STUDENTS' REPORT

THE LEBANESE AMERICAN UNIVERSITY CONDUCTED A COMPREHENSIVE SURVEY AMONG STUDENTS TO ASSESS AWARENESS, PERCEPTIONS, ENGAGEMENT, AND ASPIRATIONS RELATED TO SUSTAINABLE DEVELOPMENT.

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Executive Summary

This report presents the findings of a comprehensive survey conducted among 134 students at the Lebanese American University (LAU) to assess awareness, perceptions, engagement, and aspirations related to Sustainable Development (SD). The study explores how students understand sustainability, how relevant they perceive it to their academic and professional lives, and what institutional mechanisms can better support their involvement.

Key Findings:

- *High General Awareness:* Over 80% of students demonstrated awareness of basic SD concepts and the Sustainable Development Goals (SDGs), yet in-depth understanding of frameworks like the 2030 Agenda, Lebanon's national commitments, and institutional efforts remains limited.
- *Strong Personal Alignment:* 89% of students agreed that sustainability is important in their personal lives, with most expressing a willingness to engage in awareness campaigns, research, and service projects.
- *Gaps in Institutional Communication:* Only 33% of students felt LAU clearly communicates its SD efforts. Department-level visibility and opportunities for student participation are perceived as fragmented or unclear.
- *Low Participation in Structured SD Activities:* Although 61% of students participated in SD-related courses, fewer than 45% were aware of formal engagement programs, clubs, or mentorship opportunities.
- *Clear Motivators and Barriers:* Students are driven by personal values and career relevance, but are limited by a lack of time, competing academic priorities, and insufficient institutional visibility or access points.

Recommendations:

1. For Faculty:
    - Integrate SDGs into coursework across disciplines.
    - Offer student mentorship on SD-focused research and community initiatives.
    - Recognize SD engagement in faculty performance systems.
2. For Staff:
    - Initiate training in sustainable operations (waste, procurement, energy use).
    - Improve communication about ongoing sustainability efforts.
    - Appoint SD focal points within administrative departments.
3. For Students:
    - Establish a centralized portal for SD engagement opportunities.
    - Launch co-curricular certificates and ambassador programs.
    - Support student-led clubs and project funding mechanisms.

4. Institutional Priorities for LAU:
    - Create a Cross-functional committee.
    - Embed SD into the university's Strategic Plan and operational KPIs.
    - Launch a campus-wide sustainability engagement strategy, emphasizing collaboration across departments, students, and staff.
    - Provide dedicated budgets and incentives for SD initiatives.

The survey confirms that LAU students are ready and willing to become sustainability leaders, what remains is a structured, visible, and supported institutional framework that activates this potential across all layers of the university.

I- Introduction

1.1. Purpose of the Survey

Sustainable development (SD) has become a defining challenge and opportunity of the 21st century, particularly in the context of higher education. Universities have a pivotal role to play in shaping environmentally aware, socially responsible, and economically informed citizens. In line with this role, the Lebanese American University (LAU) conducted a comprehensive student survey on sustainable development to examine the extent to which sustainability concepts are understood, internalized, and applied by its student community.

The survey aimed to:

- Gauge student awareness and understanding of sustainable development and the UN Sustainable Development Goals (SDGs),
- Assess the perceived relevance of SD to students' academic disciplines, personal lives, and future careers,
- Evaluate the institutional environment and curricular integration of sustainability topics at LAU, and
- Identify student training needs, engagement interests, and barriers to deeper involvement in sustainability initiatives.

The ultimate goal is to inform evidence-based decision-making for curriculum development, campus sustainability strategies, and co-curricular activities that foster a more sustainability-conscious university culture.

1.2. Alignment with the SDGs and LAU Strategic Goals

The survey contributes to LAU's broader vision of being a transformative force in education and social responsibility, grounded in the principles of inclusivity, innovation, and sustainability. LAU's strategic goals include embedding sustainability into teaching, research, operations, and community engagement, goals that are also reflected in the United Nations 2030 Agenda and its 17 Sustainable Development Goals.

By aligning this assessment with the SDGs, particularly SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action), the survey acts as a diagnostic and developmental tool. It helps identify gaps between student awareness and action, curricular exposure and institutional support, and educational aspirations versus professional preparedness.

This alignment not only reinforces LAU's academic mission but also positions the university as a key contributor to national and global sustainability agendas.

1.3. Target Respondents and Methodology

The survey targeted students enrolled at both LAU campuses (Beirut and Byblos), spanning a diverse cross-section of disciplines, academic levels, and demographic backgrounds. A total of **134 valid responses** were collected. The questionnaire, developed by sustainability experts, was administered in English and included a mix of:

- Closed-ended questions (multiple choice, Likert scales, and checkboxes), and
- Open-ended questions to allow for nuanced, qualitative insights.

The instrument was structured across eight core themes:

1. General demographics and academic profile
2. Awareness and understanding of SD and the SDGs
3. Sources of information and the role of the university
4. Relevance of SD to academic studies and professional development
5. Importance of SD in personal life and values
6. Willingness to learn more and take action
7. Institutional support and barriers
8. Training needs and preferred learning modalities

Responses were processed using a combination of descriptive statistics (frequency counts, percentages, and visual summaries) and thematic analysis for qualitative entries. Special attention was paid to variations in perception based on gender, field of study, GPA, and year of academic progression.

II- Survey Demographics

A comprehensive understanding of the demographic profile of survey respondents is essential for contextualizing perceptions of sustainable development among LAU students. This section presents detailed demographic data, offering insights into the diversity of the participant pool across gender, age, nationality, campus representation, academic standing, and disciplinary background. These characteristics are later used to interpret variations in awareness, interest, and engagement with sustainability-related topics.

2.1. Gender Distribution

A total of 134 students participated in the survey. Among them, 73 students identified as male, representing 54.48% of the total responses. Meanwhile, 61 students identified as female, accounting for 45.52% of the surveyed population. This relatively balanced gender distribution provides a diverse perspective on sustainable development awareness at LAU, contributing to a comprehensive understanding of student engagement across gender groups.

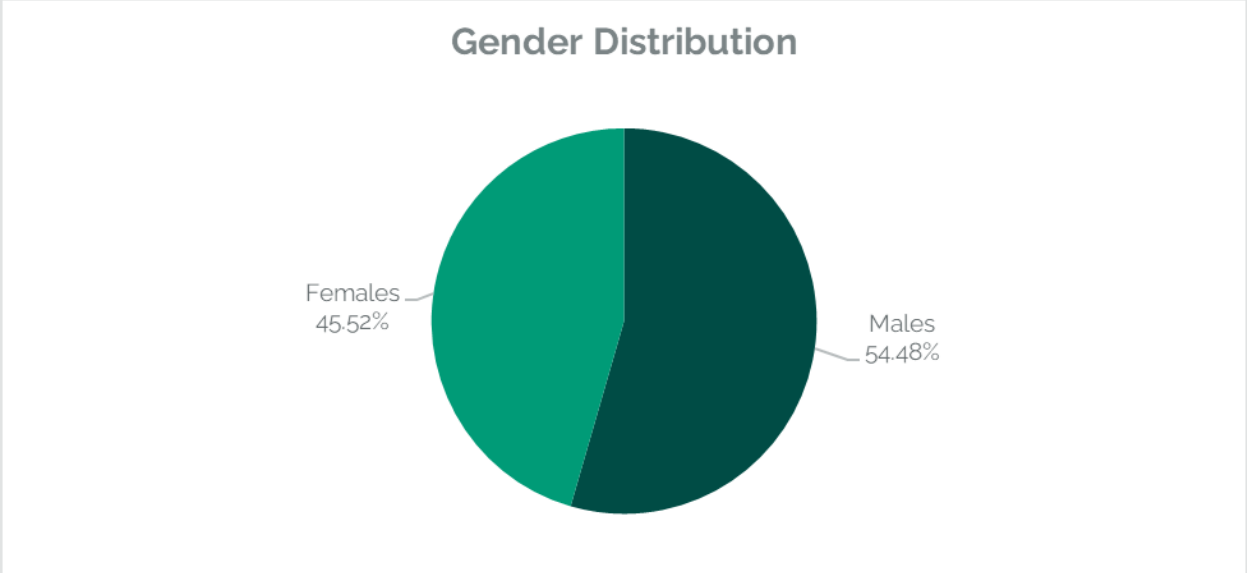


FIGURE 1: GENDER DISTRIBUTION AMONG SURVEYED STUDENTS

2.2. Age Groups

The student survey at LAU included a total of 134 respondents whose ages were categorized into five distinct groups. The breakdown of these age groups reveals the following insights:

- *18–20 years old:* 67 students, representing 50% of all respondents.
- *21–23 years old:* 21 students, accounting for 16% of total respondents.
- *24–25 years old:* 7 students, making up 5% of the surveyed population.
- *26–30 years old:* 9 students, or 7% of respondents.
- *Above 30 years old:* 30 students, or 22% of respondents.

The data presents a diverse age profile, with half the respondents aged 18–20, but also a notable 22% participation from students above 30 years old. This indicates that sustainable development awareness at LAU spans across both traditional and non-traditional student populations, enriching the perspectives captured by the survey.

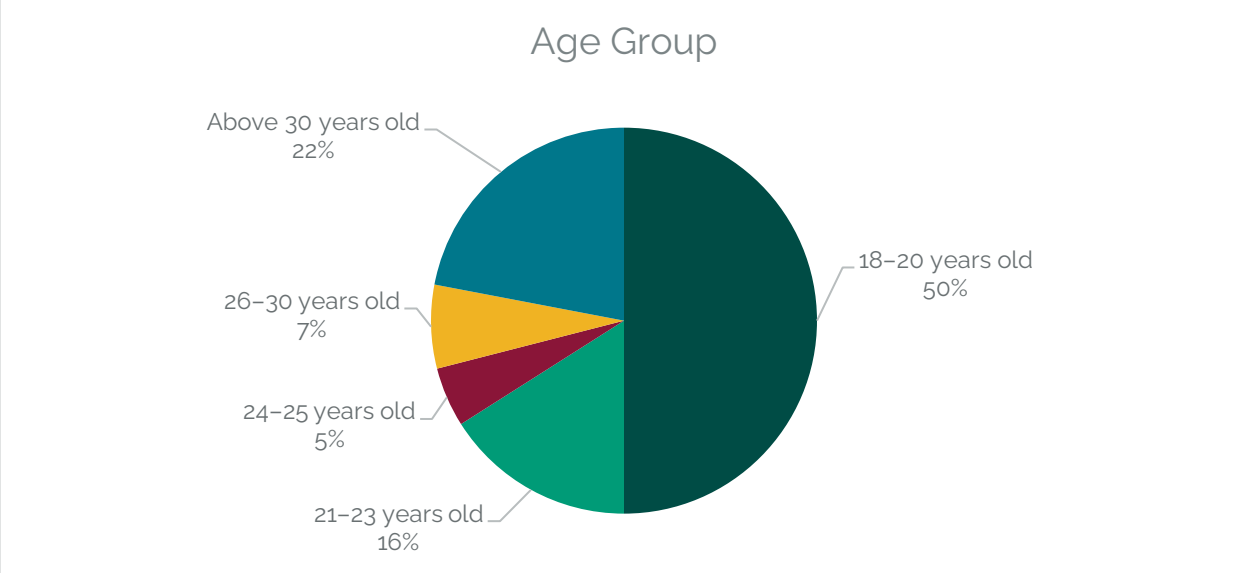


FIGURE 2: AGE GROUPS DISTRIBUTION AMONG SURVEYED STUDENTS

2.3. Nationality

The survey gathered responses from 134 students enrolled at LAU, representing a mix of national backgrounds. The analysis of their nationality distribution is as follows:

- *Lebanese students:* 119 students, comprising 88.81% of all respondents.
- *Non-Lebanese students:* 15 students, accounting for 11.19% of the total respondents.

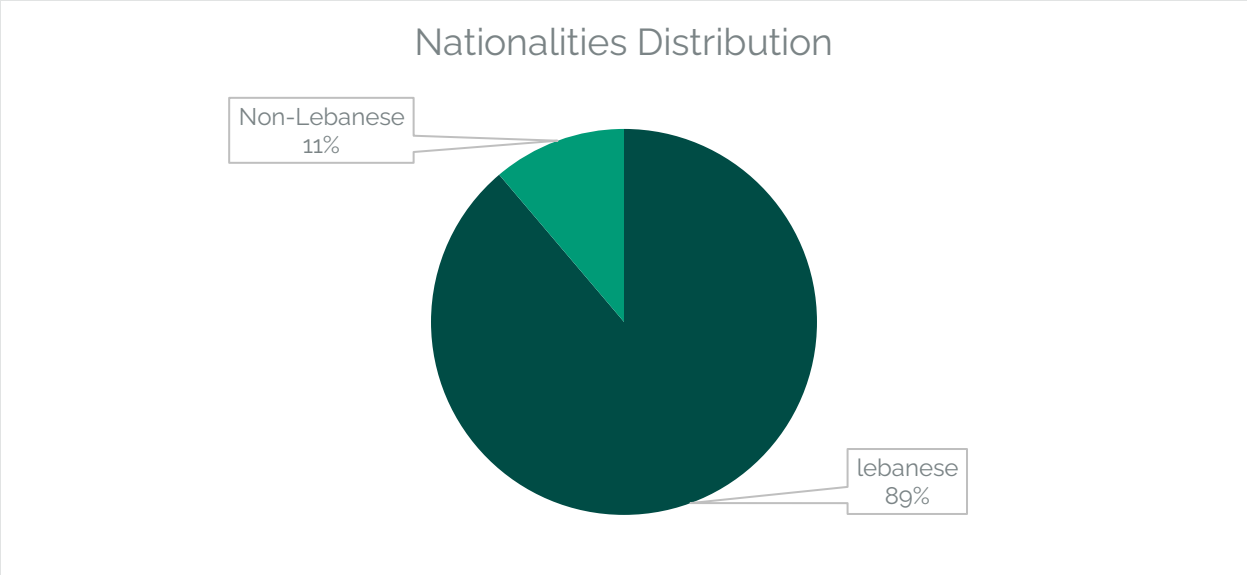


FIGURE 3: NATIONALITIES DISTRIBUTION AMONG SURVEYED STUDENTS

The student demographic is largely Lebanese, with a small but significant international representation. This context is important when interpreting perceptions and engagement with sustainable development themes, particularly in how they are shaped by national priorities and global awareness.

2.4. Campus Representation

The survey responses captured representation from students enrolled across LAU's two physical campuses and those participating through online learning modalities. The distribution is outlined as follows:

- Beirut Campus
  - 56 students, representing 41.79% of all respondents.
  - This group constitutes the largest single-campus representation in the survey, reflecting a strong engagement with sustainable development themes from the capital-based academic environment.
- Byblos Campus
  - 42 students, accounting for 31.34% of the total.
  - The Byblos campus students form a significant portion of the sample, providing valuable insight into perceptions and practices from a northern Lebanese academic setting.
- Online Courses
  - 36 students, making up 26.87% of all responses.
  - This group highlights the participation of students engaged through virtual or remote learning environments, which is particularly relevant given the post-pandemic educational landscape and its potential for integrating sustainable development themes across flexible formats.

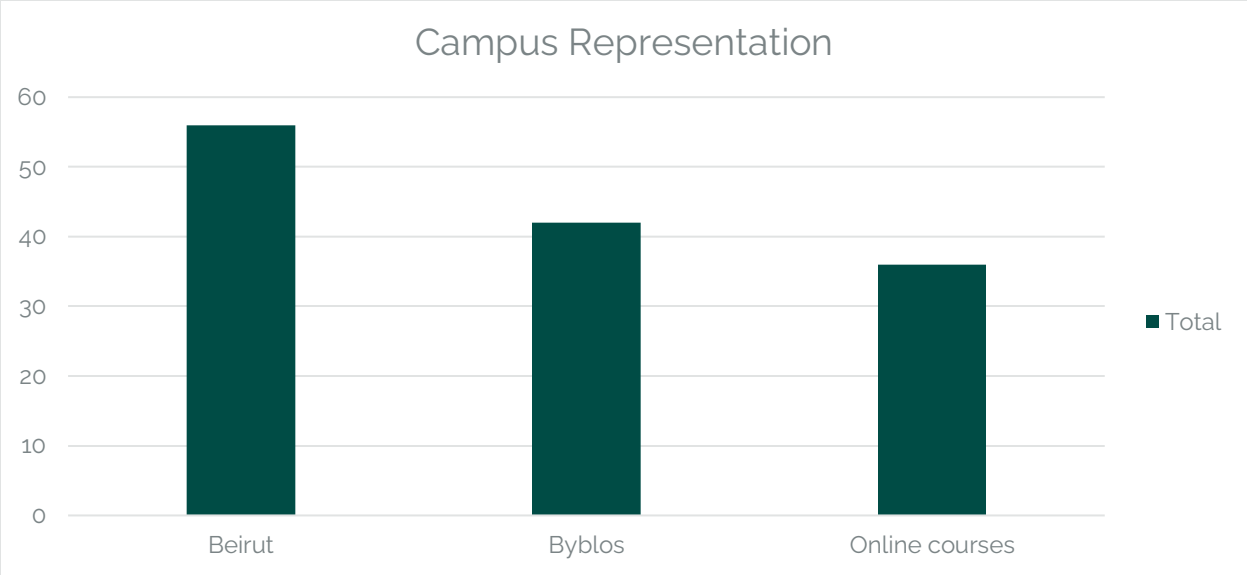


FIGURE 4: CAMPUS REPRESENTATION AMONG SURVEYED STUDENTS

The survey demonstrates broad institutional coverage, with meaningful input from students at both physical campuses and through online platforms. This distribution supports a comprehensive analysis of how sustainable development is perceived and experienced across different learning environments within LAU.

