 2013). If students feel unprepared or out of place, they are less likely to attend events or join organizations, even when they understand the potential benefits.

This gap highlights the importance of near-peer support, such as the role of PCs. Near-peers often act as connectors who make co-curricular involvement feel more approachable and achievable. Peer mentoring research shows that students are more likely to engage when they receive guidance from peers who share similar experiences and can provide practical, relatable advice (Jacobi, 1991; Crisp & Cruz, 2009). Unlike faculty, near-peers can speak from recent experience and offer clear, actionable steps for getting involved. Peer-led support models also help reduce anxiety and increase student confidence. Research on peer tutoring and Supplemental Instruction demonstrates that students are more comfortable asking questions and participating when support comes from trained peers rather than authority figures (Topping, 1996; Arendale, 1994). As students feel more supported, they become more willing to engage in both academic and co-curricular activities. This aligns with the concept of

social integration, where increased connection to peers and campus resources leads to greater involvement and persistence (Tinto, 1993; Astin, 1993).

While faculty play an important role in academic instruction, they do not always actively promote co-curricular engagement. This is often due to time constraints and a focus on course content. As a result, involvement outside the classroom may be treated as optional rather than essential. Near-peers can help fill this gap by naturally incorporating discussions about clubs, events, and career-building opportunities into their interactions with students (Crisp & Cruz, 2009; Jacobi, 1991). Overall, the literature suggests that co-curricular involvement is critical for student engagement, professional development, and long-term success. However, many first-year students do not access these opportunities without structured support. This supports the idea that PCs may play a significant role in increasing participation by making opportunities more visible, accessible, and less intimidating. If PCs are consistently guiding students toward involvement and helping them navigate the transition into business school, their presence should be associated with higher levels of participation in out-of-class business activities.

As such, we offer the following hypotheses related to the effect of the PC program on student performance:

- H1: PC involvement is positively correlated with co-curricular engagement.
- H2: PC involvement is positively correlated with selecting and persisting within a professional field of study.
- H3: PC involvement is positively correlated with self-efficacy in business competencies.

3. METHODOLOGY

This study used a mixed-methods approach to better understand how the PC program influences first-year business students' academic experience, sense of belonging, and confidence in their chosen major in SB101. A combination of quantitative and qualitative data was used to capture both measurable trends and deeper insight into student experiences.

The quantitative portion of this study was based on survey data collected from first-year business students enrolled in SB101 courses between 2021 and 2025. These surveys were administered as part of the program's ongoing assessment at the end of each semester. Beyond gathering demographic information and thoughts on the course structure and assignments, the survey included Likert-scale questions related to academic confidence (ex. How confident are you that your current major is the right one for you?) and engagement in co-curricular activities (ex. How often do you participate in out-of-class business-related activities (speakers, career fairs, workshops, clubs, etc.)).

In addition, students assessed themselves on five categories of professionalism valued in information systems and technology-enabled organizations. The categories used were: accountable and organized, verbal and written communication skills, respect for self and others, problem solving, and etiquette. For each of these, we presented the student a 7-point scale with a multi-dimensional definition of the item at each level. For example, verbal and written communication had the students consider their ability to write without grammatical errors, tone of writing, ability to present, and comfortability speaking with others. These competencies were derived from the eight National Association for Colleges and Employers (NACE) competencies and drew heavily on their definitions for what comprises each area.

SB 101 Business Competency	Corresponding NACE Competencies
Accountable and organized	Career & Self-Development, Leadership
Verbal and written communication skills	Communication
Respect for self and others	Equity and inclusion, Teamwork
Problem solving	Critical thinking
Etiquette	Professionalism, Technology

Table 1. Mapping of SB 101 Business Competencies to NACE Competencies

As part of the class, we emphasize improving in all aspects of each of the constructs, and students were told to rate themselves according to the lowest component of a construct. Thus, a student who is a

strong presenter but unable to write effectively would score themselves overall as low in the category. These six components give us a multi-dimensional understanding of students' business skills and mentalities while allowing us to keep the survey relatively short to increase survey completion as the survey could not be made mandatory to comply with IRB guidelines.

Finally, the survey included the question "What was your experience with the class?" allowing them to rate their experience from extremely negative to extremely positive.

