

## A Decade of SDGs in Indonesia: The Reality in Higher Education Settings

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### Abstract

This study evaluates university students' understanding and awareness of the Sustainable Development Goals (SDGs). Given the importance of SDGs in the context of sustainable development, this research is relevant for understanding how the younger generation engages with these global objectives. The methodology used was a quantitative survey involving 100 student respondents, with questions covering levels of understanding, sources of information, and perceptions of SDG education. The findings show that only 23% of respondents are familiar with the SDGs, while their understanding of specific goals remains low. Most students consider SDG education essential but feel that the university has not sufficiently incorporated this topic into its teaching. Based on these findings, it is concluded that there is an urgent need to enhance SDG outreach and education among students through various initiatives, such as curriculum integration and informational campaigns. This study suggests that understanding SDGs could help students contribute more actively to achieving global sustainability goals.

**Keywords:** sustainable development goals, students, understanding, education, sustainability

### 1. Introduction

Sustainable Development Goals (SDGs) are a set of global priorities established by the United Nations (UN) to be achieved by 2030. They focus on critical issues such as poverty, inequality, and climate change. There are 17 interconnected goals to create a better and more sustainable world for all [1]. Higher education plays a pivotal role in achieving these goals, as students, as the next generation, are expected to become change agents and contribute to the realization of the SDGs both locally and globally [2], [3].

Despite this robust framework, significant challenges remain in the implementation of SDGs in Indonesia, particularly among university students. Many Indonesian universities have not fully integrated SDG-related issues into their curricula, often limiting it to introductory courses or not addressing it at all. Consequently, students may lack a sufficient understanding of their roles in achieving these goals [4], [5]. Previous studies indicate that a lack of comprehension regarding SDGs among students can hinder their active participation in these efforts [6].

Moreover, external factors also affect students' awareness of the SDGs. In Indonesia, available information often focuses solely on the "SDGs Desa" initiative, a government effort to address poverty and rural development, leaving many students unaware of the full spectrum of the 17 goals outlined by the UN [7]. This situation highlights the need for further research to understand how students perceive the SDGs and how this perception contributes to the local implementation of these goals.

Consequently, this study aims to explore the perceptions of university students in Central Java regarding the SDGs. The primary questions addressed are how students perceive the SDGs and why these

goals are essential for students in the context of education and social responsibility. Understanding students' perceptions will aid in formulating strategies to enhance their awareness and comprehension of the SDGs and their roles in achieving these objectives [8].

This research is expected to contribute to the existing literature on higher education and the SDGs, providing practical recommendations for universities and the government to improve the integration of SDGs into education [9]. By understanding the factors influencing students' perceptions, more effective efforts can be made to encourage their active participation in achieving the SDGs [10]. By that importance, this study seeks to illuminate the significance of SDGs in higher education and promote a culture of sustainability among Indonesian university students, reinforcing their potential as catalysts for positive change [3], [11].

## **2. Method**

This research adopts a mixed-method approach, combining quantitative and qualitative methodologies to gain a comprehensive understanding of university students' perceptions of the Sustainable Development Goals (SDGs). This approach is widely regarded as effective in capturing complex social phenomena, allowing for a more nuanced interpretation of data by integrating both numerical and descriptive insights [12].

## **3. Research Design**

The study utilizes a survey-based research design, complemented by in-depth interviews. The quantitative component involves the distribution of a questionnaire via Google Forms to university students in Central Java, Indonesia. The qualitative component consists of semi-structured interviews with a subset of students, selected based on their survey responses. This mixed-method approach allows for triangulation, which enhances the validity of the findings by cross-verifying data from different sources [13], [14]. The study population consists of undergraduate students from various universities across Central Java. A purposive sampling technique was used to ensure diversity in terms of gender, academic discipline, and year of study. According to Creswell (2007), purposive sampling is effective when the research aims to focus on specific characteristics of a population that are of interest to the study. The target sample size for the survey is 150 students, while approximately 15 students are selected for the qualitative interviews.

