MARKET SURVEY:

MASTER OF DESIGN IN SUSTAINABLE INNOVATION (by Coursework)

Faculty of Applied and Creative Arts, Universiti Malaysia Sarawak

This survey examines market needs in proposing a Master of Design in Sustainable Innovation coursework program at the Faculty of Applied and Creative Arts, Universiti Malaysia Sarawak (UNIMAS). The program aims to provide advanced studies in art, design, professional practice and management skills for professional designers in industry.

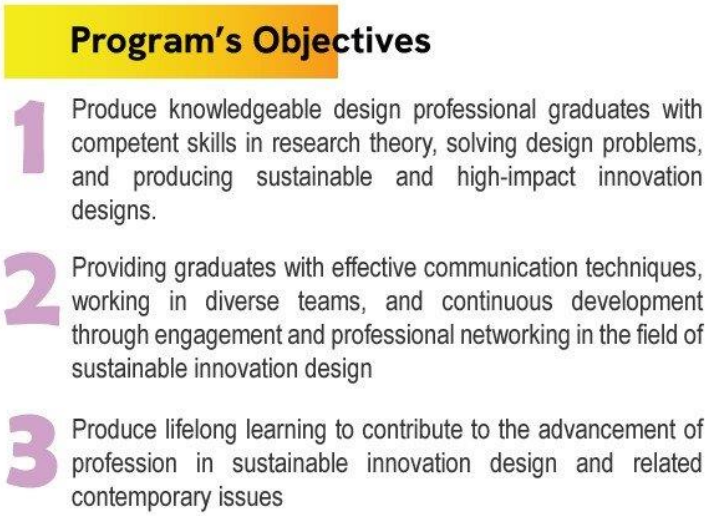
1. Your name
   *Enter Your Answer

2. Your email address
   *Enter Your Answer

3. Your nationality
   i. Malaysian
   ii. Non-Malaysian

4. State the type of your organization/ industry
   i. Private organizations/ industries in Malaysia
   ii. International private organizations/ industries
   iii. Government organizations in Malaysia
   iv. International government organizations

5. Does the proposed program meet the education and industry expectations in the field of design innovation and creativity?
   i. Fully compliant
   ii. Partially fulfilling
   iii. Not fulfilling



6. Does the OBJECTIVES of the offered program meet the needs of the field of design, innovation and creativity?
   i. Yes
   ii. No

Course Offered

Research Methodology In Design Innovation

The purpose of this course is to enhance critical thinking and problem-solving abilities within the realm of innovation design research. Participants will develop a research proposal encompassing key elements such as problem identification, goal establishment, conceptualization, ideation, methodology, implementation, and evaluation. In essence, students will gain an appreciation for the importance of research methods in synthesizing efforts and achieving innovative design outcomes.

Innovation Design Trends

The process of innovation design trends necessitates the designer's comprehension of practical aspects and market requirements to deliver a final product during the presentation. Alignment with the demands of the innovative design industry and consumer preferences in the specific product context is essential for the trends to be relevant.

Digital Technology in Design Innovation

The objective of this course is to furnish students with a thorough comprehension of the convergence of technology and design, empowering them with the requisite competencies and insights to excel in the contemporary, swiftly changing environment. It advocates for a practical approach, prompting students to investigate and test avant-garde technologies to facilitate the development of sustainable design innovations.

Sustainable Heritage-Based Design Innovation

The course is structured to familiarize students with methodologies for generating sustainable design innovations rooted in heritage. Participants will be immersed in relevant knowledge and encouraged to delve into cultural and heritage components as integral aspects of the sustainable design innovation process.

Fabrication Technology in Innovation Design

The objective of this course is to furnish students with a thorough comprehension of the convergence fabrication technology in design, empowering them with the requisite competencies and insights to excel in the contemporary, swiftly changing environment. It advocates for a practical approach, prompting students to investigate and test avant-garde fabrication technologies to facilitate the development of sustainable design innovations

Commercilization In Design innovation

This course imparts understanding regarding transformative cognitive approaches aimed at enhancing outcomes or efficiency gradually, through the creation of innovative designs poised to alter the equilibrium between market demand and production.

Graduate Seminar

This course familiarizes students with the administration of a graduate seminar, employing various software tools. Additionally, it instructs students in the methodical approach to academic writing for the preparation of articles intended for submission to academic conferences or journal publishers.

Master Project Report

This course is structured to equip students with the skills necessary to generate a comprehensive master's project report, encompassing both report writing and practical work components. Participants will engage with research fundamentals, techniques for report writing, digital production methods, and the synthesis of research outcomes. Leveraging insights gleaned from pertinent program courses, students will acquire the proficiency to produce high-quality master's project reports.

7. Does the detail of the COURSES OFFERED contribute to the strength of the program?
    i. Yes
    ii. No

Delivery Mode

Open Distance Learning (ODL) in Semester 1, and Conventional Face-to-Face Learning in Semester 2 & 3.

8. Does the DELIVERY MODE of the offered program meet the needs of the field of design, innovation, and creativity?
    i. Yes
    ii. No

Duration of The Program

i. Full-time study mode: 3 semesters (1 year)
ii. Part-time study mode: 4 to 6 semesters (2 to 3 years)

9. Does the DURATION of the offered program meet the needs of the field of design, innovation, and creativity?
    i. Yes
    ii. No

10. Does the program include courses that comprehensively address key competencies in design innovation and creativity?
    i. Yes
    ii. No

11. Based on the Question 10, if your answer is 'No', please indicate the course that needs to be added (separated by a semicolon)
    *Enter Your Answer

12. Does the offered program provide opportunities for graduates to build industrial networks and professional connections?
    i. Yes
    ii. No

13. Do you believe the graduates of this program would be well-prepared to join your organization and contribute effectively to the industry?
    i. Yes
    ii. No

14. Based on the Question 13, if your answer is 'Yes', please specify the fields or roles where you believe the graduates would be most suitable (separated by a semicolon)
    *Enter Your Answer

15. Does your organization provide sponsorship or financial support to students pursuing education or research in the field of design innovation and creativity?
    i. Yes
    ii. No

16. Would you encourage your staff to enroll in this program for professional development?
    i. Yes
    ii. No

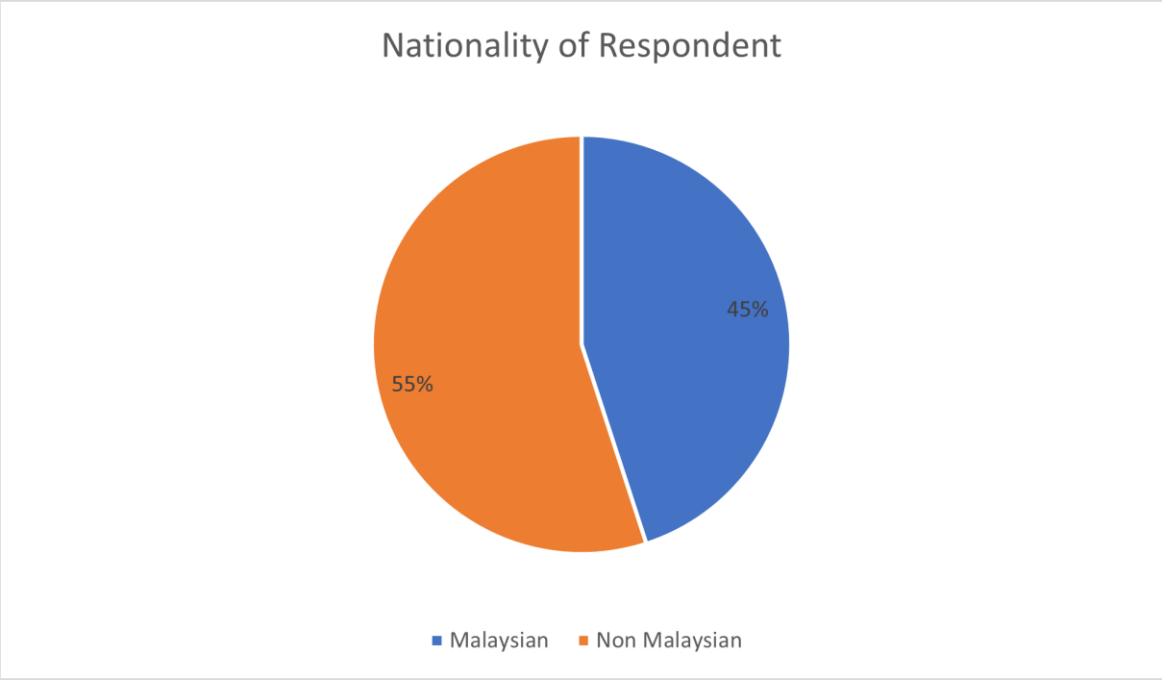
17. Based on the Question 16, if your answer is 'No', please specify the reason.
    *Enter Your Answer

18. In your opinion, does this program adequately prepare graduates with the skills and competencies required by both your organisation and the industry?
    i. Yes
    ii. No

19. Based on the Question 18, if your answer is 'Yes', please specify the reason.
    *Enter Your Answer

20. Based on the Question 20, if your answer is 'No', please specify the reason.
    *Enter Your Answer

Question 3.