To complement the quantitative findings, qualitative data was collected through semi-structured interviews. Participants included all 9 SB101 professors (some taught multiple sections of the course) and all 14 PCs involved in the program in the Fall of 2025. Over half of the PCs were veterans of the program, having been PCs the prior year with one who was in the program for three total years. These interviews focused on how the PC role is implemented in the classroom, how students respond to peer-led support, and which interactions appear to have the greatest impact. Interviews were conducted both virtually and in person using a semi-structured interview, with the results analyzed using qualitative analysis to identify recurring themes and create a codebook.

Overall, this methodology captures both measurable outcomes and lived experiences associated with the SB101 PC program, providing a well-rounded analysis of its role in shaping first-year business students' development.

4. DATA COLLECTION

The analysis used SB101 student survey data collected from 2021 through 2024. The final dataset consisted of 1,299 total responses.

Year	Sections without PC	Sections with PC	Usable Responses	Total Students	Response Rate
2021	9	0	267	372	71.8%
2022	10	0	211	377	56.0%
2023	8	4	382	437	87.4%
2024	0	16	263	479	54.9%

Table 2. Response Rates and Sections with PCs Each Year

The lower response rates in 2022 and 2024 are potentially sources of non-response bias. Participation in the survey was voluntary, and some students elected not to complete the survey. In addition, we determined that during both years, the decreased number of responses is attributable to certain instructors not administering the survey during their class rather than students choosing not to participate. These classes thus contributed substantially fewer responses to the overall total. They were taught by both new and veteran instructors, indicating that this was not an instructor cohort issue. While this could be a source of bias in the data and one that warrants appropriate caution of the 2022 and 2024 data, the problem appears to have been one of survey administration rather than a systematic non-participation among students.

To clean the raw survey data, all responses were reviewed, and incomplete entries were removed to ensure that only fully completed responses were analyzed. Variables were then standardized across years to account for inconsistencies in question formatting and response options. While structurally similar, the exact wording was modified to reflect the experience and structure of the course for that year. The questions still covered the same content and offered the same scales for evaluation.

Key variables were then coded for analysis. PC presence was converted into a binary variable, where PC sections were coded as 1 and non-PC sections as 0. The academic year was coded numerically from 1 (2021-2022) to 4 (2024-2025). Gender was coded as 1 for male and 2 for female (none of the respondents identified as non-binary or other gender), and age was retained as a continuous control

variable. Student's majors were first grouped into six categories: business undecided, entrepreneurship, finance, marketing, accounting, and other. These categories were then converted into individual dummy variables. The summary statistics are provided in Appendix A.

We tested for multicollinearity and found that age (VIF 13.18), year (VIF 10.10), and gender (VIF 9.33) were potentially problematic, but after testing models with and without them, we found no significant difference in the models with their inclusion. We also created a correlation matrix and found only year and the presence of a PC were correlated. This was expected as PCs were introduced later in the program. We found that the inclusion of year slightly increased the effect size of PCs, but did not affect significance. See Appendix B for the correlation matrix.

From this dataset, we selected key outcomes such as confidence in one's major and participation in out-of-class business activities. These variables were used as dependent variables in the analysis.

To evaluate these relationships, we conducted linear regression analysis using a block model approach. In Block 1, control variables including year (longitudinal models only), major, gender, and age were entered. In Block 2, the PC variable was added. This structure allowed for assessment of whether PC presence had an independent effect on outcomes beyond demographic and academic characteristics. We performed two sets of regressions. The first set was only classes from 2023 to control for time-related confounding factors such as the course changing over time or teachers becoming more effective in running the class.

	Participation in Out-of- Class Activities	Major Confidence
Constant	0.064 (0.929)	1.293 (0.190)
PC	0.010 (0.934)	0.257 (0.038)**
Gender	0.065 (0.540)	0.021 (0.874)
Age	0.084 (0.024)	0.094 (0.0644)
Undecided Major	0.121 (0.378)	-2.279 (<0.001)***
Accounting	0.113 (0.549)	0.177 (0.451)
Finance	0.081 (0.580)	0.2645 (0.142)
Marketing	0.232 (0.144)	0.171 (0.385)
Entrepreneurship	0.376 (0.186)	0.566 (0.091)

Table 3. 2023 Only Linear Regressions of PC Presence against Student Perceptions and Engagement Outcomes

