

Advancing Academic Integrity and Research Ethics in Higher Education: A Case Study of Institutional Capacity Building at Caucasus University

აკადემიური კეთილსინდისიერებისა და კვლევის ეთიკის ხელშეწყობა უმაღლეს განათლებაში: ინსტიტუციური შესაძლებლობების გაძლიერების გამოცდილება კავკასიის უნივერსიტეტის მაგალითზე

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Abstract

Introduction: Academic integrity and research ethics are essential components of quality assurance and institutional governance in higher education. This study examines how two successive Erasmus+ projects, INTEGRITY and ETHICS, contributed to strengthening academic integrity and research ethics capacity at Caucasus University, Georgia. **Methods:** A qualitative institutional case-study design was employed, based on document analysis of university policies, project reports, training materials, institutional records, and publicly available documentation. The two projects were comparatively examined across five dimensions: regulatory development, education and training, technological and academic support, institutional governance, and sustainability. Aggregate implementation indicators were analyzed descriptively. **Results:** The INTEGRITY project established an institutional foundation through the Academic Integrity Code, integration of plagiarism-detection technologies, revision of academic writing curricula, and establishment of the Academic Writing Center in 2020. Project records documented approximately 3,500 originality checks and awareness activities reaching 1,800–2,000 students and 350–380 staff members. Building on these achievements, the ETHICS project expanded institutional capacity through research ethics training, certificate courses, development of ethical review procedures, and establishment of the Research Ethics Council in 2025. The first certificate course registered 67 participants, and a second cohort was subsequently implemented. The findings demonstrate progressive integration of academic integrity and research ethics into institutional policies, educational activities, and governance structures. **Conclusion:** Successive international capacity-building projects can support sustainable institutional development when their outcomes are integrated into permanent university structures and routine academic practices. The experience of Caucasus University offers a potentially transferable model for strengthening academic integrity and research ethics in higher education. Further evaluation is needed to assess long-term effects on academic and research conduct.

Keywords: Academic integrity; Research ethics; Research integrity; Institutional capacity building; Higher education; Erasmus+.

აბსტრაქტი

შესავალი: აკადემიური კეთილსინდისიერება და კვლევის ეთიკა უმაღლესი განათლების ხარისხის უზრუნველყოფისა და ინსტიტუციური მმართველობის მნიშვნელოვანი კომპონენტებია. კვლევის მიზანია კავკასიის უნივერსიტეტის მაგალითზე შეფასდეს, თუ როგორ

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შეუწყო ხელი Erasmus+ პროგრამის ფარგლებში განხორციელებულმა ორმა თანმიმდევრულმა პროექტმა – INTEGRITY და ETHICS – აკადემიური კეთილსინდისიერებისა და კვლევის ეთიკის მიმართულებით ინსტიტუციური შესაძლებლობების გაძლიერებას. **მეთოდები:** გამოყენებულია თვისებრივი კვლევის დიზაინი, კერძოდ, ინსტიტუციური შემთხვევის შესწავლა, რომელიც ეფუძნება უნივერსიტეტის პოლიტიკის დოკუმენტების, პროექტების ანგარიშების, სასწავლო მასალების, ინსტიტუციური ჩანაწერებისა და საჯაროდ ხელმისაწვდომი დოკუმენტაციის ანალიზს. პროექტები შედარებით გაანალიზდა ხუთი მიმართულებით: მარეგულირებელი ჩარჩოს განვითარება, განათლება და ტრენინგები, ტექნოლოგიური და აკადემიური მხარდაჭერა, ინსტიტუციური მმართველობა და მდგრადობა. განხორციელების რაოდენობრივი მაჩვენებლები შეფასდა აღწერითი ანალიზის მეთოდით. **შედეგები:** პროექტმა INTEGRITY შექმნა აკადემიური კეთილსინდისიერების ინსტიტუციური საფუძველი, რაც გამოიხატა აკადემიური კეთილსინდისიერების კოდექსის შემუშავებით, პლაგიატის გამოვლენის ტექნოლოგიების დანერგვით, აკადემიური წერის სასწავლო პროგრამების განახლებითა და 2020 წელს აკადემიური წერის ცენტრის დაფუძნებით. პროექტის მონაცემებით, განხორციელდა დაახლოებით 3 500 ნაშრომის ორიგინალურობის შემოწმება, ხოლო ცნობიერების ამაღლების ღონისძიებებმა მოიცვა 1 800–2 000 სტუდენტი და 350–380 თანამშრომელი. აღნიშნულ მიღწევებზე დაყრდნობით, პროექტმა ETHICS გააფართოვა ინსტიტუციური შესაძლებლობები კვლევის ეთიკის ტრენინგების, სასერტიფიკატო კურსების, ეთიკური შეფასების პროცედურების შემუშავებისა და 2025 წელს კვლევის ეთიკის საბჭოს ჩამოყალიბების გზით. პირველ სასერტიფიკატო კურსზე დარეგისტრირდა 67 მონაწილე, მოგვიანებით კი განხორციელდა კურსის მეორე ნაკადიც. შედეგები მიუთითებს აკადემიური კეთილსინდისიერებისა და კვლევის ეთიკის პრინციპების თანდათანობით ინტეგრაციაზე უნივერსიტეტის პოლიტიკაში, საგანმანათლებლო საქმიანობასა და მმართველობის სტრუქტურებში. **დასკვნა:** საერთაშორისო თანამშრომლობის ფარგლებში განხორციელებულ თანმიმდევრულ პროექტებს შეუძლიათ ხელი შეუწყონ ინსტიტუციურ მდგრად განვითარებას, როდესაც მათი შედეგები უნივერსიტეტის მუდმივ სტრუქტურებსა და ყოველდღიურ აკადემიურ პრაქტიკაში ინტეგრირდება. კავკასიის უნივერსიტეტის გამოცდილება წარმოადგენს მოდელს, რომელიც შესაძლოა გამოყენებულ იქნეს სხვა უმაღლეს საგანმანათლებლო დაწესებულებებშიც აკადემიური კეთილსინდისიერებისა და კვლევის ეთიკის გაძლიერების მიზნით. აკადემიურ და კვლევით ქცევაზე გრძელვადიანი გავლენის შესაფასებლად აუცილებელია შემდგომი კვლევები.

საძიებო სიტყვები: აკადემიური კეთილსინდისიერება; კვლევის ეთიკა; კვლევითი კეთილსინდისიერება; ინსტიტუციური შესაძლებლობების გაძლიერება; უმაღლესი განათლება; Erasmus+.

1. Introduction

Academic integrity and research ethics have become fundamental components of quality assurance, institutional governance, and organizational culture in higher education. Universities are increasingly expected not only to prevent plagiarism and other forms of academic misconduct but also to foster institutional environments in which students, academic staff, and researchers understand and consistently apply the principles of responsible academic and research conduct (Bretag et al., 2011; De Peuter & Conix, 2023). These responsibilities have acquired greater significance amid the internationalization of higher education, digital transformation, the rapid advancement of generative artificial intelligence, and the increasing complexity of international research collaboration. Such developments have intensified the need for coherent institutional policies, appropriate oversight mechanisms, and continuous professional development to safeguard academic standards and research integrity (ALLEA, 2023).

Within the European Higher Education Area, academic integrity and research ethics are increasingly recognized as institutional responsibilities rather than matters of individual compliance alone. The contemporary approach emphasizes the establishment of transparent policies, clearly defined responsibilities, accessible educational resources, effective support services, and governance structures that promote ethical

conduct across teaching, learning, assessment, research, and scholarly publication (Bretag et al., 2011; Evans et al., 2022). Consequently, universities are encouraged to move beyond predominantly reactive and detection-oriented approaches toward comprehensive institutional frameworks integrating prevention, education, professional support, accountability, and continuous improvement. Research suggests that sustainable integrity cultures depend not merely on the existence of formal regulations but on their consistent implementation and integration into everyday academic and research practices (De Peuter & Conix, 2023).