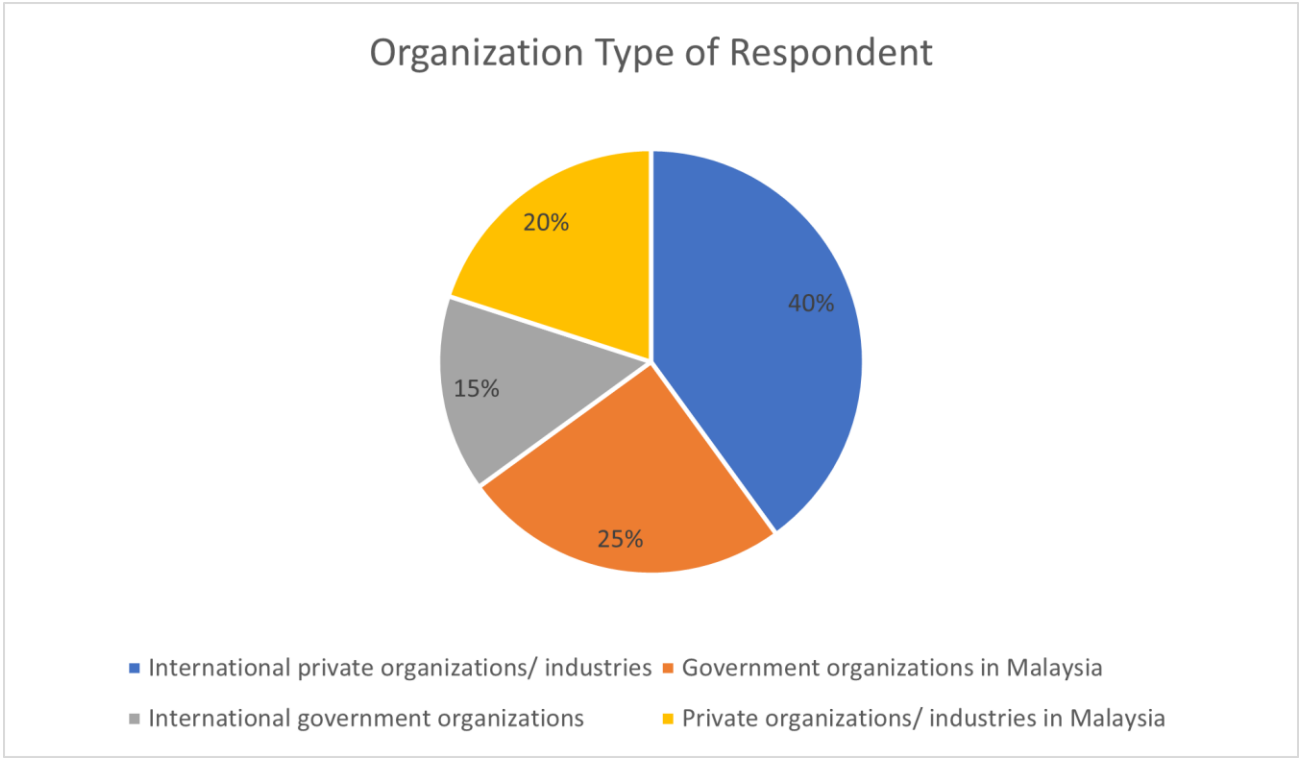
Total Respondents : 150

The survey reached a diverse group of 150 participants, showing a relatively balanced split between local and international perspectives.

- Total Respondents: 150
- Malaysian: 55% (82 respondents)
- Non-Malaysian: 45% (68 respondents)

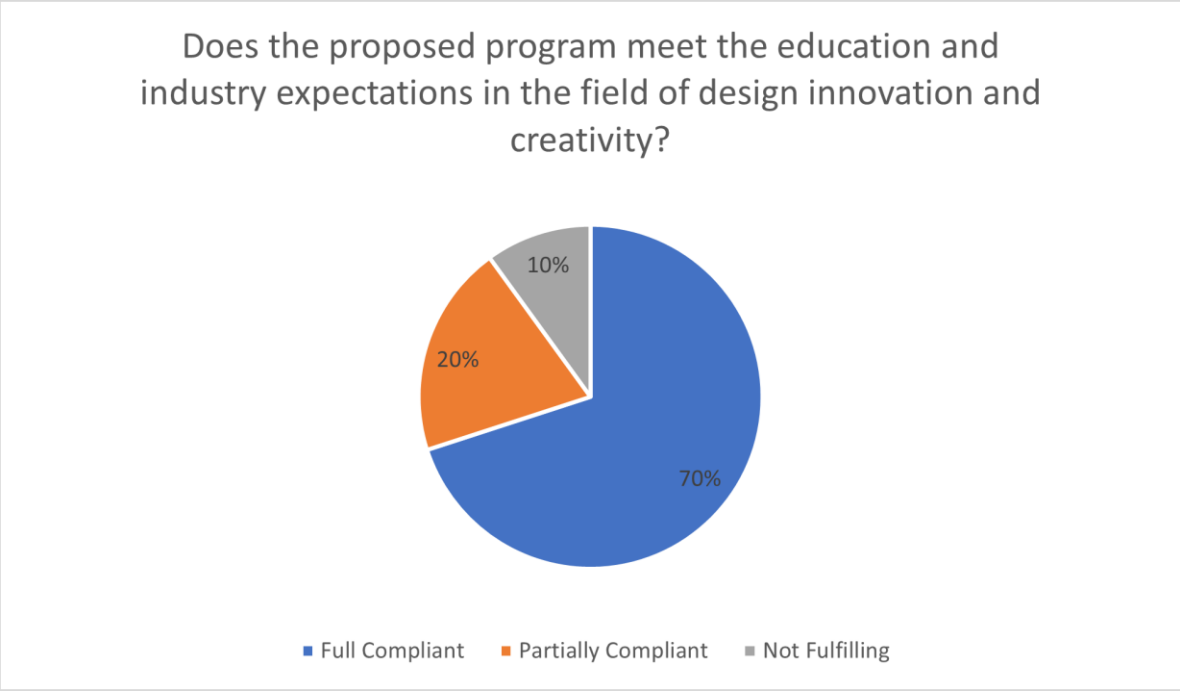
The data shows a slight majority of Malaysian respondents, but the significant presence of non-Malaysians (nearly half the sample) ensures the survey results reflect a broad, international viewpoint rather than a strictly localized one.

Question 4.



