RETENTION OF FIRST-YEAR LANDSCAPE ARCHITECTURE STUDENTS AT A LAND-GRANT UNIVERSITY

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ABSTRACT
Retaining landscape architecture students at land-grant universities in Appalachia is an ongoing challenge. “College attainment is unequally distributed… Student persistence through college and borrowing also varies by generation status” (Redford, Hoyer, & Ralph, 2017, p. 1). As Walker (2019) notes, “some design programs experience high attrition rates during year one…. professional design programs located in rural locations, where design professions are less prevalent, can contribute to a misunderstanding of career opportunities.” At Virginia Tech, in recent years just 54% of incoming students completed their BLA (Virginia Tech, 2024). At Mississippi State, first-to-second-year retention in the BLA program was 52% before a targeted first-year seminar increased it to 70% (Walker, 2019).

This case study examines strategies to improve first-year BSLA student retention at West Virginia University (WVU), using both quantitative data (studio enrollments, grades, retention, and graduation rates) and qualitative data (student feedback and in-class surveys). From 2003 to 2011, WVU retained 70% of first-year studio students. After course revisions, retention increased to 76% (2012–2019) but dropped to 53% during the COVID-19 pandemic (2020–2023). Over the full 2003–2023 period, 64% of students enrolled in the introductory studio were retained to the second year.

Academic performance was correlated with retention and graduation. Students earning As and Bs were more likely to be retained than those earning Cs (77% vs. 60%), but students earning Bs graduated at higher rates (73%) than those with As (67%) or Cs (53%).

Improving first-year persistence is critical to rebuilding program enrollments in the post-pandemic era. This study highlights how early interventions and curricular changes can support both high-performing students and those at risk of attrition.

Keywords
Student Retention, Freshmen, Design Education, Studio, Undergraduate

1 INTRODUCTION

The number of entry-level landscape designers graduating from accredited landscape architecture programs has dipped in recent years. The 102 accredited landscape architecture programs in the U.S. reported that 743 BSLA/BLAs and 679 MLAs graduated in 2023 (Pritchard & González, 2023), decreasing 19% and 4% from 912 and 704 (respectively) a decade prior (Pritchard & Rolley, 2013). Some firms report difficulty attracting interns and entry-level designers, especially in large metro areas with high costs of living (personal communication). Universities are also facing a 'demographic cliff' – a drop in birth rates for those born during and after the Great Recession (2008), which is expected to reduce the number of 18-year-olds in the U.S., with fewer graduates eventually coming through the pipeline to fill jobs" (Marcus, 2025). The demographic drop in college admissions is expected to begin in Fall 2026, with 10% fewer high school graduates expected in 2041 than in 2023; consequently (Lane et al., 2024, p. 9-11):

> *future jobs will still require more degree holders than the country is currently on pace to produce. An increased focus on improving outcomes for students who have been historically underserved by higher education must counteract the demographic trends ahead. Urgent action is needed to ensure that more students can gain the skills and knowledge to improve their own life outcomes and have positive impacts on society.*

To prepare for the 'demographic cliff,' programs should work to increase retention and graduation in landscape architecture.

1.1 Generational and Educational Context

Most current undergraduate students are members of Generation Z (born 1995 to 2012), turning 18 between 2013 and 2030. Most Millennials (born 1980 to 1994), if they began college at age 18 and finished in five years, graduated by 2017. Several generational differences between Gen Z and Millennial students have been noted by previous researchers.

1.1.1 Belief in Higher Education

Importantly, almost all Gen Zers, 94% of those aged 18 to 24, have graduated from high school or are currently enrolled in school based on 2018–2022 data (The Annie E. Casey Foundation (AECF), 2024). Nearly 50% of Gen Z young adults are either college students or graduates, a significant increase from 36% in 2000. (AECF, 2024). Gen Z students started attending college in 2015, their graduation rate of 62% (AECF, 2024) is higher than that of previous generations. About 39% of Millennials graduated from college and demonstrate "a sharp divide between the economic fortunes of those who have a college education and those who don't" (Bialik & Fry, 2019). Just under 30% of the previous Gen X (born 1965 to 1980) completed college (NCES, 2018). Higher levels of post-secondary education are linked to a greater sense of *thriving* among Gen Z. Among adults aged 21 to 27, 52% of those with a bachelor's degree or higher reported thriving, compared to 41% with an associate degree, certificate, or technical training, and only 35% with a high school diploma or less (Gallup, 2024).

A national survey by Gallup and the Walton Family Foundation (WFF) in 2023 and 2024 collected information from Gen Z (ages 12 to 27) on topics including education. The results showed that 83% of Gen Zers believe a college degree is either "very important" or "fairly important." This is although there is declining confidence in higher education among U.S. adults generally, dropping from 57% in 2015 to just 36% in 2023. Yet despite this belief in the value of a college degree, many Gen Zers have serious concerns about its affordability. While 57% of middle and high school students intend to pursue a bachelor's or associate's degree, only 53% believe they can afford it. Gen Z students take on less student debt than Millennials (averaging $22,948 vs. $40,438; Hanson, 2024). The average debt for BSLA/BLAs graduating in 2023 was $17,600 (Copulsky, 2023). The decreased reliance on loans suggests more Gen Z students are balancing work with their undergraduate studies.

1.1.2 Feelings of Inferiority

Additionally, many Gen Z high school students feel unprepared for college. Approximately 25% report feeling very prepared to apply for or succeed in college (Gallup and the WFF, 2023). However, those students who are more engaged in their school experience tend to have a more positive outlook. This lack of preparedness could be linked to a broader trend of declining school engagement. Between 2023 and 2024, a notable decrease in engagement was observed, with only 49% of students saying their

coursework challenges them in a way that helps them grow (Gallup and the WFF, 2023). Engagement with school, however, remains an important factor for students who aspire to attend college, indicating a connection between their high school experience and their future educational goals.

