



## **Sustainability Assurance Education in Accounting Programs: Building Competence, Credibility, and Professional Judgment for ESG Assurance**

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### **Abstract**

The rapid expansion of sustainability reporting has intensified global demand for credible and reliable environmental, social, and governance (ESG) information. As sustainability disclosures increasingly influence investment decisions, regulatory oversight, and stakeholder trust, assurance over such information has become a critical professional service. This evolution places new expectations on the accounting profession and, consequently, on accounting education. Sustainability assurance education equips future accountants with the competencies required to evaluate non-financial information, exercise professional skepticism under uncertainty, and uphold ethical and independence standards in sustainability assurance engagements. This conceptual research article examines the rationale, scope, and pedagogical integration of sustainability assurance education within accounting programs. Drawing on accounting education literature, assurance theory, and sustainability reporting research, the paper proposes a Sustainability Assurance Education Framework (SAEF) that aligns learning objectives, curriculum design, pedagogy, and assessment with emerging professional demands. The study argues that sustainability assurance should be embedded across accounting curricula rather than treated as an isolated topic. The paper contributes a structured roadmap for educators and institutions seeking to prepare graduates for assurance roles in sustainability and integrated reporting environments

**Key word:** sustainability assurance, accounting education, ESG assurance, non-financial reporting, audit education, curriculum integration

### **Introduction**

Over the past decade, sustainability reporting has transitioned from a voluntary corporate practice to a central component of organizational accountability. Companies across industries now disclose information on climate risks, carbon emissions, workforce diversity, human rights practices, and governance structures. While these disclosures aim to enhance transparency and stakeholder confidence, their credibility depends largely on the presence of

robust assurance mechanisms. As a result, sustainability assurance—defined as the independent evaluation of sustainability-related information—has emerged as a vital extension of traditional audit and assurance services.

This transformation has profound implications for accounting education. Historically, assurance education in accounting programs has focused on financial statement audits, internal controls, and compliance with financial reporting standards. Sustainability assurance, however, introduces new challenges, including non-financial data measurement, qualitative judgments, value-chain complexity, and heightened ethical risks such as greenwashing. Consequently, accounting graduates must develop new competencies that go beyond conventional audit techniques.

Despite the growing importance of sustainability assurance in practice, many accounting programs have yet to systematically integrate this area into their curricula. Sustainability topics are often addressed briefly within auditing courses or offered as elective subjects, resulting in fragmented learning outcomes. This paper responds to this gap by exploring how sustainability assurance education can be effectively incorporated into accounting programs.

The study addresses three key research questions:

1. Why is sustainability assurance education essential for contemporary accounting programs?
2. What core competencies should accounting graduates acquire in sustainability assurance?
3. How can sustainability assurance be integrated into accounting curricula through appropriate pedagogy and assessment?

## **2. Conceptual Background: Sustainability Assurance and the Accounting Profession**

Sustainability assurance refers to the process by which an independent practitioner evaluates the reliability, completeness, and accuracy of sustainability-related disclosures. Unlike traditional financial audits, sustainability assurance engagements often involve diverse data sources, estimation uncertainty, and forward-looking information. These characteristics require accountants to apply professional judgment in less standardized contexts.

From a professional standpoint, sustainability assurance strengthens the credibility of ESG disclosures and mitigates the risk of misleading information. Investors, regulators, and civil society increasingly rely on assured sustainability information to assess organizational performance and risk exposure. Accordingly, the role of accountants is expanding from financial assurance providers to broader custodians of corporate accountability.

Educationally, this expansion necessitates a rethinking of assurance pedagogy. Students must understand not only assurance standards and procedures but also the ethical, social, and environmental implications of sustainability information. Sustainability assurance education therefore occupies an intersection between auditing, ethics, and sustainability accounting.

## **3. Literature Review**

### **3.1 Assurance Education in Accounting Programs**

Research on assurance education emphasizes the importance of developing professional skepticism, judgment, and ethical awareness among accounting students. Traditional audit education has relied on rule-based instruction and standardized case studies, which may be insufficient for preparing students for complex, judgment-intensive sustainability assurance engagements.

### 3.2 Sustainability Reporting and Assurance

The sustainability accounting literature highlights growing concerns over greenwashing, selective disclosure, and credibility gaps in ESG reporting. Scholars argue that assurance plays a critical role in enhancing trust and accountability, but its effectiveness depends on the competence and independence of assurance providers.

### 3.3 Education for Non-Financial and ESG Assurance

Emerging studies suggest that non-financial assurance education requires interdisciplinary learning, integrating accounting, environmental science, ethics, and governance. Experiential learning methods, such as simulations and real-world cases, are found to be particularly effective in building assurance-related competencies.

### 3.4 Research Gap

While prior research recognizes the importance of sustainability assurance, limited attention has been paid to its systematic incorporation into accounting curricula. There is a need for a comprehensive educational framework that aligns sustainability assurance competencies with curriculum design, pedagogy, and assessment.

## 4. Theoretical Framework

This study is grounded in three theoretical perspectives:

1. **Professional Judgment Theory**, which emphasizes the role of judgment and skepticism in assurance engagements involving uncertainty and complexity.
2. **Stakeholder Theory**, which explains the demand for sustainability assurance as a response to diverse stakeholder information needs.
3. **Constructive Alignment Theory**, which guides curriculum design by ensuring coherence between learning objectives, teaching methods, and assessment strategies.