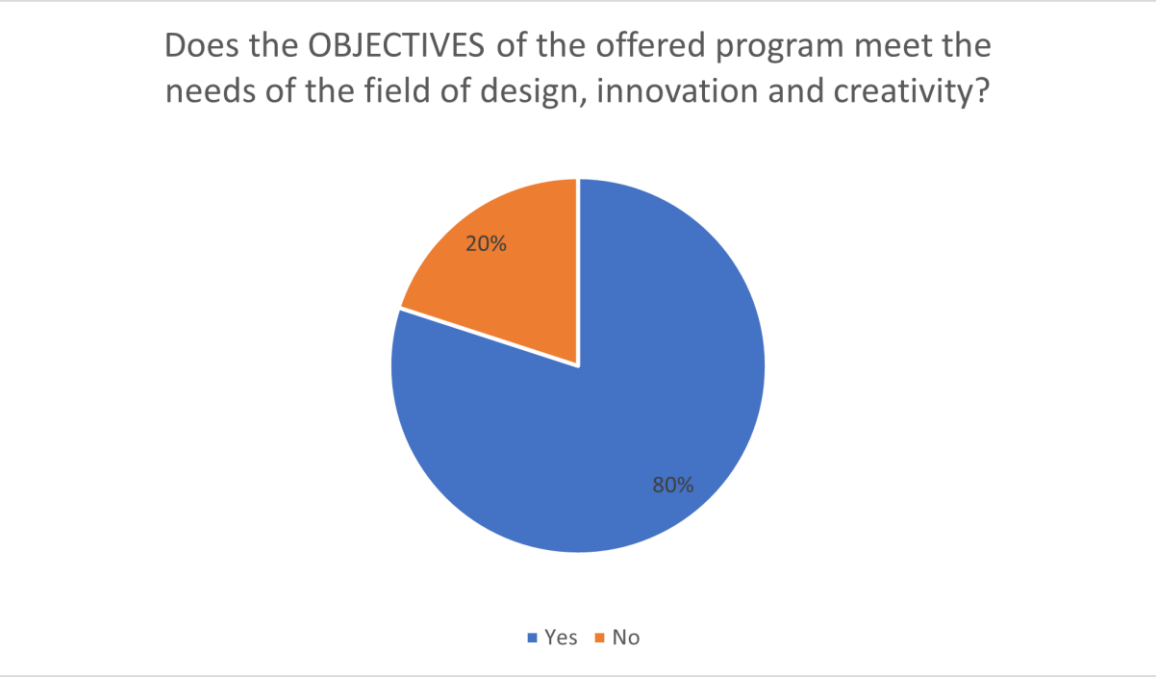
- **Private Sector Dominance:** Exactly 60% of respondents represent private industries, suggesting the survey findings is highly relevant to market-driven or commercial contexts.
- **Global Reach:** Over half of the participants (55%) belong to international organizations (both private and government), providing a global professional perspective.
- **Public vs. Private (Local):** Within Malaysia, there is a relatively even split, though participation from the public sector (25%) slightly edges out local private firms (20%).

Question 5.



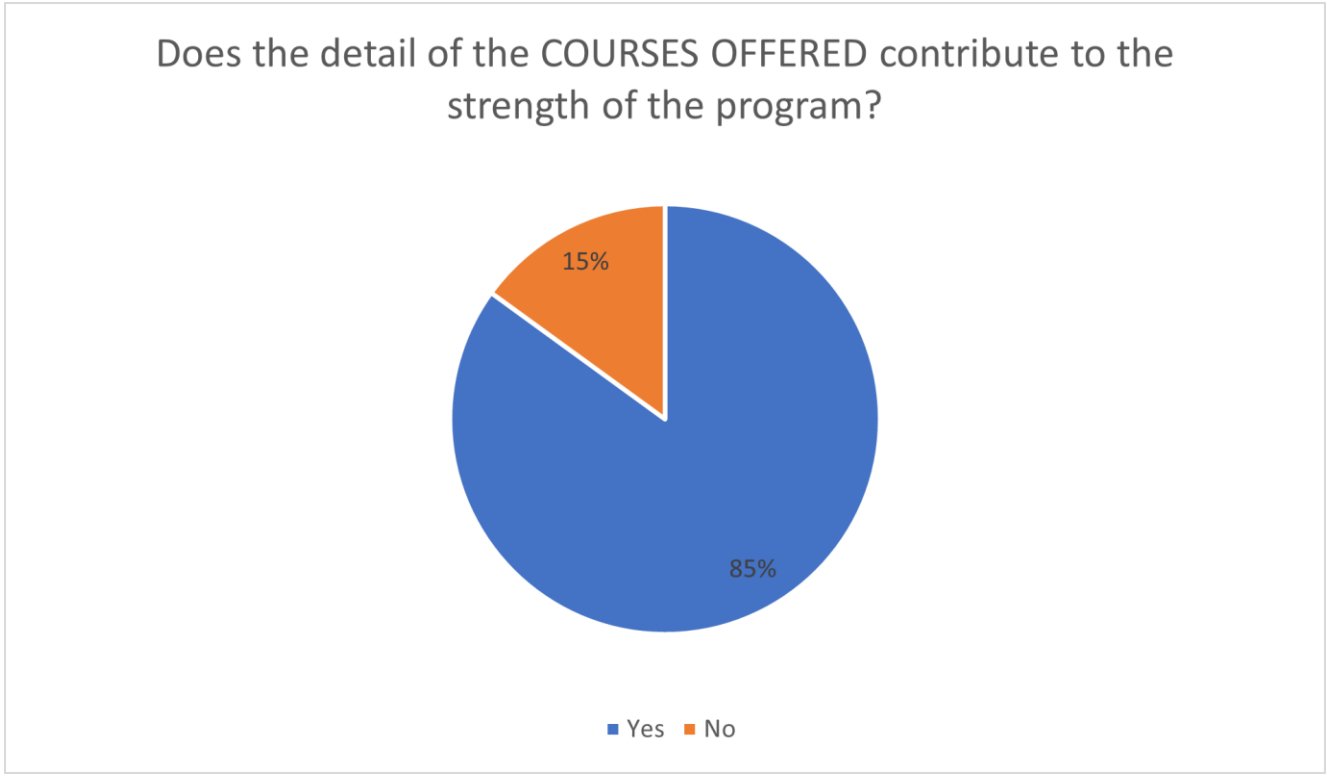
- **Strong Validation:** A significant 70% majority believes the program fully meets the high standards of both academia and the design industry.
- **Room for Refinement:** While only a small fraction (10%) felt the program missed the mark entirely, one in five respondents (20%) see it as "Partially Compliant." This suggests that while the foundation is solid, there may be specific modules or technical skills that could be adjusted to better bridge the gap between theory and practice.
- **Overall Consensus:** Combined, 90% of respondents acknowledge that the program meets expectations to some degree, indicating strong potential for successful implementation.

Question 6.



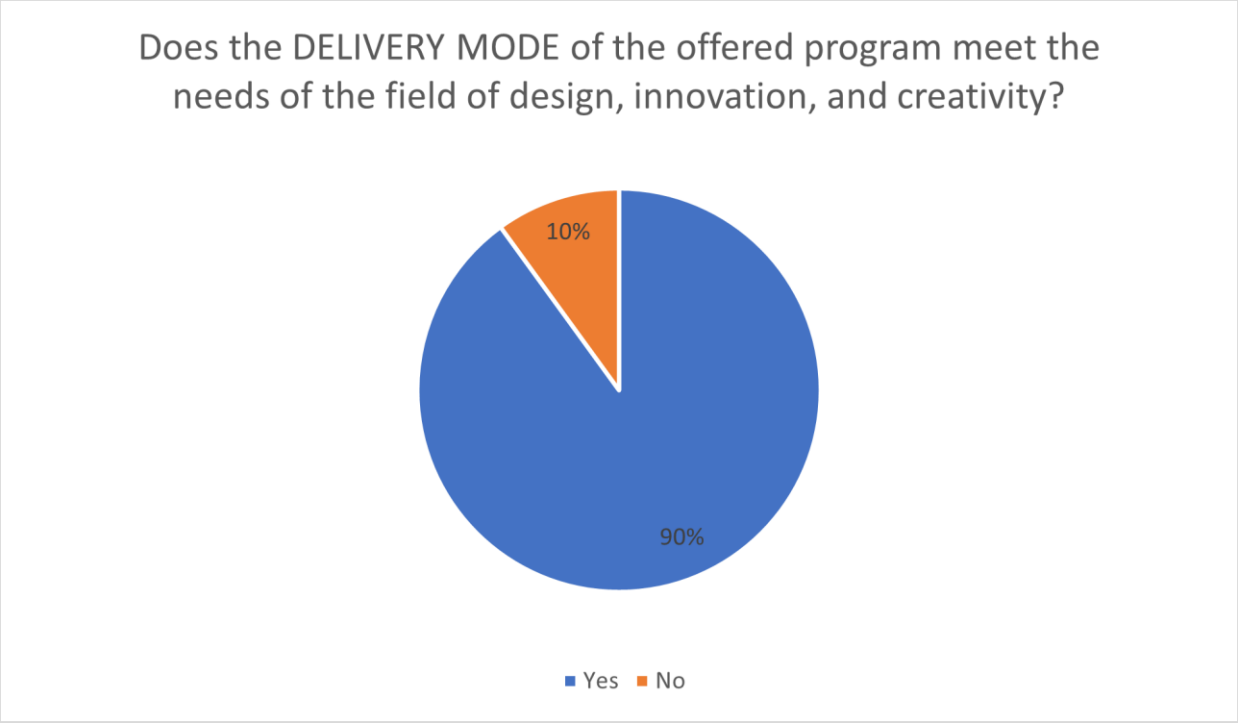
- **High Strategic Fit:** With 8 in 10 respondents agreeing that the objectives align with the field, the program's foundational goals are well-positioned to address current demands in design, innovation, and creativity.
- **Goal Clarity:** The 80% approval suggests that the intended learning outcomes and professional targets are clearly defined and resonate with industry professionals and educators alike.
- **Constructive Gap:** The 20% dissent is notable, while the majority is satisfied, a fifth of the respondents feel the objectives could be better tailored. This may point to a need to investigate if certain emerging trends or niche industry requirements are currently being overlooked in the program’s mission.