1.1.3 Confidence in Instructors

Despite these challenges, most Gen Zers continue to express a high level of trust in educators. A significant 63% of Gen Z respondents report having a lot of confidence in teachers. This level of trust is notably higher than the confidence they have in other institutions such as the medical system (45%), the police (38%), the criminal justice system (23%), large tech companies (17%), or the news (16%). This suggests that, while concerns about education affordability and preparedness exist, Gen Z maintains a strong belief in the value of education and the role of teachers. The only thing they trusted more was science at 71%. (Gallup and the WFF, 2023-2024)

1.1.4 Social Connection

Gen Z students appreciate social connection (Supiano, 2023, p. 81-83):

> *"Students in courses where social connection is a priority can point to a host of benefits…. They feel like they belong and have an incentive to show up and participate. They enjoy themselves. They learn more…. Doing an activity in a group, or taking part in an intellectual discussion, can help meet students' social needs without asking them to reveal too much about themselves."*

Some strategies that help establish social connections among Gen Z students include: learning names early in the semester, establishing means for students to contact each other and trade information, and emphasizing "…the importance of teamwork so students understand the degree to which the… careers they're pursuing are collaborative" (Supiano, 2023, p. 84).

1.2 Literature Review: Strategies for Student Retention

Tinto (2012) argues that student success is most likely when institutions uphold high expectations, provide consistent support and feedback, and promote active engagement—especially in the classroom. In studio-based disciplines like landscape architecture, early uncertainty, workload, and the steep learning curve of design tools can hinder persistence. Studies in allied fields—including engineering and architecture—suggest that peer mentorship and structured critique support engagement, diverse learning needs, and academic confidence (Felder & Brent, 2005; Lichtenstein et al., 2007). In landscape architecture, Walker (2019) found that a targeted first-year seminar significantly improved BLA retention. Research on academic advising also highlights the value of consistent, structured support—whether from professional advisors or faculty mentors—for improving retention and satisfaction (Friedel & Wilson, 2015). These studies help frame how advising, mentorship, and critique culture may influence first-year retention.

1.3 Research Objectives

This study sought to identify strategies to increase retention among BSLA students, specifically addressing the following questions:

1) **What impact did changes to advising and mentoring structures have on first-year student support and retention?** This includes shifts from faculty to professional advising, as well as the supplemental roles of faculty mentoring and peer mentoring pods.
2) **How effective were new strategies to increase social connection and emotional resilience among first-year students?** We explore whether these strategies helped students feel less isolated and more confident, and what additional support they suggest.
3) **What does student feedback reveal about how to improve the first year?** This includes insights into how students' early assumptions evolve and which curricular or social interventions may help manage expectations and clarify the scope of the profession.

2 METHODS

Through a combination of surveys and assignments, input from upperclassmen studying landscape architecture was collected (from 2020 to 2025) to improve the experience of first-year BSLA students. First-years were also surveyed directly, beginning in 2025. Participants were selected through convenience sampling: students who provided feedback were enrolled in studios taught by the authors.

2.1 Studio Grades vs. Retention and Graduation Rates

Graduation rates for students entering the BSLA program from 2003 to 2020 were compared to students' grades in the first-year studio LARC 120: *Landscape Architectural Drawing*, using anonymized data provided by the Registrar's office. The number of BSLA students graduating each year from 2009 to 2023 was also compared to the number of BSLA students enrolled in LARC 120 four years prior.

The Registrar's office provided a summary of BSLA students' grades from 2003 to 2024 in the introductory first-year studio LARC 120, whether students were retained into the second-year fall, and, if so, what grade they earned in that studio (LARC 250: Theory of Landscape Architectural Design).

2.1.1 Professional Advising, First-Year Seminars

The switch to professional advisors for BSLA students began in July 2022. The effect on student retention and graduation rate was determined by comparing to retention and graduation rates when students were assigned faculty advisors instead of professional ones.

Along with the shift to professional advising in 2022, dedicated first-year seminars were implemented (for first-time freshmen), led by each professional advisor beginning in Fall 2023. First-time freshman BSLA students were enrolled in a seminar specific to the college but not to the landscape architecture major. Students were asked to provide feedback: '*Which first-year seminar did you take? Comment on whether it was helpful or not.')*

2.1.2 First-Year Adventure Trips

Students provided qualitative feedback on a recent University-level retention initiative: first-year adventure trips: '*Did you attend an adventure trip last July/August? If so, comment on the experience.'*

2.1.3 Faculty Mentors and Peer Pods

In early 2025, students from all cohorts were asked to review faculty bios (*'think about who might be most closely aligned with where you think you might end up focusing in your career')* and rank their top choices for faculty mentors. In March of 2025, faculty mentors were assigned within students' top three choices, considering the best fit for interest areas but also striving for an even distribution among faculty members. Students met with their faculty mentors in informal settings as 'peer pods' and were encouraged to mentor each other across cohorts.

First-years were asked what role they hoped faculty mentors would provide, and results were coded / summarized to guide faculty assuming new mentoring roles. To match faculty and students by interests, students were asked to review a list of possible specializations within landscape architecture and pick which three were of highest interest, in an open-ended question which also invited further comments ('*if your specific area of interest isn't mentioned – feel free to add it'*). Upperclassmen in Spring 2025 were asked the open-ended anonymous survey question, '*What kind of mentoring support have you used as a first- or second-year student in the BSLA program*?' This short written survey was completed anonymously in class by third-year students in the spring 2025 studio, and included open-ended prompts about mentoring, support systems, and how their experiences changed over time. Interested students were invited to provide their contact info and note their particular (software and subject matter) strengths to share with underclassmen. A peer mentor list was posted in first- and second-year studios.

2.2 Strategies for Increasing Social Connection

Building studio culture is important during the first year. New exercises were introduced in the 2024-2025 academic year in both first-year and third-year studios to increase peer-interactions.

2.2.1 In-Class Connections: First Semester Drawing Studio

Students in LARC 120 completed exercises to encourage positive group feedback and self-reflective evaluation. In interactive, informal presentations, they were asked to consider, in evaluating their projects: '*What is working well, what is something they are proud of in their project? What needs improvement?*' In class, students provided positive feedback on a specific element of another student's project as well.