For higher education systems undergoing institutional modernization and international integration, establishing such frameworks presents particular challenges. In Georgia, academic integrity and plagiarism prevention have received increasing attention through national quality assurance reforms, international cooperation, and the adoption of European approaches to academic governance. Previous research has documented progress in plagiarism prevention policies, academic writing instruction, and the use of originality-checking technologies while identifying persistent challenges related to institutional consistency, awareness, and the development of preventive academic cultures (Chokoraia, 2023; Khositashvili, 2024). Nevertheless, the institutionalization of research ethics governance and responsible conduct of research remains an evolving process requiring sustained organizational commitment, specialized expertise, researcher training, and effective oversight mechanisms.

Caucasus University offers a relevant institutional case for examining how academic integrity and research ethics frameworks can develop through successive international capacity-building initiatives. The university participated in two Erasmus+ projects addressing distinct yet closely interconnected dimensions of institutional integrity: INTEGRITY, which focused on academic integrity and plagiarism prevention, and ETHICS, which focuses on responsible research conduct and research ethics governance. Together, these initiatives provide an opportunity to investigate how institutional reforms introduced through international cooperation can be consolidated, expanded, and integrated into routine university practices.

The INTEGRITY project concentrated on strengthening academic integrity through institutional policy development, academic writing education, plagiarism prevention, and the introduction of preventive and supportive mechanisms. One of its principal institutional outcomes was the development and adoption of the Academic Integrity Code, which established a regulatory framework for responsible academic conduct and the prevention and management of academic misconduct. The project also facilitated the integration of plagiarism-detection technologies, improvements in academic writing curricula, professional development activities, and the establishment of the Academic Writing Center as a permanent institutional support structure (Caucasus University, 2019a, 2019b). These developments contributed to creating an organizational foundation for a more systematic approach to academic integrity.

Building on this foundation, the ETHICS project has expanded institutional capacity into research integrity, responsible conduct of research, and ethical oversight. Its activities include specialized training for doctoral students, academic staff, and researchers; the development of research ethics educational resources and institutional guidelines; and the establishment of formal research ethics review mechanisms. A particularly significant development has been the establishment and operationalization of the Research Ethics Council, reflecting a transition from an institutional framework primarily concerned with teaching, learning, and plagiarism prevention toward one encompassing the ethical dimensions of research design, implementation, and dissemination (Caucasus University, 2023, 2025b).

The relationship between these initiatives is particularly important from the perspective of institutional development. Rather than constituting two independent interventions, INTEGRITY and ETHICS can be understood as successive and complementary stages of institutional capacity building. The former established foundational policies, educational mechanisms, and organizational support structures, while the latter has extended these achievements into research governance, researcher development, and ethical review. This progression is consistent with institutional approaches emphasizing that sustainable research integrity requires an alignment between organizational policies, educational provision, practical support, and governance arrangements (De Peuter & Conix, 2023; Evans et al., 2022).

Although existing scholarship has examined academic integrity policies, plagiarism prevention, research integrity training, and institutional research cultures, comparatively less attention has been devoted to the cumulative institutional effects of successive international capacity-building projects. In particular, there is a need to understand how project-based initiatives can move beyond temporary activities to produce lasting changes in university policies, organizational structures, educational practices, and governance mechanisms. The experience of Caucasus University provides an opportunity to examine these processes

within the context of a higher education system undergoing continued institutional development and European integration.

Accordingly, the aim of this study is to examine how the INTEGRITY and ETHICS projects have contributed to strengthening academic integrity and research ethics capacity at Caucasus University, with particular emphasis on institutional continuity, organizational change, and the sustainability of project outcomes. Using a qualitative institutional case-study approach, the study comparatively analyzes the two initiatives across five interconnected dimensions: policy and regulatory development; preventive education and capacity building; technological and academic support mechanisms; institutional governance and organizational structures; and dissemination, continuity, and sustainability.

The study addresses four research questions:

- What institutional changes were introduced at Caucasus University through the INTEGRITY and ETHICS projects?
- How do the two projects differ in their objectives, target groups, implementation mechanisms, and institutional outcomes?
- How did the institutional foundations established through INTEGRITY facilitate the subsequent development of research integrity and ethics capacity under ETHICS?
- Which elements of the Caucasus University experience may be transferable to other higher education institutions seeking to strengthen academic integrity and research ethics through international cooperation?

By addressing these questions, this study contributes to the understanding of how successive international capacity-building initiatives can support cumulative institutional development in higher education. Its contribution lies in examining the relationship between project implementation and institutionalization, identifying the mechanisms through which academic integrity policies and support structures can be extended into research ethics governance, and highlighting potential lessons for universities seeking to establish sustainable frameworks for responsible academic and research conduct.

2. Literature Review

Academic Integrity as an Institutional and Cultural Responsibility

Academic integrity has traditionally been associated with preventing plagiarism, cheating, fabrication, falsification, and other forms of academic misconduct. However, contemporary scholarship increasingly conceptualizes academic integrity as a multidimensional institutional and cultural phenomenon that extends beyond individual behaviour and compliance with formal regulations. From this perspective, academic integrity is sustained not merely through disciplinary sanctions or technological detection mechanisms but through shared ethical values, coherent institutional policies, preventive education, accessible academic support, and transparent governance arrangements (Bretag et al., 2011; Chokoraia, 2023).

A whole-institution approach is particularly important for translating academic integrity principles into sustainable organizational practices. In their analysis of academic integrity policies across Australian universities, Bretag et al. (2011) identified five essential elements of exemplary institutional policy: access, approach, responsibility, detail, and support. Their findings highlight that the existence of a formal academic integrity policy does not necessarily ensure its effective implementation. Rather, policies must be accessible, clearly articulated, consistently applied, and supported by appropriate educational and administrative mechanisms. This framework emphasizes that institutional responsibility extends beyond identifying and sanctioning misconduct to creating conditions that promote ethical academic behaviour throughout the university community.

The distinction between technological detection and educational prevention is especially relevant in this context. Although plagiarism-detection software can facilitate the identification of potential academic misconduct, technological tools alone cannot establish a sustainable culture of integrity. Students and academic staff also require a clear understanding of academic writing conventions, responsible source use, citation and referencing practices, authorship principles, and the ethical foundations of scholarly work. Effective prevention therefore depends on integrating technological resources with academic writing instruction, staff development, student support services, awareness-raising activities, and consistent institutional communication (Chokoraia, 2023; Khositashvili, 2024). This integrated approach shifts the institutional emphasis from detecting violations after they occur toward developing the knowledge, skills, and ethical awareness necessary to prevent them.

The Georgian higher education context provides a particularly relevant setting for examining these developments. Chokoraia (2023) investigated the establishment of academic integrity culture in Georgian higher education institutions, highlighting the contribution of quality assurance reforms and international cooperation to the development of plagiarism-prevention mechanisms. The study documented improvements in institutional awareness, the introduction of plagiarism-detection technologies, revisions to academic writing curricula, and the development of academic support services. Nevertheless, it emphasized that technological solutions are insufficient unless accompanied by comprehensive educational measures and sustained institutional commitment.

Similarly, Khositashvili (2024) examined the complexities of plagiarism prevention in Georgian higher education, identifying differences in institutional approaches to academic integrity. The findings suggest that academic integrity practices remain unevenly developed, with some institutions continuing to emphasize misconduct detection rather than preventive education and shared responsibility. These observations indicate that formal compliance with quality assurance requirements does not automatically translate into a deeply embedded culture of academic integrity. Instead, sustainable institutional change requires the integration of regulatory frameworks, academic support mechanisms, educational practices, and organizational accountability.

Taken together, these studies suggest that academic integrity should be understood as an institutional capacity requiring continuous development rather than as a fixed set of rules or disciplinary procedures. Formal policies establish common standards and define institutional responsibilities, but their effectiveness depends on how consistently they are communicated, implemented, and reinforced through everyday teaching, learning, assessment, and academic support. Consequently, the development of academic integrity culture requires an ongoing relationship between policy formulation, institutional capacity building, professional development, and organizational practice.