Question 7.



- **Curriculum Excellence:** An impressive 85% of respondents believe the details of the courses offered directly contribute to the program's strength. This suggests the specific subjects are highly relevant and well-crafted.
- **Practical Value:** This high level of endorsement indicates that the content of the program is seen as its primary asset, likely offering the specialized knowledge that industry and academia currently demand.
- **Focus on the Minority:** With only 15% disagreeing, the program has a very strong mandate to proceed with the current curriculum, though investigating that small margin could reveal minor areas for modernization or technical updates.

Question 8.



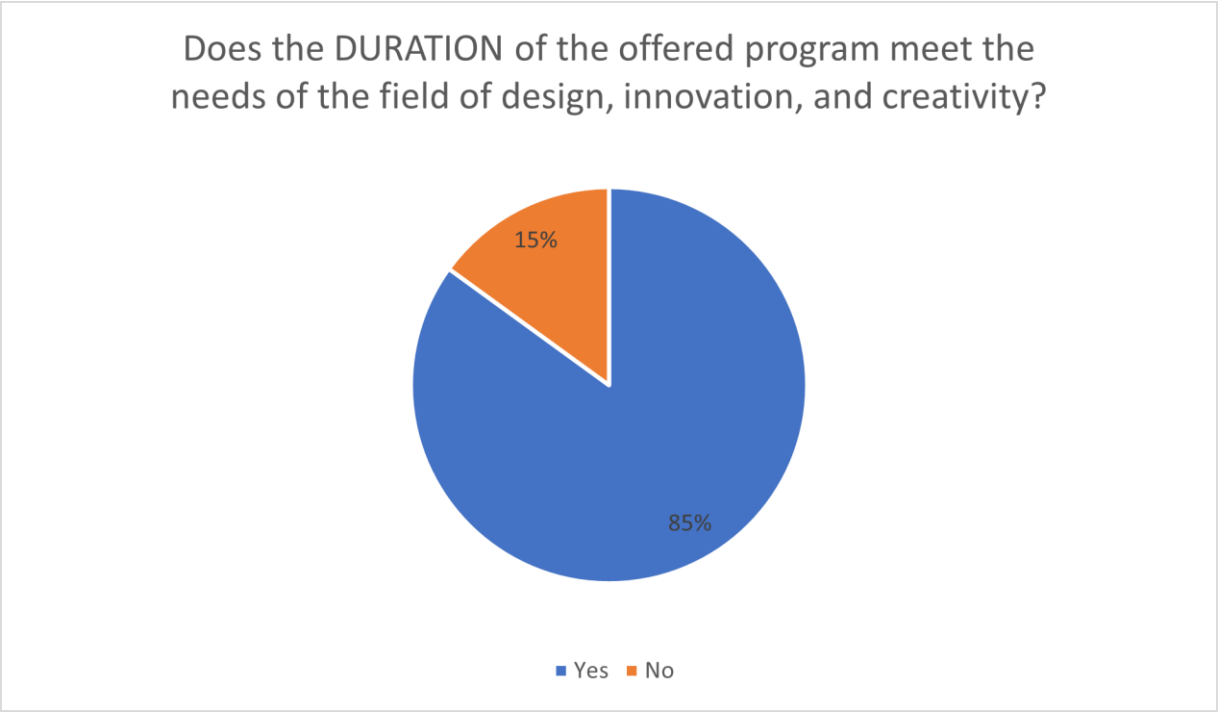
- **Optimal "Best of Both Worlds" Approach:** With a 90% approval rating, respondents clearly value the hybrid transition. Using ODL in the first semester allows for theoretical grounding and flexible "anywhere" learning, while the subsequent face-to-face semesters ensure that the hands-on, tactile nature of design and creativity is preserved.

- **Industry-Standard Flexibility:** The high "Yes" count reflects a modern professional reality where digital collaboration (ODL) is just as critical as physical studio work. This delivery mode prepares students for the hybrid working environments common in 2026.

- **Strategic Sequencing:** By placing ODL in Semester 1, the program likely helps international and non-local students (who make up 45% of the pool) transition more easily into the course before requiring physical relocation for the intensive practical work in Semesters 2 and 3.

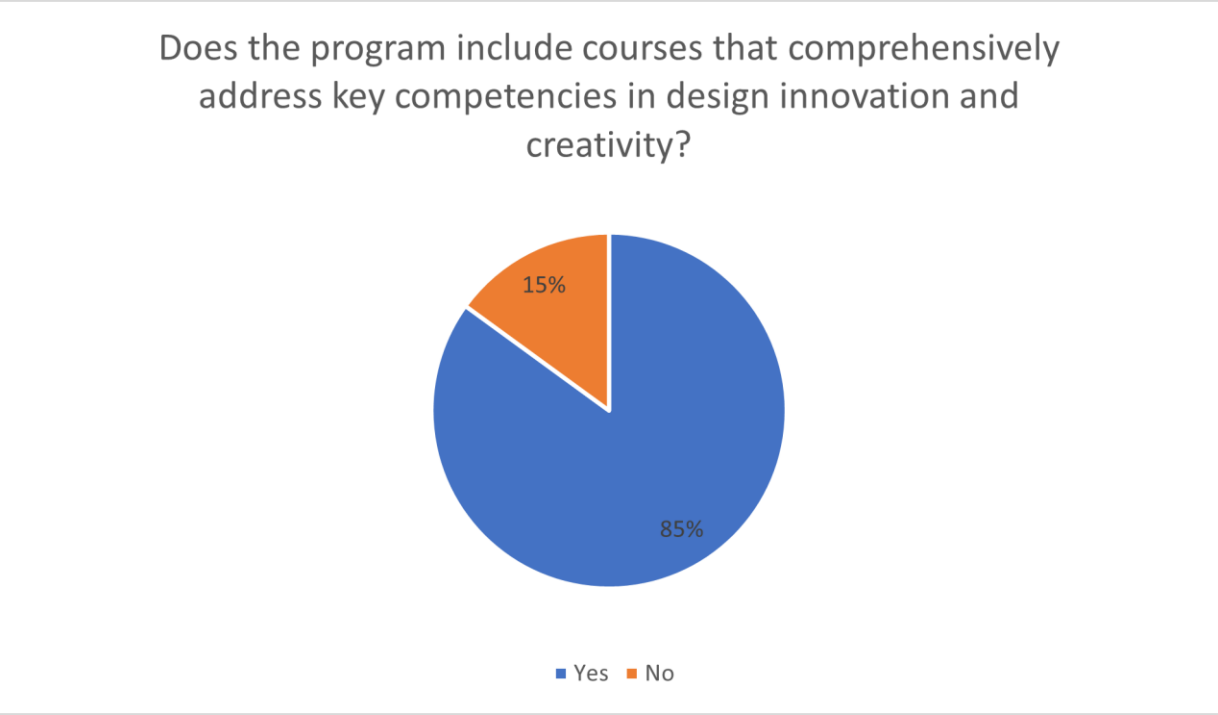
- **Minor Concerns:** The 10% who disagreed may prefer a fully immersive in-person experience from day one, particularly for a field as visual and collaborative as design innovation.

Question 9.