	Respect for Self & Others	Problem Solving	Etiquette	Accountability and Organization	Verbal & Written Communication
Constant	5.500 (<0.001)***	5.123 (<0.001)***	4.255 (<0.001)***	4.067 (<0.001)***	4.248 (<0.001)***
PC	0.117 (0.359)	0.150 (0.233)	0.031 (0.806)	0.335 (0.012)*	-0.044 (0.738)
Gender	0.165 (0.188)	0.2548 (0.040)**	0.246 (0.051)	0.130 (0.320)	0.196 (0.125)
Age	-0.004 (0.938)	-0.024 (0.602)	0.036 (0.442)	0.009 (0.849)	0.016 (0.732)
Undecided Major	0.012 (0.940)	-0.035 (0.830)	0.059 (0.720)	0.056 (0.741)	0.055 (0.742)
Accounting	-0.389 (0.088)	-0.205 (0.362)	0.173 (0.449)	-0.250 (0.290)	-0.091 (0.699)
Finance	0.051 (0.768)	0.194 (0.250)	0.078 (0.650)	0.299 (0.095)	0.132 (0.451)
Marketing	0.029 (0.879)	-0.004 (0.985)	0.127 (0.500)	-0.017 (0.931)	-0.051 (0.791)
Entrepreneurship	0.372 (0.244)	0.487 (0.123)	0.242 (0.451)	0.256 (0.440)	0.131 (0.686)

Table 4. 2023 Only Linear Regressions of PC Presence against Student Perceptions and Engagement Outcomes

We found that the presence of PCs was positively correlated with both increased major confidence and increased competency in being accountable and organized. Upon finding significant relationships within the one year of the introductory business course with sections with and without a PC, we then looked at the longitudinal data.

	Participation in Out-of- Class Activities	Major Confidence
Constant	4.181 (<0.001)***	0.277 (0.724)
PC	0.650 (0.001)***	0.526 (<0.001)***
Year	-0.849 (<0.001)***	-0.104 (0.040)*
Gender	0.196 (0.007)**	0.054 (0.495)
Age	-0.010 (0.794)	0.148 (<0.001)***
Undecided Major	-0.129 (0.177)	-1.956 (<0.001)***
Accounting	0.020 (0.886)	0.174 (0.245)
Finance	0.075 (0.458)	0.288 (0.009)**
Marketing	0.056 (0.608)	0.142 (0.231)
Entrepreneurship	-0.042 (0.815)	0.590 (0.007)**

Table 5. 2021-2025 Linear Regressions of PC Presence against Student Perceptions and Engagement Outcomes

	Respect for Self & Others	Problem Solving	Etiquette	Accountability and Organization	Verbal & Written Communication
Constant	5.991 (<0.001)***	5.560 (<0.001)***	4.138 (<0.001)***	4.102 (<0.001)***	4.610 (<0.001)***
PC	0.079 (0.547)	0.129 (0.326)	0.015 (0.903)	0.300 (0.024)*	-0.051 (0.703)
Year	-0.261 (0.041)*	-0.296 (0.021)*	-0.056 (0.635)	-0.155 (0.229)	-0.048 0.715
Gender	0.124 (0.195)	0.166 (0.083)	0.255 (0.004)**	0.019 (0.845)	0.130 (0.176)
Age	0.018 (0.674)	0.011 (0.808)	0.049 (0.218)	0.043 (0.315)	0.023 (0.585)
Undecided Major	-0.132 (0.312)	-0.129 (0.321)	0.050 (0.677)	-0.049 (0.707)	-0.078 (0.556)
Accounting	-0.115 (0.520)	-0.036 (0.841)	0.286 (0.082)	0.040 (0.825)	-0.010 (0.960)
Finance	-0.025 (0.873)	0.019 (0.886)	0.146 (0.229)	0.078 (0.561)	0.008 (0.955)
Marketing	-0.005 (0.971)	0.017 (0.907)	0.198 (0.126)	0.083 (0.562)	0.073 (0.606)
Entrepreneurship	0.235 (0.331)	0.270 (0.268)	0.253 (0.255)	0.045 (0.854)	0.004 (0.987)

Table 6. 2021-2025 Linear Regressions of PC Presence against Student Perceptions and Engagement Outcomes

Multiple linear regression analysis was then used to assess whether these differences persist when accounting for potential confounding variables, including year, gender, age, and major. We first examined engagement in out-of-class business activities. We found that PC involvement is significantly positively correlated with engagement in co-curricular experiences ($\beta=0.363$, $p<0.001$). This supports Hypothesis 1. Next, we looked at major confidence and found it is positively correlated with PCs ($\beta=0.499$, $p<0.001$), giving support for Hypothesis 2.