### **Data Collection**

#### **Quantitative Data Collection**

The survey instrument, developed using Google Forms, consists of 10 Likert-scale items measuring students' awareness, understanding, and perceptions of the SDGs. The questionnaire is divided into four main sections. The first section focuses on demographic information, including the respondent's age, gender, academic year, and field of study. The second section assesses students' awareness of the SDGs, asking questions to gauge their familiarity with the goals and key components. The third section examines students' perceptions of the importance of the SDGs, specifically exploring how relevant they believe these goals are to their academic and personal lives. Lastly, the fourth section evaluates the role of education in shaping students' understanding of the SDGs, determining how well these goals are integrated into the university curriculum.

The survey was distributed online via social media platforms and university email lists to maximize reach, with data collection taking place over a period of one month. Online distribution has been shown to be effective in reaching a broad sample of students across multiple universities [15].

### Qualitative Data Collection

For the qualitative component, semi-structured interviews were conducted with a subset of students. The interviews focused on exploring deeper insights into students' personal engagement with the SDGs, their perceived role in achieving these goals, and how well their university education prepares them for contributing to the SDGs. Each interview lasted approximately 10–20 minutes and was conducted via Zoom due to logistical constraints. Interviews were recorded and transcribed verbatim for analysis.

### Data Analysis

#### Quantitative Data Analysis

Descriptive statistics, including means, frequencies, and percentages, were calculated to summarize the survey data. Inferential statistics, such as t-tests and ANOVA, were employed to explore significant differences in SDG awareness and perceptions across different demographic groups. Statistical analysis was conducted using SPSS software, following guidelines from Field [16].

#### Qualitative Data Analysis

Thematic analysis was employed to analyze the interview data. Braun and Clarke's (2006) six-step process was followed, which includes familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report [17]. This approach allows for the identification of key patterns in students' perceptions and experiences related to the SDGs.

#### Reliability and Validity

To ensure reliability, the questionnaire was pre-tested with a small group of students ( $n = 20$ ) to check for clarity and consistency. Cronbach's alpha was calculated to assess the internal consistency of the Likert-scale items, with a value of 0.7 or higher considered acceptable [18]. For the qualitative data, member checking was used to confirm the accuracy of the transcriptions and interpretations, thus enhancing the validity of the findings [19]. Additionally, triangulation between the quantitative and qualitative data helped improve the credibility of the research conclusions.

#### Ethical Considerations

The research adheres to ethical guidelines, with approval from the university's ethics committee. Participation was voluntary, and informed consent was obtained from all respondents prior to their participation in the survey and interviews. Anonymity and confidentiality were maintained throughout the study, in line with the principles of ethical research in the social sciences.

## 4. Results and Discussion

In this study, we sought to understand the level of awareness and knowledge of Sustainable Development Goals (SDGs) among university students, with a specific focus on identifying factors shaping students' attitudes toward the SDGs and suggesting potential avenues to enhance education on this global agenda. Using a mixed-methods approach that combined quantitative surveys and qualitative interviews, we gathered in-depth data on students' perceptions of the SDGs, identifying both promising aspects and areas needing improvement in current educational practices. Here, we present and discuss the findings,

focusing first on quantitative data before exploring qualitative insights into students' experiences and expectations related to SDG education.

### *Awareness and Familiarity with SDGs*

In this study, only 23% of the 100 surveyed students reported prior awareness of the SDGs, with the remaining 77% unfamiliar with the concept. This limited awareness signals a substantial challenge in embedding the SDGs within university settings. Given that nearly three-quarters of students are unaware of these global goals, there is a need for more robust integration of SDG topics within campus discussions and educational materials.

### **Information Sources and Media Channels**

Among the 45 students familiar with the SDGs, social media emerged as the primary information source (53.3%), underscoring the importance of digital platforms in raising awareness. University lectures were the second most common source (28.9%), suggesting potential for stronger curriculum-based promotion of SDGs. Other notable sources included news (24.4%) and university events (15.6%), though peer and extracurricular channels remained underutilized. This indicates that educational institutions should prioritize social media and curriculum enhancements to boost SDG awareness.

### **Levels of Understanding of SDGs**

A significant knowledge gap emerged in the depth of SDG understanding among students. While 34% indicated a sufficient understanding, the majority (56%) expressed either no understanding (32%) or a limited grasp (24%) of the SDGs. Only 6% reported a good knowledge level, with just 2% feeling very knowledgeable. These findings highlight the need for institutions to implement more engaging educational strategies, such as workshops, seminars, and digital campaigns, to enhance SDG comprehension effectively.