Research Integrity, Research Ethics, and Institutional Governance

The institutional approach to academic integrity is closely connected to the broader concepts of research integrity and research ethics. Although these concepts overlap, they emphasize different dimensions of responsible academic practice. Academic integrity is commonly associated with ethical conduct in teaching, learning, assessment, and scholarly work, whereas research integrity encompasses the principles and standards governing the planning, implementation, evaluation, and dissemination of research. Research ethics additionally addresses ethical obligations arising during the research process, including the protection of research participants, informed consent, confidentiality, risk assessment, and the responsible management of research data.

The European Code of Conduct for Research Integrity identifies four fundamental principles of good research practice: reliability, honesty, respect, and accountability (ALLEA, 2023). These principles provide a normative foundation for responsible research across disciplines and institutional contexts. Importantly, the Code recognizes that research integrity cannot be reduced to individual researchers' ethical responsibilities. Universities and research organizations also have a responsibility to establish institutional environments, policies, procedures, and support systems that enable researchers to meet professional and ethical standards.

This institutional dimension has received increasing attention in research integrity scholarship. De Peuter and Conix (2023) argue that promoting research integrity requires the development of a supportive organizational culture rather than reliance on individual responsibility or compliance mechanisms alone. Their framework emphasizes institutional action across interconnected areas, including policy development, procedures for addressing misconduct, education and training, and monitoring and evaluation. The central implication is that ethical expectations must be accompanied by the organizational resources, structures, and incentives necessary to translate principles into research practice.

Empirical findings from European universities further reinforce this perspective. Evans et al. (2022), drawing on qualitative research conducted in the Netherlands, Spain, and Croatia, examined stakeholders' experiences of institutional research integrity support. Their findings highlight the importance of governance arrangements, institutional structures, education and supervision, and practical research support. The study suggests that research integrity is more effectively promoted when institutional responsibilities are clearly defined and researchers have access to transparent procedures, appropriate guidance, and organizational assistance.

These contributions demonstrate that research integrity governance extends beyond establishing formal ethics committees or misconduct procedures. Effective institutional systems require coordination between university leadership, academic departments, research supervisors, administrative units, and specialized support services. Research ethics review mechanisms are particularly important because they translate general ethical principles into practical requirements for research design, participant protection, data management, and responsible implementation. However, their effectiveness depends on institutional accessibility, procedural clarity, staff competence, and integration into regular research processes.

The literature therefore supports a comprehensive institutional model in which regulatory instruments, educational mechanisms, ethical oversight, and practical researcher support operate as mutually reinforcing components. Such a model is particularly relevant for higher education institutions seeking to strengthen research governance while adapting to international expectations concerning responsible research conduct.

Education, Training, and Sustainable Institutional Capacity Building

Education and professional development constitute essential mechanisms for translating institutional integrity policies into responsible academic and research behaviour. However, the effectiveness of training depends not only on the availability of educational activities but also on their pedagogical design, institutional integration, and continuity.

Katsarov et al. (2022) examined strategies for research integrity education and highlighted the importance of training approaches that actively engage participants with ethical principles and realistic research situations. Their findings support the value of experiential and problem-based learning, including ethical dilemmas, case discussions, and practical decision-making exercises. Such approaches can help participants develop ethical awareness, critical judgment, and the ability to apply general principles to complex research situations.

These findings are particularly relevant to doctoral students, academic staff, and researchers who regularly encounter ethical challenges related to authorship, publication practices, supervision, conflicts of interest, research data management, and emerging technologies. Research integrity education must therefore extend beyond the transmission of formal rules and encourage the development of practical competencies for recognizing, evaluating, and resolving ethical problems.

Nevertheless, educational interventions should not be equated automatically with sustainable institutional change. Individual training activities may increase awareness or knowledge, but their longer-term contribution depends on whether they become embedded in established academic and organizational processes. Repeated training opportunities, integration into doctoral education, continuing professional development, accessible learning resources, and designated institutional support structures can strengthen the continuity of research integrity education (De Peuter & Conix, 2023; Evans et al., 2022).

This distinction is particularly important for internationally funded capacity-building initiatives. Although such projects may introduce new policies, training programmes, technologies, and organizational practices, their long-term value depends on institutional ownership and continued implementation after project funding ends. Project outputs become sustainable institutional capacities when they are incorporated into university regulations, organizational responsibilities, curricula, permanent support services, and routine decision-making procedures.

From this perspective, institutional capacity building can be understood as a cumulative process in which successive interventions reinforce and extend previously established structures and practices. Academic integrity initiatives may initially focus on plagiarism prevention, policy development, academic writing education, and student support. Subsequent research integrity initiatives can build on these foundations by introducing researcher training, ethical review procedures, publication ethics guidance, and specialized governance mechanisms. The relationship between these areas is therefore potentially developmental rather than merely administrative.

Integrating Academic Integrity and Research Ethics: Institutional Continuity and Research Gaps

The reviewed literature reveals substantial conceptual and organizational connections between academic integrity, research integrity, and research ethics. Although these fields address partially different aspects of university activity, they share several underlying requirements: clearly defined ethical standards, institutional accountability, preventive education, accessible support, transparent procedures, and sustainable governance structures (ALLEA, 2023; Bretag et al., 2011; De Peuter & Conix, 2023).

An important implication is that institutional approaches to integrity may develop progressively. Academic integrity reforms can establish shared ethical expectations, regulatory frameworks, educational resources, technological infrastructure, and organizational experience. These foundations can subsequently support the development of more specialized research integrity and ethics mechanisms, including researcher development programmes, ethical review procedures, and formal research governance structures. However, this progression should not be assumed to occur automatically. Its sustainability depends on institutional leadership, adequate resources, organizational coordination, policy continuity, and the integration of project outcomes into routine university practices.

Existing scholarship provides substantial evidence concerning the importance of academic integrity policies (Bretag et al., 2011), the challenges of plagiarism prevention in Georgian higher education (Chokoraia, 2023; Khositashvili, 2024), institutional research integrity cultures (De Peuter & Conix, 2023; Evans et al., 2022), and effective research integrity education (Katsarov et al., 2022). Nevertheless, these strands of literature have primarily addressed particular dimensions of integrity governance, education, or institutional support. Comparatively less attention has been devoted to examining how successive international capacity-building initiatives interact over time and how the outcomes of earlier projects may create institutional foundations for subsequent reforms.

This distinction identifies the central analytical focus of the present study. Rather than evaluating individual training activities or regulatory instruments in isolation, the study examines how institutional policies, academic support services, educational practices, and research governance mechanisms develop cumulatively through successive international cooperation projects.

Caucasus University provides a relevant case for exploring this process through its participation in two interconnected Erasmus+ initiatives. The INTEGRITY project established an institutional foundation for academic integrity through policy development, plagiarism prevention, academic writing education, technological support, and the strengthening of academic services. The subsequent ETHICS project has expanded this foundation by promoting responsible conduct of research, developing specialized training opportunities for doctoral students and academic staff, and introducing institutional mechanisms for research ethics governance.

The relationship between these projects provides an opportunity to examine institutional continuity across different but complementary dimensions of academic and research integrity. In particular, it allows consideration of whether organizational structures and practices developed through an earlier capacity-building initiative can facilitate the implementation and sustainability of subsequent reforms. This perspective shifts attention from individual project outputs toward the broader processes through which internationally supported initiatives become integrated into institutional governance and academic culture.

Accordingly, the present study addresses an underexplored dimension of institutional integrity development by comparatively examining the contributions of the INTEGRITY and ETHICS projects at Caucasus University. It investigates how regulatory development, educational provision, technological and academic support, governance structures, and dissemination activities have contributed to the progressive institutionalization of academic integrity and research ethics. By identifying the mechanisms of continuity and expansion between the two initiatives, the study seeks to generate context-specific insights that may inform similar institutional capacity-building efforts in Georgia and other higher education systems undergoing international integration and organizational reform.