2.5. Academic Year

The academic year distribution of the 134 LAU students who responded to the survey reveals a strong representation from early-stage university students. The detailed breakdown is as follows:

- *Year 1 students:* 71 students, representing 52.99% of the total sample.
- *Year 2 students:* 34 students, accounting for 25.37% of respondents.
- *Year 3 students:* 19 students, representing 14.18% of the total.
- *Year 4 students:* 6 students, making up 4.48% of respondents.
- *Year 5 students:* 4 students, accounting for 2.99%.

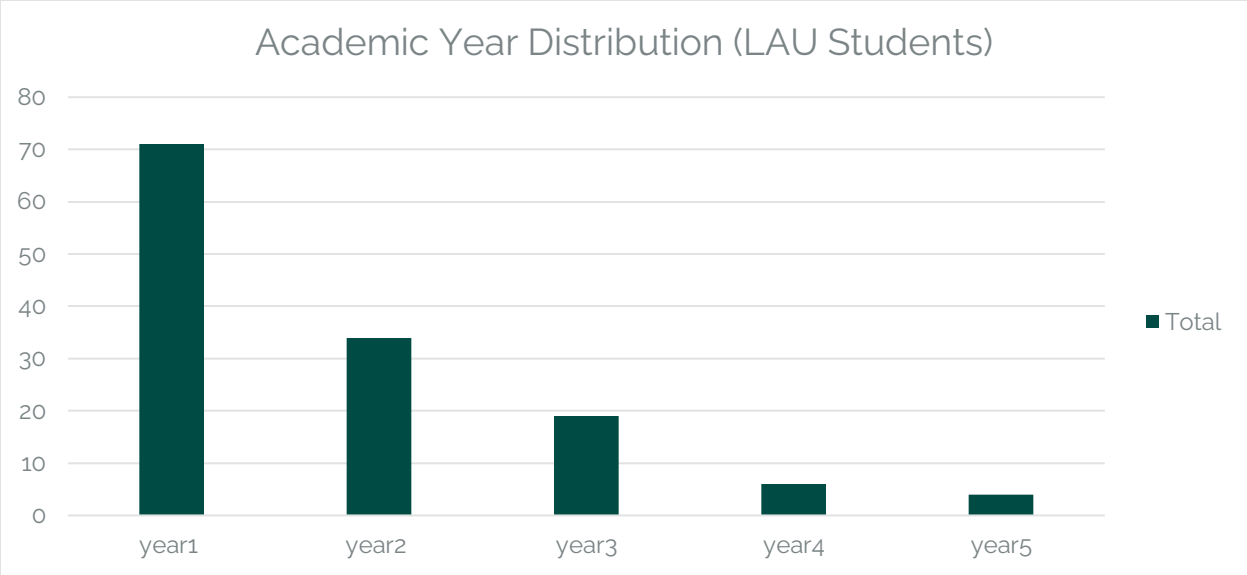


FIGURE 5: ACADEMIC YEAR DISTRIBUTION AMONG SURVEYED STUDENTS

The data shows that more than 78% of survey participants are in their first or second year of study, underlining the importance of integrating sustainable development education early in academic experience. The declining representation in higher academic years suggests a need to further engage senior students in sustainability awareness and action.

2.6. Major and Minor Fields of Study

Students reported their areas of academic specialization across a diverse range of disciplines. The most common majors included:

- Biology and Health Sciences
- Business and Economics
- Engineering
- Political Science and International Affairs
- Psychology and Social Sciences

Some students also reported having declared minors in environmental science, political studies, gender studies, or economics, among others. This diversity provides a valuable lens through which to analyze disciplinary exposure to sustainability.

2.7. Summary of the Respondent Profile

The respondent profile is largely composed of young, Lebanese, first-year undergraduate students, with balanced gender representation and contributions from all campuses, including online learners. This demographic composition offers valuable insight into how sustainable development is understood and experienced by a representative sample of the broader LAU student body. This profile ensures a relatively broad and balanced set of

perspectives, with sufficient diversity to allow for comparative analysis across multiple demographic and academic variables.

III- Awareness and Understanding of Sustainable Development

Understanding how students define and engage with the concept of sustainable development (SD) is fundamental to evaluating the depth of sustainability education at the university level. This section assesses students' self-reported awareness, familiarity with global SD frameworks, particularly the Sustainable Development Goals (SDGs), and their ability to articulate what SD means in their own words. The findings offer critical insight into how well sustainability concepts are being internalized and the extent to which LAU's student body is aligned with global discourse on sustainability.

3.1. Knowledge Levels Across Six Global Sustainable Development Topics

To assess students' awareness and understanding of key global sustainable development themes, the survey asked participants to rate their level of knowledge across six specific areas. These areas reflect fundamental dimensions of global sustainability discourse and the international agenda established by the United Nations. Respondents selected one of five knowledge levels: "*No knowledge", "Very little knowledge", "Some knowledge", "Good knowledge", or "Extensive knowledge".* Below is a detailed breakdown of the findings for each of the six topics:

1. Sustainable Development as a Concept
    - Good knowledge: 55 students (41.04%)
    - Some knowledge: 46 students (34.33%)
    - Extensive knowledge: 18 students (13.43%)
    - Very little knowledge: 11 students (8.21%)
    - No knowledge: 4 students (2.99%)

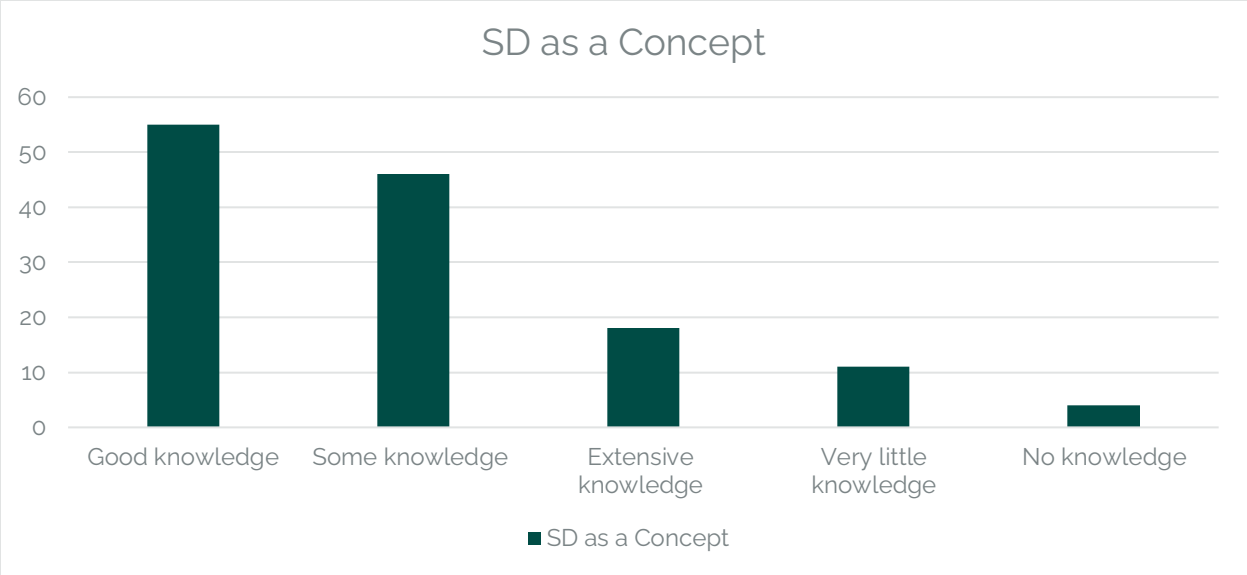


FIGURE 6: SUSTAINABLE DEVELOPMENT CONCEPT KNOWLEDGE AMONG THE SURVEY

Over 88% of students indicated at least some level of familiarity with the concept of sustainable development, highlighting that the general idea is relatively well understood among the student body.

2. The 2030 Agenda for Sustainable Development
    - Some knowledge: 55 students (41.04%)
    - Good knowledge: 42 students (31.34%)
    - Very little knowledge: 16 students (11.94%)
    - Extensive knowledge: 11 students (8.21%)
    - No knowledge: 10 students (7.46%)

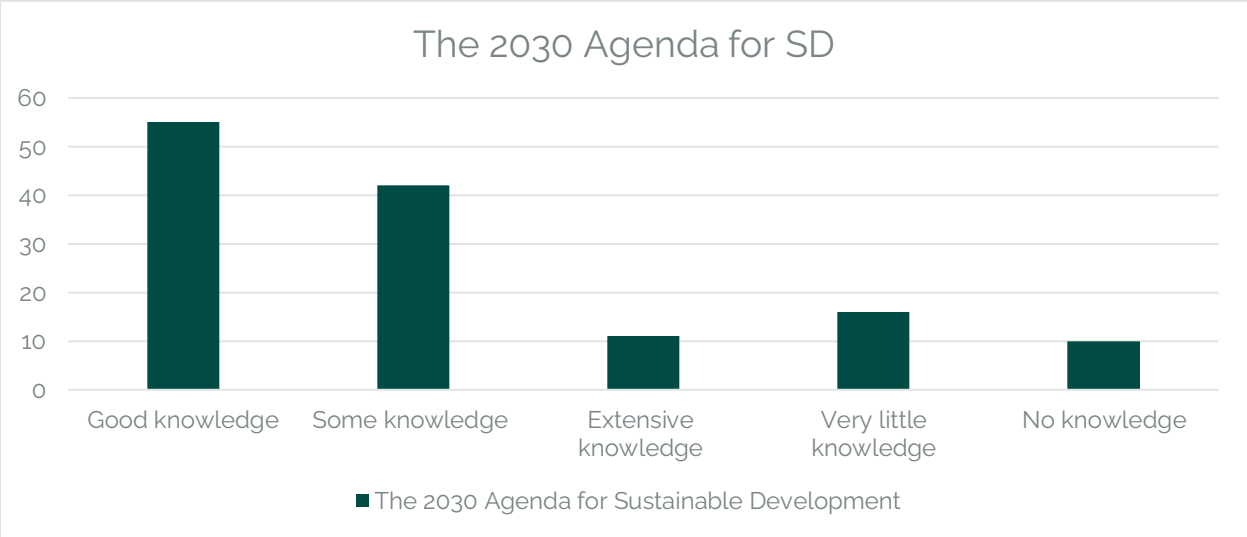


FIGURE 7: THE 2030 AGENDA KNOWLEDGE AMONG THE SURVEYED STUDENTS

Awareness of the formal global agenda is somewhat lower than knowledge of the concept itself, with nearly 20% of respondents indicating minimal or no awareness.

3. The Sustainable Development Goals (SDGs)
   - Good knowledge: 50 students (37.31%)
   - Some knowledge: 48 students (35.82%)
   - Extensive knowledge: 17 students (12.69%)
   - Very little knowledge: 12 students (8.96%)
   - No knowledge: 7 students (5.22%)

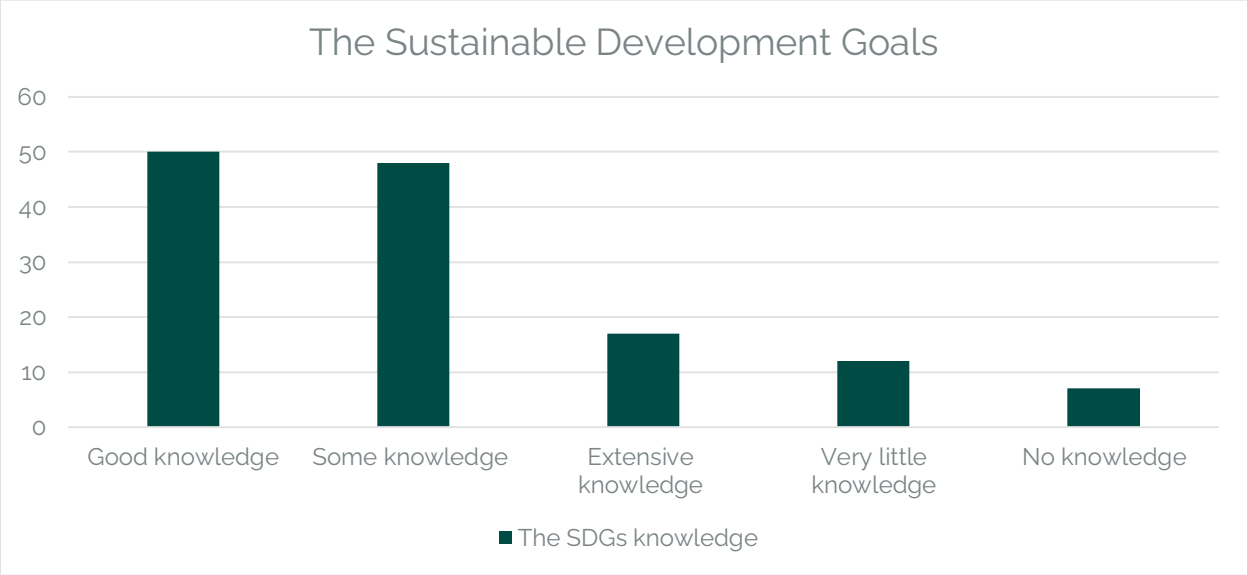


FIGURE 8: THE SUSTAINABLE DEVELOPMENTS GOALS (SDGS) KNOWLEDGE AMONG SURVEYED STUDENTS

The SDGs enjoy relatively high recognition, with 85.82% of students reporting at least *some knowledge*, and half rating their understanding as *Good* or *Extensive*.

4. Targets of the Sustainable Development Goals
   - Some knowledge: 54 students (40.30%)
   - Good knowledge: 40 students (29.85%)
   - Very little knowledge: 22 students (16.42%)
   - No knowledge: 10 students (7.46%)

- Extensive knowledge: 8 students (5.97%)

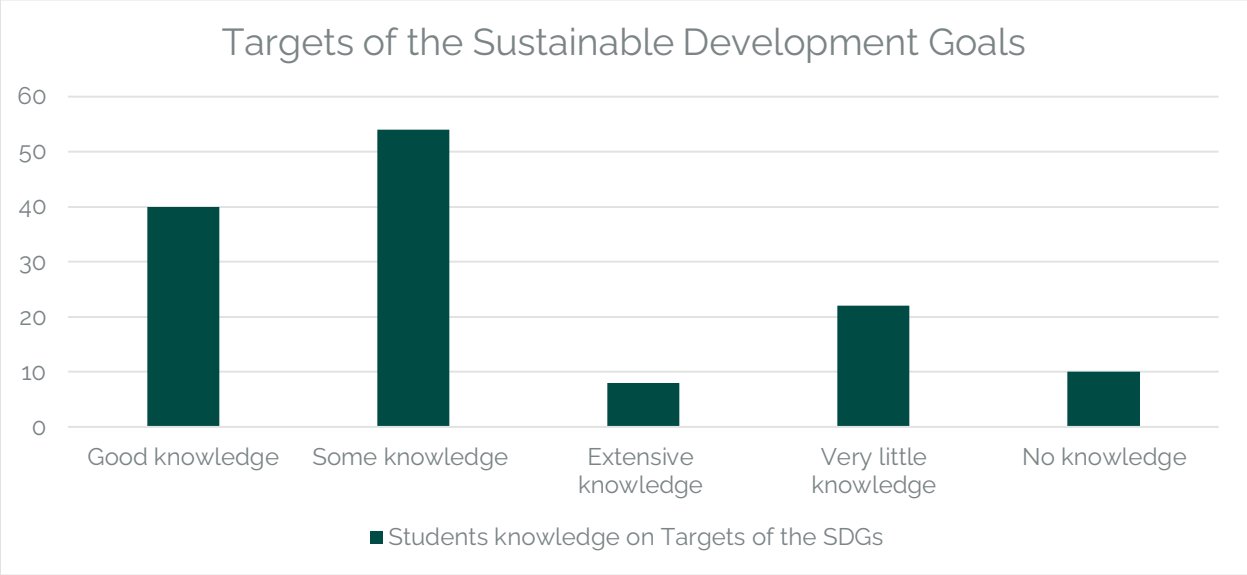


FIGURE 9: STUDENTS KNOWLEDGE ON TARGETS OF THE SDGS

While most students are familiar with the general goals, fewer are knowledgeable about the specific targets beneath each SDG. Only 35.82% indicated *Good* or *Extensive knowledge* in this area.

5. Lebanon's Progress Toward the SDGs
   - Some knowledge: 54 students (40.30%)
   - Good knowledge: 33 students (24.63%)
   - Very little knowledge: 27 students (20.15%)
   - No knowledge: 11 students (8.21%)
   - Extensive knowledge: 9 students (6.72%)

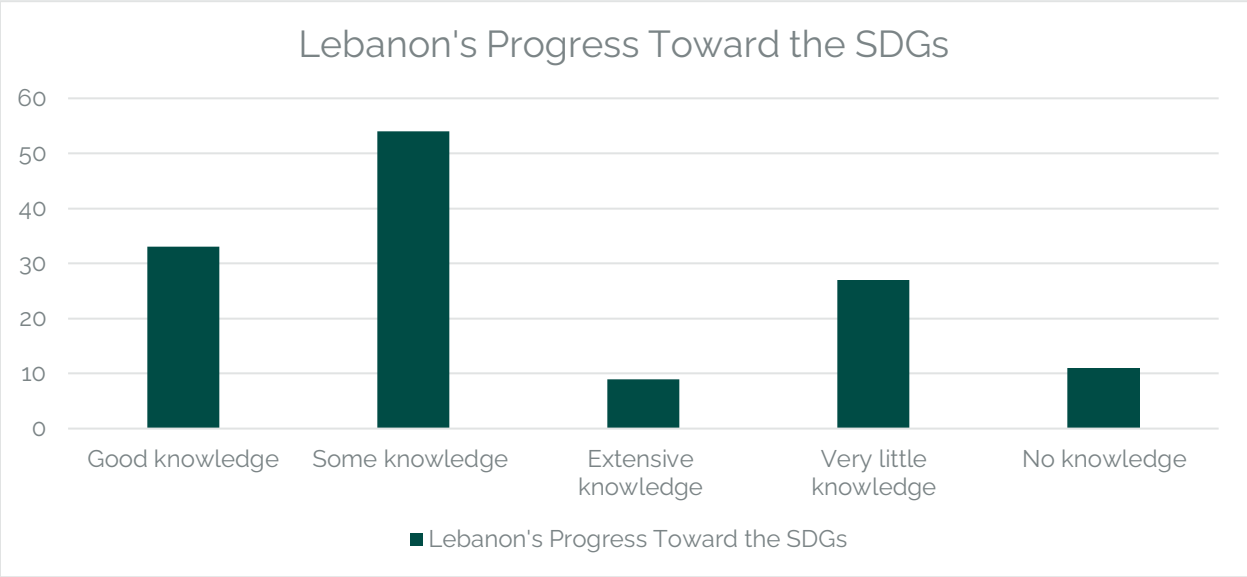


FIGURE 10: STUDENTS KNOWLEDGE ON LEBANON PROGRESS TOWARD THE SDGS

Although a significant portion of students are aware of Lebanon's efforts toward achieving the SDGs, nearly 29% reported *very little* or *no knowledge* of the country's progress.