The presence of a PC is also positively correlated with accountability and organization ($\beta=0.300$, $p=0.024$). After accounting for other variables, the presence of a PC does not significantly predict other competencies, including respect for self and others ($\beta=0.079$, $p=0.547$), problem solving ($\beta=0.129$, $p=0.326$), etiquette ($\beta=0.015$, $p=0.903$), and verbal and written communication ($\beta=-0.051$, $p=0.703$). These results could be because the multi-dimensional nature of the question responses has a suppression effect. PCs help with one or more aspects of these skills and mentalities but not all of them, so students would still score lower on them, or the way PCs interact with the class may prevent them from helping the students in a way that would improve in these categories. As such, Hypothesis 3 is only partially supported.

We then ran the regressions of the three variables where we found significant impact to measure the amount of additional explanatory power of the peer catalyst program. For co-curricular involvement, 0.007 to 0.087, an 8% increase, for major confidence, R^2 increased from 0.389 to 0.400, a 1.1% increase, and for accountable and organized, R^2 increased from 0.007 to 0.016, a 0.9% increase. Major confidence and business competencies are mentalities comprised that have many contributing components, and one intervention would be expected to have only modest effects on them, making the small increase of explained variance expected. In addition, the limited variability of the self-reported data may have caused the overall explanatory power of the PC program to be understated. Increasing engagement in co-curricular activities, however, is something that is much more influenceable by direct interventions, and something like the PC program where fellow students model and facilitate engagement would be expected to have a larger impact.

Overall, the findings indicate that the presence of a PC has a meaningful and independent effect on outcomes related to academic confidence and engagement, foundational competencies related to professional socialization and workplace readiness, while its influence on broader interpersonal and skill-

based measures is weaker. The benefits of the PC program make students more prepared for interdisciplinary environments, giving them the ability to engage effectively with and as information systems professionals. Moreover, these competencies are ones identified by information systems employers, lowering the anxiety students may feel and increasing their confidence in future course as they pursue careers in the field.

5. QUALITATIVE ANALYSIS

In order to ensure a structured process for conducting the interviews in the qualitative part of this study, a series of interview questions was formulated for both SB101 professors and the PCs themselves. These interview questions covered such topics as classroom dynamics, interactions between students, leadership skills and the overall efficiency of the PC program in the context of the research topic.

Two separate questionnaires were prepared for each category of participants in order to account for different points of view. The questions for professors included such topics as class integration, teaching approaches and the influence of PCs on the interaction between students. Meanwhile, PC interview questions were based around leadership skill development, inter-peer relations and their experience in working with students. In turn, such a design provided more flexibility to participants, allowing them to provide comprehensive answers.

This study used semi-structured interviews. The specific interview questions universally asked of PCs and professors are outlined below.

PC Interview Questions

- How has being a PC changed the way you think about learning and leadership?
- What do you think makes PC sessions valuable for students in SB101?
- If PCs were added to all business classes, what role do you see them playing in non-first-year courses?
- What have your interactions with SB101 students been like?
- What changes would you like to see for the SB101 program?

Professor Interview Questions

- How do you and your PC typically work together during class sessions?
- Can you share an example of a time when your PC stepped into a leadership role in your classroom?
- How has having a PC affected your teaching style?
- How has having a PC in your SB101 section affected your interaction with students compared to classes you've taught without one?
- What changes would you like to see for the future of the PC program?

Code	Description	Inclusion Criteria	Example Evidence
Bridge Role of PCs	PCs act as a link between students and professors, improving communication	Mentions communication, accessibility, or connection between students and faculty	"PCs are the bridge between the teacher and students, so communication is smoother."
Student Engagement	PCs influence student participation and involvement in class	Mentions participation, engagement levels, or classroom involvement	"Engagement depends on the class, but PCs help increase participation."
Collaboration Support	PCs enhance group work and collaborative learning experiences	Mentions teamwork, group activities, or collaborative assignments	"PCs help keep students engaged in collaborative material."