2.2.2 Meet and Greet (First- and Third-Years)

In week 4 of the fall semester, third-year BSLA and two MLAs (enrolled in LARC 360: Natural Systems Design), were asked to complete a meet and greet exercise in which they introduced themselves to

assigned first-years, delivered nameplates (see Figure 1), and checked in to see how first-years were adjusting to life on campus. Women in the first-year cohort were assigned to female upperclassmen peers, and if students were known to share an interest area (e.g., golf) they were paired accordingly. To guide these conversations, third-years were provided with the following questions to ask first-years: *'How are you settling in?' / 'What are you worried about, in the program or just adjusting to life on campus?' / 'What are you excited about?' / 'Why did you choose this major?' / 'Is there any support or help you need, from upperclassmen or landscape architecture faculty?'* After their meet-and-greet sessions, upperclassmen provided notes about their conversations, which were then compiled, anonymized, and examined for common themes.

Figure 1. Each landscape architecture student was provided with a nameplate for their studio desk. Photo by the second author. Name stickers were cut using a Cricut vinyl machine; steel plates were welded during a state-level Future Farmers of America (FFA) competition. The nameplates served as a low-cost but meaningful strategy to help students feel visible and create a sense of belonging in the studio.

To follow up, the first-year students were surveyed (week 2 of the spring semester) to find out: *'Was this interaction with an upperclassman helpful?'* on a 5-point Likert scale. They were also asked to comment qualitatively on experiences of *'meeting upperclassmen in the first weeks of fall semester. Do you have suggestions for how we can improve or expand that meet and greet exercise?'*

2.2.3 Introducing Team Exercises and Peer Feedback into the First-Year Studio

In Spring 2025, LARC 121 introduced team exercises. First-years were required to meet with third-years for advice on how to prepare a site analysis of small, on-campus sites. In studio, first-year students practiced small group presentations, explaining their project sites to the instructor and teaching assistant in groups of three or four. A few weeks later, first-years rotated through small teams to get feedback on their preliminary design ideas for individual projects. Students were encouraged to incorporate feedback but also informed that it can be difficult to reconcile input from multiple sources; their design ideas might change several times before moving from ideation to the design production phase. To encourage design idea exploration, a series of quick concept sketching and modeling exercises (see Figure 2) was introduced in weeks 8 to 9, with multiple rounds of feedback. Third-year students worked with the course instructor to provide written feedback on first-years' early concept sketches and models.

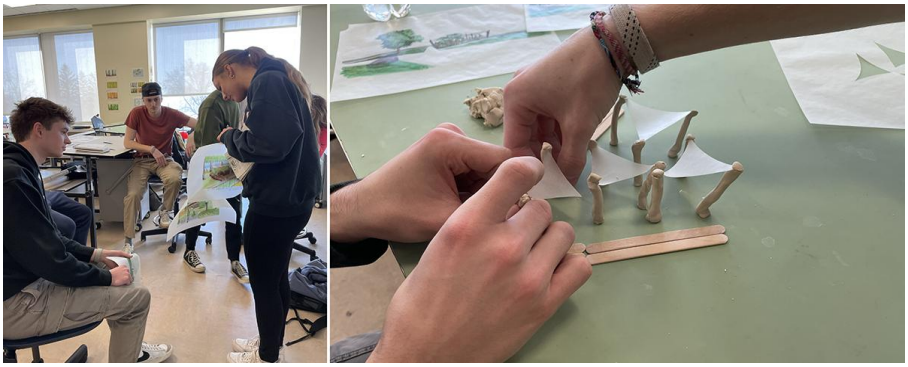

Figure 2. Students consulted with peers at several points early in their design process for their half-semester-long studio projects in LARC 121. Photos by the second author, 2025.

2.2.4 'User Guide' Instructions

West Virginia University won the national 2024 Don Clifton Strengths-Based Culture Award in recognition of the development impact of offering the Clifton Strengths assessment to students, faculty, and staff (Gallup, 2024). Incoming freshmen have taken the strengths assessment during orientation since 2023 (Christensen, 2023). Students entering the BSLA program from 2020 to 2022 were asked to complete the Clifton Strengths assessment for class assignments in third-year studios.

The assessment identifies the top strengths from a list of 34, which are sorted into four domains (Executing, Influencing, Relationship Building, and Strategic). Beginning in spring of 2025, first- and third-year students were asked to reflect on their strengths as well as other personality tests they may have taken (Myers-Briggs, etc.) to develop a 'User Guide' to make it easier for their instructors and peers to work with them. Students were instructed to craft four to six User Guide instructions as "Please… but…." statements and provided with examples, but otherwise the exercise was open-ended. A total of 118 student User Guide statements were collected (anonymously) and sorted into themes, grouped as follows: **Process** (clarity, feedback, reflection); **Teams** (collaboration, communication, conflict, boundaries); **Development** (growth, change, grace); **Agency** (Responsibility, time management, micro-management). Student User Guides (compiled and anonymized by cohort, sorted into themes) were shared in studio and with faculty.

2.2.5 Club Participation

First-year students were asked, in spring 2025, about their participation in the Student Society of Landscape Architects (SSLA) in an open-ended question, 'Are you active in SSLA? Why or why not?'

To support activity development for the newly formed Landscape Architecture Recreation Club (LARC), third-year students were asked in fall 2024 to consider what outdoor recreation activities would most interest them and promote club engagement.

2.3 Student Reflections on the First-Year Experience

In Week 1 of spring 2025, first-year students were asked to self-rate their abilities in syllabi learning outcomes. In week 9, they were asked to self-rate key learning outcomes, selected from all first-year suggested plan of study course syllabi, as part of a larger curriculum assessment effort to evaluate cohort competency. Self-rating questions provided a 5-point Likert scale where 5 = Excellent / Very confident and 1 = No Experience / Very unconfident.

For five consecutive years (2020 to 2024), mostly third-year students in *LARC 360: Natural Systems Design* were asked to reflect on their experience as first-year students in the BSLA program. Students were surveyed, anonymously, through an optional questionnaire distributed through the online learning platform (eCampus) at the end of the fall semester (between weeks 13 and 15). Questions were open-ended essays, and content-analyzed to identify common themes. If responses touched upon several themes, they were coded in multiple categories. Several questions asked upperclassmen to reflect on their first-year experience.