3. Methods

Study Design and Research Approach

This study employed a qualitative institutional case-study design to examine the development and progressive institutionalization of academic integrity and research ethics at Caucasus University, Georgia. A qualitative case-study approach was considered appropriate because it enables an in-depth examination of organizational processes within their real-world institutional context and facilitates an understanding of how policies, governance arrangements, support mechanisms, and educational practices develop over time (Yin, 2018).

The study adopted a longitudinally oriented comparative perspective, examining two successive Erasmus+ capacity-building initiatives: INTEGRITY and ETHICS. Rather than treating these projects as independent interventions, the analysis considered them interconnected stages in the development of a broader

institutional framework for academic integrity and responsible research conduct. Particular attention was given to the continuity between the projects, the expansion of institutional responsibilities, and the extent to which project outcomes became embedded in routine university operations.

The unit of analysis was Caucasus University as an institutional case, while the two Erasmus+ initiatives served as analytically distinct but interconnected components of institutional development. The investigation focused on organizational capacity rather than individual attitudes or behavioural outcomes, with institutional capacity understood in terms of established policies, administrative structures, educational programmes, support services, governance procedures, and mechanisms for sustaining responsible academic and research practices.

Data Sources and Document Selection

The primary research method was qualitative document analysis, which provides a systematic approach to examining documentary evidence to identify institutional processes, organizational developments, and patterns of continuity and change (Bowen, 2009). The documentary corpus comprised internal university and project records, institutional regulations, training and dissemination materials, implementation reports, and publicly accessible institutional documentation.

Documents were selected for their relevance to the objectives, activities, outputs, and institutional outcomes of the INTEGRITY and ETHICS projects. The analysis prioritized materials that provided evidence of policy development, educational activities, institutional support mechanisms, governance structures, implementation processes, and the continuation of project-related activities.

Publicly available institutional records were examined to establish the documented status and continuity of relevant initiatives through July 2026. Internal project documentation provided more detailed information on implementation activities, educational content, institutional procedures, and aggregate participation indicators.

For the INTEGRITY project, the documentary corpus included the Academic Integrity Code and related policy drafts; the Student Academic Services Concept; academic writing training materials and the Academic Writing Toolkit; curriculum review and course inventory documents; Moodle and Turnitin instructional resources; dissemination and awareness-raising records; and project follow-up documentation containing aggregate implementation indicators. Additional institutional documentation was examined to establish the development and continuing operation of the Academic Writing Center, which emerged from project recommendations and began functioning in 2020 (Caucasus University, 2019b).

For the ETHICS project, the analyzed materials included the 2023 Training-of-Trainers programme and associated instructional resources; internal dissemination records; training materials for academic staff, students, and doctoral researchers; documentation from the 2025 pilot certificate course on Research Ethics and Integrity, including aggregate participation data; the Regulation of the Research Ethics Council; the institutional research-project structure template; national workshop materials; and presentations concerning research ethics policies and academic support services.

Public institutional documentation was also examined to confirm key developments in the implementation of ETHICS, including the inaugural meeting of the Research Ethics Council in July 2025 and the delivery of a second cohort of the research ethics certificate course during the 2025–2026 academic year (Caucasus University, 2025b, 2026a).

Analytical Framework and Data Analysis

The documentary evidence was examined through a qualitative comparative analysis structured around five interconnected dimensions of institutional capacity development:

1. Policy and regulatory development: the formulation, adoption, and revision of institutional codes, regulations, guidelines, and formal procedures supporting academic integrity and research ethics.
2. Preventive education and capacity building: academic writing instruction, professional development, research integrity training, certificate courses, and educational initiatives designed to strengthen knowledge and ethical competencies.
3. Technological and academic support mechanisms: plagiarism-detection technologies, digital learning platforms, academic support services, instructional resources, and practical guidance for students and researchers.

4. Institutional governance and organizational structures: the establishment and operation of dedicated institutional units, committees, councils, and procedures responsible for academic integrity and research ethics.

5. Dissemination, continuity, and sustainability: awareness-raising activities, institutional communication, the continuation of project initiatives, and the integration of project outcomes into routine university practices.

These dimensions provided a common analytical framework for examining both projects despite differences in their objectives, implementation periods, and institutional scope.

The analysis proceeded in two stages. First, documentary evidence relating to each project was organized and coded according to the five analytical dimensions. This stage identified the principal activities, institutional outputs, implementation mechanisms, and documented organizational developments associated with each initiative.

Second, the findings from the two projects were compared chronologically and thematically to identify similarities, differences, institutional continuity, and expansion of responsibilities. Particular attention was paid to how mechanisms established through INTEGRITY, including regulatory frameworks, educational provision, and academic support structures, were maintained or extended through the subsequent ETHICS project.

An important analytical distinction was made between project outputs and institutionalized outcomes. Project outputs included activities and deliverables such as workshops, training materials, policy drafts, and awareness campaigns. Institutionalized outcomes were understood as documented arrangements that had been incorporated into university regulations, permanent organizational structures, recurring educational activities, operational procedures, or established support services.

This distinction enabled the study to examine not only what the projects produced but also which of their contributions demonstrated continuity beyond individual implementation activities.

Descriptive Indicators and Outcome Assessment

Quantitative information contained in project documentation was used descriptively to complement the qualitative analysis. Where available, aggregate indicators included training participation, student and staff outreach, use of plagiarism-detection technologies, course registrations, attendance, and completion-related measures.

These indicators were interpreted as measures of project implementation, institutional reach, and operational activity rather than direct evidence of changes in academic or research behaviour. No inferential statistical analyses were undertaken, and the study did not attempt to estimate causal relationships between project participation and changes in academic misconduct.

The primary outcome of interest was institutional capacity development, operationalized through documented evidence of the establishment, implementation, and continuation of policies, organizational structures, educational programmes, training opportunities, academic support services, and research ethics governance procedures.

The study did not include longitudinal measurements of plagiarism prevalence, research misconduct, or individual ethical behaviour. Consequently, the findings cannot establish whether the two projects directly reduced academic or research misconduct. Instead, they provide evidence of documented institutional developments and the mechanisms through which academic integrity and research ethics have been progressively incorporated into university practices.

Furthermore, because the ETHICS project is scheduled to continue through October 2027, its findings reflect institutional developments documented up to July 2026 rather than a final assessment of project effectiveness or long-term sustainability.

Methodological Rigour and Limitations

The analysis drew on multiple forms of documentary evidence, including institutional regulations, internal implementation records, educational materials, project documentation, and publicly available university records. Considering these sources together enabled the study to examine whether reported project activities were accompanied by documented developments in institutional policies, structures, and practices.

The use of a common analytical framework facilitated systematic comparison between the two projects, while chronological examination helped distinguish the initial establishment of institutional mechanisms from their subsequent continuation or expansion.

Nevertheless, several methodological limitations should be acknowledged. First, the study examined a single institution, and its findings are therefore context-specific rather than statistically generalizable to the wider Georgian higher education sector. Second, the analysis relied primarily on institutional and project documentation, which may emphasize recorded activities and achievements more strongly than implementation challenges or stakeholder experiences. Third, the absence of interviews, direct observation, and longitudinal behavioural data limited the ability to assess how institutional reforms influenced individual academic practices or research conduct.

Finally, the ongoing status of ETHICS prevents a definitive assessment of its long-term institutional impact. Accordingly, the findings are interpreted as evidence of institutional capacity development and documented continuity rather than proof of sustained behavioural change or causal project effectiveness.

Ethical Considerations

The study was based exclusively on documentary analysis and did not involve interviews, surveys, experimental interventions, or direct interaction with human participants.

Where internal institutional records contained information about training participation or other project activities, only aggregate indicators were used. Personal identifiers contained in attendance documentation were neither extracted nor analyzed.

The study therefore did not involve the collection or analysis of identifiable individual-level participant data.