6. Global Progress Toward the SDGs
   - Some knowledge: 54 students (40.30%)
   - Good knowledge: 39 students (29.10%)
   - Very little knowledge: 20 students (14.93%)
   - No knowledge: 13 students (9.70%)
   - Extensive knowledge: 8 students (5.97%)

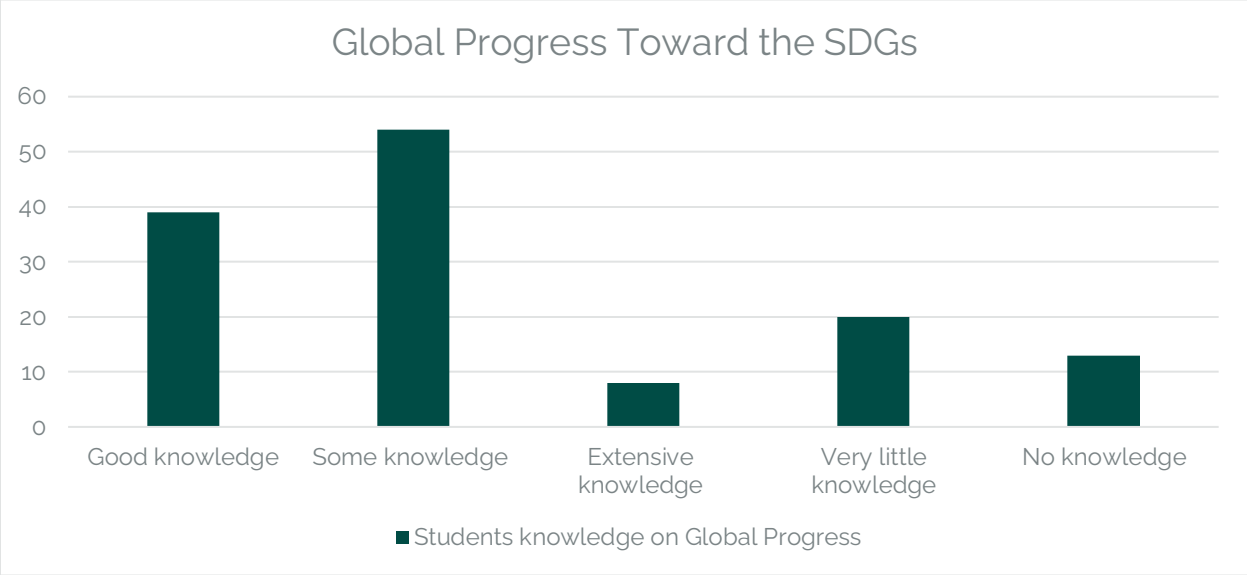


FIGURE 11: STUDENTS KNOWLEDGE ON THE GLOBAL PROGRESS TOWARD THE SDGS

Global awareness mirrors national trends, with most students having only a moderate understanding of worldwide progress on sustainable development goals.

Students at LAU generally demonstrate moderate knowledge of sustainable development topics, with the highest awareness centered around the general concept and the SDGs themselves. However, deeper understanding of the SDG targets, and both national and global progress, remains limited. These results point to a need for strengthening curricular and extracurricular programming that deepens students' grasp of both the framework and its implementation.

These findings highlight the importance of structured exposure to SD themes, particularly in non-environmental disciplines and through real-world Lebanese policy examples.

3.2. Qualitative Interpretations

To complement the quantitative evaluation of students' knowledge on sustainable development topics, the survey included an open-ended question asking: "What does the term 'sustainable development' mean to you?" Out of the 134 students who participated in the survey, 64 students (47.76%) provided a written response to this question. The qualitative insights gathered from these answers reflect a wide range of understanding, some grounded in academic definitions, others shaped by everyday interpretation or aspirational thinking. Below is a thematic analysis of the responses, categorized into five recurring interpretations, with representative quotes and frequency percentages:

a. Intergenerational Equity (Meeting Present Needs Without Harming the Future)
    - 29 students (21.64%) highlighted the core concept of sustainable development as ensuring that current progress does not compromise the ability of future generations to meet their needs.
    - *Representative Quote: "Sustainable development is about finding a balance between growth and the well-being of people while protecting the planet for future generations."*
b. The Three Pillars Approach (Environmental, Economic, and Social Balance)
    - 24 students (17.91%) explicitly referred to the integration of environmental protection, economic growth, and social inclusion
    - *Representative Quote: "Sustainable development maintains a balance between social progress, economic expansion, and environmental preservation in order to meet current demands without endangering future generations."*
c. Resource Conservation and Responsible Consumption
    - 17 students (12.69%) focused on the efficient use of natural resources and the need to reduce consumption, waste, and harm to the environment.
    - *Representative Quote: "Better future, saving resources to last more, progressiveness."*
d. Societal Progress and Equity
    - 11 students (8.21%) emphasized sustainability in terms of societal transformation, justice, and ensuring fairness across communities.
    - *Representative Quote: "The concept of developing society through the efficient use of resources to guarantee its future."*
e. General or Aspirational Language
    - 9 students (6.72%) provided broad or motivational responses without technical reference to SDGs or sustainability frameworks.
    - *Representative Quote: "A change that affects the world in a positive way."*

Nearly half of the students surveyed (47.76%) took the opportunity to articulate their own definitions of sustainable development. While the level of depth and specificity varied, a majority of the responses reflected a solid conceptual understanding particularly in reference to the future-focused, balanced, and multi-dimensional nature of sustainability. These qualitative insights align with the quantitative findings, confirming that LAU students are increasingly aware of sustainable development principles, even if detailed knowledge of frameworks and targets still requires further reinforcement through education and engagement.

3.3. Awareness by Gender, Age, and Major (Segregated Insights)

This section explores how students' awareness of sustainable development as a concept varies across three key demographic indicators: gender, age group, and academic major. The analysis is based on students' self-assessed knowledge levels, categorized into five options: *No knowledge, Very little knowledge, Some knowledge, Good knowledge, and Extensive knowledge.*

Awareness by Gender

A comparison between male and female students reveals notable differences in self-reported knowledge:

- Female Students
  - 18.03% reported *Extensive knowledge*
  - 42.62% reported *Good knowledge*
  - 36.07% had *Some knowledge*
  - Only 1.64% selected *Very little knowledge*, and 1.64% indicated *No knowledge*

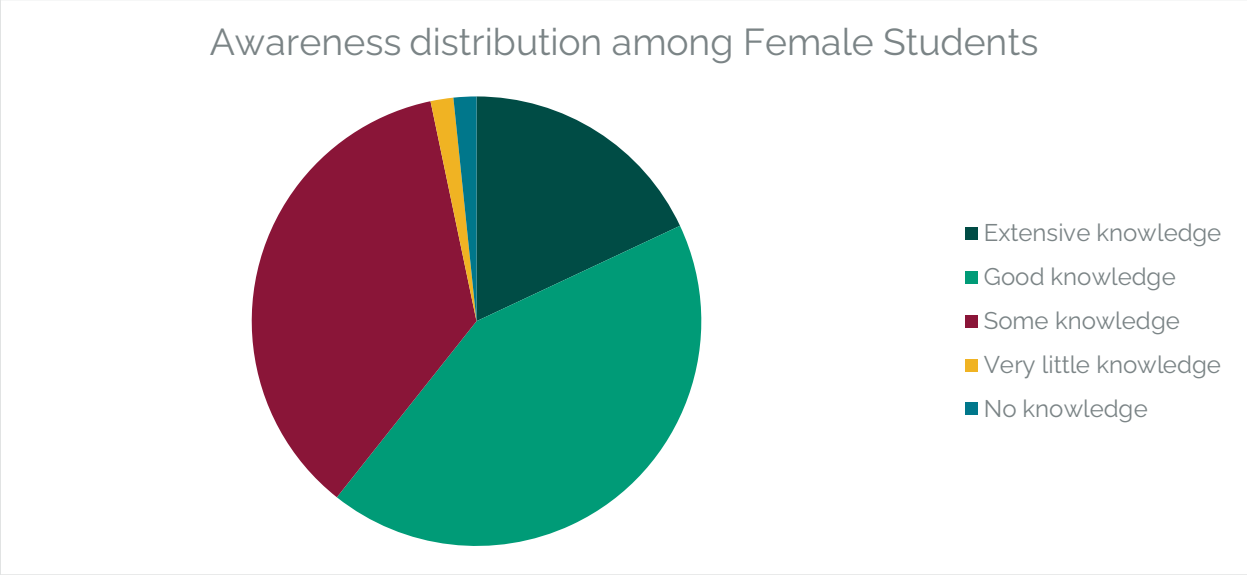


FIGURE 12: STUDENTS' AWARENESS OF SD CONCEPT AMONG FEMALE STUDENTS

Over 96% of female respondents demonstrated at least some awareness, with more than 60% rating their knowledge as *Good* or *Extensive.*

- Male Students
  - 9.59% reported *Extensive knowledge*
  - 39.73% reported *Good knowledge*
  - 32.88% had *Some knowledge*
  - 13.70% reported *Very little knowledge*, and 4.11% had *No knowledge*

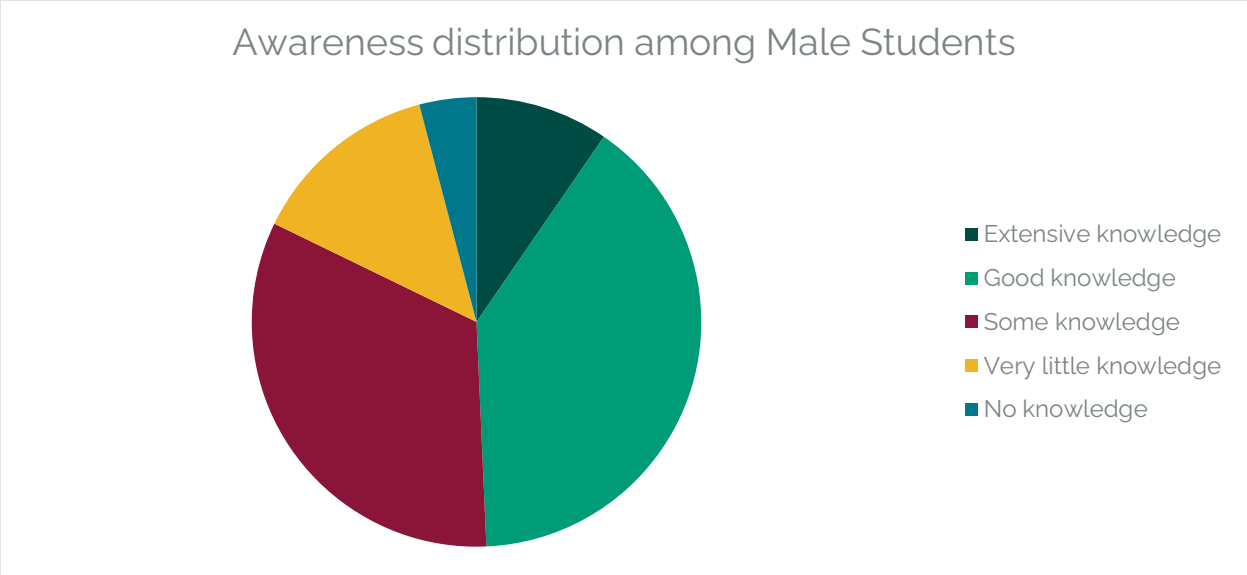


FIGURE 13: STUDENTS' AWARENESS OF SD CONCEPT AMONG MALE STUDENTS

While the majority of male students (over 82%) had some awareness, their overall knowledge levels were slightly lower than those of female students, particularly in the higher proficiency categories.

Awareness by Age Group:

Age-based awareness shows a trend where younger students generally reported higher knowledge levels:

- 18–20 years old
  - 17.46% *Extensive* | 42.86% *Good* | 33.33% *Some*
  - Only 6.35% reported *Very little* or *No knowledge*

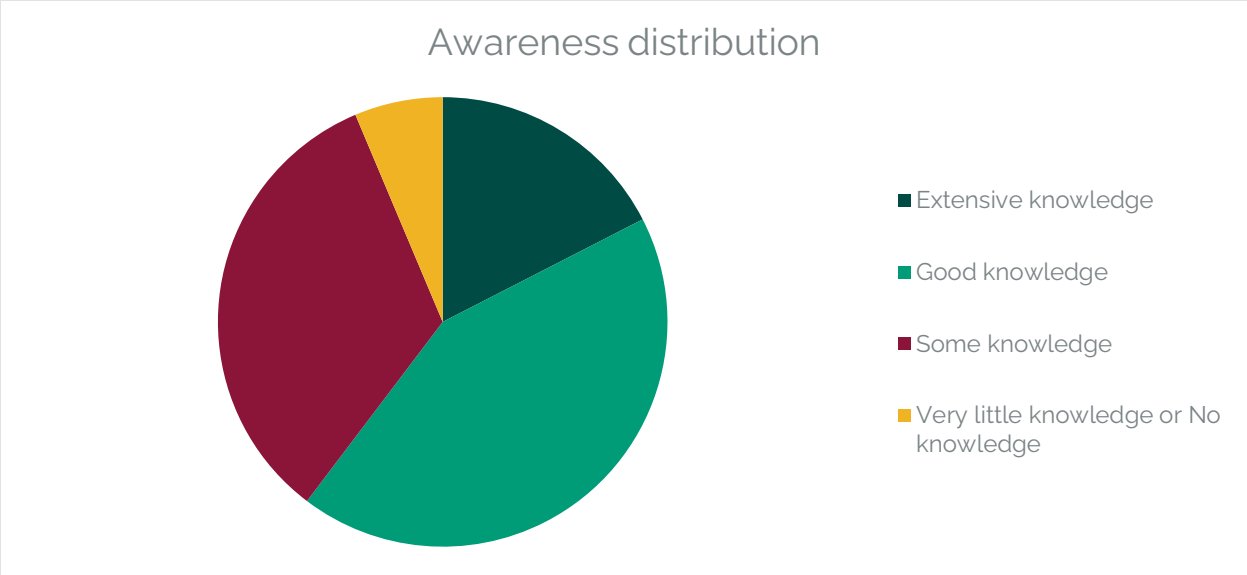


FIGURE 14: AWARENESS DISTRIBUTION AMONG STUDENTS 18-20 YEARS OLD

- 21–23 years old
  - 4.76% *Extensive* | 33.33% *Good* | 47.62% *Some*
  - 14.29% had *Very little knowledge*

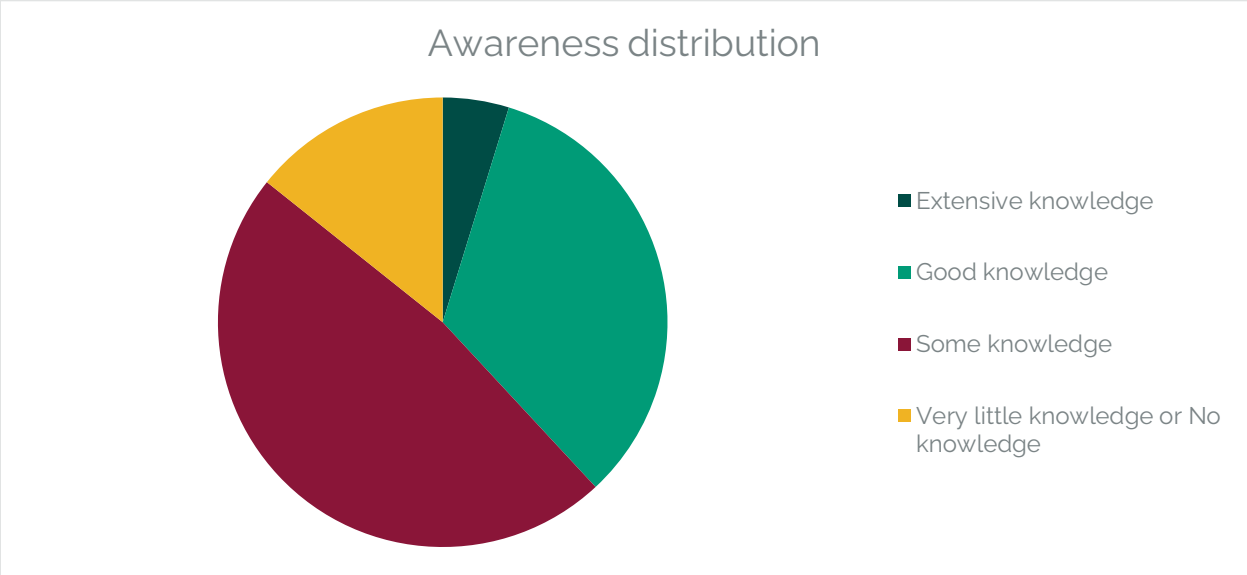


FIGURE 15: AWARENESS DISTRIBUTION AMONG STUDENTS 21-23 YEARS OLD

- 24–25 years old
  - 28.57% *Extensive* | 28.57% *Good* | 28.57% *Some*
  - Only 14.29% reported *No knowledge* or *Very little*