### **Understanding of Specific SDG Goals**

The analysis revealed significant information gaps regarding specific SDG goals. Approximately 23% of respondents reported no understanding of key goals such as poverty reduction and gender equality, while 20% had limited comprehension. In total, 43% displayed limited familiarity, indicating a need for more focused educational initiatives. While 34% had a moderate understanding, only 5% felt "very knowledgeable," suggesting that most students lack comprehensive knowledge. Institutions must prioritize goal-specific education to help students connect with and act upon these goals meaningfully.

### **Relevance of SDGs to Daily Life**

Regarding the perceived relevance of the SDGs, 39% of students acknowledged a moderate level of relevance, with only 22% deeming them very relevant to their daily lives. Notably, 28% felt the SDGs held little or no relevance, emphasizing the need for greater emphasis on how these goals relate to students' personal experiences.

### **Perceptions on the Importance of SDG Education**

Most respondents recognized the significance of SDG education, with only 3% rating it as "not important at all." A majority considered it valuable, with 31% rating it as "fairly important," 30% as "very important," and 35% as "extremely important." This awareness highlights the necessity for educational

institutions to integrate SDG-focused content into their curricula to foster discussion and participation in related projects.

### **Evaluation of University Efforts to Teach about SDGs**

Student evaluations of their university's SDG education were mixed. Around 10% found it "not relevant at all," while 21% deemed it inadequate. However, 45% rated their institution as "fairly good," acknowledging existing efforts. Only 4% rated it as "very good," suggesting a need for more consistent integration of SDG topics within academic courses and increased opportunities for workshops.

### **Student Perceptions of Responsibility toward SDGs**

In assessing their sense of responsibility, 38% of students considered their contributions "important," and 10% rated their involvement as "very important." Despite general enthusiasm, there is a need to cultivate a stronger sense of ownership and agency among students. Educational programs that emphasize practical engagement with SDG-related projects could enhance this sense of responsibility.

### **Challenges in Understanding and Implementing the SDGs**

A lack of information was cited by 82% of respondents as a primary barrier to understanding and applying the SDGs. Additionally, 56% identified "personal indifference" as a challenge, while 29% noted a lack of university support. Addressing these challenges requires multifaceted strategies, such as mandatory SDG modules in curricula, guest speakers from sustainability sectors, and organized workshops to better equip students for active engagement with these global goals.

### *Recommendations for Enhancing SDG Awareness and Engagement*

The survey gathered several recommendations from respondents on how to improve SDG education and engagement. The most popular suggestion (20%) was the implementation of more educational campaigns and outreach efforts. Social media campaigns, posters, and seminars were specifically mentioned as valuable tools for fostering greater awareness and engagement. Thirteen percent of respondents suggested offering in-depth SDG learning opportunities that explore global and local contexts, while 10% each recommended workshops, seminars, and curriculum integration as effective methods for teaching SDG principles.

SDG-based projects and digital content creation were also noted as potential avenues, each by 7% of respondents. Projects focused on solving local sustainability issues can encourage practical involvement, while digital content on social platforms can reach a broader audience. Another notable recommendation was support from universities and faculty, cited by 8% of respondents. This indicates that institutional backing, such as providing facilities, guidance, and resources, can significantly contribute to students' SDG literacy and engagement.

### **Recommendations for Enhancing SDG Awareness and Engagement**

The survey yielded several recommendations for improving SDG education and engagement. The most common suggestion (20%) was to implement more educational campaigns, such as social media initiatives, posters, and seminars. Thirteen percent recommended in-depth learning opportunities that address global and local contexts, while 10% advocated for workshops, seminars, and curriculum integration. SDG-based projects and digital content creation were noted by 7% each as effective

engagement strategies. Additionally, 8% emphasized the importance of institutional support, indicating that universities can enhance student engagement through resources and guidance.

Insights from interviews with students across various academic disciplines highlighted their knowledge and perceptions regarding the SDGs. Most interviewees recognized the SDGs but had varying levels of understanding. While some viewed them as a framework for equity and sustainability, there was a noticeable lack of detailed familiarity with all 17 goals. This suggests a need for educational strategies that promote a comprehensive understanding of the SDGs across all fields.