For the first impressions question, '*What were your first impressions of the field of landscape architecture, as a first-year student? What should they [first-year students] know, about first year vs. later years?*' comments were coded according to the following themes:

1) **Agency** (workload, persistence, time management)
2) **Progression** (characteristics of 1st, 2nd, and 3rd year studios)
3) **Grace** (acceptance, studio culture, support)
4) **Versatility** (breadth of the profession, need for software, design gets easier)

For the progression question: '*How did your understanding of landscape architecture shift, as you progressed in the LARC [landscape architecture] curriculum?*' comments were coded into themes:

1) **Breadth & understanding** (major offers many career opportunities, lot of knowledge to absorb)
2) **Design process** (better understanding of how to work efficiently)
3) **Specific skills** (software, natural systems, community engagement, teams)

For the suggestions question: '*Do you have any suggestions for how faculty, advisors, and/or upperclassmen can better mentor first year students? / What would have helped you, as a first-year?*' responses were coded into themes, including:

1) **Support** (more opportunities to interact / vent / tutoring / relationships across cohorts)
2) **Faculty mentors** (encouragement / more instructor support)
3) **Jury week** (seeing ahead into curriculum / upperclassmen pinup)
4) **Software** (more CAD, more Adobe)
5) **Reviews** (meet more faculty, alumni, upperclassmen / more networking throughout the year)

2.3.1 Moments of Doubt

Third-years were asked, '*Did you have moments of doubt early in the landscape architecture curriculum? If so, what provoked it, and what resolved your uncertainty?*' From previous conversations with students, we understood moments of doubt included considering changing majors or even withdrawing from the University. Some students had also expressed doubts about whether they were suited to succeed within the profession of landscape architecture. For the 'moments of doubt' question, responses were coded (yes / somewhat / no) with themes identified (e.g., persistence / workload / feelings of inferiority / software learning curve).

A version of this survey was developed and offered to first-years in week 9 of spring 2025. For the 'moments of doubt' question, first-years were offered a scaled response (yes, often / yes, sometimes / only rarely / never) plus an open-ended text option for additional comments.

2.3.2 Breadth of Program

In spring 2025 (week 9) first-years were also asked, *'What did you expect studying landscape architecture to be like? Why?'* to gain new insights into expectations of students entering the program.

2.4 Jury Week

In the last week of classes in fall 2024, the Landscape Architecture Program piloted Jury Week, during which students from each cohort presented their design work to faculty and invited jury members (including alumni and project stakeholders). Students were required to attend some Jury Week presentations and were invited to attend all. First-years were asked to rate the benefits of attending Jury Week, using a 5-point Likert scale, and also evaluated the experience qualitatively: '*Do you have suggestions for how we can improve or expand Jury Week*?'

2.5 Exit Survey

A selection of exit surveys (received in fall 2020, 2022, and spring 2024) were reviewed for feedback concerning alumni's first-year experience. The survey asked alumni to '*Evaluate the following subject areas as to their value to you as a professional Landscape Architect',* provided a list of required BSLA courses and a 5-point scale (most valuable' to 'least valuable'), and asked alumni to elaborate why they ranked courses as highest or lowest. Additional open-ended questions included, '*Are there things we can improve for current and future students?*' / '*Do you have additional comments on required courses?*' / '*Do you have any other comments / concerns / suggestions for the Landscape Architecture Program?*'

3 FINDINGS

3.1 Studio Grades vs. Retention and Graduation Rates

From 2003 to 2024, more BSLA students earning As and Bs in LARC 120 were retained to LARC 250 than those earning Cs (77% vs. 60%), but more of those earning Bs in LARC 120 graduated (73%) than those earning As (67%) or Cs (53%). Of students who were retained into the second year, 84% of those earning an A or B in LARC 250 went on to graduate; 80% of those earning a C did. Changes are needed to increase retention and graduation for both high-performing students and for those who face challenges, especially during the first year. Overall, 64% of first-year BSLA were retained into the second-year from 2003-2023.

3.1.1 Professional Advising and First-Year Seminars

BSLA graduation rates bounced back from pandemic rates, with the support of professional advising (see Figure 3). According to Davis College Academic Affairs staff, “As a general rule, our retention has continued to grow every year since moving to professional advising.” For WVU students who began their studies from 2018 to 2021, 42.1% graduated within four years; 54% of BSLA students did. From 2022 to 2024, i.e., after the switch to professional advising, WVU students had a four-year graduation rate of 46.1%; BSLA students had 67%. Retention from first to second year also increased with professional advising, increasing for Davis College students from 79.2% (for students beginning the program from 2018 to 2021) to 82.4% (for students beginning from 2022 to 2024).

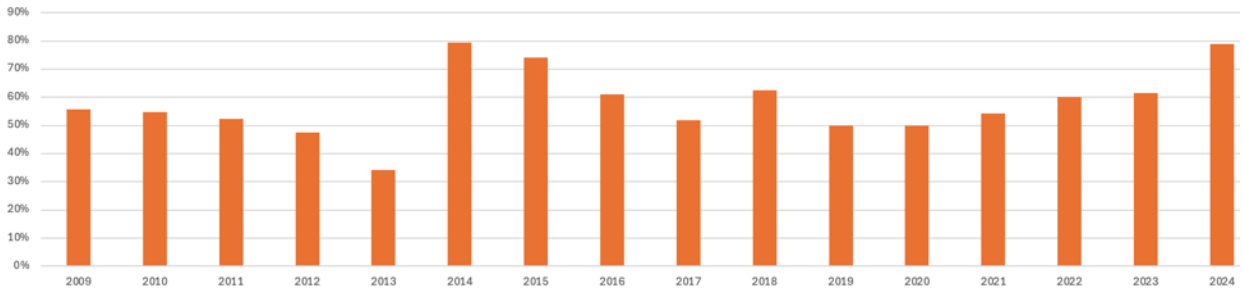

Figure 3. Comparison of the number of LARC 120 BSLA students to the number of BSLA graduates four years later. Chart by the author. Professional advising likely contributed to the recent increase. The jump in retention from 2013-2014 coincides with changes made to LARC 120 by the first author, beginning in 2012.