- **Efficiency and Agility:** An 85% approval rate suggests that the 1-year "fast-track" for full-time students is seen as a major advantage. In the rapidly evolving fields of innovation and design, respondents likely value a duration that allows graduates to enter the workforce quickly without sacrificing depth.
- **Flexible Accommodations:** The 2–3 year part-time window appears to adequately meet the needs of working professionals, providing enough breathing room for those balancing industry roles with advanced study.
- **Market Alignment:** The strong positive response confirms that the program length is competitive and realistic, matching contemporary global standards for intensive postgraduate or professional certifications.
- **The 15% Minority:** For the small group that disagreed, the concern may lie in whether a 3-semester year is too condensed for the creative "incubation" and complex project work required in high-level design innovation.

Question 10.



- **Comprehensive Skill Mapping:** With 85% agreement, the program is seen as successfully addressing the "Big Three" of 2026 creative requirements: technical digital literacy (AI and design tools), human-centered design thinking, and strategic leadership.
- **Future-Proofing:** The high approval suggests that the courses don't just teach aesthetics, but also focus on high-value competencies like adaptability, critical thinking, and storytelling (skills currently identified by global organizations as essential for 2026).
- **Professional Readiness:** Respondents likely feel that the program provides a "complete package," moving beyond theory to ensure graduates can frame complex problems and exercise the human judgment that AI cannot yet replicate.
- **The "No" Factor (15%):** Those who feel the competencies aren't fully addressed might be looking for even deeper integration of emerging niche areas, such as sustainability-driven innovation or advanced data-driven design analytics, which are becoming increasingly dominant in the global market.

Question 11.

Based on the Question 10, if your answer is 'No', please indicate the course that needs to be added (separated by a semicolon)

1. **User Experience (UX) Design**
2. **Advanced Prototyping Techniques**
3. **Interactive Design and Media**
4. **Design Thinking and Human-Centered Design**
5. **Strategic Design Management**
6. **Creative Problem Solving and Innovation**
7. **Ethical and Inclusive Design**
8. **Artificial Intelligence in Design**
9. **Design for Social Impact**
10. **Project Management for Creative Industries**
11. **Emerging Technologies in Design**
12. **Design for Augmented and Virtual Reality**
13. **Innovation in Materials and Textiles**
14. **Collaborative Design Practices**
15. **Cultural and Global Design Perspectives**
16. **Systems Thinking in Design**
17. **Service Design**
18. **Sustainable Design and Innovation**
19. **Design Entrepreneurship**
20. **Gamification in Design**
21. **Visual Communication and Branding**
22. **Data-Driven Design**
23. **Generative Design**
24. **Design Research Methods**
25. **Critical Design and Speculative Futures**
26. **Design for Accessibility and Inclusivity**
27. **Digital Fabrication and 3D Printing**
28. **Immersive Media Design**
29. **Advanced Animation Techniques**
30. **Sound Design and Auditory Interfaces**
31. **Biomimicry in Design**
32. **Wearable Technology Design**
33. **Design Leadership and Mentorship**
34. **Marketing and Communication for Designers**
35. **Design and Business Strategy**
36. **Product Lifecycle and Sustainability**
37. **Design for E-commerce**
38. **Behavioral Design**
39. **Design Ethics and Philosophy**
40. **Design for Healthcare and Wellbeing**
41. **Smart Product Design**
42. **Design for the Circular Economy**
43. **Visualization Techniques**

While the majority (85%) approved the proposed courses, the remaining respondents identified a need for more specialized, future-forward modules. These can be grouped as follows:

1. **Emerging Technology & Digital Innovation:** This is the most requested area, focusing on the "Industry 4.0" tools of 2026.
- Key Subjects: Artificial Intelligence in Design (#8), Generative Design (#23), Data-Driven Design (#22), and Smart Product Design (#41).
- Immersive Media: AR/VR (#12), Immersive Media Design (#28), and Gamification (#20).

2. **Strategic Management & Entrepreneurship:** Respondents want designers who understand the bottom line and can lead teams.
- Key Subjects: Design Entrepreneurship (#19), Design Leadership & Mentorship (#33), Design and Business Strategy (#35), and Strategic Design Management (#5).
- Operations: Project Management for Creative Industries (#10) and Marketing/Communication (#34).

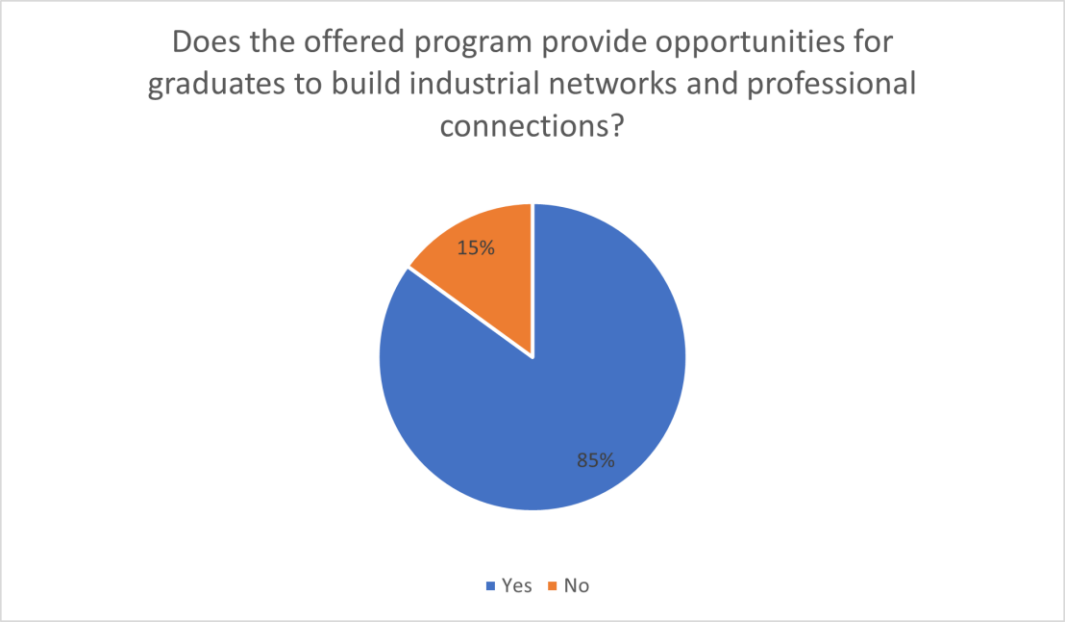
3. **Sustainability & Ethical Responsibility:** A strong call for "Design for Good" and environmental stewardship.
- Key Subjects: Sustainable Design & Innovation (#18), Design for the Circular Economy (#42), Design for Social Impact (#9), and Biomimicry (#31).
- Inclusivity: Ethical and Inclusive Design (#7) and Design for Accessibility (#26).

4. **Advanced User Experience (UX) & Service Systems:** Moving beyond aesthetics to how people interact with services and systems.
- Key Subjects: User Experience (UX) Design (#1), Service Design (#17), Systems Thinking (#16), and Behavioral Design (#38).
- Health: Design for Healthcare and Wellbeing (#40).

5. **Technical Craft & Prototyping:** Focusing on the physical and digital execution of ideas.
- Key Subjects: Advanced Prototyping (#2), Digital Fabrication/3D Printing (#27), Innovation in Materials & Textiles (#13), and Sound Design (#30).

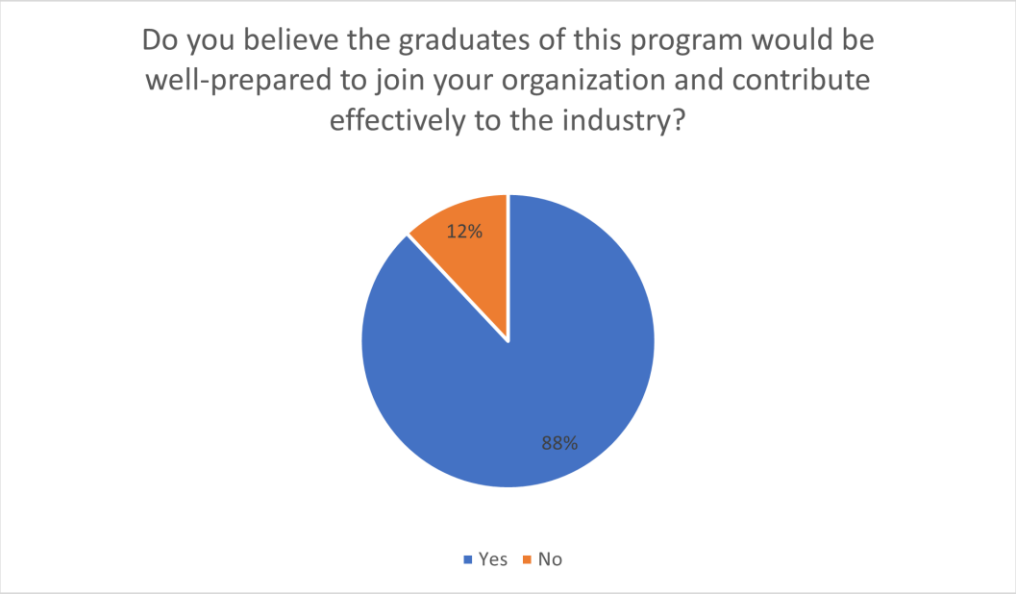
6. **Critical Thinking & Research:** Ensuring the program has academic and philosophical depth.
- Key Subjects: Design Research Methods (#24), Critical Design & Speculative Futures (#25), and Design Ethics & Philosophy (#39).