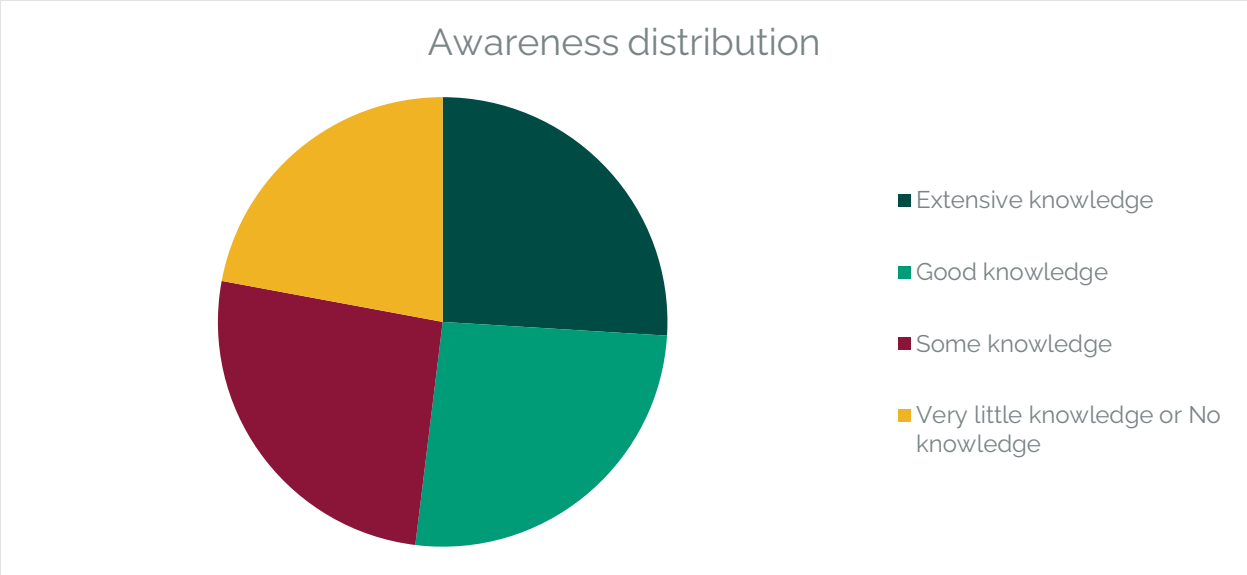


FIGURE 16: AWARENESS DISTRIBUTION AMONG STUDENTS 24-25 YEARS OLD

- 26–30 years old
  - 100% selected *Some knowledge* (small sample size of 9)

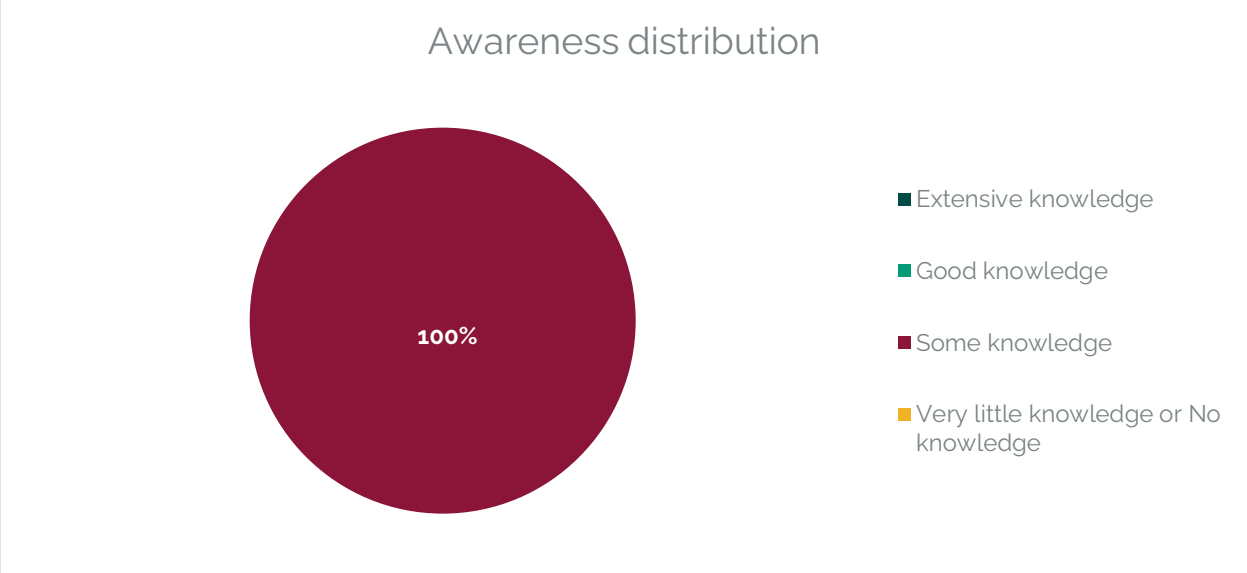


FIGURE 17: AWARENESS DISTRIBUTION AMONG STUDENTS 26-30 YEARS OLD

- Above 30 years old
  - 10.71% *Extensive* | 42.86% *Good* | 39.29% *Some*
  - 7.14% reported *No knowledge*

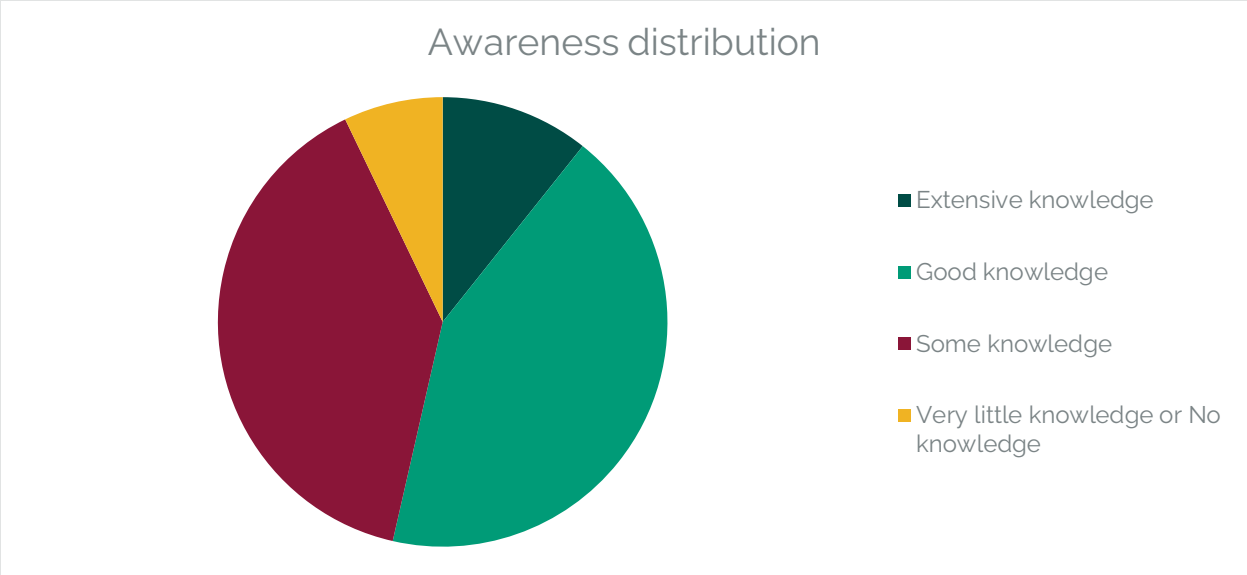


FIGURE 18: AWARENESS DISTRIBUTION AMONG STUDENTS 30 YEARS OLD OR ABOVE

Students aged 18–20 and above 30 demonstrated the strongest awareness. Those in the 21–23 age group had a relatively higher share of moderate awareness, while those aged 26–30 mostly fell in the mid-level (*Some knowledge*) category.

Awareness by Major (Top 5 Represented Fields)

Among the top five academic majors represented in the sample, the distribution of sustainable development knowledge is as follows:

- Business Majors (including Marketing, Management, Finance):
  - Over 65% reported *Good* or *Extensive knowledge*
- Engineering Majors:
  - Showed a more even distribution across all knowledge levels
  - Higher concentration in *Some* and *Good knowledge* categories
- Computer Science Majors:
  - More than 70% fell within *Some* or *Good knowledge* levels
  - Very low *Extensive knowledge* responses
- Biological Sciences and Health-Related Majors:
  - Higher awareness overall, with significant *Good* and *Extensive knowledge* ratings
- Political Science / International Affairs:
  - Consistently rated high in awareness, with a notable share of *Extensive knowledge*

Students majoring in social sciences, business, and life sciences tend to have higher levels of awareness regarding sustainable development. Awareness was moderate among students in technical and computer-based fields, where sustainability may be less explicitly integrated into core curricula.

Awareness of sustainable development as a concept varies meaningfully across gender, age, and field of study. Female students, younger undergraduates (18–20), and students majoring in business or life sciences tend to report higher levels of knowledge. These findings suggest targeted curriculum integration and awareness initiatives may be especially needed for male students, those in mid-academic years, and those enrolled in technical or engineering disciplines.

IV- Perceived Relevance of Sustainable Development (SD) Topics

This section analyzes how students at LAU perceive the relevance of different Sustainable Development topics in relation to their personal interests, academic backgrounds, and future professional goals. The data reflect both the collective importance assigned to each topic and differences across disciplines and personal roles.

4.1. Topics Rated by Relevance (Poverty, Gender, Climate, Governance, etc.)

Participants were asked to evaluate how relevant 17 Sustainable Development (SD) topics were to their education, career aspirations, and personal values. The responses revealed distinct patterns in perceived importance:

- Highly Relevant Topics:
  - *Climate Action* was rated as the most relevant topic, with 87.5% of respondents (n = 105 out of 120) rating it as "Very relevant" or "Extremely relevant."
  - *Environmental Conservation* followed closely, perceived as "Very" or "Extremely relevant" by 84.2% of students.
  - *Good Health and Well-being* also ranked high, with 81.7% rating it as highly relevant.
- Moderately Relevant Topics:
  - *Gender Equality* received strong attention, with 74.2% of participants rating it as "Very" or "Extremely relevant."
  - *Education, Ending Poverty, and Decent Work* were perceived as relevant by 69.2%, 67.5%, and 65.8% respectively.
- Lower Relevance Ratings:
  - *Political Participation and Fighting Corruption* scored lower, with only 51.7% and 48.3% rating them as "Very" or "Extremely relevant," respectively.
  - *Accountable Governance* had the least resonance, with only 45.8% of students rating it as "Highly relevant."

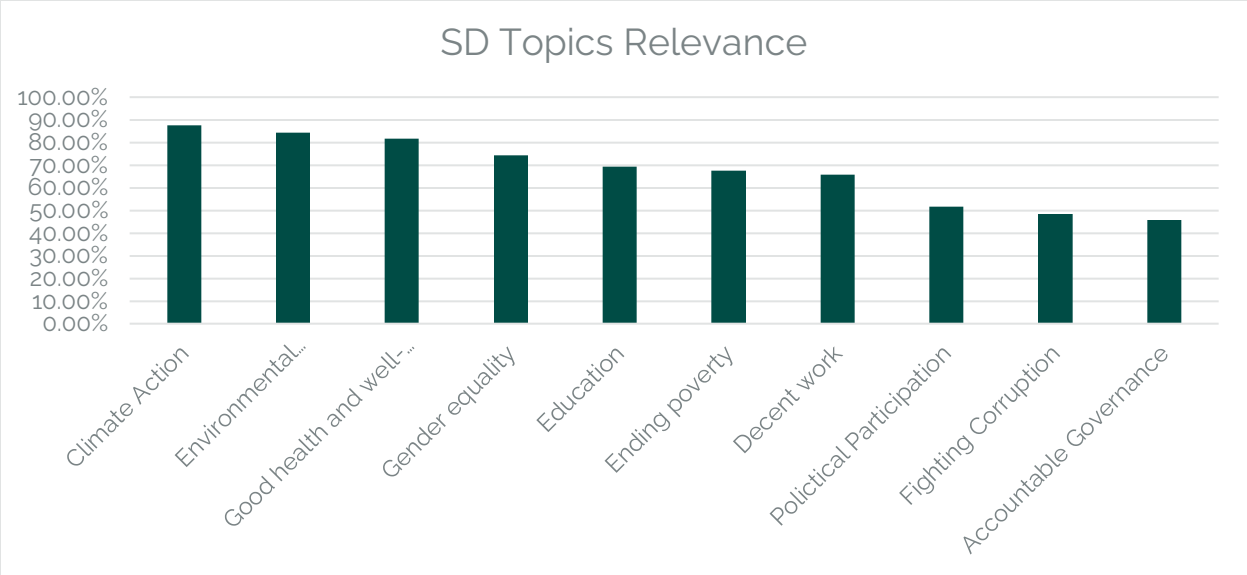


FIGURE 19: STUDENTS RELEVANCE TO 17 SUSTAINABLE DEVELOPMENT (SD) TOPICS

These findings suggest that environmental and health-related SD topics resonate most with LAU students, while governance and political themes are perceived as less personally relevant.

4.2. Field/Discipline-Specific Relevance

The perceived importance of SD topics varied notably across different academic disciplines. The survey results indicate that while some topics received universal recognition, others were distinctly influenced by a student's field of study. This correlation reinforces the value of contextualizing sustainable development education within disciplinary frameworks.

Academic Field	Most Relevant SD Topics	Interpretation
Environmental Science	Climate Action, Water Access, Clean Energy	Clear emphasis on environmental challenges and resource security
Public Health/ Nursing	Education, Poverty, Gender Equality	Focus on human welfare, vulnerable populations, and equity-based approaches
Engineering/ Computer Sci.	Clean Energy, Water Access, Good Governance	Priority given to innovation, infrastructure, and regulatory frameworks
Business/ Economics	Poverty, Good Governance, Education	Attention toward institutional reforms and development-driven economies
Social Sciences/ Psychology	Gender Equality, Poverty, Education	Concern with social justice, inequality, and empowerment-based development

Key Observations: When asked to assess how well their degree programs covered SD-related content, students across the five most represented majors (Biology, Business, Business Administration, Computer Science, and Global Business Administration) provided varying ratings for 17 topics. Responses were converted into a 5-point scale (1 = Not at all, 5 = Extensively):

- Business Majors:
  - *Reported the highest integration of SD topics such as Economic Growth (4.17), Technology (4.11), and Education (3.72).*
  - *Also reflected strong coverage in Decent Work (3.67), Peace (2.94), and Accountable Governance (3.11).*

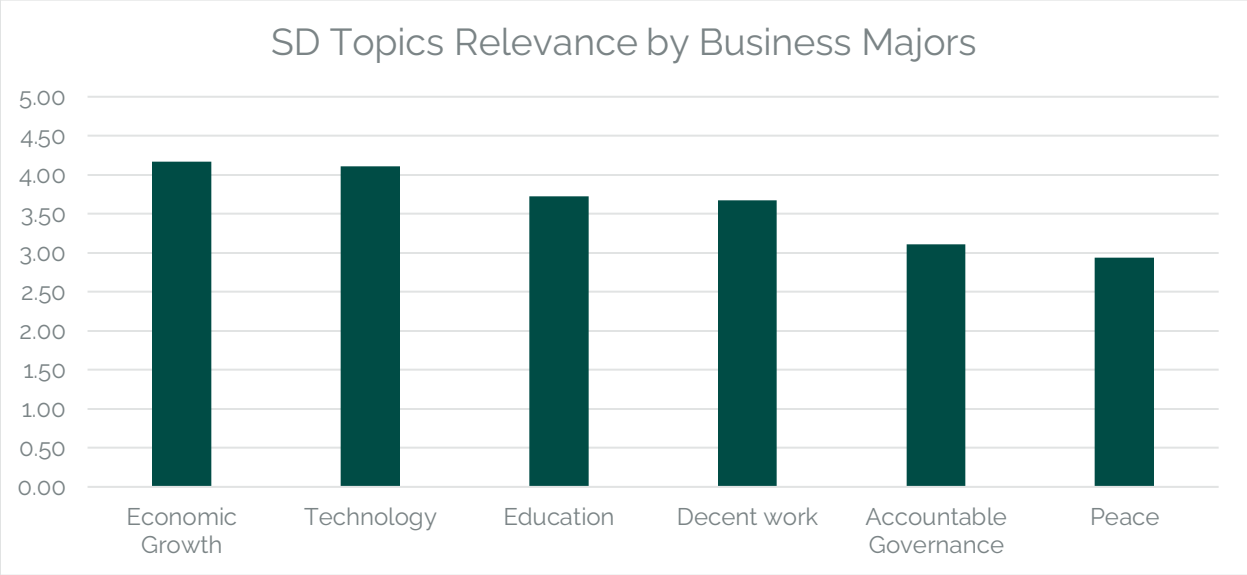


FIGURE 20: SD TOPICS RELEVANCE BY BUSINESS MAJORS STUDENTS

- Biology Majors:
  - *Showed high ratings in Environmental Conservation (3.70), Climate Action (3.50), and Good Health and Well-being (3.50).*
  - *Scored lower in governance-related topics like Accountable Government (2.00) and Peace (2.00).*