First-year students reported mixed feelings about Davis College first-year seminars. “I was given a lot of resources and advice which was helpful for the start of my college career.” / “I do wish that it could have been specific to LARC program” / “I enjoyed the class but I don’t think I learned anything valuable…. Other than study abroad programs”. Major changers and transfers did not benefit as they were not required to take it: “I was undecided my freshman year” / “it was not required for transfer students”.

This suggests additional first-year support is needed. Beginning in fall 2025, to ensure first-year students meet all landscape architecture faculty, the lecture course LARC 105: Introduction to Landscape Architecture, Environmental Design, and Planning will be cotaught.

3.1.2 First-Year Adventure Trips

The first-year students who attended adventure trips recommended them: “Yes, I went on this trip last summer and I believe it would be a great idea, especially for team building,” / “I did attend an adventure trip, and I think that would be a great idea to build cohort connectivity.” Those who had not attended an adventure trip had reservations about asking future first-years to: “I would have been apprehensive about taking time out of my summer to go on a trip with people I didn’t know. I have never been on an adventure trip,” / “classroom visits might work better with people’s schedules,” / “we build a good enough connection in studio, and students would not want to spend the money on a trip.”

The Landscape Architecture Recreation Club (LARC) is considering introducing short, day trips (easy hikes and bike rides, possibly a one-night camping trip near campus) to facilitate more peer-interaction.

3.1.3 Faculty Mentoring and Peer Pods

When third-years were asked, ‘*Do you have any suggestions for how faculty, advisors, and/or upperclassmen can better mentor first-year students? / What would have helped you, as a first-year?*’ themes identified were as follows:

Peer support, more opportunities to interact / vent to peers when needed (mentioned by 22%)
Faculty mentors, faculty took an interest in me personally it helped so much (17%)
Jury Week, seeing ahead into the curriculum / visual of how the classes build on each other (11%)
Software, try to make first year more like the others / describe shift from drafting to digital work (9%)

Reviews, meet more faculty, alumni, upperclassmen (6%)
Student organizations, get more first years involved with SSLA (6%)
More instructor support, make apparent that students can ask for help (6%)
Time management, time spent working is not always reflected in grades) (4%)
Breadth, expose first years to breadth of opportunities in field) (4%)
Encouragement, some professors forget how nervous students can be (4%)

Of the invited upperclassmen, 80% were willing to mentor freshmen and sophomores. In response to *'What kind of mentoring support have you used as a first- or second-year student in the BSLA program?'* representative comments included:

> *"I could have used mental support. I would like to have heard stories from upperclassmen about what they went through when they were in my shoes. There have been multiple times where I take long breaks from doing schoolwork just because I need to sit and think because I overwhelm myself with thinking. I would've liked to hear how other people felt while doing what I'm doing."*

> *"A lot of us didn't really know what to expect coming into the major so maybe just some guidance as to what is to be expected next in the program and how the skills learned in the first-year lead into the following years."*

In response to '*Do you have any other comments or concerns as we organize faculty mentoring pods?*' one first-year student noted,

> *"I am primarily looking for direction and advice for building a portfolio and landing a good internship…. it would be helpful to meet peers/faculty who are outgoing, experienced, travelers, and who are skilled in multiple areas."*

In week 12 of spring 2025, students began to meet with their mentoring pods, supported by a small hospitality budget to cover meals / activities for each faculty-led mentoring group.

3.2 Strategies for Increasing Social Connection

3.2.1 In-Class Connections: First Semester Drawing Studio

Instructor observations indicated that regular, low-pressure critique exercises helped students engage more confidently and constructively in studio discussions. Students demonstrated increased professionalism and openness to feedback, even if they were initially quiet or hesitant. This suggests that introducing structured peer feedback and reflection early in the curriculum can help students develop communication skills and confidence that benefit them throughout the program.

3.2.2 Meet and Greet: First- and Third-Years

After first-year students met upperclassmen at the beginning of the Fall semester for an informal peer check-in, follow-up surveys in Week 9 of the Spring semester measured the effectiveness of this exercise for establishing social or mentoring connections across cohorts. First-years indicated a desire for more facilitated social connections with upperclassmen. Specifically, they expressed hesitancy in reaching out for peer-mentoring in software to upperclassmen they didn't already know (e.g., through 'peer pods').

While all first-year students felt they were settling in well, some potential sources of doubt began to emerge in response to the question, '*What are you worried about, in the program or just adjusting to life on campus?'* One admitted they were "Just getting used to being away from home." Three mentioned concerns: "maybe a little bit about how much the workload would increase". Two expressed feelings of insecurity: "worried about big projects and worrying about making mistakes" and "sometimes I worry about how my work compares to others." Insecurity during the first year was a theme that had also emerged among third-year students.

In documenting first-years' responses to the questions, '*What are you excited about?*' and '*Is there any support or help you need, from upperclassmen or from landscape architecture faculty?*' some upperclassmen spontaneously moved into a peer-mentoring mode:

> *They weren't sure what they were excited about, so I took the time to show them some of the projects I have done thus far. I wanted them to see how involved and interesting the projects get*

> *I talked to them about the importance of getting to know your classmates and how beneficial it can be to studio culture and they said they already feel really connected…. I told them that the work will feel heavy and like a lot to handle but that's where it becomes important to lean on your classmates and make sure you are having fun.*

When first-years were asked to consider, in week 2 of spring semester, 'Was this interaction with an upperclassman helpful?' on a 5-point Likert scale, they rated the nameplate meet and greet at 3.83, between 'Yes, it was somewhat helpful' and 'Not sure (neither agree nor disagree)'. Most found the name-plate meet and greet helpful (38% somewhat helpful, 23% definitely helpful). Only one student (8%) found it not particularly helpful; 23% were not sure.