Question 12.



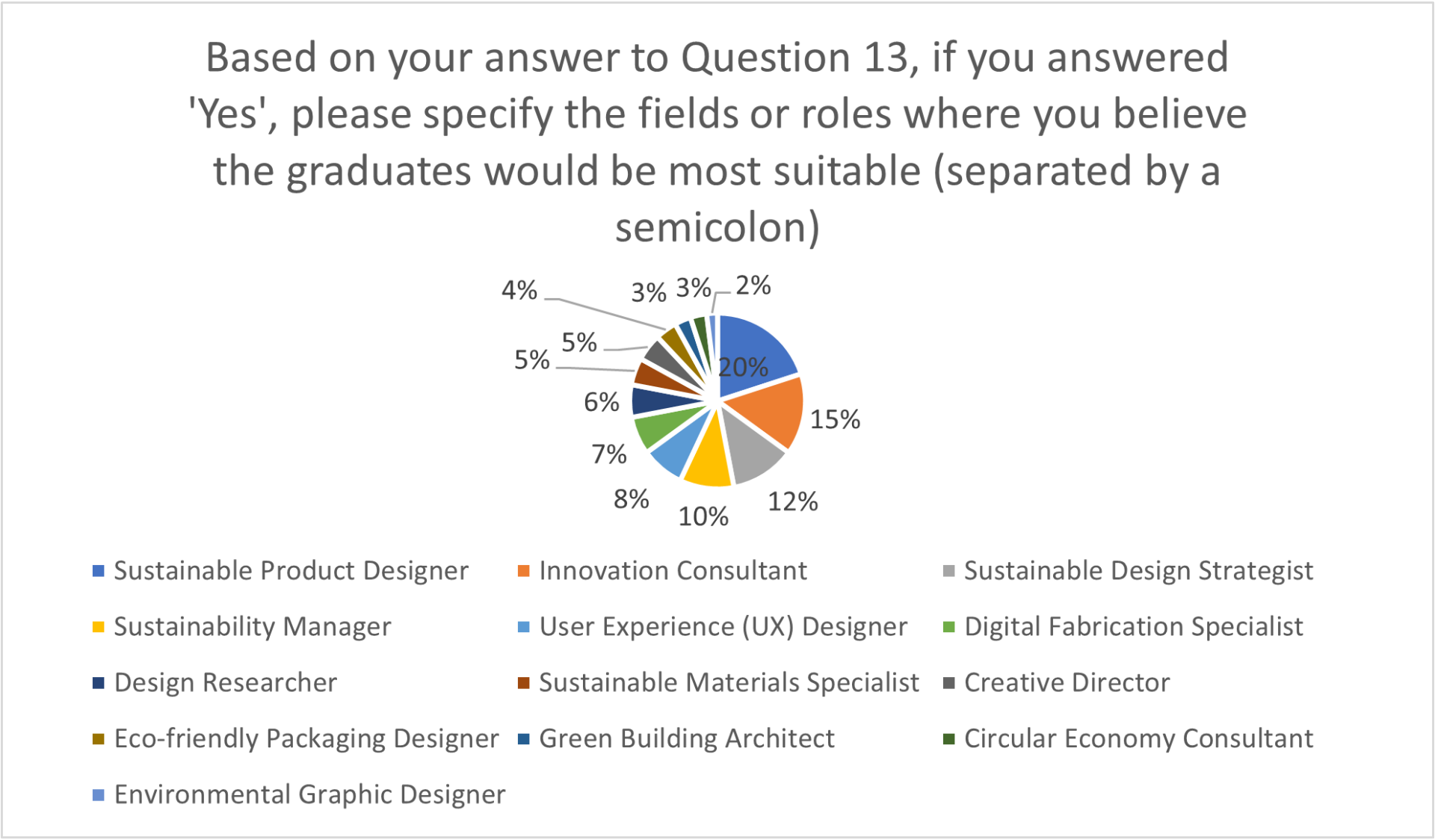
- **High Industry Integration:** With 85% approval, the program is seen as a valuable networking hub. This suggests that the inclusion of industry-led projects, guest lectures, or the hybrid delivery mode is successfully facilitating professional relationships.
- **Strategic Advantage for Non-Malaysians:** Given that 45% of the respondents are non-Malaysian, this high rating is particularly significant. It implies the program provides a gateway for international students to enter local and regional design networks.
- **The "Industry-Ready" Label:** The strong consensus confirms that the program is not viewed as an isolated academic exercise, but as a practical ecosystem where graduates can secure the connections necessary for employment or collaborative ventures.
- **Room for "Active" Networking:** The 15% who responded "No" might be looking for more formalized networking structures, such as mandatory internships, structured mentorship programs with the 40% of international private organizations represented in the survey, or dedicated career placement services.

Question 13.



- **High Employability Index:** An 88% "Yes" rate is a powerful endorsement. It indicates that the vast majority of respondents who are largely from international private industries and government bodies would personally consider hiring these graduates.
- **Immediate Value Add:** The response suggests that the program's mix of design innovation, creativity, and the hybrid delivery mode equips students with a skill set that is immediately "billable" or useful to an organization without requiring extensive retraining.
- **Alignment with Global Standards:** Since 55% of the respondents are from international organizations, this high percentage confirms that the program's output meets global professional standards, not just local ones.
- **The 12% Gap**: The small margin of "No" responses (12%) likely links back to the earlier list of 43 suggested courses. These employers may be looking for very specific technical niches (like AI, Circular Economy, or AR/VR) before they feel a graduate is a "perfect" fit for their specific team.

Question 14.


Based on your answer to Question 13, if you answered 'Yes', please specify the fields or roles where you believe the graduates would be most suitable (separated by a semicolon)
20%
15%
12%
10%
8%
7%
6%
5%
5%
4%
3%
3%
2%
Sustainable Product Designer
Innovation Consultant
Sustainable Design Strategist
Sustainability Manager
User Experience (UX) Designer
Digital Fabrication Specialist
Design Researcher
Sustainable Materials Specialist
Creative Director
Eco-friendly Packaging Designer
Green Building Architect
Circular Economy Consultant
Environmental Graphic Designer

Question 14. (Continue)