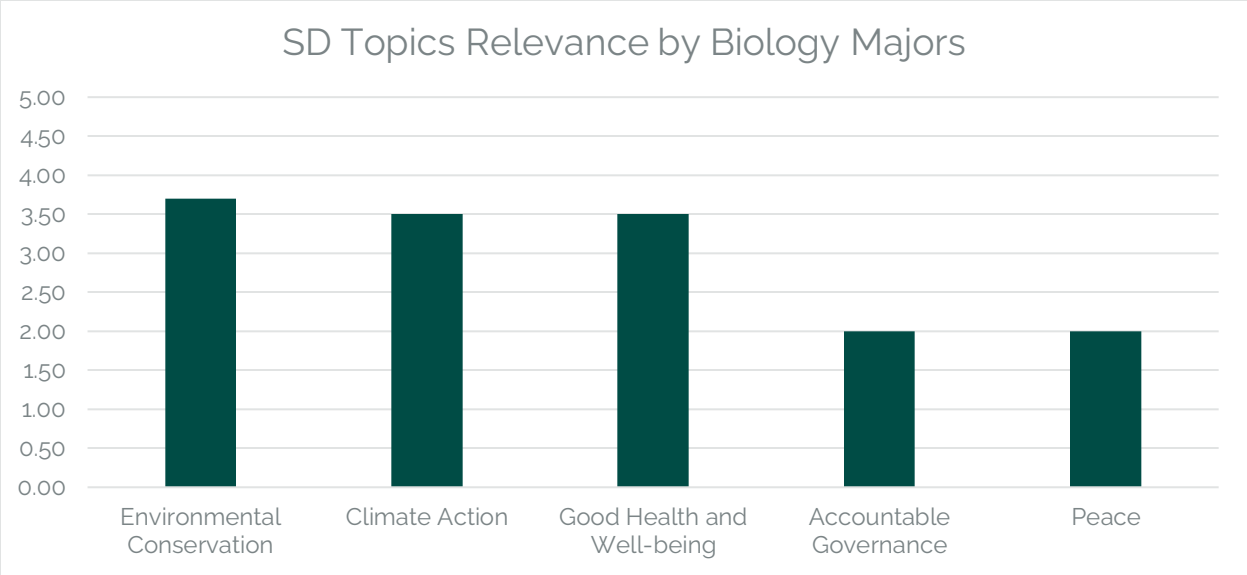


FIGURE 21: SD TOPICS RELEVANCE AMONG BIOLOGY MAJORS STUDENTS

- Computer Science Majors:
  - *Showed the lowest overall integration of SD topics across most areas, with scores typically below 2.00, especially in Ending Hunger (1.50), Fighting Corruption (1.58), and Climate Action (1.50).*
  - *However, Technology was rated high (3.58), reflecting the curriculum's technical focus.*

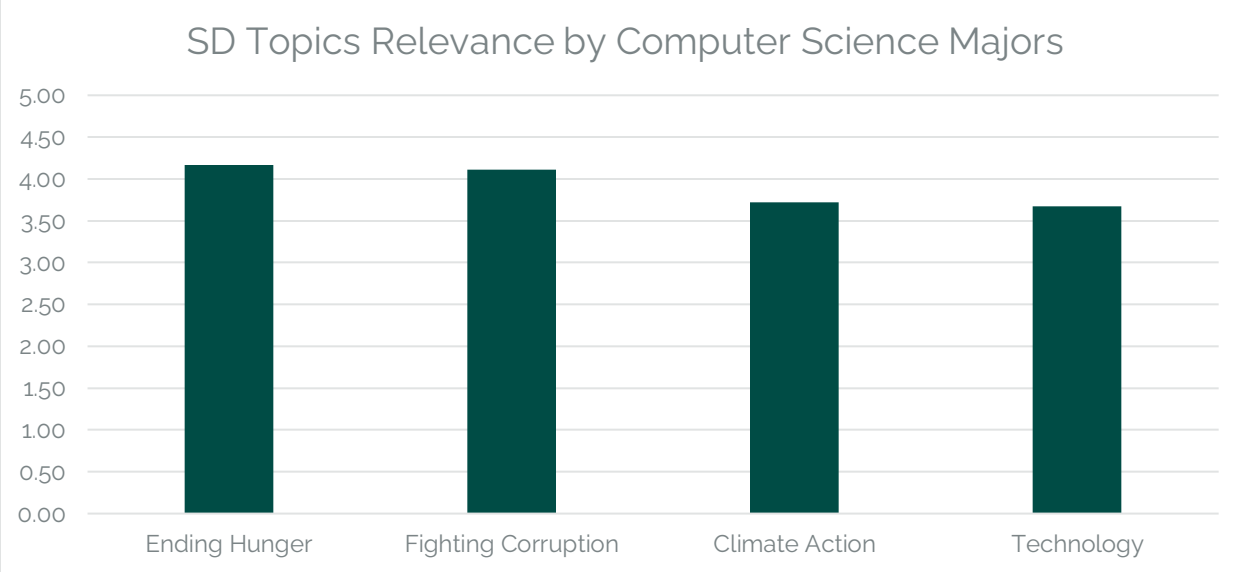


FIGURE 22: SD TOPICS RELEVANCE AMONG COMPUTER SCIENCE MAJORS STUDENTS

- Business Administration Majors:
  - Displayed moderate exposure to most SD themes, with notable integration in Technology (3.86), Economic *Growth* (3.57), and Education (3.00).

- Governance topics *like* Peace (2.29) and Political Participation (2.57) scored lower.

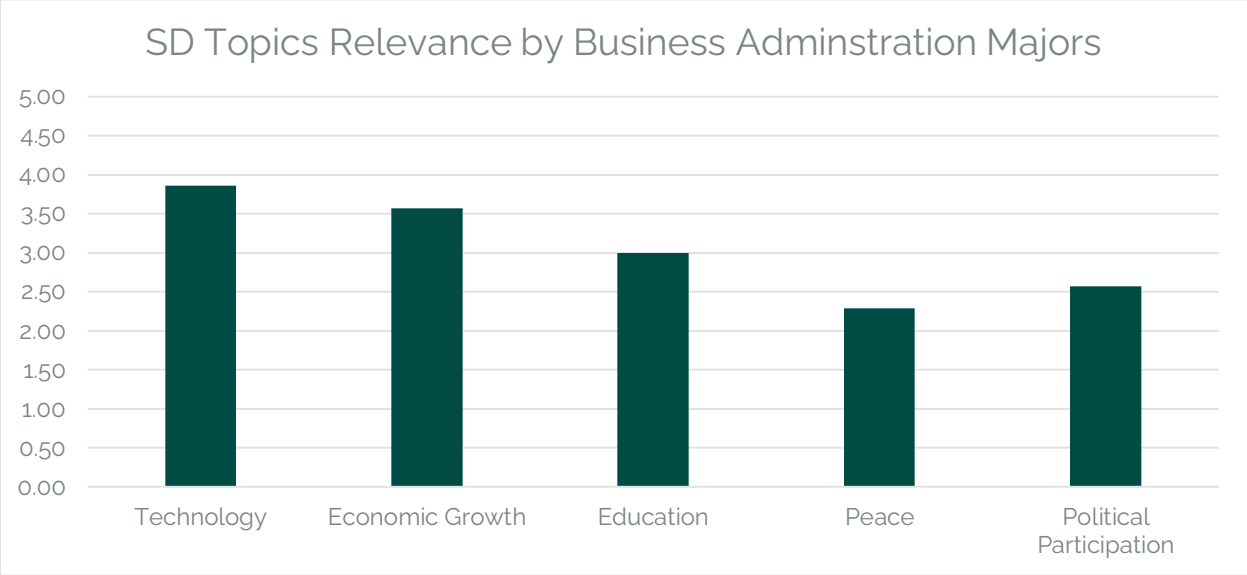


FIGURE 23: SD TOPICS RELEVANCE AMONG BUSINESS ADMINISTRATION MAJORS STUDENTS

- Global Business Administration Majors:
  - Indicated balanced exposure to topics like Economic Growth (3.33), Education (3.33), and Technology (3.67).
  - Reported lower *coverage* of Gender Equality (2.00) and Peace (2.50).

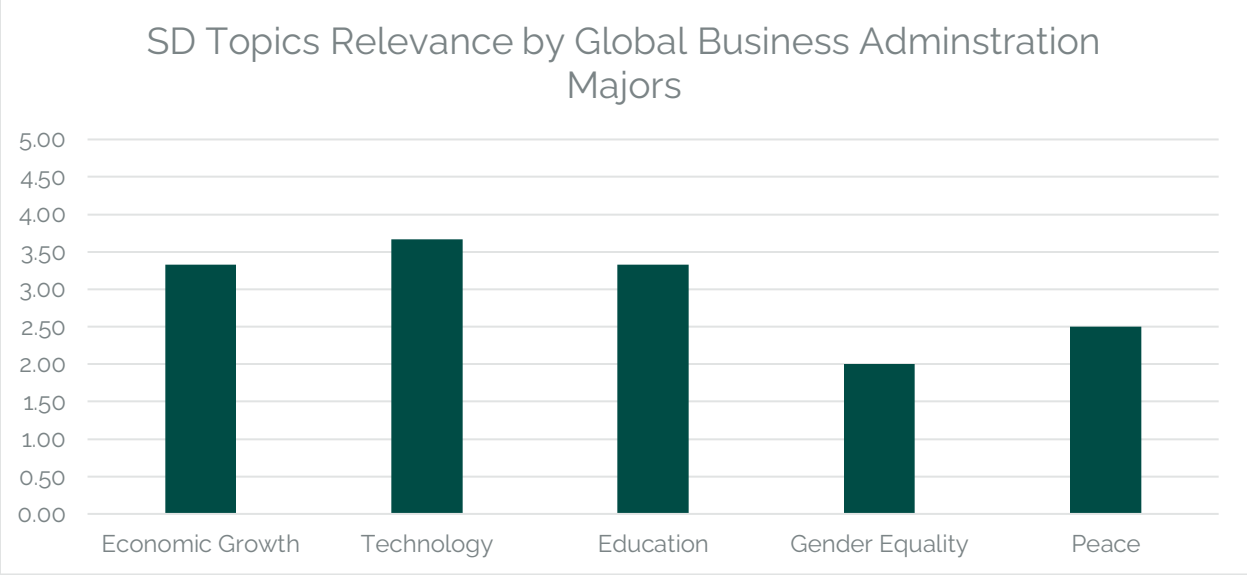


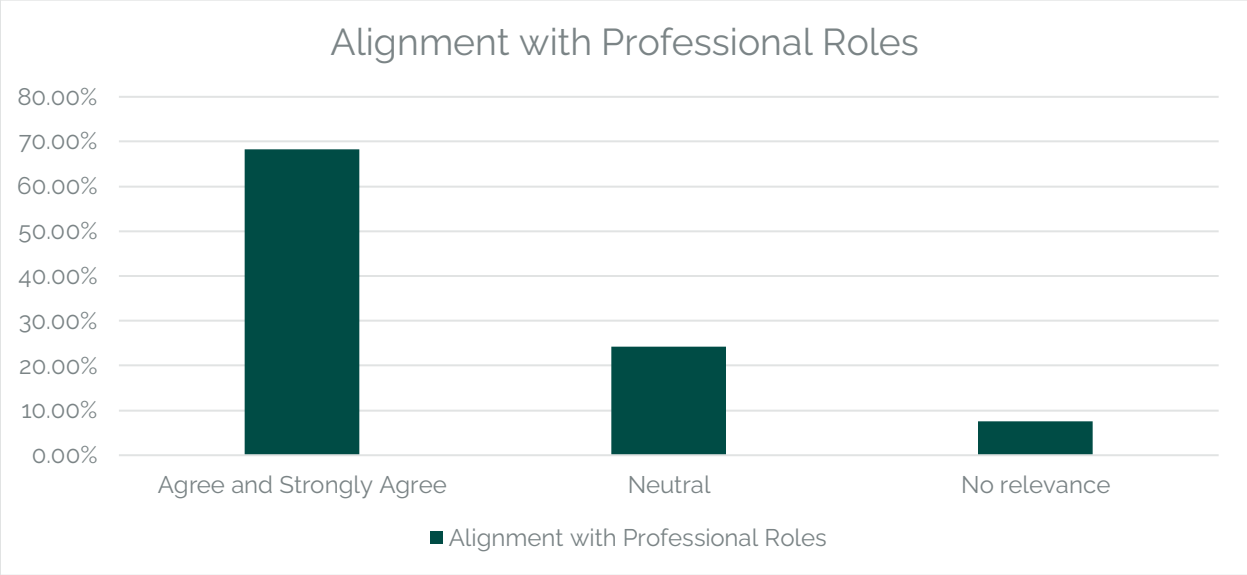
FIGURE 24: SD TOPICS RELEVANCE AMONG GLOBAL BUSINESS ADMINISTRATION MAJORS STUDENTS

This breakdown illustrates that business-related majors are more likely to integrate SD topics in their required curricula compared to scientific or technical disciplines.

4.3. Alignment with Individual or Professional Roles

Surveyed participants were asked to what extent they believe SD issues align with their current academic roles or future career paths:

- Strong Alignment:
  - 68.3% of students (n = 82) agreed or strongly agreed that sustainability was directly relevant to their future professional ambitions.
  - 60.8% (n = 73) felt that their current field of study provides them with the tools to contribute meaningfully to sustainable development.
- Moderate Alignment:
  - 24.2% were neutral on the relevance of SD to their professional roles.
  - Students from disciplines like Computer Science and some general Business majors expressed less direct alignment, especially with topics like Fighting Corruption and Political Participation.
- Low Alignment:
  - Only 7.5% of respondents felt that SD had little to no relevance to their current or future roles, suggesting broad but varied perceived applicability.



This insight highlights that while overall appreciation for SD is high, more targeted curriculum integration may be needed to help students from underrepresented disciplines see clearer connections to their academic and professional journeys.

V- Engagement with Sustainable Development (SD) Activities and Programs

This section explores the extent to which students at the Lebanese American University (LAU) engage with sustainable development (SD) in their academic, extracurricular, and personal lives. The aim is to identify the current level of participation, recognize motivational drivers and barriers, and assess the potential for deepening student involvement in sustainability-related initiatives across campus and beyond.

5.1. Participation in SD-Related Courses and Activities

Student engagement in sustainable development (SD) at the Lebanese American University (LAU) was assessed through two key dimensions: participation in formal coursework and involvement in extracurricular SD-related activities.

A. Participation in SD-Related Courses

Students were asked to indicate the extent to which their required academic courses had contributed to their understanding of sustainable development. The responses reveal that a significant portion of the student body had been exposed to SD concepts through their curriculum:

- 44 students (32.84%) agreed that LAU courses required as part of their degree program have taught them about sustainable development.
- 40 students (29.85%) strongly agreed with this statement, indicating a high level of integration of SD topics within the formal curriculum for nearly one-third of respondents.
- 37 students (27.61%) neither agreed nor disagreed, suggesting that while some SD content may have been present, its clarity or emphasis might have been limited.
- At the lower end, 8 students (5.97%) disagreed, and 5 students (3.73%) strongly disagreed, reflecting a minority who felt their coursework lacked substantive SD content.

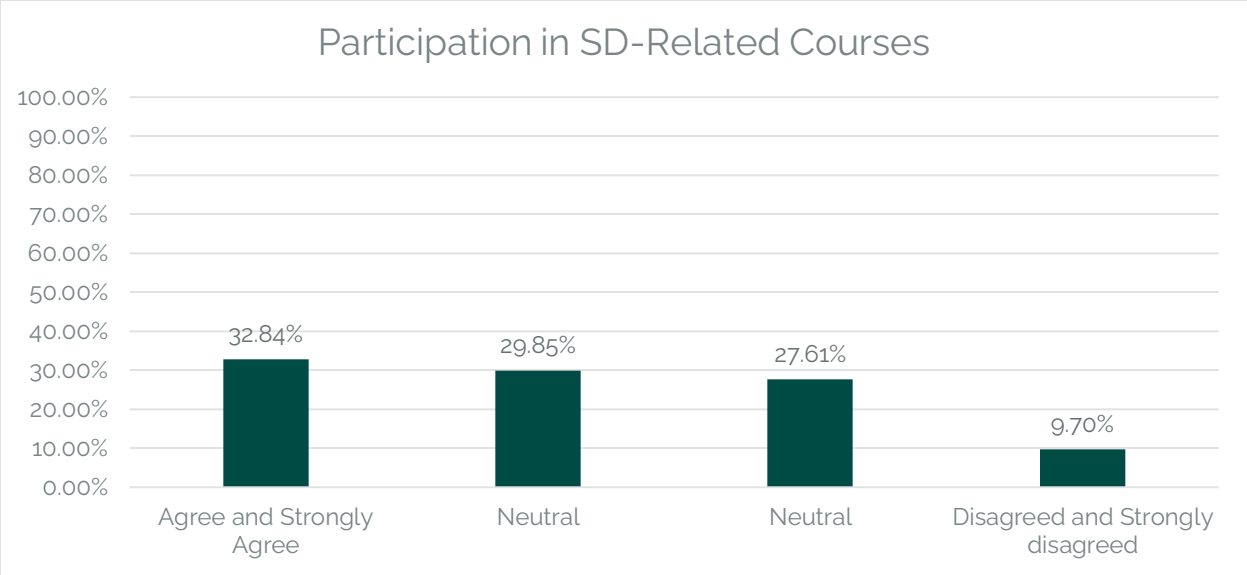


FIGURE 25: STUDENTS PARTICIPATION IN SD-RELATED COURSES

Together, these results show that more than 62% of surveyed students (n= 84) recognize that their formal education at LAU includes meaningful exposure to sustainability topics.