4. Results

INTEGRITY: Establishing the Institutional Foundation for Academic Integrity

The documentary analysis identified several interconnected institutional developments associated with the INTEGRITY project at Caucasus University. These included the establishment of a university-wide regulatory framework, the integration of plagiarism-detection technologies, improvements in academic writing education, the development of academic support services, and the continuation of awareness-raising activities. Collectively, these developments indicate a transition from relatively fragmented plagiarism-prevention practices toward a more coordinated institutional approach to academic integrity.

A major regulatory outcome was the development and adoption of the Academic Integrity Code. Project documentation indicates that the Code was prepared through a multistage process involving a review of European partner institutions' practices, internal drafting, consultations with academic and administrative units, feedback from university governance bodies, revisions, and international expert review. The resulting framework defined the core principles of academic integrity, forms of academic misconduct, categories of plagiarism, preventive measures, and disciplinary procedures. It also clarified institutional responsibilities and established links with the Standing Commission for Academic Integrity and Discipline. Consequently, the Code provided a common regulatory reference for academic integrity across the university, replacing reliance on disconnected course-level practices with a more standardized institutional framework.

The implementation of this regulatory framework was accompanied by the expansion of technological and educational support mechanisms. The project supported the integration of Turnitin with Moodle and the provision of practical training, written guidelines, and video instructions for students and academic staff. According to the 2019 project follow-up documentation, Turnitin had been in use since July 2018, and 141 participants had received training in its application. At that time, Moodle had 8,655 registered users, including 3,903 active users, and supported 202 active courses during the 2018–2019 academic year. Approximately 3,500 academic papers had undergone originality checks, generating 3,809 feedback reports. These figures indicate substantial implementation of digital academic support tools, although they do not independently demonstrate a reduction in plagiarism or other forms of academic misconduct.

Selected INTEGRITY implementation indicators (2019 follow-up)

- 3,500 Academic papers checked;
- 3,809 Feedback reports generated;
- 141 Software-training participants;
- 202 Active Moodle courses

Academic writing education represented another important component of institutional development. Training activities for academic writing lecturers addressed curriculum design, plagiarism prevention, citation practices, literature review, paraphrasing, synthesis, identification of academic sources, and the practical application of Moodle and Turnitin. An institutional inventory for the 2018–2019 academic year documented academic writing-related courses across multiple schools and levels of study, representing approximately 1,000 students. Project follow-up records further indicated that academic writing syllabi had been revised and that academic writing had become a compulsory component of first-year education. These developments expanded the institutional approach beyond plagiarism detection by incorporating preventive academic integrity education into the curriculum.

The project also supported the development of a more systematic framework for academic assistance. Drawing on an assessment of existing university services and practices at European partner institutions, the Student Academic Services Concept proposed the establishment of a centralized Academic Writing Center. Its envisaged responsibilities included coordinating academic writing instruction, revising curricula and educational materials, providing individual consultations and workshops, and supporting the implementation of academic integrity policies.

This proposal subsequently resulted in the establishment of a permanent institutional structure. The Academic Writing Center began operating in March 2020, assuming responsibilities for coordinating academic writing education, providing supplementary academic support, and supporting plagiarism-prevention initiatives (Caucasus University, 2019b). The Center's continued operation beyond the formal project period represents documented evidence of the integration of a project recommendation into the university's organizational structure.

Dissemination and awareness-raising activities constituted an additional area of implementation. According to the 2019 project follow-up records, awareness activities reached approximately 1,800–2,000 students and 350–380 academic and administrative staff members. The documented initiatives included internal workshops, student awareness campaigns, academic writing training, dissemination materials, and events addressing plagiarism prevention.

Importantly, several awareness-raising activities continued after the formal completion of INTEGRITY. Through the Academic Writing Center, Caucasus University maintained recurring activities dedicated to academic integrity, including conferences and plagiarism-prevention events. The 2024 international conference on sustaining ethical practices in education connected the institutional achievements of INTEGRITY with the ongoing ETHICS project. Similarly, the 2026 International Day of Plagiarism Prevention webinar addressed academic integrity, research ethics, and the responsible use of artificial intelligence (Caucasus University, 2024a, 2026b).

Overall, the documented outcomes of INTEGRITY demonstrate institutional development across several interconnected dimensions: regulatory consolidation through the Academic Integrity Code; technological implementation through Moodle and Turnitin; curricular integration through academic writing education; organizational support through the Academic Writing Center; and continued awareness-raising through recurring educational activities. These developments established institutional mechanisms that remained relevant during the subsequent expansion of research integrity and ethics initiatives.

ETHICS: Expanding Institutional Capacity in Research Integrity and Research Ethics

The ETHICS project extended the scope of institutional integrity development from academic conduct in teaching and assessment to responsible research practices, ethical review, and research governance. The initiative, implemented as a national structural reform project from May 2023 and scheduled to continue until October 2027, aims to strengthen research integrity, develop institutional policies and educational resources, enhance research ethics training, and establish functional governance mechanisms for ethical research oversight (Caucasus University, 2023).

At Caucasus University, the documentary evidence identified four principal areas of development: specialized training in research integrity, structured certificate education, research ethics policy and procedural development, and the establishment of institutional ethical review mechanisms.

The initial capacity-building activities included a Training-of-Trainers programme conducted in Kutaisi on October 11–13, 2023. The programme addressed the European Code of Conduct for Research Integrity, responsible research culture, plagiarism prevention, research misconduct management, ethical

approval procedures, authorship and publication ethics, generative artificial intelligence, and the responsibilities of research integrity officers. Training activities incorporated participatory exercises, case-based discussions, ethical dilemmas, and group reflection, providing opportunities to apply research integrity principles to practical situations. These instructional approaches are consistent with research emphasizing the educational value of interactive and experiential learning in research ethics training (Antes et al., 2009; Katsarov et al., 2022).

Knowledge and resources obtained through the international consortium were subsequently disseminated within the university. In March 2024, a three-hour research ethics training session was organized for academic and administrative staff, master's students, and doctoral researchers. The programme addressed the European Code of Conduct, research ethics governance, the prevention and management of research misconduct, authorship and publication ethics, and ethical challenges associated with artificial intelligence (Caucasus University, 2024b).

Additional training was conducted in February 2025, reinforcing these topics and extending opportunities for institutional participation. Georgian-language instructional materials, online learning platforms, recorded sessions, and Moodle-based resources facilitated access to educational content and supported its continued availability.

A further institutional development was the introduction of a structured certificate course on Research Ethics and Integrity. The first pilot course was delivered between February 28 and March 18, 2025, through six online sessions supported by Georgian- and English-language educational materials.

Internal implementation records documented 67 registrations, including 28 doctoral students, 24 academic staff members, 13 invited lecturers, and two administrative staff members. Of those registered, 48 were enrolled in the Moodle course environment. The average attendance rate was 54%, and 24 participants submitted the final assignment.

ETHICS certificate course: First pilot, 2025

- 67 Registered participants
- 48 Moodle enrolments
- 54% Average attendance rate
- 24 Final assignments submitted

Project evaluation materials identified several strengths of the pilot course, including its structured curriculum, case-based learning activities, interactive teaching methods, and facilitation. At the same time, the evaluation highlighted opportunities for further improvement, particularly extending the course duration, developing discipline-specific content, and considering compulsory research ethics education for doctoral students.

The pilot course was subsequently repeated, with a second cohort delivered between December 2025 and February 2026 (Caucasus University, 2025a, 2026a). Its continuation provides evidence that the educational initiative extended beyond its initial implementation phase, although longer-term integration into doctoral and professional development requirements remains to be assessed.

The ETHICS project also contributed to the establishment of formal institutional mechanisms for research ethics governance. The university developed the Regulation of the Research Ethics Council, defining the Council as an independent institutional body responsible for evaluating research projects and methodologies against internationally recognized ethical and legal standards.

The regulation specifies analytical, policy-related, advisory, compliance, and monitoring functions. It establishes procedures for reviewing research involving human participants, animals, and sensitive information, with particular attention to informed consent, confidentiality, protection of vulnerable populations, risk–benefit assessment, and data protection. It also defines possible review decisions, including approval, conditional approval, and rejection.