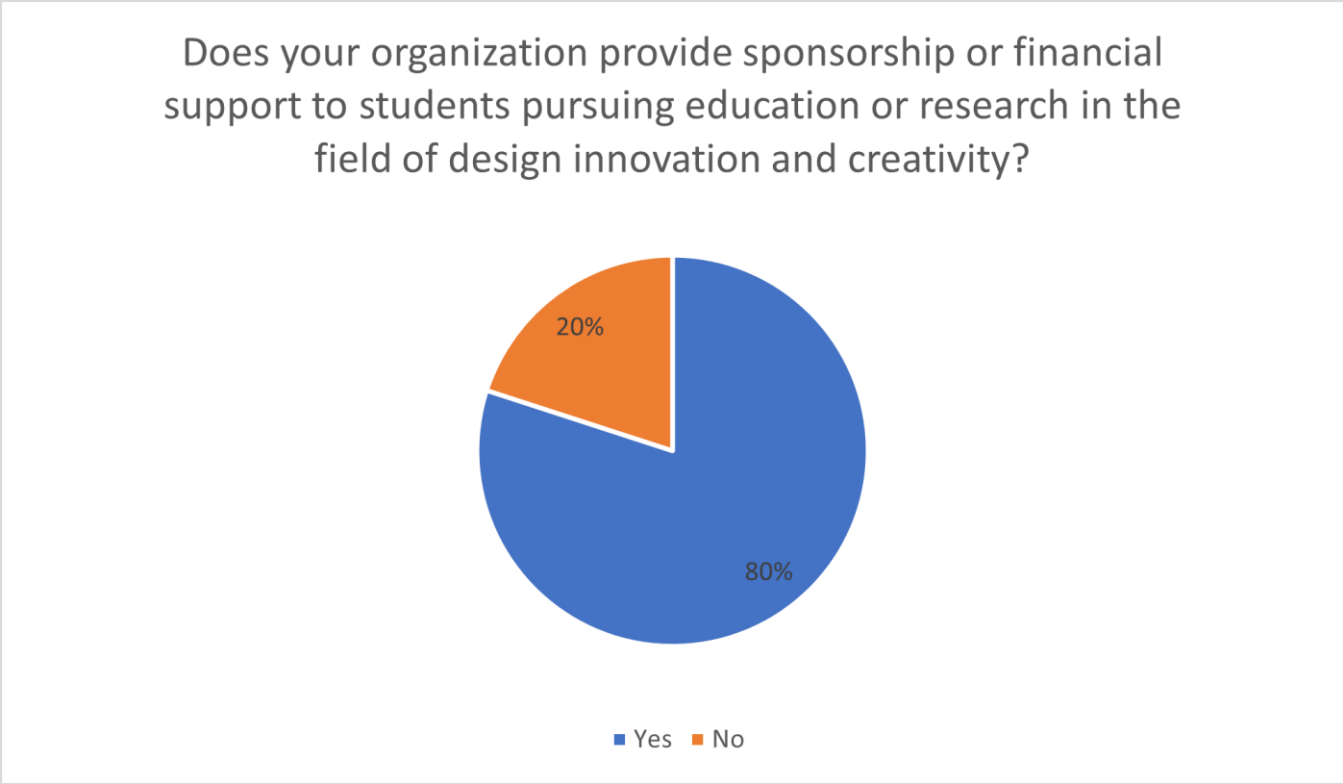
- **Sustainability is the Leading Priority:** Collectively, over 50% of the suggested roles (Sustainable Product Designer, Strategist, Manager, Material Specialist, etc.) focus on green and circular economy initiatives. This suggests the industry views this program as a primary pipeline for environmental innovation.

- **High-Level Strategic Influence:** With 15% identifying Innovation Consultant as a top role, the program is seen as producing "thinkers" and "problem solvers" rather than just technical executors.

- **Technical vs. Creative Balance:** There is a healthy mix of tech-heavy roles like Digital Fabrication (7%) and UX Design (8%) alongside traditional leadership roles like Creative Director (5%).

- **Niche Specialization:** The inclusion of specific roles like Circular Economy Consultant and Eco-friendly Packaging Designer indicates that the program has the potential to fill specialized gaps in the current job market that traditional design degrees might miss.

Question 15.



- **Strong Institutional Backing:** An overwhelming 80% of organizations surveyed have mechanisms in place to provide sponsorship or financial support. This is a critical finding for student recruitment and program sustainability.
- **Corporate-Academic Synergy:** Since 60% of the respondents come from the private sector (both local and international), this high percentage suggests that companies are willing to invest in talent development within the "Design Innovation" niche to stay competitive.
- **Research Potential:** The availability of support for research indicates that the program could foster high-level industry-university collaborations, leading to R&D projects, white papers, or patented innovations.
- **Accessibility and Inclusion**: For the 45% of international respondents and local students alike, this high level of available support significantly lowers the barrier to entry, making the program highly attractive in a competitive educational market.

Question 16.

- **Strong Employer Endorsement:** With 85% of leaders willing to encourage their own staff to enroll, the program carries a strong "seal of approval." It suggests the curriculum is practical enough to provide immediate value to existing organizational workflows.
- **Growth Potential:** This high percentage indicates a significant opportunity for corporate partnerships. The program could potentially market itself directly to the 60% of private organizations identified earlier as a preferred provider for talent development.
- **Validation of the Hybrid Model:** The willingness to enroll staff likely stems from the 90% approval of the Delivery Mode. Employers likely appreciate the Semester 1 ODL (Online Distance Learning) format, as it allows staff to begin their studies without immediately taking a full leave of absence from their roles.
- **Continuous Innovation:** For the 15% who said "No," the reason may be the same as identified in the curriculum gap analysis. They might be waiting for the inclusion of those 43 specialized subjects (like AI or Design Leadership) before they see it as a "must-have" for their senior personnel.

Question 17.

Based on the Question 16, if your answer is 'No', please specify the reason.

1. Lack of program accreditation
2. High tuition costs
3. Limited relevance to current industry needs
4. Insufficient hands-on experience
5. Lack of alignment with company goals
6. Insufficient faculty expertise
7. Poor program reputation
8. Limited networking opportunities
9. Lack of online learning options
10. Inadequate course flexibility
11. High time commitment
12. Lack of real-world application
13. Limited course diversity
14. Inadequate student support services
15. Poor job placement rates
16. Lack of industry partnerships
17. Limited career advancement opportunities
18. Insufficient focus on practical skills
19. Lack of innovative teaching methods
20. Poor student satisfaction ratings
21. Limited access to resources
22. Inadequate internship opportunities
23. Lack of international recognition
24. Limited specialization options
25. Insufficient technology integration
26. High cost of living in the program's location
27. Lack of cultural inclusivity
28. Inadequate research opportunities
29. Limited collaboration with industry experts
30. Poor alumni network
31. Insufficient emphasis on sustainability
32. Lack of support for part-time students
33. Limited scholarship opportunities
34. Inadequate class sizes
35. Lack of focus on emerging trends
36. Poor campus facilities
37. Insufficient industry-relevant projects
38. Limited exposure to global perspectives
39. Inadequate mentorship programs
40. Poor student-to-faculty ratio
41. Limited access to industry tools and software
42. Lack of interdisciplinary courses
43. Inadequate support for working professionals

While the majority (85%) supports the program, the "No" responses highlight specific risks that could hinder corporate partnerships and professional enrollment.

1**. Structural & Institutional Risks:** These are foundational concerns that affect the program's perceived value.
•Key Concerns: Lack of program accreditation (#1), poor program reputation (#7), and a lack of international recognition (#23).
•Outcome Concerns: Poor job placement rates (#15) and limited career advancement opportunities (#17).

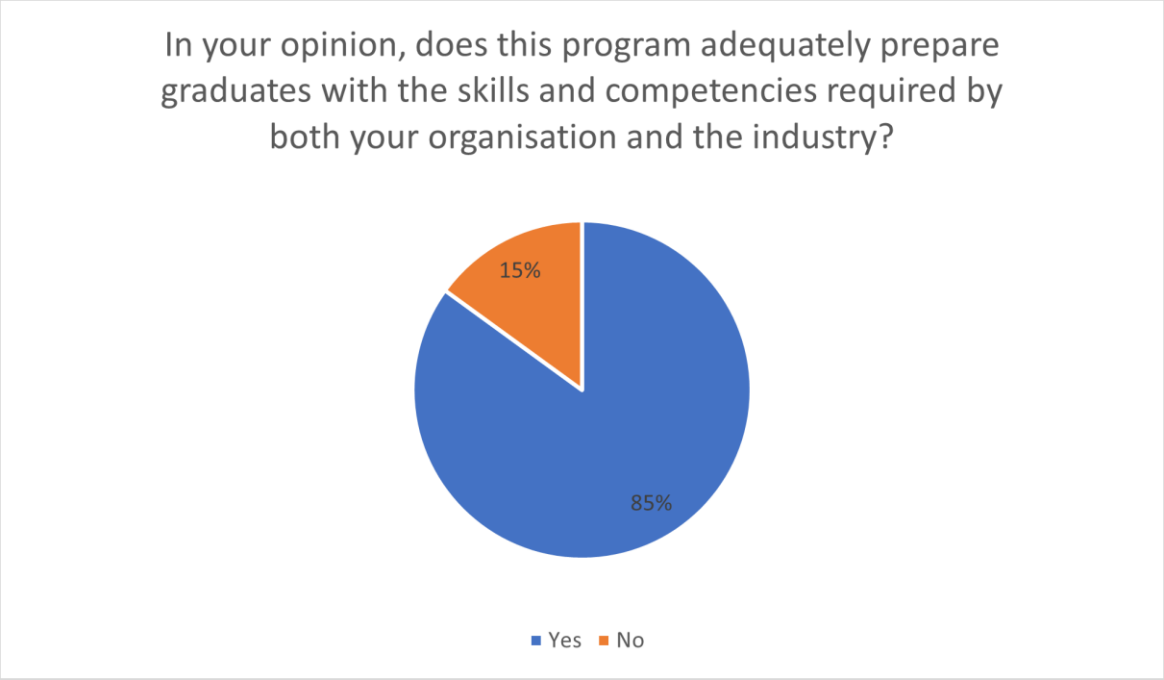
2. **Practicality & Industry Integration:** Employers are worried the program might be too theoretical.
•Key Concerns: Insufficient hands-on experience (#4), lack of real-world application (#12), and insufficient industry-relevant projects (#37).
•Partnerships: Lack of industry partnerships (#16) and limited collaboration with industry experts (#29).