B. Participation in Extracurricular SD Activities

Students were also asked whether they had participated in SD-related extracurricular activities either at LAU or through external initiatives. While many students had not taken part in such programs, several types of activities still showed notable engagement:

- The most common activity reported was participation in volunteering or service-learning related to sustainability, with 28 students (20.9%) indicating involvement.
- 22 students (16.4%) attended sustainability-related lectures, workshops, or public awareness events, reflecting interest in expanding SD knowledge beyond the classroom.
- 15 students (11.2%) reported involvement in environmental clubs or organizations.
- Other forms of engagement included:
  - *Research projects on SD topics:* 9 students (6.7%)
  - *Local or international sustainability competitions:* 7 students (5.2%)
  - *Internships or job placements in SD sectors:* 6 students (4.5%)
  - *Policy or advocacy work related to sustainability:* 5 students (3.7%)

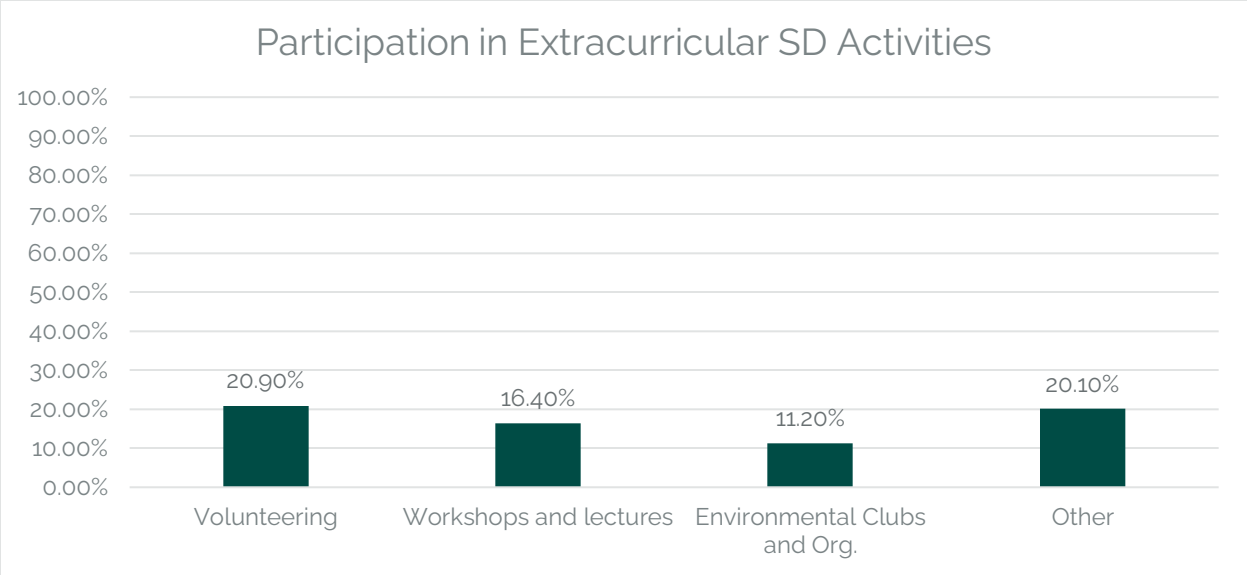


FIGURE 26: STUDENTS PARTICIPATION IN EXTRACURRICULAR SD ACTIVITIES

While over 60% of students reported academic exposure to SD, the extracurricular engagement was more limited in comparison, with most activity types involving less than 20% of the student body. This suggests that while LAU students are gaining awareness in the classroom, there is room to enhance opportunities for practical application and co-curricular participation.

5.2. Awareness of SD Opportunities at LAU

To assess students' awareness of sustainability-related opportunities beyond formal coursework, participants were asked to rate how well events or activities organized by LAU (excluding course-based components) have informed them about sustainable development. The responses reveal a moderate level of awareness among the student body:

- 52 students (38.81%) indicated that they were somewhat informed through such activities. This group represents the largest segment and suggests a general but limited familiarity with sustainability engagement opportunities at LAU.
- 33 students (24.63%) reported that they were informed fairly well, indicating a stronger level of awareness and likely more frequent participation or exposure to SD-related events.
- 8 students (5.97%) felt extensively informed by LAU's SD activities. Although this is a small proportion, it reflects a cohort that is highly engaged and well-connected to institutional initiatives.
- On the other hand, 22 students (16.42%) reported very little awareness, and 19 students (14.18%) were not at all aware of such opportunities. This combined 30.6% of students represent a significant awareness gap that may hinder deeper participation and engagement with LAU's sustainability mission.

Overall, while over two-thirds of the student body (69.4%) reported at least some level of awareness about sustainability opportunities at LAU, the relatively low proportion of students who feel extensively or fairly well informed (30.6%) underscores the need for stronger communication, outreach, and visibility of SD initiatives across the university.

5.3. Perceived Barriers to Engagement

Understanding the factors that hinder students from engaging in sustainable development (SD) activities is critical to designing effective institutional interventions. While the survey did not include a dedicated checklist for specific barriers, students' perceptions of institutional support offer valuable insights into the obstacles they face. To assess this, students were asked whether they agreed with the statement:

"I feel that LAU needs to do more to enable me to practice sustainable development on campus."

The responses indicate a significant level of perceived institutional limitation:

- 59 students (44.03%) agreed with the statement, suggesting that nearly half of the respondents believe that LAU's current efforts to support student engagement in sustainability are insufficient. This response reflects a clear institutional barrier to participation.
- 22 students (16.42%) strongly agreed, further reinforcing the notion that a substantial segment of the student population feels unsupported in translating their interest in SD into practical action on campus.
- 50 students (37.31%) neither agreed nor disagreed. This group may represent students who are either undecided due to limited exposure or unaware of available SD engagement avenues at LAU.
- Only 3 students (2.24%) disagreed with the statement, indicating that very few students perceive existing institutional efforts as sufficient.

Taken together, 81 students (60.45%) expressed that more should be done by LAU to facilitate student engagement in sustainability initiatives. This perceived lack of institutional support, whether in the form of program visibility, accessibility, or relevance, emerges as a significant barrier to deeper student involvement in SD.

These findings highlight the need for LAU to increase the visibility, accessibility, and integration of sustainability-related opportunities into campus life, while also actively soliciting student feedback to address existing gaps.

5.4. Motivators for Participation

To better understand what inspires students to engage more actively in sustainable development (SD), the survey included a question on preferred learning formats. Students were asked to select from a variety of options that could potentially motivate them to learn more about SD, ranging from academic courses to self-paced online opportunities and research involvement.

The analysis revealed a diverse range of motivations, with the following key findings:

- **"Courses within my major"** emerged as the most preferred motivator, selected by 63 students (47.01%). This indicates a strong interest in integrating sustainability content directly into students' disciplinary pathways, suggesting that relevance to their academic focus enhances engagement.
- **"Non-credit online self-paced courses"** were chosen by 53 students (39.55%), reflecting a high level of interest in flexible and accessible learning formats that can be pursued outside the constraints of formal curricula.
- **"Courses outside of my major"** were selected by 48 students (35.82%), pointing to a notable cross-disciplinary interest in sustainability. This emphasizes the need for universities to provide elective SD content that is open to all students regardless of their primary field of study.
- **"Dedicated research programmes in sustainable development"** attracted 45 students (33.58%), highlighting the potential of engaging students in applied, real-world sustainability issues through academic inquiry and innovation.
- **"Dedicated degrees/programmes in sustainable development"** were selected by 37 students (27.61%), suggesting that over a quarter of respondents are open to more structured and comprehensive educational pathways focused entirely on sustainability.

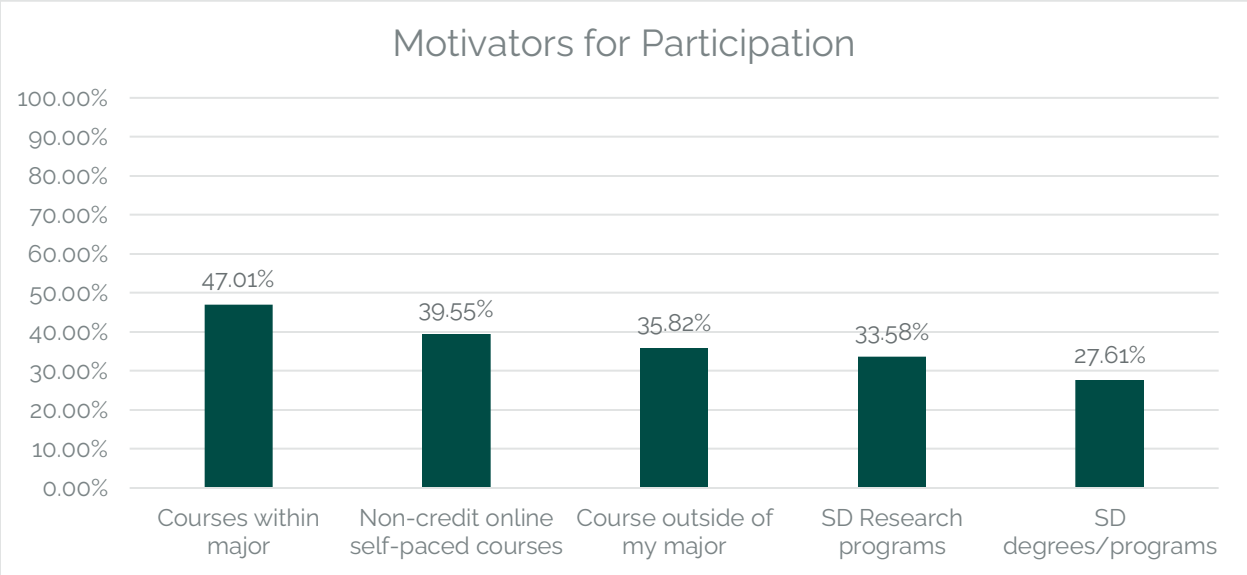


FIGURE 27: MOTIVATORS FOR STUDENTS PARTICIPATION IN SD RELATED ACTIVITIES

These findings indicate that students are motivated by both curricular and co-curricular opportunities, with a clear preference for learning formats that align with their academic interests and schedules. Flexibility, relevance, and the opportunity to apply knowledge through research are essential motivators for participation in sustainability initiatives.

Institutions like LAU can use this data to tailor engagement strategies by:

- Integrating SD themes into major-specific coursework.
- Offering more non-credit online learning modules.
- Promoting interdisciplinary electives.
- Expanding undergraduate research opportunities tied to sustainability.
- Exploring the feasibility of creating degree-granting SD programs.

5.5. Preferred Forms of Future Engagement

Understanding how students wish to engage with sustainability in the future is essential to tailoring programs that foster deeper involvement and long-term impact. While the survey included a question on this topic (Q28), the dataset did not return disaggregated responses for individual options. As such, this section presents a qualitative synthesis and recommendation framework based on the survey design and previous related responses.

Despite the lack of quantitative breakdown, earlier findings suggest students are most likely to engage in sustainable development (SD) activities when they are:

- Integrated into academic pathways, such as courses within their majors (47.01% selected this as a motivator),
- Flexible and accessible, such as non-credit self-paced online courses (39.55%), and
- Connected to research or project-based work, with 33.58% expressing interest in SD-related research opportunities.

It is reasonable to infer that students may also be motivated by more hands-on, experiential, and community-oriented forms of engagement such as:

- Volunteering with local sustainability initiatives,
- Participating in campus sustainability clubs and student-led projects,
- Engaging in sustainability-themed workshops, seminars, or hackathons,
- Collaborating in interdisciplinary SD innovation labs,
- Leading awareness campaigns and peer-education initiatives,
- Joining institutional planning bodies to contribute to green policies or campus sustainability goals.

To accurately capture student preferences in future surveys, it is recommended that LAU:

- Clearly list and allow multiple responses to specific engagement forms (e.g., workshops, volunteering, clubs),
- Ensure proper formatting and digital functionality of the response fields,
- Include open-ended options for students to suggest personalized forms of engagement.

In conclusion, fostering future student engagement with sustainability requires offering diverse, visible, and inclusive opportunities aligned with their academic, professional, and personal interests. Aligning institutional efforts with student preferences will support a stronger culture of sustainability on campus and beyond.

VI- Institutional Environment and Priorities

This section explores how students at LAU perceive the university's overall commitment to sustainable development (SD), how visible and supported SD initiatives are at the department level, where students get their sustainability-related information, and what structural or systemic barriers hinder stronger institutional integration of SD:

6.1. Perceptions of LAU's Commitment to Sustainability

The survey included a dedicated statement asking students to rate their agreement with the following: ***"I feel that sustainable development is a priority in my university."*** Responses were collected using a five-point Likert scale: *Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree.*

Out of the 134 students surveyed:

- 42.6% responded *Agree*
- 16.6% responded *Strongly agree*
- 21.3% chose Neither *agree* nor *disagree*
- 11.7% responded *Disagree*
- 7.8% responded *Strongly disagree*

This means that 59.2% of all students perceive LAU as having a clear commitment to sustainability, while 19.5% hold a critical view, and one in five (21.3%) remain neutral, indicating potential uncertainty or lack of visibility into institutional efforts. These findings suggest a generally positive but cautious student outlook regarding LAU's sustainability commitment. While the majority do recognize institutional initiatives or communication around sustainable development (SD), the sizeable portion of neutral or negative responses signals room for improvement in visibility, consistency, and outreach.

Several factors could explain the varied perceptions:

- *Visibility Gap:* Students may not be fully aware of LAU's strategic sustainability efforts, especially if such initiatives are not systematically communicated across all departments or student services.
- *Uneven Exposure:* The degree to which students perceive SD as a university priority may vary based on their faculty, academic level, or participation in extracurricular activities. For instance, students in STEM or business faculties may see more applied SD initiatives than those in other disciplines.
- *Limited Integration in Curriculum:* If SD topics are not embedded clearly within core or major courses, students may associate sustainability only with external events, limiting their perception of LAU's broader commitment.

Implications for Policy and Practice:

- LAU should consider developing a centralized sustainability communication strategy, ensuring students across all campuses and majors are informed about SD goals, policies, and progress.
- A campus-wide sustainability dashboard, annual sustainability reports, and regular awareness campaigns could reinforce LAU's institutional image as a leader in SD.
- Faculty and administrative staff should be encouraged to frame academic content and student services through a sustainability lens, making SD a visible, integrated priority.

6.2. Department-Level Support and Visibility

To evaluate the extent to which sustainable development (SD) is prioritized at the departmental or school level, students were asked to rate the statement: ***"I feel that sustainable development is a priority in my school/department."*** Responses were collected on a five-point Likert scale: *Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree*. Out of the 134 respondents:

- 35.3% selected *Agree*
- 11.0% selected *Strongly agree*
- 26.9% chose *Neither agree nor disagree*
- 18.7% selected *Disagree*
- 8.1% selected *Strongly disagree*

Together, 46.3% of students believe their department prioritizes sustainability, while 26.8% expressed disagreement, and over a quarter (26.9%) remained neutral. These figures contrast with the university-level commitment (where 59.2% *agreed* or *strongly agreed*). This suggests that while students may recognize a general institutional direction toward sustainability, this commitment is perceived to be less visible or less practiced at the departmental level.

Interpretive Insights

The data reflect a disconnect between institutional ambition and departmental implementation. Several key insights can be drawn:

1. *Inconsistent Integration Across Faculties:* The visibility of sustainability may vary widely across different schools. Faculties directly linked to environment, health, or engineering may naturally align more with SD topics, while others such as humanities or pure sciences may not emphasize sustainability explicitly in their programming.
2. *Lack of Departmental Communication:* Even if SD-related activities or curricula exist within a department, students may not be adequately informed or made aware of how their program supports the SDGs. This gap in communication can lead to underappreciation or misperception of departmental efforts.

3. *Limited Faculty Involvement:* If professors and department chairs do not consistently emphasize the relevance of SD in their teaching, research, and student engagement, students may assume the department does not prioritize sustainability.
4. *Minimal Student Participation in Department-Led SD Activities:* Departments may not be offering or sufficiently promoting, events, clubs, research initiatives, or applied projects that empower students to engage with sustainability themes.

Implications for Improvement

To strengthen SD visibility at the department level, the following recommendations are proposed:

- *Develop Department-Specific Sustainability Action Plans:* Each school or department should outline how it integrates SD principles into its academic content, research agenda, and student outreach.
- *Encourage Faculty Leadership in SD:* Faculty members should be supported and incentivized to integrate SDG-aligned topics in their courses and participate in interdisciplinary initiatives that promote sustainability.
- *Enhance Internal Communication:* Departments must actively communicate their SD initiatives through newsletters, course syllabi, seminars, and social media to ensure students are informed and feel included.
- *Monitor and Report Department-Level Impact:* Introduce indicators that track and showcase how each department contributes to LAU's sustainability goals, helping foster transparency and accountability.

6.3. Sources of SD Information Inside and Outside LAU

This section is to understand how LAU students gain knowledge and exposure to sustainable development (SD), the survey asked them to evaluate a range of information sources. These included formal academic courses, campus activities, libraries, prior education, and external platforms such as news media and social media. Respondents rated each source on a scale from: *Not at all, Very little, Somewhat, Fairly well, Extensively*. This approach allowed for an in-depth analysis of the relative influence of institutional and external sources of information.

A. Institutional Sources of SD Information

1. *General Education Courses (Outside of Major):* General education courses emerged as a significant source of SD knowledge.
   - 53.7% of students said they were informed *fairly well* or *extensively* by these courses.
   - Only 18.6% rated them as having *very little* or no contribution to their SD awareness.

   This suggests that LAU's core curriculum outside the students' primary disciplines plays a crucial role in mainstreaming sustainability, particularly for those not enrolled in environmentally or socially focused programs.

2. *Events and Activities at LAU (Not Course-Related)*
    - 46.3% of students rated these activities as *somewhat to extensively informative*.
    - 22.4% said such activities did *very little* or *nothing* to enhance their SD understanding.

This indicates that while co-curricular engagement is valuable, there may be a lack of visibility, frequency, or accessibility in sustainability-related campus events, which can hinder deeper learning.

3. *LAU Library Resources (Books, Journals, Multimedia)*
    - Only 33.6% found these resources to be *fairly well* or *extensively informative*.
    - 38.1% selected *not at all* or *very little*, indicating a possible underutilization or underpromotion of SD-related materials.

This finding may reflect limitations in students' research habits or a lack of dedicated SD collections or awareness campaigns led by the library system.