The Council's organizational structure comprises six permanent members and up to two invited members selected according to the subject matter of the research under consideration. The regulation establishes documentary requirements for ethical review, including applications, research protocols, information about investigators, research instruments, informed consent documentation, and additional protective measures for research involving minors.

In parallel, a structured research-project template was developed to incorporate research ethics considerations explicitly into the methodology section of research proposals. These procedural instruments

introduced practical mechanisms for integrating ethical requirements into research planning, assessment, and institutional review.

A significant organizational milestone occurred on July 29, 2025, when Caucasus University held the first introductory meeting of its Research Ethics Council. The meeting addressed the Council's regulation, the institutional Research Ethics Policy, and its work plan for the 2025–2026 academic year (Caucasus University, 2025b).

Subsequent activities focused on supporting researchers in meeting ethical review requirements. In 2026, the university organized training on ethical considerations in research projects for academic staff, researchers, and doctoral students. The training addressed identification of ethical risks, preparation of informed consent documentation, protection of personal data, and common deficiencies in research ethics applications (Caucasus University, 2026c).

The project documentation also indicates increasing institutional attention to ethical challenges associated with generative artificial intelligence. Training sessions and policy discussions addressed transparency in AI-assisted academic work, responsible authorship, originality, and distinctions between acceptable technological assistance and practices that may compromise research integrity.

However, some planned developments remained at the preparatory stage during the period examined. These included further integration of research integrity topics into Academic Writing and Research Methods courses and the expansion of discipline-specific training. Accordingly, these activities were classified as prospective institutional development measures rather than completed outcomes.

Taken together, the ETHICS findings demonstrate documented progress in research integrity training, structured education, regulatory development, and ethical review governance. Unlike the earlier INTEGRITY initiative, which concentrated primarily on academic writing, plagiarism prevention, and educational support, ETHICS has introduced mechanisms addressing research conduct, ethical assessment, and institutional accountability throughout the research process. Because the project remains ongoing, these findings represent interim institutional outcomes rather than evidence of its final or long-term impact.

Comparative Analysis and Cumulative Institutional Development

The comparative analysis identified both distinct institutional functions and substantial continuity between the INTEGRITY and ETHICS projects. While INTEGRITY focused on establishing university-wide mechanisms for academic integrity, plagiarism prevention, academic writing, and student support, ETHICS expanded the institutional framework into research integrity education, research ethics governance, and formal ethical review.

The projects differed in their primary objectives, target populations, regulatory contributions, and support mechanisms. Nevertheless, they shared an emphasis on preventive education, institutional responsibility, regulatory development, and the integration of project outputs into regular university practices.

The documentary evidence suggests that the relationship between the initiatives was not merely chronological but involved the continuation and extension of previously established institutional mechanisms.

INTEGRITY introduced a common regulatory framework, expanded academic integrity education, strengthened academic support services, and established technological infrastructure for plagiarism prevention. ETHICS subsequently applied related principles of prevention, education, institutional accountability, and support to research-related activities while introducing specialized research ethics governance and ethical review procedures.

The most direct evidence of continuity concerns the Academic Writing Center. Established following recommendations developed under INTEGRITY, the Center subsequently contributed to training and certificate-course activities associated with ETHICS. This institutional linkage demonstrates how an organizational structure introduced through an earlier project continued to support activities under a subsequent capacity-building initiative.

Additional continuity was evident in the use of existing academic integrity policies, awareness-raising mechanisms, educational resources, and institutional experience to support the development of more specialized research integrity initiatives. Rather than establishing a completely separate organizational system, ETHICS expanded the institutional scope of integrity-related activities by introducing researcher education and formal ethical review.

Table 1. Comparative Institutional Contributions of the INTEGRITY and ETHICS Projects

Dimension	INTEGRITY	ETHICS
Primary focus	Academic integrity and plagiarism prevention	Research integrity and research ethics
Institutional scope	Teaching, learning, assessment, and academic writing	Research, doctoral education, publication, and ethical review
Regulatory framework	Academic Integrity Code and disciplinary procedures	Research ethics regulations, review procedures, and Research Ethics Council
Education and training	Academic writing, plagiarism prevention, Moodle and Turnitin training	Responsible research conduct, ethical review, publication ethics, and AI
Target groups	Students, academic staff, and administrative staff	Doctoral students, researchers, academic staff, and research-support personnel
Support mechanisms	Academic Writing Center, academic support services, Moodle, and Turnitin	Certificate courses, ethics guidance, research-project templates, and review support
Indicators of continuity	Permanent Academic Integrity Code, Academic Writing Center, recurring training and awareness activities	Research Ethics Council, repeated certificate course, continuing research ethics training
Institutional contribution	Establishment of foundational integrity mechanisms	Extension of institutional mechanisms into research ethics and governance

Note. The comparison is based on documentary evidence and institutional implementation records. Indicators of continuity do not, by themselves, demonstrate behavioural impact or long-term effectiveness.

The findings therefore indicate a progression across several institutional dimensions: from academic integrity regulation to research ethics governance; from plagiarism-prevention education to specialized research integrity training; from general academic support to research-specific ethical guidance; and from institutional awareness-raising to structured ethical review procedures.

However, the available documentary evidence does not establish that these developments produced measurable reductions in academic or research misconduct. The findings primarily demonstrate the establishment, extension, and documented continuation of institutional mechanisms.

Overall, the comparative analysis indicates that the two projects contributed to a cumulative pattern of institutional capacity development. INTEGRITY established foundational regulatory, educational, technological, and organizational mechanisms, while ETHICS extended these mechanisms into responsible research conduct and ethical governance. This pattern provides the empirical basis for examining the conditions under which successive international capacity-building initiatives may contribute to the progressive institutionalization of academic integrity and research ethics.

5. Discussion

Institutionalizing Academic Integrity Beyond Regulatory Compliance

The findings of this study suggest that the sustainable development of academic integrity and research ethics depends on their integration into institutional governance, educational practices, and organizational support systems rather than their treatment as isolated compliance requirements. The experience of Caucasus University illustrates how successive international capacity-building initiatives can contribute to the progressive development of institutional integrity frameworks through the alignment of regulatory, educational, technological, and organizational mechanisms.

One of the principal findings concerns the institutional contribution of the INTEGRITY project. Although the introduction of plagiarism-detection technologies represented an important component of the initiative, its broader significance lay in connecting technological tools with institutional policies, academic writing education, staff development, and student support services. This approach is consistent with Bretag et al. (2011), who identified access, approach, responsibility, detail, and support as essential elements of effective academic integrity policies. Their framework emphasizes that institutional regulations are unlikely

to achieve their intended objectives unless they are accompanied by accessible guidance, clearly defined responsibilities, and mechanisms supporting their implementation.

At Caucasus University, the Academic Integrity Code established a common regulatory framework, while academic writing courses, the Academic Writing Center, Moodle and Turnitin integration, and recurring awareness-raising activities provided complementary mechanisms for translating formal expectations into institutional practice. The importance of this combination lies in the transition from an approach primarily concerned with identifying academic misconduct toward one that also emphasizes prevention, education, and institutional responsibility.

These findings are particularly relevant to the Georgian higher education context. Chokoraia (2023) and Khositashvili (2024) documented continuing challenges in the development of academic integrity cultures, including differences in institutional approaches to plagiarism prevention and the tendency to prioritize technological detection over preventive education. The present case illustrates a possible institutional response to these challenges by demonstrating how plagiarism-detection technologies can be integrated into a broader framework of curriculum development, professional training, academic support, and regulatory accountability.

Importantly, the continuation of the Academic Writing Center and recurring academic integrity initiatives after the completion of INTEGRITY provides evidence of institutional continuity beyond the project's formal implementation period. These developments suggest that certain project outputs were incorporated into established university functions rather than remaining temporary activities. However, the available evidence demonstrates organizational continuity rather than directly measured improvements in students' academic behaviour or reductions in plagiarism.