Academic Support	PCs help students understand assignments and course material	Mentions answering questions, clarifying assignments, or guidance	"Students ask PCs a lot of questions about the course."
Peer Relatability	PCs provide a more relatable, peer-based support system	Mentions comfort, approachability, or peer-to-peer interaction	"PCs bring a student perspective to the class."
Leadership & Role Modeling	PCs serve as leaders and role models within the classroom	Mentions leadership, mentoring, or setting examples	"PCs are leaders in the classroom and act as role models."
Professional Development	PCs contribute to student skill-building through course assignments	Mentions growth, challenges, or learning experiences tied to assignments	"Assignments are challenging but help students develop skills."
Classroom Experience	PCs improve overall student experience in SB101	Mentions enjoyment, comfort, or overall perception of the class	"Students worked well with PCs and found them helpful."
Professor Support	PCs assist instructors and improve classroom management	Mentions reduced workload, logistics, or class flow	"PCs help manage group dynamics and reduce pressure on professors."
Co-Curricular Engagement	PCs encourage involvement outside the classroom	Mentions clubs, activities, or engagement beyond class	"PCs encourage students to get more involved."

Table 7. Interview Coding

The results demonstrate that the impact of PC presence is most evident in outcomes that reflect how students connect to their academic path and engage with opportunities beyond the classroom. The pattern of significance suggests that increased exposure to academic resources, combined with consistent reinforcement and structured interaction, is associated with stronger confidence in academic direction, greater participation in out-of-class activities, and a more positive overall course experience. This indicates that PC presence operates by shaping engagement-driven behaviors within the classroom environment, rather than broadly influencing personal or skill-based attributes. Although interpersonal and skill-based variables do not show statistically significant differences, this pattern further reinforces the interpretation that the program's strongest effects emerge in areas tied to engagement and applied academic experience.

The regression results reinforce this interpretation by isolating and measuring the independent effect of PC presence. These engagement-based outcomes remain significant after controlling for year, gender, age, and major, suggesting that the observed relationships are not driven by variation in student composition. The magnitude of the regression coefficients provides additional insight into how these effects translate in practice. The strongest effect appears in overall class experience ($\beta=.224$), indicating that PC presence meaningfully shapes how students perceive and respond to the course environment. More moderate effects in major confidence ($\beta=.162$) and out-of-class activity ($\beta=.140$) suggest that this influence extends beyond the classroom by strengthening students' sense of direction and encouraging participation in applied opportunities. While the effect on accountability and organization is smaller ($\beta=.100$), its consistency highlights a shift in how students structure their academic behavior.

This pattern suggests that the influence of PC presence is not restricted but instead builds from engagement into more structured academic habits. The relationship with accountability and organization likely reflects the role of a peer model within the classroom, where the presence of a PC reinforces expectations and promotes greater personal responsibility. In this way, the observed differences in magnitude illustrate how initial engagement translates into more consistent and organized academic behavior, linking the program's immediate effects to longer-term student outcomes.

6. LIMITATIONS AND FUTURE RECOMMENDATIONS

While this study offers useful insight into the impact of the SB101 PC program, there are several limitations that should be taken into account. One issue is the lack of consistent pre-assessment data across all semesters. Without that baseline, it becomes harder to clearly track how individual students changed over time, so the analysis leans more toward comparing outcomes rather than comparing growth over the semester. Another limitation comes from the response rate. Not every student completed the survey, and in some cases, entire sections were missing data. Because of this, it is possible that certain effects of the program are not fully reflected in the results, although given the sample size, this possibility is minimized.

There are also some gaps in the qualitative portion of the study. Interviews were only collected in the final year of the program. Most of the PCs are veterans of the program, with several having been in the program since its implementation in the class, but not all PCs return with some graduating and others electing to leave the program. Thus, perspectives of PCs from earlier years are not as well represented, and the findings reflect the most recent experiences rather than the full timeline of the program.