3. Resource & Technical Gaps: The industry expects high-end tools and expertise in 2026.
•Key Concerns: Limited access to industry tools/software (#41), insufficient technology integration (#25), and inadequate research opportunities (#28).
•Expertise: Insufficient faculty expertise (#6) and a lack of focus on emerging trends (#35).

4. Flexibility for Working Professionals: Given the target audience, the "logistics" of study are a major hurdle.
•Key Concerns: High time commitment (#11), inadequate support for working professionals (#43), and lack of support for part-time students (#32).
•Flexibility: Inadequate course flexibility (#10) and limited specialization options (#24).

5. Cost & ROI (Return on Investment): The value must outweigh the investment.
•Key Concerns: High tuition costs (#2), high cost of living in the program's location (#26), and limited scholarship opportunities (#33).

Question 18.



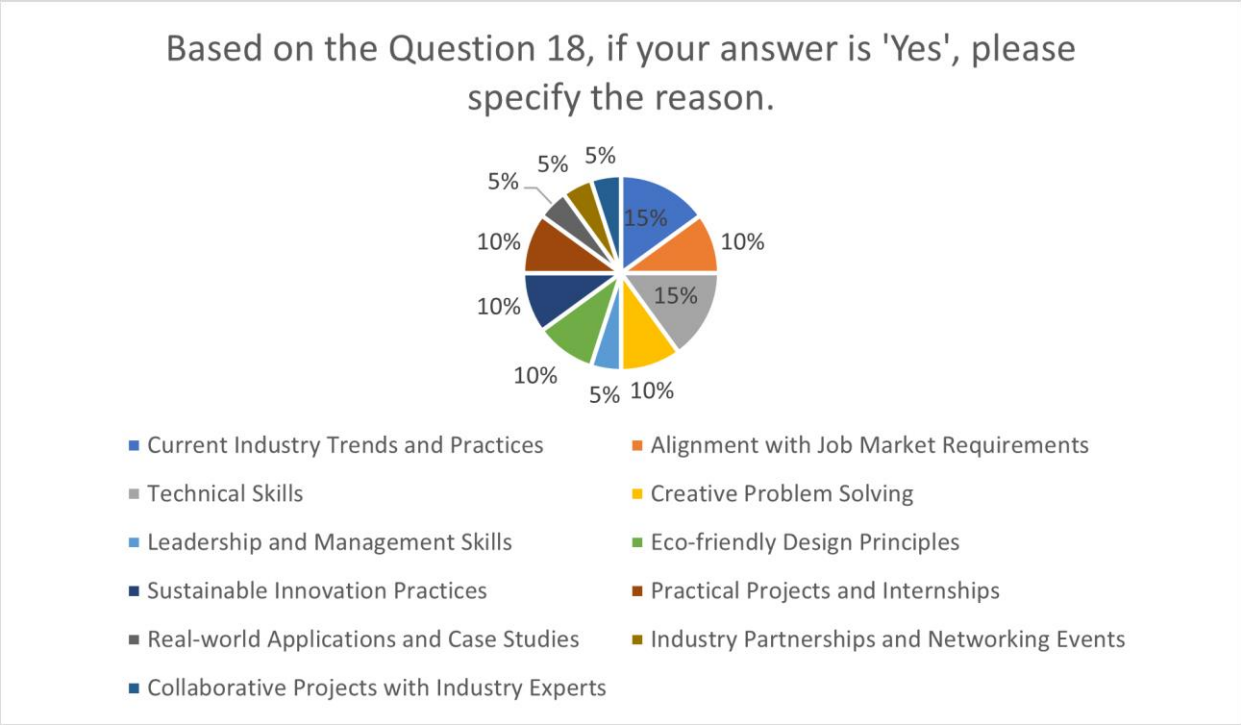
- **Strong Professional Alignment:** An 85% approval rating indicates that the program's learning outcomes are not just academic but are "industry-synced." This suggests that graduates will possess the practical problem-solving and creative skill sets required to hit the ground running in 2026's fast-paced design landscape.

- **Organizational Confidence:** Because this question specifically asks about the organization, the high "Yes" count confirms that the program produces the specific types of talent that the 150 surveyed leaders are currently looking to hire.

- **Consistent Performance:** Across almost all the survey metrics, the 85% "Yes" threshold has remained steady. This consistency strengthens the validity of the data, showing a clear consensus among both Malaysian (55%) and International (45%) respondents.

- **Addressing the 15% Gap:** The small group that responded "No" likely refers back to the previously identified 43 suggested courses (like AI, Circular Economy, and AR/VR) or the 43 barriers to enrollment (like accreditation and technical tool access). This confirms that for a small portion of the industry, "adequacy" requires these highly specialized or technical additions.

Question 19.



For the 85% of respondents who believe the program adequately prepares graduates, their reasoning highlights a strong balance between technical mastery and strategic sustainability.

Primary Strengths (The 15% Leaders)
• Current Industry Trends & Practices (15%): Respondents value that the curriculum isn't "stuck in the past." It reflects the fast-moving nature of design in 2026.
• Technical Skills (15%): Despite being a creative program, its emphasis on hard technical competencies is a major draw for employers.

Secondary Pillars (The 10% Clusters)
• Market & Practicality (30% total): A combined 30% of respondents point to Alignment with Job Market Requirements, Practical Projects/Internships, and Creative Problem Solving. This confirms the program produces "doers" who can solve real business challenges.
• The Green Advantage (20% total): Sustainable Innovation Practices and Eco-friendly Design Principles are cited as core reasons for the program's adequacy, matching the high demand for "Sustainable Product Designers" identified earlier.

Strategic Enrichment (The 5% Contributors)
•External Integration: Collaborative Projects, Industry Partnerships, and Real-world Case Studies provide the necessary "polish" that transforms a student into a professional.
• Leadership: A small but significant portion (5%) specifically highlights Leadership and Management Skills, marking the program as a breeding ground for future Creative Directors and Innovation Managers.

Question 20.

The 15% of respondents who feel the program is inadequate point toward a perceived gap between academic theory and high-stakes industry reality.

1. The "Experience Gap" (35% of the "No" Group): This is the single largest concern. Respondents feel the program may be too theoretical.
• Key Critiques: Insufficient hands-on experience (15%), Lack of real-world applications (10%), and Lack of industry-experienced instructors (10%).
• Takeaway: There is a demand for "practitioner-led" education rather than purely "academic-led" delivery.

2. The "Content Gap" (35% of the "No" Group): A significant portion of the dissenters feel the curriculum might be falling behind the 2026 curve.
• Key Critiques: Irrelevant course content (15%), Outdated curriculum (10%), and Inadequate coverage of current industry practices (5%), along with Lack of focus on new technologies (5%).
• Takeaway: This likely links back to the earlier list of 43 requested courses (AI, AR/VR, etc.). The industry expects the very latest tech and trends to be integrated.

3. The "Network & Mentorship Gap" (25% of the "No" Group): For some, the value of a program isn't just the content, but the "who you know.“
• Key Critiques: Limited networking opportunities (10%), Insufficient mentorship and guidance (10%), and Lack of industry partnerships (5%).
• Takeaway: Adding a formalized mentorship layer where students are paired with the 60% of private-sector respondents could solve this.