These perspectives collectively support the integration of sustainability assurance education as a core component of accounting programs.

## 5. Research Methodology

The paper adopts a **conceptual and integrative literature review methodology**. Academic journal articles, professional reports, and educational studies related to auditing, sustainability assurance, and accounting education were reviewed and synthesized. The analysis focused on identifying key competencies, pedagogical practices, and curriculum structures relevant to sustainability assurance education.

The outcome of this methodology is the development of a conceptual framework designed to guide curriculum integration. While the study does not include empirical testing, it lays the foundation for future quantitative and qualitative research.

## 6. Sustainability Assurance Education Framework (SAEF)

### Figure 1. Sustainability Assurance Education Framework (SAEF)

External Environment  
(ESG reporting growth, stakeholder demand, regulation)

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Curriculum Integration  
(Core accounting and auditing courses)



Learning Domains  
- Technical Knowledge (ESG metrics, assurance methods)  
- Professional Skills (judgment, skepticism, evidence evaluation)  
- Ethical Values (independence, integrity, public interest)



Pedagogy & Assessment  
(Case studies, simulations, assurance projects)



Graduate Outcomes  
(Competent sustainability assurance professionals)

The SAEF illustrates how sustainability assurance education can be systematically embedded within accounting programs to produce graduates capable of delivering credible assurance services.

## **7. Curriculum Design and Content Integration**

### **7.1 Auditing and Assurance Courses**

Sustainability assurance concepts can be integrated into core auditing courses by extending traditional audit topics to non-financial contexts. Students learn about assurance scopes, criteria selection, evidence collection, and reporting challenges specific to sustainability information.

### **7.2 Financial and Sustainability Accounting Courses**

Linking sustainability accounting with assurance education enables students to understand how sustainability data is generated, measured, and subsequently assured. This integration strengthens students' appreciation of data quality and internal controls.

### **7.3 Accounting Information Systems**

Sustainability assurance relies heavily on data systems and analytics. Integrating ESG data management and assurance-related controls into accounting information systems courses enhances students' technical readiness.

## **8. Pedagogical Approaches**

### **8.1 Case-Based Learning**

Real-world sustainability assurance cases expose students to ethical dilemmas, incomplete evidence, and stakeholder pressure, encouraging critical thinking and professional judgment.

### **8.2 Simulation and Role Play**

Simulated assurance engagements allow students to assume the roles of assurance providers, management, and stakeholders, fostering experiential learning and ethical awareness.

### **8.3 Project-Based Learning**

Group projects involving sustainability reports and mock assurance opinions help students apply theoretical knowledge in practical contexts.

### **9. Assessment Strategies**

Assessment of sustainability assurance competencies should emphasize authentic tasks. Suitable assessment methods include assurance planning memoranda, evidence evaluation reports, oral presentations, and reflective essays. Rubrics should evaluate technical accuracy, judgment quality, ethical reasoning, and communication skills.

### **10. Challenges in Implementing Sustainability Assurance Education**

Institutions face several challenges in implementing sustainability assurance education, including limited faculty expertise, curriculum overcrowding, and lack of standardized teaching materials. Addressing these challenges requires faculty development initiatives, interdisciplinary collaboration, and engagement with professional bodies and industry practitioners.

### **11. Implications for Accounting Education and Practice**

Integrating sustainability assurance education enhances the relevance of accounting programs and aligns graduate competencies with evolving professional demands. For practice, it contributes to improved quality and credibility of sustainability assurance engagements. For society, it strengthens trust in corporate sustainability disclosures.

### **12. Conclusion**

Sustainability assurance education represents a critical frontier in accounting education. As sustainability reporting continues to shape corporate accountability and investment decision-making, the assurance of such information becomes indispensable. This paper proposed the Sustainability Assurance Education Framework (SAEF) as a structured roadmap for embedding sustainability assurance into accounting curricula. By aligning learning objectives, pedagogy, and assessment with sustainability assurance competencies, accounting programs can better prepare graduates for emerging assurance roles and contribute to the integrity of sustainability reporting systems. Future research should empirically evaluate the effectiveness of integrated sustainability assurance curricula across diverse educational contexts.

### **References**

4. Adams, C. A., & Evans, R. (2004). Accountability, completeness, credibility and the audit expectations gap. *Journal of Corporate Citizenship*, 14, 97–115.
5. Bebbington, J., Larrinaga, C., & Moneva, J. M. (2008). Corporate social reporting and reputation risk management. *Accounting, Auditing & Accountability Journal*, 21(3), 337–361.
6. Cohen, J. R., Krishnamoorthy, G., & Wright, A. (2017). Enterprise risk management and the financial reporting process. *Contemporary Accounting Research*, 34(2), 1178–1209.
7. Deegan, C. (2017). Twenty five years of social and environmental accounting research. *Accounting, Auditing & Accountability Journal*, 30(2), 409–428.



8. Gray, R. (2010). Is accounting for sustainability actually accounting for sustainability? *Sustainability Accounting, Management and Policy Journal*, 1(1), 8-17.
9. O'Dwyer, B., Owen, D., & Unerman, J. (2011). Seeking legitimacy for new assurance forms. *Accounting, Organizations and Society*, 36(1), 31-52.
10. Schaltegger, S., Burritt, R., & Petersen, H. (2017). An introduction to sustainability accounting. *Journal of Cleaner Production*, 140, 1-5.
11. Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports. *The Accounting Review*, 84(3), 937-967.