At the same time, the SB101 course itself did not stay completely unchanged. While the core goals remained the same, there were adjustments to assignments, tools, and overall structure. The role of the PC evolved along with it, with different responsibilities and points of emphasis emerging over time. These shifts make it more difficult to separate the effects of the PC program from changes in the course itself. However, since the two evolved simultaneously, it is not unreasonable to say that the PC program has continued to be shaped into an increasingly effective component of the course. It would also be interesting to see how this model works outside of the first-year setting. Exploring its use in upper-level or even graduate business courses could show whether the same benefits continue as students progress.

Looking ahead, there are several directions that future research could take. A more focused survey design would be a good place to start, especially one that directly targets the areas where PCs seem to have the most influence. Conducting an initial assessment of the students upon entering the class in addition to the end of semester survey would allow for analysis of the effect the PC program has on first year business students. Expanding this research into other business courses could also provide a clearer picture of where the model works best and how it might be adapted across different contexts. Tied to this is the possibility that student populations may be changing, especially since COVID, and creating research that explores the direction of any such change and how to create a program that can work with or get ahead of such changes would be impactful for pedagogical improvement.

Another area worth examining is the experience of the PCs themselves. Their role likely contributes to skill development, but it would be helpful to better understand quantitatively the impacts of participating in the program and how they relate to things like internships or job opportunities.

7. CONCLUSION

This study examined how the SB101 PC program influences first-year business students' early academic and professional development. Overall, the findings point to a clear pattern: students in sections with a PC tend to feel more confident in their major and more engaged outside the classroom. PCs act as facilitators and enhancers of professional socialization, expectations for career readiness, and workforce identity development, all areas of importance in information systems education. A key factor behind these outcomes appears to be the role of PCs as near-peer models. The relationship between PC presence and improvements in accountability and organization likely reflects this influence. These are all particularly salient issues in information systems programs where career pathways and progression is often poorly understood by students. At the same time, the results show that the impact of PCs is somewhat focused. The strongest effects appear in areas tied to adjustment, confidence, and involvement, rather than across all skill-based outcomes. This suggests that the program is particularly effective in supporting the transition into business school, where students are still developing a sense of direction and belonging. In that sense, the PC program fills an important role. It complements traditional instruction by addressing aspects of the first-year experience that are not always fully covered in the classroom. As business schools continue to look for ways to strengthen early student engagement and development, this model offers a practical and student-centered approach. Future research should

explore how the PC model can be adapted and implemented in a range of other disciplinary courses or in discipline-specific courses, such as information systems courses, as well as upper-level business courses, with the goal of extending these benefits beyond the first-year experience and supporting continued academic and professional growth.

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APPENDIX A

Summary Statistics

Variable	Mean	SD	Variable Type	Min	Max
PC	0.370	0.483	Polytomous	0	1
Year Code	2.571	1.091	Categorical	1	4
Gender	1.361	0.480	Polytomous	1	2
Age	18.431	0.922	Categorical	18	21
Business Undecided	0.270	0.444	Dummy	0	1
Accounting	0.081	0.273	Dummy	0	1
Finance	0.226	0.419	Dummy	0	1
Marketing	0.167	0.374	Dummy	0	1
Entrepreneurship	0.040	0.196	Dummy	0	1
Other Major	0.223	0.416	Dummy	0	1
Major Confidence	2.595	1.561	Scale	1	5
Co-Curricular Participation	2.320	1.320	Scale	1	6
Accountable/Organized	4.603	1.065	Scale	1	7
Communication	4.795	1.055	Scale	1	7
Respect for Self & Others	5.603	1.060	Scale	1	7
Problem Solving	5.024	1.066	Scale	1	7
Etiquette	5.321	0.978	Scale	1	7

APPENDIX B

Correlation Matrix

Variable	PC	Year	Gender	Age	Undecided	Accounting	Finance	Marketing
Year Code	0.746							
Gender	0.032	0.039						
Age	-0.028	-0.094	-0.102					
Undecided	-0.066	-0.059	-0.072	0.001				
Accounting	0.050	0.000	0.076	-0.065	-0.181			
Finance	0.018	0.039	-0.193	-0.043	-0.329	-0.145		
Marketing	0.062	0.067	0.215	-0.021	-0.273	-0.133	-0.242	
Entrepreneurship	0.022	-0.003	-0.049	0.008	-0.124	-0.061	-0.110	-0.092