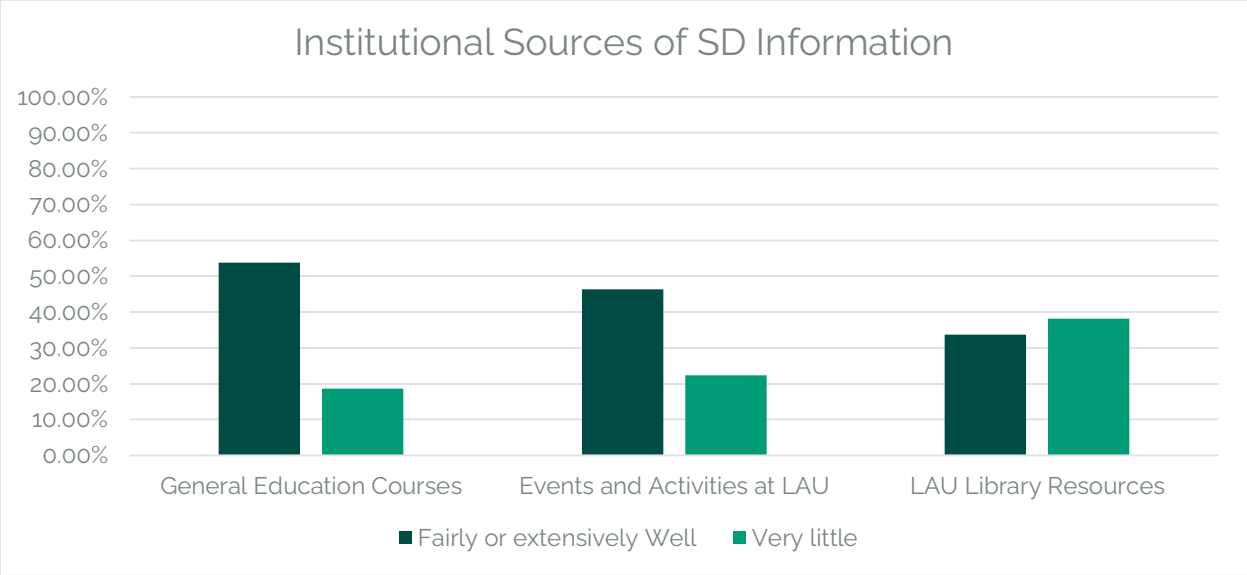


FIGURE 28: INSTITUTIONAL SOURCES OF SD INFORMATION FOR STUDENTS

B. External and Informal Sources of SD Information

1. Courses Prior to University (e.g., High School)
    - 51.9% reported gaining *somewhat* to *extensive* SD knowledge from their pre-university education.
    - This highlights the foundational role of early exposure and suggests that students may arrive at university with a basic understanding of SD, which should be expanded upon in higher education.
2. Internships and Work Experience
    - 48.1% of students considered internships or work environments to have contributed *moderately* to *strongly* to their SD knowledge.

- These real-world experiences appear to offer practical, applied insights into sustainability, particularly in professional settings aligned with SDGs (e.g., NGOs, green businesses, or health sectors).

3. News Media
   - 52.6% reported being informed *fairly well* or *extensively* via traditional media sources.
   - News outlets remain a relevant and accessible channel for sustainability updates and global environmental issues.
4. Social Media:
   - Social media ranked as the most influential external source, with 61.2% of students stating that platforms like Instagram, YouTube, or LinkedIn provided them with *moderate* to *extensive knowledge*.
   - This underscores the pervasive role of digital content in shaping youth perspectives on sustainability, including campaigns, influencers, and viral climate news.

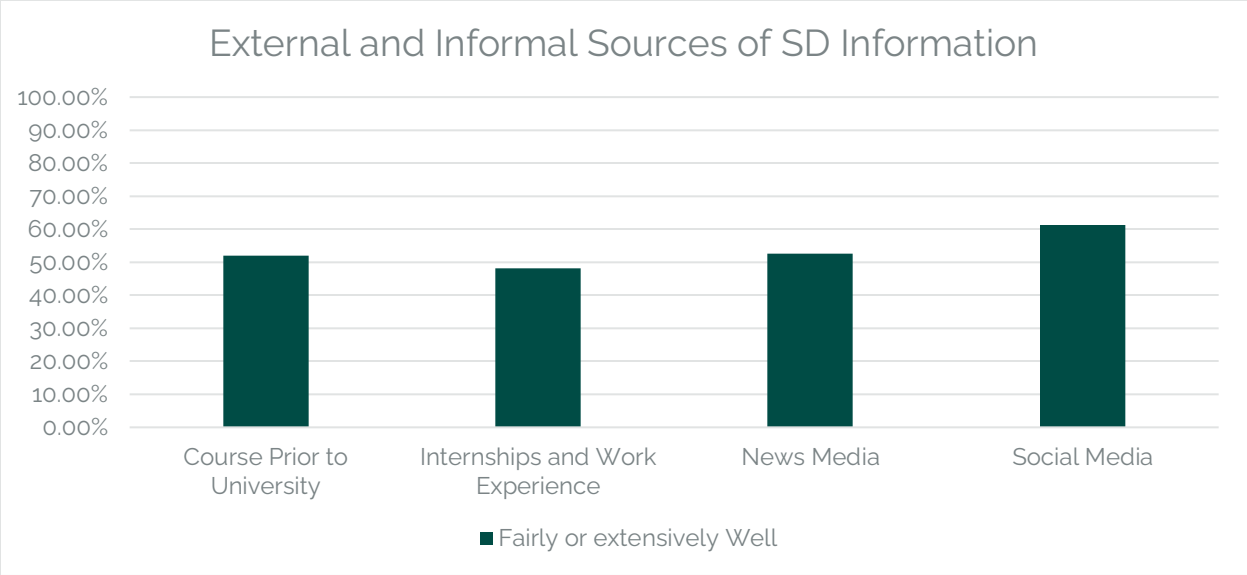


FIGURE 29: EXTERNAL AND INFORMAL SOURCES OF SD INFORMATION FOR STUDENTS

C. Comparative Insights

Source	% Fairly Well or Extensively Informed
Social Media	61.2%
General Education Courses	53.7%
News Media	52.6%
Pre-University Education	51.9%
Internships/Work	48.1%
LAU Campus Events	46.3%
Library Resources	33.6%

This table shows that informal and external sources (especially social and news media) are currently more impactful in shaping student understanding of SD than some formal institutional tools. However, general education courses remain the strongest internal academic channel for SD dissemination.

D. Implications and Opportunities

1. *Leverage Social Media Strategically:* LAU can amplify its impact by actively curating and distributing SD-related content across platforms students already use, Instagram, LinkedIn, YouTube, etc. through both official accounts and student influencers.
2. *Reinforce Library Engagement:* Collaborating with faculty and student clubs to promote sustainability-themed library weeks, curated digital shelves, or multimedia campaigns could enhance library visibility as a source of SD content.
3. *Enhance Experiential Learning:* Promoting internships, fieldwork, and volunteering with environmental NGOs, development agencies, and local communities can further bridge academic learning with real-world sustainability action.
4. *Scale Campus Activities:* Student engagement in sustainability could be strengthened through a calendar of regular events, green fairs, innovation labs, climate dialogues, across both campuses, designed to attract students from all faculties.

6.4. Barriers to Institutional Support or SD Integration

While the survey did not explicitly ask students to identify barriers to institutional support or sustainability integration, a thematic interpretation of multiple questions reveals key indirect indicators of systemic and structural obstacles at LAU.

1. Discrepancy Between University-Level and Departmental-Level Perception
    - Although 59.2% of students agreed or strongly agreed that LAU treats sustainability as a university-wide priority, only 46.3% felt the same about their department or school.

- This discrepancy suggests a lack of operational translation of institutional strategies into academic departments, an indication that sustainability is not consistently embedded in course content, departmental planning, or student engagement practices across faculties.

2. Limited Course-Level Integration
    - Despite some agreement that general education courses address SD topics, many students felt their core or major courses lacked comprehensive engagement with the subject.
    - The lack of explicit references to SDGs or applied sustainability challenges within the context of their academic disciplines represents a barrier to meaningful SD integration.
3. Passive or Unclear Communication
    - Over 26.9% of students selected "Neither agree nor disagree" when asked about their department's sustainability priorities. This neutrality may reflect communication gaps, where students are unaware of SD initiatives even if they exist.
    - If institutional goals or SD-related resources are not consistently communicated through multiple channels such as emails, faculty meetings, course syllabi, campus signage students may perceive inaction.
4. Underutilized Learning Resources
    - Only 33.6% of respondents found LAU's libraries informative in terms of SD content.
    - This may stem from a lack of targeted curation of sustainability resources, low awareness of existing collections, or absence of library-led awareness campaigns.
5. Overreliance on Informal and External Learning Channels
    - Students rely more on social media (61.2%) and news media (52.6%) than on formal LAU sources.
    - While these platforms are valuable, the absence of a coordinated institutional presence on them indicates a missed opportunity for guiding and validating SD narratives that align with LAU's academic and strategic values.

6.5. Strategic Insights and Recommendations

Identified Gap	**Suggested Institutional Action**
Limited integration across majors	Create a university-wide SD curriculum module open to all students
Low visibility of efforts	Develop a campus-wide SD communications campaign and monthly digest
Weak mentorship structures	Incentivize faculty involvement in SD mentorship and advising
Over-reliance on social media for SD knowledge	Strengthen in-class and department-level SD exposure
Poor recognition of student efforts	Institutionalize awards, co-curricular transcripts, or credit systems

Based on the full survey findings and the institutional gaps revealed in Section 6, several strategic recommendations can be made to LAU's administration and academic departments:

Institutional Strategy:

- *Develop and communicate an SD Master Plan:* Establish a clear, campus-wide sustainable development framework aligned with the 2030 Agenda. This plan should include measurable goals, actions across faculties, and annual progress reports.
- *Appoint Sustainability Focal Points in Each Faculty:* These individuals can serve as liaisons for departmental engagement, ensuring that sustainability is tailored to each discipline while maintaining alignment with university-wide objectives.

Curriculum Integration:

- *Mainstream SD Across All Disciplines:* Require all faculties to embed sustainability content in core courses, not just as elective material. This includes integrating SDGs in case studies, research, and capstone projects.
- *Promote Interdisciplinary Learning:* Encourage cross-faculty collaboration through SD-focused hackathons, joint seminars, and collaborative assignments that connect environmental, social, economic, and ethical dimensions.

Visibility and Communication:

- *Enhance Communication Channels:* Develop a sustainability communication strategy using email digests, student portals, faculty newsletters, and social media to keep students informed about ongoing initiatives, events, and opportunities.

- *Showcase Success Stories:* Highlight student-led projects, faculty research, and operational efforts (e.g., recycling, water-saving, green buildings) to foster a culture of visibility and pride.

Participation and Practical Engagement:

- *Institutionalize Student Engagement Platforms:* Support clubs, internships, SD innovation hubs, and community outreach projects to make sustainability experiential.
- *Provide Incentives for Participation:* Offer academic credit, awards, and stipends for students who take part in sustainability initiatives.

Monitoring and Evaluation

- *Create a Sustainability Dashboard:* Use real-time data to track university performance on SD indicators (e.g., energy, water, waste, engagement), visible to the public and updated quarterly.

VII- Training Needs and Preferred Learning Modes

To better understand how students at the Lebanese American University (LAU) prefer to learn about sustainable development (SD), the survey explored their interest in various learning formats and asked them to prioritize specific training content areas. These insights are crucial for designing future programs that align with students' expectations, needs, and career trajectories.

7.1. Interest in Formal vs. Informal Learning Formats

The survey assessed students' willingness to learn about sustainable development through a range of formal and informal learning formats, using a 5-point scale: *Strongly unwilling, Somewhat unwilling, Undecided, Somewhat willing, Strongly willing.*

A. Formal Learning Options

These included credit-based or structured academic approaches:

- Courses within the major
- Courses outside the major
- Dedicated degrees/programs in sustainable development
- Dedicated research programs

The results showed strong interest in formal approaches:

- 71.2% of students were *somewhat or strongly willing* to learn through courses within their major
- 66.4% expressed interest in courses outside their major
- 59.7% supported dedicated degrees/programs in SD
- 54.5% were interested in research programs focused on sustainability

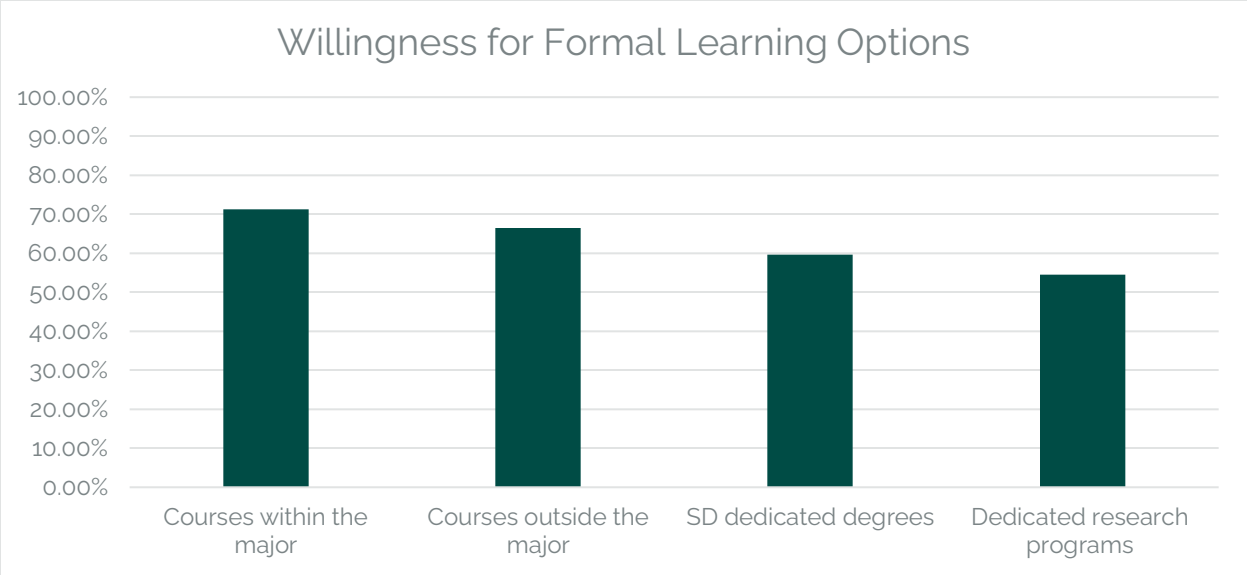


FIGURE 30: STUDENTS WILLINGNESS FOR FORMAL LEARNING OPTIONS

This indicates a clear preference for sustainability to be embedded in the academic curriculum, reflecting both intrinsic interest and perceived relevance to career development.

B. Informal and Flexible Learning Options

Students were also asked about non-credit and flexible options such as:

- Online self-paced courses
- Short courses (with or without certificates)
- Extra-curricular activities
- 63.1% of students were *strongly or somewhat willing* to enroll in short courses with certification
- 57.5% showed interest in non-credit, self-paced online courses
- 61.9% were willing to participate in extra-curricular activities to enhance their SD knowledge

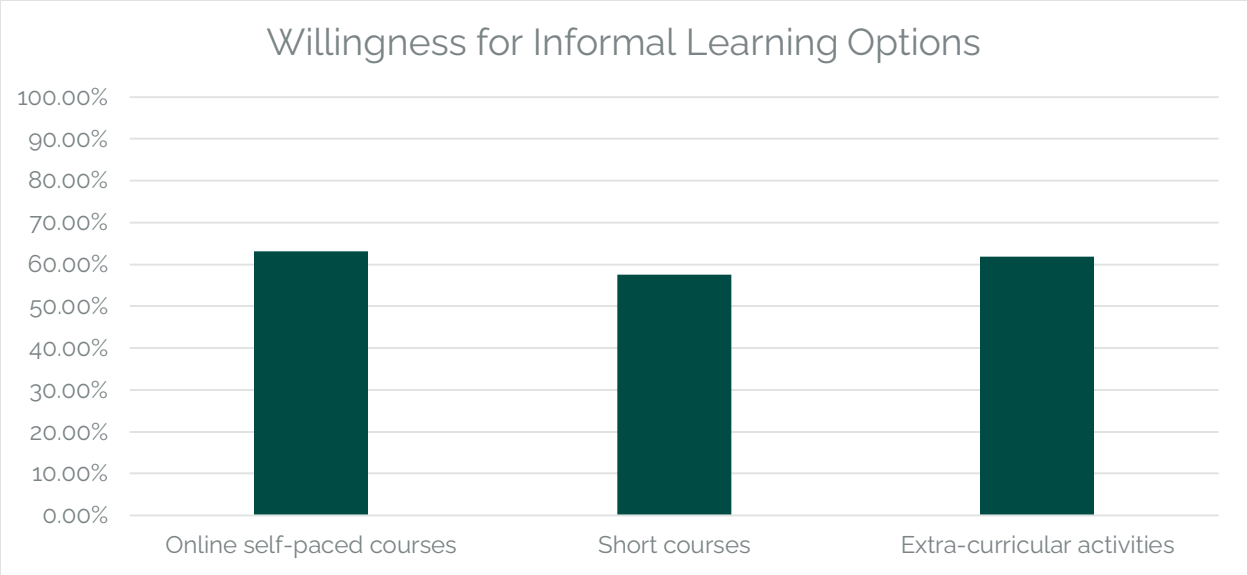


FIGURE 31: STUDENTS WILLINGNESS FOR INFORMAL LEARNING OPTIONS

This reflects a strong demand for flexibility, especially among students balancing academic, work, or personal responsibilities.

7.2. Differences in Preferences Across Groups

While group-level disaggregation (e.g., by major or academic level) was not directly analyzed general trends indicate:

- Graduate students show higher preference for self-paced and research-based learning formats, possibly due to time limitations and professional obligations.
- Undergraduate students, especially from general education backgrounds, expressed more interest in course-based or club-related activities.

These trends suggest that age, academic level, and workload significantly influence learning preferences, and training programs should reflect this diversity in format and timing.