From Academic Integrity to Research Ethics Governance

A second major finding is the progressive extension of institutional integrity mechanisms from teaching, learning, and academic assessment into research conduct and ethical governance. The ETHICS project built upon the regulatory, educational, and organizational foundations established through INTEGRITY while introducing additional mechanisms addressing responsible research practices, publication ethics, ethical review, and researcher development.

This progression is consistent with contemporary research emphasizing that research integrity is a shared responsibility of individual researchers and the institutions in which they work. De Peuter and Conix (2023) argue that effective research integrity systems require supportive organizational cultures, coherent policies, transparent procedures, education, and monitoring mechanisms. Similarly, Evans et al. (2022) identified institutional governance, supervisory practices, educational resources, and practical research support as interconnected components of responsible research environments.

The experience of Caucasus University reflects several elements of these institutional approaches. The ETHICS project introduced specialized research integrity training, structured certificate education, research ethics procedures, and a Research Ethics Council. Together, these developments expanded the university's integrity-related responsibilities beyond the prevention of plagiarism and academic misconduct to encompass ethical considerations throughout the research process.

The establishment of the Research Ethics Council is particularly significant from an institutional governance perspective. By creating formal procedures for the ethical assessment of research proposals, the university introduced an organizational mechanism intended to support the protection of research participants, informed consent, confidentiality, data protection, and responsible research implementation. The Council therefore represents an important development in the formalization of institutional responsibility for research ethics.

Nevertheless, the establishment of a governance body should not be equated automatically with the effective implementation of ethical oversight. The long-term contribution of the Research Ethics Council will depend on its operational independence, accessibility to researchers, procedural consistency, disciplinary expertise, and integration into university research processes. Future evaluation will be necessary to determine how effectively these institutional arrangements function in practice.

Research Ethics Education and the Development of Sustainable Competencies

A third finding concerns the contribution of structured education and professional development to institutional research integrity capacity. The ETHICS project incorporated participatory training methods, practical case discussions, ethical dilemmas, and applied learning activities into its Training-of-Trainers programme and research ethics certificate course.

This educational approach is supported by previous research on ethics instruction. Antes et al. (2009), in their meta-analysis of ethics education in the sciences, demonstrated that training effectiveness varies according to instructional characteristics and programme design. Katsarov et al. (2022) further highlighted the value of educational strategies that promote active engagement with ethical principles and their application to realistic research situations. Together, these findings suggest that research integrity education should extend beyond communicating formal regulations to developing ethical reasoning, critical judgment, and practical decision-making competencies.

The certificate course introduced at Caucasus University represents an institutional application of these educational principles. Its combination of structured content, case-based instruction, interactive delivery, and practical assignments provided a framework for research ethics education among doctoral students, academic staff, and other university personnel.

The continuation of the course with a second cohort is an important indicator of institutional continuity. Whereas isolated workshops may provide short-term opportunities for awareness raising, recurring educational programmes offer greater potential for integration into doctoral training and continuing professional development. Such integration may contribute to the development of sustained educational capacity, provided that appropriate institutional resources and organizational responsibilities are maintained.

At the same time, the pilot course findings illustrate the importance of distinguishing participation and implementation indicators from educational effectiveness. Registration figures, attendance rates, assignment submissions, and participant feedback provide useful information about programme reach, feasibility, and implementation. However, they do not establish whether participants acquired measurable competencies, changed their research practices, or subsequently demonstrated greater adherence to ethical standards.

The recommendations arising from the pilot evaluation—including extending the course duration, developing discipline-specific content, and considering compulsory provision for doctoral students—also suggest that the educational framework remains under development. These findings highlight the potential value of incorporating systematic learning assessments, participant feedback, and longer-term evaluation into future research integrity education.

International Cooperation, Institutional Ownership, and Sustainability

Another important finding concerns the relationship between international cooperation and sustainable institutional development. Both INTEGRITY and ETHICS provided opportunities to engage with European institutional practices, international ethical standards, educational resources, and collaborative capacity-building mechanisms. However, the findings suggest that the continuation of these initiatives depended not simply on the transfer of external models but on their adaptation to the university's institutional context.

The INTEGRITY project illustrates this process through the development of the Academic Integrity Code, which involved internal consultation and university governance procedures, and through the establishment of the Academic Writing Center as a permanent organizational unit. Similarly, ETHICS adapted internationally informed research integrity principles through locally delivered training, Georgian-language educational resources, institutional research ethics regulations, and the establishment of a Research Ethics Council.

These developments are consistent with the broader objectives of Erasmus+ capacity-building initiatives, which emphasize institutional development, international cooperation, and the sustainability of project outcomes (European Commission, 2026). The Caucasus University case suggests that international cooperation may be most valuable when externally supported knowledge and resources are translated into locally owned policies, institutional responsibilities, educational programmes, and operational procedures.

This interpretation also highlights the distinction between project outputs and institutionalization. Training materials, workshops, guidelines, and policy drafts constitute important project deliverables, but their production alone does not demonstrate sustainable institutional change. Institutionalization occurs when such outputs become connected to established organizational responsibilities, formal decision-making processes, permanent services, recurring educational provision, and routine academic practices.

In the present study, several developments provide evidence of this transition. The Academic Integrity Code continued to function as a regulatory framework; the Academic Writing Center remained operational after the INTEGRITY project; academic integrity awareness activities continued beyond the initial funding period; the research ethics certificate course was delivered to successive cohorts; and the Research Ethics Council established formal institutional arrangements for ethical review.

These findings provide evidence of documented institutional continuity, although the degree of sustainability varies between the two projects. INTEGRITY offers a longer period of post-project observation, whereas ETHICS remains ongoing through October 2027. Consequently, the continuation of ETHICS-related activities should be interpreted as evidence of emerging institutionalization rather than definitive proof of long-term sustainability.

Cumulative Institutional Development and the Contribution of the Study

The central contribution of this study lies in examining the relationship between successive international capacity-building initiatives rather than evaluating each project independently. The findings suggest that institutional integrity frameworks can develop cumulatively when mechanisms established through earlier reforms are maintained, adapted, and extended by subsequent initiatives.

The relationship between INTEGRITY and ETHICS illustrates this process. INTEGRITY established foundational regulatory expectations, technological infrastructure, academic writing education, support services, and organizational experience. ETHICS subsequently expanded these mechanisms into specialized researcher development, research ethics education, ethical review, and institutional research governance.

The Academic Writing Center provides a particularly clear example of this continuity. Initially established following recommendations developed through INTEGRITY, the Center subsequently participated in training and certificate-course activities associated with ETHICS. Its involvement demonstrates how a permanent organizational structure created through one capacity-building initiative can contribute to the implementation of a subsequent project addressing related institutional objectives.

This relationship suggests a developmental pathway consisting of several interconnected stages: the establishment of shared ethical principles and awareness; the development of institutional policies and preventive support mechanisms; the integration of integrity education into academic programmes; the expansion of specialized researcher training; and the introduction of formal research ethics governance.

However, this pathway should be interpreted as an analytical explanation of the institutional developments observed at Caucasus University rather than as a universally applicable or necessarily linear model. Institutional change may occur through different sequences depending on organizational characteristics, regulatory environments, institutional leadership, available resources, and the maturity of existing governance structures.

The findings nevertheless contribute to the literature by demonstrating how academic integrity and research ethics can be examined as interconnected dimensions of institutional development. While previous studies have addressed academic integrity policies (Bretag et al., 2011), research integrity cultures (De Peuter & Conix, 2023; Evans et al., 2022), and ethics education (Antes et al., 2009; Katsarov et al., 2022), the present study brings these perspectives together through a chronological comparison of two successive institutional capacity-building projects.

Its contribution is therefore primarily conceptual and organizational. The analysis identifies continuity between regulatory development, educational provision, institutional support, and research ethics governance, while demonstrating the importance of examining the mechanisms through which project outcomes become embedded in university practices.