### **Perceptions of the Importance of the SDGs**

All interviewees acknowledged the significance of the SDGs in addressing global challenges like climate change and poverty. While some emphasized the SDGs' role in fostering international collaboration, others expressed concerns about the lack of visible local implementation. This highlights the need for more concrete actions to bridge the gap between awareness and active engagement.

### **Integration into University Curriculum**

Most respondents felt that their universities had not adequately integrated the SDGs into core curricula. Although some elective courses touched on these topics, opportunities were limited. Feedback pointed to the necessity for consistent inclusion of SDG content across all academic programs to ensure comprehensive access for all students.

### **Student Responsibility Toward Achieving the SDGs**

The majority of respondents expressed a sense of responsibility to contribute to the SDGs, motivated by awareness of long-term global impacts. However, challenges in identifying actionable steps indicated a gap between awareness and engagement. This suggests that students need guidance and resources to translate their sense of responsibility into concrete actions.

## **5. Discussion**

This study contributes to understanding how students perceive, engage with, and comprehend the Sustainable Development Goals (SDGs) within the context of their university experience. Overall, findings suggest that while students possess a basic awareness of the SDGs, this awareness is often limited to general themes rather than detailed knowledge of all 17 goals. This aligns with research by Redman et al. (2021), who observed that university students typically understand the SDGs' broader purpose but may lack specific insights into individual goals and targets. Addressing this knowledge gap could involve more thorough integration of SDG-related content into the academic curriculum, fostering a more comprehensive understanding that extends beyond elective courses or one-off seminars.

The findings also underscore students' general sense of moral responsibility towards the SDGs, though many expressed uncertainty about how to contribute meaningfully. This disconnect between awareness and actionable engagement highlights an essential opportunity for universities to establish practical, skill-building opportunities. Engagement strategies, such as service-learning projects, have been shown to significantly enhance students' capacity for actionable contributions, providing real-world contexts where students can apply theoretical SDG knowledge to local challenges [21]. The integration of such programs into core curricula could bridge the gap between abstract knowledge and practical application, fostering students' ability to participate actively in sustainability initiatives.

Furthermore, the study revealed that students perceive a limited institutional commitment to embedding SDG education within the broader curriculum. This perspective is consistent with studies indicating that students often feel their institutions could do more to promote SDG engagement across all fields of study, not just those directly related to environmental science or social policy [22]. Many universities continue to frame SDG-related learning as an optional or specialized topic, which can marginalize students who might benefit from a broader, more inclusive approach. Incorporating the SDGs across diverse disciplines—such as engineering, business, and health sciences—could normalize sustainability as a core educational priority, encouraging a more diverse body of students to recognize its relevance to their future careers [23].

Additionally, students emphasized the potential of digital platforms and social media to promote SDG awareness and participation effectively. As observed in previous research, digital media is an important tool for capturing student interest and building engagement due to its accessibility and resonance with the digital generation [24]. Social media campaigns and digital outreach could amplify sustainability messages, making them more engaging and accessible. Moreover, structured digital platforms can serve as a medium for students to collaborate on SDG initiatives, share resources, and track their contributions to sustainability goals [25].

The limitations of this study should also be acknowledged. The small sample size and the focus on students from SDG-related fields may limit the generalizability of findings across a broader student population. Additionally, the cross-sectional nature of this research captures students' current perceptions but does not track changes in understanding or engagement over time. Future studies may benefit from longitudinal approaches that provide insight into how students' awareness, attitudes, and contributions to the SDGs evolve throughout their academic careers. Furthermore, examining best practices from universities that have successfully integrated SDG initiatives into diverse curricula may offer actionable strategies for enhancing engagement across higher education.

In conclusion, while students generally recognize the importance of the SDGs, this awareness often lacks the specificity and practical orientation needed for meaningful engagement. Addressing this requires a multifaceted approach involving deeper curriculum integration, experiential learning opportunities, and digital engagement strategies. With such initiatives, universities can play a pivotal role in preparing students to actively contribute to the SDGs, ultimately fostering a generation that is more capable of addressing global sustainability challenges.

## **6. Conflict of Interest**

The authors declare that there is no conflict of interest related to the writing or publication of this article.

## **7. Acknowledgement**

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