3.2.3 Introducing Team Exercises and Peer Feedback into the First-Year Studio

Instructors observed that small-team conversations discussing design ideas generated enthusiasm and excitement for the LARC 121 studio design project. Students freely shared design ideas and precedents; the dialogue that started as an in-class exercise continued, with more students choosing to circulate and review each other's work during each class period after the peer feedback exercise was introduced.

3.2.4 'User Guide' Instructions

After sharing the compiled and anonymized User Guides, third-year students expressed (personal communication) they felt more prepared to collaborate effectively. The broad range of User Guide themes (see Figure 4) reflects diverse working styles and personality preferences among students. Faculty should be prepared to adapt their teaching to accommodate a range of learning styles and preferences.

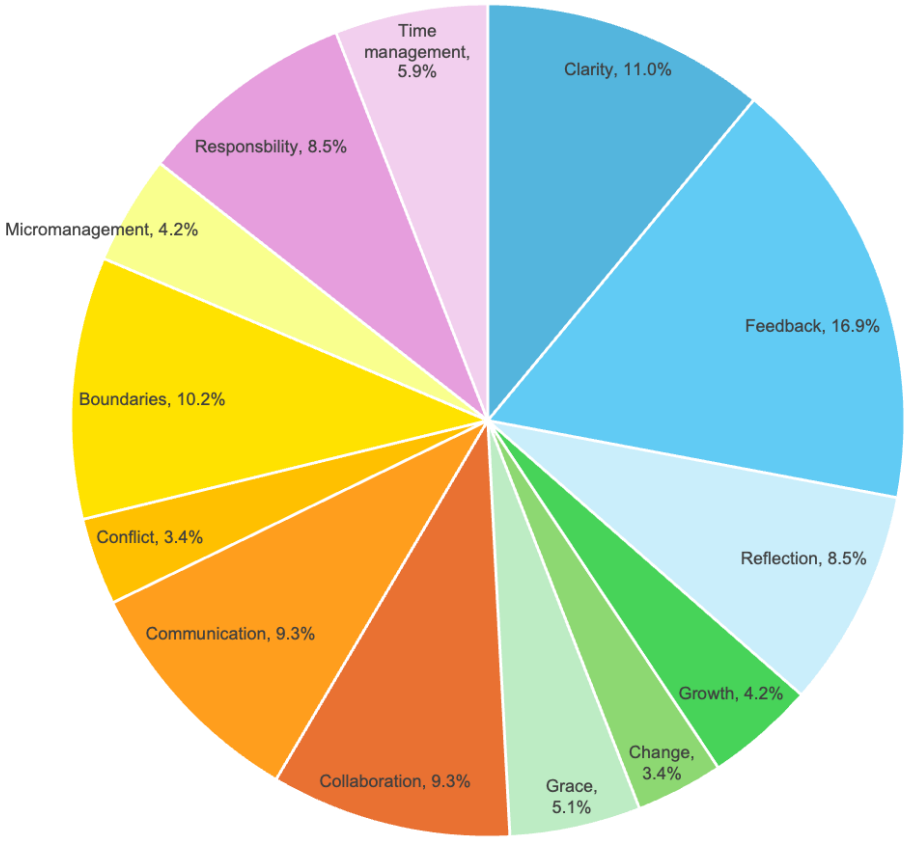

Figure 4. First- and third-year student User Guides were coded into themes; the most mentioned was Feedback, but students also emphasized Clarity, Communication, and Collaboration.

Of first- and third-year student statements, 16.9% mentioned constructive **Feedback**: "Please give me feedback but do so in a way that makes me feel validated for my current work." / "Please keep the positive

attitude during every class, but we realize that we may need to [learn to] take constructive criticism." / "Please give me constructive comments, but keep the extreme criticism to yourself (I am a big softy)." / "Please know that I am a diligent worker but don't get mad if I get stuck on a step."

Student statements asking for **Clarity** (11.0%) emphasized concise assignment instructions within organized course frameworks. "Please ask students what we want to learn… but keep [the course] structured so it is easy to follow each week." / "Please give me clear instructions and criteria [for evaluation] but still leave room for creativity." / "Please keep me informed about changes and updates, but don't flood me with unnecessary details that don't impact the big picture."

Some students with clear **Boundaries** (10.2%) wanted time in studio classes and on teams for focused work: "Please let me work without disturbance so I can get into the flow state, but [as an instructor] do not remove yourself completely so that it feels hard to reach out." / "Please respect my space for focused work, but don't hesitate to reach out if you need clarity or help." Others wanted clear roles on team projects: "Please let me know if you feel that I am taking too much control."

Students who mentioned **Reflection** (8.5%) wanted more processing time: "Please involve me in big assignments and projects, but allow me time to gather my thoughts and prepare a plan before I delve into my work." / "Please appreciate that I like to explore all possible options, but don't mistake this for indecisiveness; it's part of my process to ensure we've considered everything." / "Please give me time to understand the directions, but don't let me strategize the whole time."

First-year comments emphasized **Growth** and **Change** more than third years (13.3% vs. 1.7%): "Please keep pushing me [to move] forward and to think bigger." / "Please challenge me so I can grow." / "Please expect me to try new things, but don't expect it to always turn out amazing." This suggests first-year students are aware they need support for growth (and indicates increased mentoring is needed).

First-year comments also emphasized **Agency** more than the third years (20.0% vs. 8.6%): "Please keep giving examples and time expectations for projects; it really helps me manage my schedule." / "Please know that I am willing to work very hard, but I tend to get stuck or need time to work." / "Please don't be afraid to [ask me to] think outside of the box, but be mindful of how much work it might require." / "Please incorporate me in group discussions and projects, but do not calculate my grade based off my group members' performance."

Third-year comments emphasized working in **Teams** more than first years (51.7% vs. 21.7%), suggesting strategies for collaborating should be integrated into third-year studios before major team projects are introduced in the BSLA curriculum: "Please be collaborative, reasonable, and open to compromise when making decisions, but don't just dictate what I should do. I value teamwork and shared decision-making."