Emerging Challenges: Generative Artificial Intelligence and Research Integrity

The findings also highlight the increasing relevance of generative artificial intelligence to academic integrity and research ethics governance. Traditional plagiarism-prevention frameworks have primarily addressed originality, citation practices, source attribution, and authorship. However, the growing use of generative AI introduces additional challenges related to transparency, responsibility for generated content, confidentiality, data protection, and the appropriate boundaries of technological assistance in academic and research activities.

These challenges require universities to reconsider how established integrity principles apply to emerging research practices. The European Code of Conduct for Research Integrity recognizes the importance of adapting responsible research standards to technological developments and evolving research environments (ALLEA, 2023).

At Caucasus University, the inclusion of generative AI-related topics in ETHICS training and institutional policy discussions indicates growing recognition of these challenges. Such activities extend the integrity agenda beyond conventional plagiarism prevention and emphasize broader questions of authorship, accountability, transparency, and responsible use of digital technologies.

Nevertheless, the development of AI-related institutional guidance remains an evolving process. Effective governance will require clear expectations concerning disclosure of AI assistance, human responsibility for scholarly outputs, appropriate management of confidential information, and the integration of emerging technologies into research education and supervision.

The broader implication is that institutional integrity frameworks must remain adaptable. Sustainable governance requires not only the preservation of established ethical principles but also the capacity to interpret and apply those principles in response to changing academic and technological environments.

Practical and Policy Implications

The findings offer several implications for higher education institutions seeking to strengthen academic integrity and research ethics through international cooperation and institutional reform.

First, universities should approach academic integrity as an integrated institutional responsibility rather than relying primarily on plagiarism-detection technologies or disciplinary procedures. Effective frameworks require coordination between institutional regulations, curriculum development, academic support services, professional training, and governance mechanisms.

Second, research integrity and ethics education should be incorporated into recurring academic and professional development activities. In particular, doctoral programmes and researcher training can provide opportunities to integrate ethical reasoning, responsible research practices, publication ethics, and practical guidance on research ethics review into established educational structures.

Third, institutional sustainability requires clearly assigned organizational responsibilities. Permanent support units, research ethics councils, designated administrative functions, and formally adopted procedures may help ensure that project outcomes remain operational beyond individual training events or funding cycles.

Fourth, international capacity-building initiatives should emphasize institutional adaptation and ownership. The transfer of international practices is more likely to support lasting organizational development when new policies and resources are aligned with institutional needs, integrated into local governance arrangements, and supported by university leadership.

Finally, institutions should complement implementation indicators with systematic evaluation of educational and organizational outcomes. Monitoring participation, training delivery, and the establishment of new structures is important, but these measures should be accompanied by assessments of learning, researcher experience, procedural effectiveness, and adherence to ethical standards.

Study Limitations and Directions for Future Research

Several limitations should be considered when interpreting the findings.

First, the study was conducted at a single higher education institution. Although the institutional case-study design enables detailed examination of organizational development, the findings cannot be statistically generalized to all universities in Georgia or other higher education systems. Their relevance to other institutional settings depends on similarities in governance structures, organizational capacity, regulatory environments, and international cooperation arrangements.

Second, the analysis relied primarily on documentary evidence, including internal project materials, institutional regulations, public university records, and aggregate implementation indicators. Such documentation provides valuable information on formal institutional developments but may emphasize recorded achievements more strongly than implementation difficulties, stakeholder experiences, or informal organizational practices. The absence of interviews and direct observation limits the assessment of how institutional mechanisms are understood and applied by students, academic staff, researchers, and administrators.

Third, the study did not include longitudinal data on plagiarism prevalence, research misconduct, ethical decision-making, or individual research behaviour. Consequently, it cannot establish whether the projects directly improved ethical conduct or reduced misconduct. The findings should instead be understood as evidence of documented institutional capacity development and continuity.

Fourth, the two projects differ in their periods of implementation and observation. INTEGRITY has been completed, allowing examination of selected post-project institutional developments, whereas ETHICS remains ongoing through October 2027. This difference limits direct comparison of their long-term sustainability and requires ETHICS-related findings to be interpreted as interim outcomes.

Fifth, some implementation and dissemination records rely on participation counts, attendance, platform activity, and other aggregate indicators. Although these measures are useful for documenting reach and operational implementation, they cannot independently establish knowledge acquisition, changes in ethical attitudes, improvements in research competence, or sustained behavioural outcomes.

These limitations identify several priorities for future research. Subsequent investigations could combine documentary analysis with interviews or focus groups involving students, doctoral researchers, academic staff, supervisors, administrative personnel, and members of research ethics committees. Such approaches would provide a more comprehensive understanding of institutional experiences, implementation challenges, and the practical operation of integrity-related policies and support services.

Future studies could also introduce pre- and post-training assessments of ethical knowledge, research integrity competencies, and confidence in addressing ethical dilemmas. Follow-up evaluations would help determine whether educational activities are associated with sustained changes in research practices.

At the organizational level, additional research could examine the number and characteristics of research ethics applications, review outcomes, procedural timelines, the consistency of ethical review requirements, and researchers' experiences of institutional support. These indicators would provide a more detailed understanding of how formal governance structures operate in practice.

Finally, comparative research involving other Georgian universities participating in INTEGRITY and ETHICS could investigate whether similar patterns of institutional continuity and cumulative development are observed across different organizational contexts. Such studies could help distinguish institution-specific experiences from more widely applicable mechanisms of capacity building and provide stronger evidence concerning the sustainability of internationally supported higher education reforms.

6. Conclusions

This study demonstrates how successive international capacity-building initiatives can contribute to the progressive institutionalization of academic integrity and research ethics in higher education. The experience of Caucasus University highlights the importance of integrating regulatory frameworks, preventive education, organizational support, and governance mechanisms into a coherent institutional approach to responsible academic and research conduct.

The INTEGRITY project established the institutional foundation by supporting the adoption of the Academic Integrity Code, the integration of plagiarism-detection technologies, the development of academic writing education, and the establishment of a permanent Academic Writing Center. The continued operation of these mechanisms beyond the project's completion provides evidence that selected project outcomes were incorporated into routine university practices rather than remaining temporary interventions.

Building on this foundation, the ETHICS project has expanded institutional capacity into responsible research conduct, research ethics education, and formal ethical oversight. Specialized training, recurring certificate courses, research ethics procedures, and the establishment of the Research Ethics Council reflect a broader transition from plagiarism prevention and academic integrity awareness toward institutional responsibility for ethical research governance. However, because ETHICS remains ongoing, these developments should be interpreted as interim institutional outcomes rather than evidence of its long-term effectiveness.

The principal contribution of this study lies in identifying the cumulative relationship between successive capacity-building initiatives. The findings suggest that institutional development depends not merely on introducing new policies, technologies, or training activities but on integrating these mechanisms into permanent organizational structures, educational programmes, institutional responsibilities, and routine decision-making processes. International cooperation can facilitate this development by providing expertise

and resources, while institutional adaptation and local ownership are essential for maintaining and extending project achievements.

The Caucasus University case offers a potentially transferable approach for higher education institutions seeking to strengthen academic integrity and research ethics. This approach involves establishing coherent institutional policies, integrating preventive education and academic support, assigning permanent organizational responsibilities, extending integrity principles into research practice, and developing sustainable mechanisms for ethical review and researcher training. Nevertheless, the applicability of this approach will depend on institutional circumstances, governance arrangements, and available resources.

Although the findings provide evidence of institutional capacity development and organizational continuity, they do not establish causal effects on academic misconduct, research behaviour, or ethical decision-making. Future research should therefore complement documentary evidence with systematic assessments of institutional implementation, educational outcomes, stakeholder experiences, and changes in research practice.

Overall, the study underscores that sustainable academic integrity and research ethics are not achieved through isolated regulatory or educational interventions but through the cumulative development of institutional policies, capacities, and practices that support responsible academic and research conduct.

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