7.3. Prioritization of Training Content Areas

Students were asked to rank their top training needs among seven predefined sustainable development content areas. Based on the aggregated rankings, the following training topics emerged as top priorities:

Top-Ranked Training Topics

1. Introduction to Sustainability (definition, principles, history, and the 17 SDGs)

   → Chosen as a top 3 priority by 68.7% of students

   → Indicates the need to strengthen foundational literacy in sustainability

2. Case Studies of Sustainable Practices Across Sectors (real-world applications in business, agriculture, education, etc.)

   → Prioritized by 61.9% of respondents

   → Reflects the desire for practical, applied learning over theory

3. Importance of SDGs in Global Development and Sectoral Relevance (government, private sector, civil society)

   → Ranked among top three by 54.5%

   → Highlights the link between sustainability awareness and career pathways

Mid-Level Priorities

- Campus Initiatives (Lebanon, LAU, and Global)
  → Ranked top 3 by 45.5%
- Trainings on Specific SDGs
  → Selected by 41.8%
- Universities and Sustainability
  → Chosen by 39.6%

Lower-Ranked Priority

- Research and Collaboration Opportunities
  → While important for academic growth, this was less prioritized overall, possibly reflecting that many students seek entry-level exposure before engaging in advanced research.

Strategic Recommendations Based on Training Preferences

Based on these insights, the following recommendations are proposed for future curriculum and program design at LAU:

1. Embed Introductory SD Content in Core Courses
   - Make "Introduction to Sustainability" a mandatory general education module or elective accessible to all majors.
2. Develop Sector-Based Case Study Modules
   - Design discipline-specific sustainability case studies (e.g., green architecture, sustainable finance) to contextualize SDGs in each academic path.
3. Expand Certified Short Courses and Online Learning
   - Offer modular, flexible, and accredited SD training programs both during and outside the academic semester.
4. Integrate Learning with Campus Initiatives
   - Link training programs to campus sustainability operations, such as waste management, green events, and SD-focused student research.
5. Support Co-Curricular and Extra-Curricular Engagement
   - Promote clubs, competitions, hackathons, and service-learning that offer experiential learning outside the classroom.

6. Ensure Inclusive Access to SD Learning
    - Design trainings that are inclusive of all student levels, learning styles, and time constraints including options for working students or those with disabilities.

VIII- Career and Professional Relevance

This section explores how LAU students perceive the relevance of sustainable development (SD) to their academic and professional trajectories. The survey evaluated their views on whether knowledge of SD can help them choose a career, secure a job, perform better professionally, and progress in their field. These insights are critical for aligning university-level sustainability education with future employability, labor market trends, and sectoral readiness:

8.1. Perceived Impact on Career Development

Students were asked to rate their agreement with the statement, ***"Good knowledge of sustainable development will widen my career options and guide me in choosing my career path."*** Results revealed that:

- 42.8% *agreed*
- 24.6% *strongly agreed*
- 21.6% were *neutral*
- Only 11.0% *disagreed* or *strongly disagreed*

This means that 67.4% of respondents believe sustainability knowledge is critical for their career planning. These results reflect growing student awareness that the transition to green, inclusive, and resilient economies is shaping future labor markets and professional demands.

Students appear to view sustainability not just as an ethical or academic issue, but also as a core employability skill. Fields such as green architecture, renewable energy, social entrepreneurship, data-driven development, and ethical business practices are increasingly viewed as future-proof career directions.

8.2. Perceived Impact on Academic or Work Performance

Students also responded to the statement: ***"Good knowledge of sustainable development will help me perform better on the job."***

Their feedback shows:

- 44.8% *agreed*
- 18.7% *strongly agreed*
- 24.6% were *neutral*
- 11.9% *disagreed* or *strongly disagreed*

This suggests that 63.5% of students associate sustainability literacy with increased productivity, decision-making, and problem-solving in the workplace. This aligns with international research indicating that SD-related competencies such as systems thinking, resilience, and ethical leadership, are increasingly valued in both the private and public

sectors. Students are beginning to see that understanding sustainability is not just about knowing the SDGs but about applying practical tools and adopting mindsets that promote responsible innovation and long-term value creation.

8.3. Institutional and Sectoral Mobility

The survey asked whether students believed sustainability knowledge could help them:

- Land a better job
- Progress in their profession
- Contribute to broader institutional and sectoral transformations

Key findings:

- 65.7% believed it would help them land better jobs
- 60.4% believed it would help them progress in their careers
- Many students also indicated in other sections that SD aligns with their personal values and long-term goals, which in turn shapes their interest in roles that support climate action, governance reform, education, and innovation.

This indicates that LAU students do not perceive sustainability as a constraint or specialization, but as a cross-cutting enabler of career mobility in diverse fields whether in civil society, international organizations, government agencies, or emerging industries like cleantech, ESG consulting, or circular economy systems.

8.4. Comparative Analysis by Respondent Category

Although the dataset does not include a full crosstab analysis by gender, GPA, or academic level within this section, key trends can be inferred:

- Graduate students were more likely to emphasize career development and job performance, likely due to their immediate proximity to the labor market.
- Undergraduates, particularly sophomores and juniors, focused more on the guidance aspect of sustainability, seeing it as a lens through which they could discover future directions and choose meaningful paths.
- Students in STEM and business programs expressed higher enthusiasm for SD's role in innovation and corporate responsibility.
- Those in humanities and social sciences leaned toward sustainability's alignment with social justice, human rights, and public policy.

This variation suggests that LAU's sustainability programs and messaging should be differentiated by discipline, while maintaining a common core of SD values and competencies.

Strategic Takeaway:

There is a strong, consistent belief among LAU students that sustainability is professionally empowering. Students view SD as a pathway to meaningful employment, ethical decision-making, and institutional relevance in a rapidly changing global economy.

To capitalize on this momentum, LAU should:

- Expand SD career advising and mentoring programs
- Connect students with alumni working in sustainability-aligned sectors
- Host panels and job fairs focused on green, inclusive, and impact-driven careers
- Ensure that all degrees include career-relevant SD training and project-based learning

IX- Personal Values and Engagement

This section explores how students at the Lebanese American University (LAU) internalize sustainable development (SD) values, and how these values shape their daily behavior, willingness to act, and actual engagement in sustainability-related activities both on and off campus. It also identifies barriers that prevent deeper involvement in sustainability initiatives.

9.1. Importance of SD in Personal Life and Lifestyle

A Students were asked to rate the statement: ***"It is important for me to live my day-to-day life in a way that is consistent with sustainable development."*** The results were strongly positive:

- 45.5% *agreed*
- 30.6% *strongly agreed*
- 17.2% were *neutral*
- Only 6.7% *disagreed* or *strongly disagreed*

This means that over 76% of students associate SD with personal responsibility and lifestyle choices. It reflects a value-driven orientation among LAU students who are increasingly mindful of how their actions such as energy use, consumption habits, waste management, and social behaviors, impact broader sustainability outcomes. Such high levels of personal alignment with SD goals position students as potential sustainability ambassadors, and suggest that many are ready to adopt behavioral changes when the institutional environment supports it.

9.2. Willingness to Contribute, Engage, or Lead SD Initiatives

Students were then asked about their willingness to actively contribute to, participate in, or even lead sustainability initiatives, both within LAU and in their communities.

Key Findings:

- Willing to engage at university level:
  - 42.5% *agreed*
  - 31.3% *strongly agreed*
- Willing to engage or lead in their communities:
  - 40.3% *agreed*
  - 28.4% *strongly agreed*

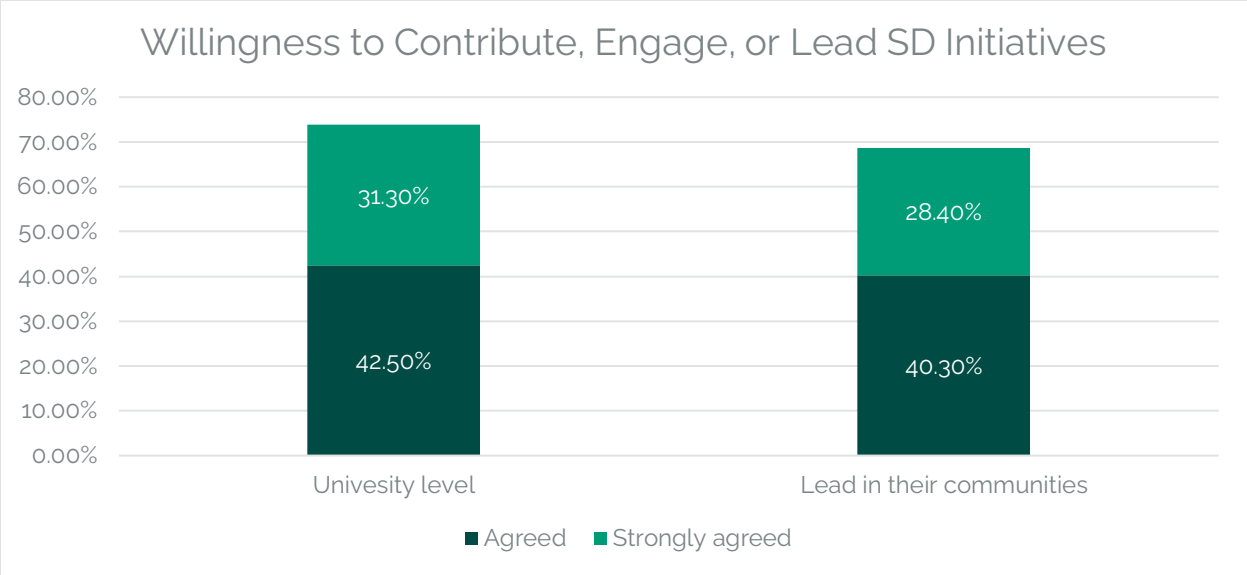


FIGURE 32: STUDENTS WILLINGNESS TO CONTRIBUTE, ENGAGE, OR LEAD SD INITIATIVES

Together, nearly 74% of students are eager to engage or lead SD initiatives on campus, and 68.7% expressed willingness to contribute or lead sustainability efforts in their broader communities. These findings are encouraging and signal a high level of civic responsibility and leadership potential. Students are not only prepared to follow but are also ready to take ownership and lead change efforts.

9.3. Current Involvement in SD (On/Off Campus)

Despite the strong personal values and willingness to act, current engagement levels remain moderate:

- Engaged in SD at LAU:
  - Only 18.7% *agreed* and 8.2% *strongly agreed* that they are currently involved in SD activities at the university
  - 47.8% were *neutral*
  - 25.3% *disagreed* or *strongly disagreed*
- Engaged in SD in the community:
  - 19.4% *agreed* and 7.5% *strongly agreed*
  - 48.5% were *neutral*
  - 24.6% expressed *disagreement*

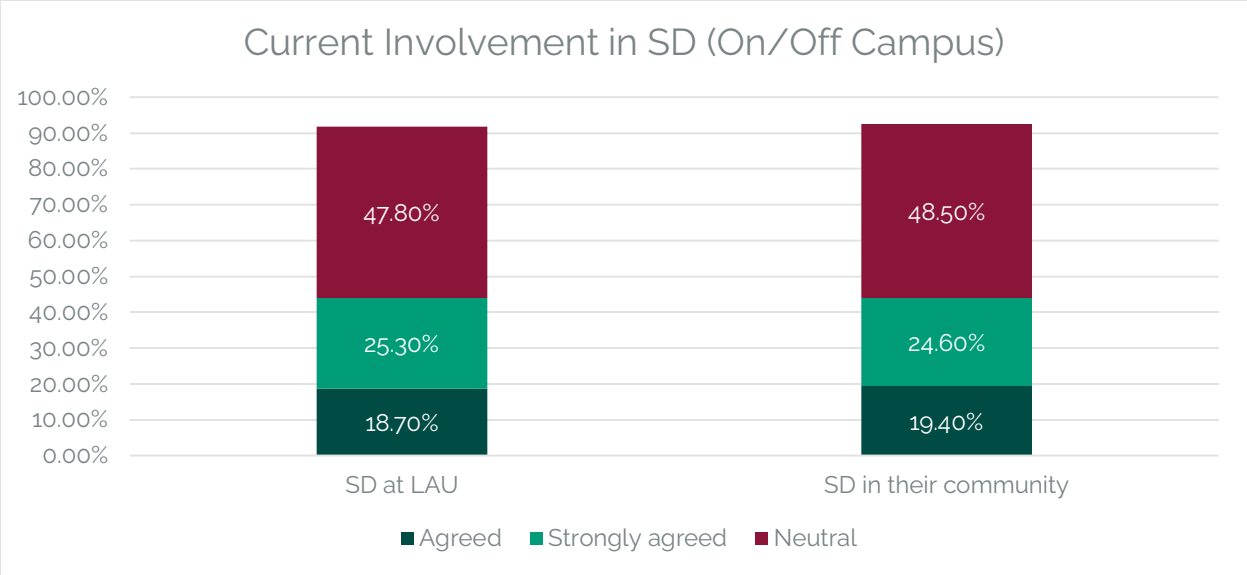


FIGURE 33: STUDENTS CURRENT INVOLVEMENT IN SD (ON/OFF CAMPUS)

These findings reveal a significant gap between willingness and actual involvement. While a large majority of students are interested in participating or leading SD initiatives, less than one-third are currently engaged, both on and off campus. This disconnect highlights the need for more structured and visible engagement opportunities, as well as targeted outreach to convert passive interest into active participation.

9.4. Obstacles to Deeper Engagement

Although no direct question asked students to identify barriers, indirect insights from the survey and the observed engagement gap point to several likely challenges:

a) *Limited Awareness of Opportunities:* Many students may not be aware of the existing SD clubs, events, or campaigns taking place at LAU or in their communities. The high level of neutrality in responses about current engagement supports this assumption.
b) *Lack of Time or Competing Priorities:* Students juggling intensive academic schedules, part-time work, or family obligations may find it difficult to commit time to extracurricular or volunteer sustainability efforts.
c) *Absence of Clear Entry Points:* Without structured and inclusive pathways such as volunteer programs, mentorship tracks, or project-based engagement, students may not know how to get involved or where to begin.
d) *Perception of Limited Impact:* Students may feel that small-scale or student-led initiatives lack visibility or long-term impact, making them hesitant to invest time and energy into efforts that don't feel institutionally supported.

Strategic Recommendations for Engagement

To overcome these obstacles and foster meaningful participation, LAU can implement the following strategies:

1) *Develop a Central SD Engagement Portal:* Create an online hub that lists all sustainability-related clubs, events, projects, and opportunities to volunteer, intern, or propose ideas.
2) *Launch a "Sustainability Fellows" or Ambassador Program:* Train and empower students to lead SD campaigns, conduct peer training, and represent their departments or dorms in campus-wide sustainability initiatives.
3) *Recognize and Reward Student Involvement:* Offer co-curricular transcripts, certificates, or awards for sustained involvement in SD projects, motivating students to engage and showcase their contributions.
4) *Connect Students to Community-Based Projects:* Partner with municipalities, NGOs, and businesses to involve students in real-world SDG implementation, giving them practical experience and civic exposure.
5) *Align SD Engagement with Academic Credit:* Link sustainability participation to capstone projects, internships, or service learning, allowing students to fulfill academic requirements through impactful SD work.

X- Future involvement

This section outlines students' interest in future involvement with sustainability activities at LAU, both in academic and extracurricular contexts. It also explores the potential roles of faculty and staff in enhancing the institutional ecosystem for sustainable development (SD). The findings are based on the responses to key questions in the survey and represent significant potential for future planning and action.

10.1. Interest in Participating in SD Activities

Students were asked whether they would be interested in participating in sustainability-related events, projects, or initiatives in the future.

- 38.1% *agreed*
- 31.3% *strongly agreed*
- Only 7.5% *disagreed*, with the rest being *neutral*

Thus, nearly 70% of students expressed a clear interest in becoming actively engaged in future SD activities at LAU. This includes areas such as:

- On-campus awareness campaigns (e.g., plastic reduction, energy saving)
- Community engagement (e.g., afforestation, clean-up events)
- Academic integration (e.g., sustainability hackathons, interdisciplinary research)

The enthusiasm signals that students are not just passive learners but eager participants who seek practical and purposeful experiences.

10.2. Interest in Student Leadership and Clubs

When asked about interest in taking leadership roles or joining SD-related clubs, students responded as follows:

- 35.1% *agreed*
- 25.4% *strongly agreed*
- 30.6% were *neutral*
- Only 8.9% *disagreed*

This means that 60.5% of respondents are ready to take on leadership responsibilities, which could involve founding or managing SD student clubs, organizing events, leading peer education, or liaising with administration on green projects. This result indicates a promising pipeline of student leaders who can act as sustainability ambassadors, bridging the gap between institutional initiatives and student communities.

10.3. Faculty-Specific Interest in Mentoring SD Initiatives

While the survey targeted students, some questions touched on institutional readiness, suggesting that faculty members are seen as essential enablers of sustainability culture at LAU.

Students reported that:

- Faculty integration of SD topics into coursework was infrequent or dependent on individual instructors
- Many students expressed a desire to be mentored or supervised by faculty on sustainability-related projects

This highlights a need for structured faculty involvement, where professors serve as:

- Research advisors on SD projects
- Supervisors for sustainability internships or capstones
- Mentors for student-led green initiatives
- Champions of course-based SD modules across disciplines

Encouraging faculty participation through recognition or incentives (e.g., research grants, service credits) could strengthen LAU's sustainability leadership.

10.4. Staff-Specific: Interest in Operations-Related SD Practices

Students were also asked whether they believed LAU staff and administrators should be more involved in implementing sustainability practices across campus operations (waste, energy, procurement, etc.).

- 40.3% *agreed*
- 28.4% *strongly agreed*
- Only 10.4% *disagreed*

This shows that 68.7% of students want operational SD practices to be more visible and participatory.

Suggested actions include:

- Greener cafeteria policies and food choices
- Campus-wide recycling programs with student-staff coordination
- Energy efficiency initiatives in buildings
- Greening of procurement and facilities

Integrating students with staff in living lab models (real-time sustainability trials on campus) could enhance cross-role engagement and institutional accountability.