3.2.5 Club Participation

Responses to the open-ended Student Society of Landscape Architects (SSLA) participation question revealed lukewarm experiences with this student group: 23% of first-years were as involved as they could be in SSLA, but noted "The club overall does not seem to be very active, so it is hard to be involved" / "For a while it felt like the leaders forgot about the club and there were no activities for a while." More (38%) had not been involved in SSLA but expressed an interest in becoming so and some (31%) admitted they just didn't have time in their schedules to engage in SSLA, or didn't feel much engagement from the leadership of the group". This suggests that strengthening the social networking activities of SSLA and ensuring that meetings sync with first-year schedules is important.

While the Landscape Architecture Recreation Club (LARC) was organized by a group of fourth-year students in early fall 2024, the first club activities were not organized until late spring 2025, suggesting faculty advisors to student organizations should expect to offer extensive support to launch a new club.

3.3 Student Reflections on the First-Year Experience

Asked to self-rate their abilities in key learning outcomes for the first year, students expressed confidence in hand graphics and design. Students rated their abilities highest, (on a scale where 5 = Excellent, 4 = Competent, 3 = Satisfactory, 2 = Beginner, 1 = No Experience) in '*Demonstrate proficiency in drafting/hand-graphics (plan, elevation, section, and axonometric drawings)*' at 4.2, '*Demonstrate basic*

competency in free-hand sketching, perspective drawing, and color rendering' at 3.8. They had rated themselves at 2.7 in week 1, showing progress in their drawing confidence in the spring semester.

In '*Present initial design concepts; respond to salon-style critique from peers/faculty/alumni and revise designs'*, they rated themselves at 3.7 in week 9 vs. in week 1, they had rated their ability to '*Verbally present your own design projects*' at 2.5, indicating small, informal presentations increased confidence.

By week 9, first-year students felt their ability was satisfactory (rated at 3.0) to '*Demonstrate basic AutoCAD skills, necessary to produce two-dimensional landscape architectural drawings'*, but they were less confident in their ability to *'Develop a working understanding of digital drawing concepts, techniques, and tools, focusing on Adobe Create Suite (Photoshop, Illustrator, InDesign)',* self-rating at 2.6. They rated their lowest ability to 'Become proficient at using SketchUp to produce 3D site models for landscape architecture designs' at 2.4. These self-ratings confirm that more support is needed for first-year students to gain confidence in SketchUp and Adobe Creative Suite; additional SketchUp exercises were introduced in late spring 2025 (integrating digital modeling and 3D printed elements into hand-built design models).

A total of 45 comments were coded for the first impressions essay question, '*What were your first impressions of the field of landscape architecture, as a first-year student? What should they* [first year students] *know about first year vs. later years?*' Many essay responses had multiple themes; in all, 110 responses were coded. Top-ranked themes were: **Agency**, **Progression**, **Grace**, and **Versatility**:

Agency (31%)
- Workload intensity (the work takes time, focus on projects in studio) (13%)
- Persistence (be consistent, keep showing up) (11%)
- Time management (learn the workflow) (7%)

Progression (21%)
- First year: drawing/hand-drafting focus will lighten (don't quit if you don't like it) (14%)
- Second year: more computer-skills heavy (can be exciting but challenging) (4%)
- Third year: things fall into place (you'll build confidence in your skills) (4%)

Grace (29%)
- Acceptance (go with the flow, accept uncertainty) (11%)
- Trust the process (stay positive, don't have to like all projects to love the major) (8%)
- Studio culture (discuss the work, learn from each other) (6%)
- Give yourself grace (learning new life skills, parents may not be supportive) (3%)
- Support (lean on faculty, they care) (1%)

Versatility (19%)
- Software (pay attention, you'll need these skills) (6%)
- Career (you'll find your specialization; a well-paying job is waiting) (5%)
- Design (gets easier with practice) (3%)
- Breadth of profession (there are many options) (3%)
- Finances (computer recommendations) (2%)
- Portfolio (compile as you progress) (1%)

For the progression question: '*How did your understanding of landscape architecture shift, as you progressed in the LARC [landscape architecture] curriculum?*', a total of 51 comments were coded. The most common response involved developing a better understanding of the breadth of the profession and the range of possible specialization areas:

Breadth & understanding (51%)
- Range of specialization (many career opportunities) (29%)
- Knowledge (lots of knowledge to absorb) (22%)

Design skills (27%)
- Design process (better understanding of how to work efficiently) (18%)
- Function/practicality (20%)

Other (22%)
- Software (10%)
- Natural systems (6%)
- Community engagement (4%)

- Teams (2%)

3.3.1 Moments of Doubt

For the uncertainty question: "*Did you have moments of doubt early in the landscape architecture curriculum? If so, what provoked it, and what resolved your uncertainty?*" 40 responses were classified as yes (n=22, 55%) / somewhat (n=6, 15%) / and no (n=12, 30%). Many common themes were identified, but these were difficult to group into broader categories. The most common were:

Persistence (as you move forward, doubts resolve) (14%)
Workload (struggled to balance studio workloads with other commitments) (12%)
Feelings of inferiority (I felt my design work was inferior to my classmates') (12%)
Software learning curve (realizing I have time to learn the programs helped) (10%)

The high incidence of moments of doubt suggests that fostering a positive learning environment is crucial to student retention and success. The challenge of learning new software, a common theme among student comments, was confirmed by reviewing course grades. LARC 224 (Adobe Suite) was among those classes BSLA students found most challenging, with 27% earning Ds / Fs in 2020 to 2023 (per Board of Governors' 2023 report). The only courses BSLA students performed more poorly in were English 101 (78% Ds / Fs), Math 124 (64%), English 102 (60%) and Biology 105 (60%) – all large enrollment courses, suggesting structured tutoring for these subjects would greatly benefit first- and second-year students. Directing students to tutoring opportunities may boost success in these courses; also moving English 101 in the suggested plan of study to the second year may increase student success.

Of third years, 70% admitted to experiencing '*moments of doubt early in the landscape architecture curriculum'* (55% coded as yes, 15% as somewhat / 30% never). Among first years, 80% experienced doubts (30% yes, often / 10% yes, sometimes / 40% only rarely / 20% never). Responses to *'If so, what provoked it, and what resolved your uncertainty?*' revealed most common themes. Among third-year students: persistence / workload / feelings of inferiority / software learning curve most contributed to doubt. First-year doubts most often were driven by workload / software / feelings of inferiority, and persistence and confidence most helped first-years through. Qualitative first-year comments included: "I know that the end goal with this major will be worth it and is the right path for me, so I just have to keep that in mind when I feel moments of doubt." / "It is really easy to compare myself to others in the design process. I try to remind myself that there is no right way to do a drawing/site."

3.3.2 Breadth of Program

Instructor observations and student comments revealed that many first-year students enter the BSLA program with a limited understanding of its curricular structure or the breadth of the profession. To address this, LARC 105: Introduction to Landscape Architecture will be revised beginning fall 2025 to provide a more intentional introductory experience. Planned changes include presentations by all landscape architecture faculty, outlining the curriculum's progression and giving students early insight into areas of specialization within the field. The course will also introduce major themes and career pathways in landscape architecture, helping students connect their coursework to long-term goals.

The LARC 105 course revision is intended to supplement the Davis College first-year seminar, which many BSLA students do not take. By offering a consistent, discipline-specific orientation to landscape architecture, the updated course aims to improve early engagement and support retention.

One first-year student, in response to 'What did you expect studying landscape architecture to be like? Why?' articulated:

> *"I thought of landscape architecture more like landscaping. Just making plans of where to plant things and calling it a day. I understood you could create more abstract designs, but I never knew how involved the career was..."*

To improve 'how faculty, advisors, and/or upperclassmen can better mentor first-year students', first years suggested: "I think having a LARC community meet up before commencing the journey would be a great idea. Just a little meet and greet." / "more trips to other [upperclassmen] studios… so we are more prepared for what we will do" / "I'd like to meet every LARC teacher/professor."

In response to the 'shifts in understanding' question, one first-year student noted,

> *"Coming into this major, I had a pretty good idea of what landscape architecture entailed: community, sustainability, working together, etc., but I didn't realize all the possibilities I have once I graduate. Learning this provided me with a lot of comfort, because if I don't like one aspect of landscape architecture, there is always another focus within the major I can go into."*

3.4 Jury Week

Of first years, 76% attended as many Jury Week presentations as they could and found it very helpful to see the range of work of upperclassmen and know what is coming in the BSLA curriculum. A few (7.7%) attended Jury Week presentations that were required and found it sort of helpful or found Jury Week neither helpful nor unhelpful (15.3%): admitting to popping in and out and/or not paying much attention because they were still under deadlines of their own. No students found Jury Week detrimental, suggesting the opportunity to view upperclassmen presentations is advantageous for first-year students. In Spring 2025, the LARC 121 studio project deadline was moved to the week before Jury Week, to increase engagement in presentations.

3.5 Exit Survey

Alumni offered an insight for improving the first-year experience (synchronize learning basic software, CAD, Adobe, and SketchUp, with the first-year studios) which instructors put into effect beginning in fall 2024. AutoCAD and SketchUp exercises (modeling topography, 3D printing) were introduced in the first-year spring studio LARC 121, to reinforce learning. A 2018 graduate had noted,

> *"I think that the first-year studio classes should have a stronger emphasis on design programs. While hand drawing is a very useful skill, it would be good to start working with things like CAD and SketchUp in an actual working environment sooner rather than later."*

4 DISCUSSION

Retention and graduation rates among landscape architecture students improve when programs prioritize early support, community-building, and clear expectations (Tinto, 2012). This study found that first-year experiences, including advising, mentoring, peer relationships, and self-reflection, directly influence students' likelihood to persist in the major and graduate.

Students appreciated the consistency and responsiveness of professional advisors while still seeking emotional and disciplinary support from faculty and peers. A hybrid approach, combining professional advising with faculty and peer mentoring, appears to meet both needs effectively (Friedel & Wilson, 2015). Students also valued the opportunity to connect with mentors who shared their interests and could help them navigate both academic and career goals.

Intentional social connection strategies — including critique exercises, "meet and greets," peer mentoring, and studio practices like creating "User Guides" — helped students feel less isolated and more confident. Regular, low-stakes opportunities for reflection and feedback encouraged a healthier critique culture and contributed to a more inclusive and supportive studio environment (Lichtenstein et al., 2007). Fostering a positive learning environment, alongside offering high-performing students supplemental learning opportunities (e.g., serving as peer-mentors, increasing club activities) is likely to increase student engagement to deepen belonging and develop leadership skills.

Student feedback highlighted a need for clearer communication about the structure of the curriculum, expectations for time management, and the range of professional opportunities within the field. These gaps, if unaddressed, can contribute to doubt and attrition early in the program.

Taken together, the results suggest that retention and graduation can be strengthened by: (1) clarifying expectations, (2) embedding social support early, (3) fostering multi-level mentorship, and (4) reinforcing inclusive critique and advising practices.

5 CONCLUSION

The findings of this study underscore that first-year retention in landscape architecture is shaped by the

interplay between academic performance, social connection, emotional resilience, and structured support. While success in foundational studios like LARC 120 is correlated with graduation, systems that help students navigate early uncertainty are just as important.

Professional advising, targeted digital skill-building, and intentional peer mentorship emerged as high-impact strategies. Students also emphasized the importance of studio culture, emotional well-being, and a clear sense of progression. Tools like User Guides, peer mentorship, and early exposure to upper-level work helped demystify the curriculum and foster a sense of belonging.

This research supports the case for holistic, student-centered approaches to retention in design education. As programs evolve, they must design not only for academic content but also for connection, flexibility, and growth. These findings address the challenges outlined earlier—such as critique anxiety, weak advising structures, and lack of belonging—and suggest that targeted, affordable strategies can help mitigate early attrition risks, especially in rural or under-resourced programs. A strong first-year experience builds the foundation for a more confident, collaborative, and resilient generation of landscape architects.

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