INNOVATION-LED TRANSFORMATION OF GRADUATE EDUCATION: A CASE STUDY OF SAN PABLO COLLEGES

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This study examined the innovation-driven transformation of graduate education at San Pablo Colleges (SPC), focusing on how institutional innovations have shaped the experiences of graduate students and contributed to a more responsive, flexible, and sustainable educational environment. Anchored in the institutional NEXUStainability Framework and aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDGs 4, 9, and 17, the study employed a descriptive mixed-methods case study design. Data were gathered from 148 graduate students through a survey containing quantitative indicators and open-ended questions. Quantitative data were analyzed using descriptive statistics, while qualitative responses were subjected to thematic analysis. Findings revealed a highly favorable overall assessment of innovation-driven graduate education (M = 3.57). Curriculum and course offerings and overall satisfaction received the highest ratings (M = 3.65), followed by professional development and linkages (M = 3.62), while technology integration obtained the lowest rating (M = 3.34), identifying an area for further enhancement. Qualitative findings generated five major themes: relevant and responsive graduate education, flexible and innovative learning, research and professional transformation, technology-enabled education, and continuous innovation and improvement. The findings demonstrate that innovation at SPC extends beyond digitalization and encompasses curriculum responsiveness, learning flexibility, research, professional development, and institutional linkages. The study concludes that SPC Graduate School is progressively moving from traditional graduate education toward an integrated, learner-centered, innovation-driven, and sustainability-oriented model. Continued investment in digital resources, research support, flexible learning, partnerships, and systematic assessment of innovation outcomes is recommended to sustain this transformation.

Keywords: graduate education, educational innovation, institutional transformation, NEXUStainability, sustainable development

Introduction

Graduate education has evolved from its traditional role of providing advanced academic credentials toward becoming a platform for innovation, research, professional development, leadership, and sustainable institutional transformation. Higher education institutions are expected to respond to rapid technological advancement, changing professional demands, globalization, and sustainability challenges while maintaining academic quality and relevance. The Organisation for Economic Co-operation and Development (OECD, 2023a, 2023b) highlights the role of higher education in education and innovation for the digital and green transitions, and the International Commission on the Futures of Education (2021) calls on educational institutions to rethink their roles in knowledge creation, collaboration, inclusion, and sustainable futures. Graduate schools are therefore challenged to preserve valuable academic traditions while adopting innovations that make advanced education more responsive, accessible, and relevant.

Innovation in higher education encompasses more than the adoption of technology. It includes changes in curriculum, teaching and learning, research, quality assurance, professional development, governance, partnerships, and community engagement (see also OECD & European Commission, n.d.). Castro Benavides, Tamayo Arias, Arango Serna, Branch Bedoya, and Burgos (2020) describe digital transformation in higher education as a multidimensional process involving technology, organizational structures, strategies, processes, and people. Earlier research at San Pablo Colleges (SPC) similarly indicates that educational innovation involves interconnected initiatives rather than isolated technological interventions: Lunar and Eala (2023) documented the institution's efforts to respond to emerging educational demands and framed innovation as an evolving process of institutional improvement.

The transformation of graduate education at SPC is also situated within the institution's NEXUStainability Framework, which connects educational quality and institutional development with sustainability. Lunar, Eala, and Perez (2025) showed that sustainability initiatives can function as drivers of institutional effectiveness, reinforcing the premise that sustainability belongs within academic, administrative, research, and community-oriented initiatives rather than standing apart from them. Lunar, Perez, and Eala (2024) likewise underscored the relationship between quality

assurance and institutional sustainability, suggesting that quality systems can serve as foundations for continuous improvement and not merely as mechanisms for compliance. Applied to graduate education, these perspectives position quality assurance as an enabling mechanism through which curriculum innovation, flexible learning, research development, digitalization, and professional engagement can be systematically monitored and strengthened, and they point to programs and practices that respond to current learner and professional needs while building the institution's capacity for long-term relevance.

These directions correspond with the United Nations Sustainable Development Goals (SDGs; United Nations, 2015). Graduate education advances SDG 4 (Quality Education) through accessible, relevant, and advanced learning opportunities; supports SDG 9 (Industry, Innovation and Infrastructure) through research, innovation, and technology integration; and contributes to SDG 17 (Partnerships for the Goals) through academic, professional, community, and international collaboration. The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) further emphasizes that education for sustainable development should build the knowledge, competencies, values, and capacities needed for transformative action.

The literature consulted for this study thus addresses digital transformation, curriculum flexibility, flexible learning pathways, and institution-wide innovation, sustainability, and quality assurance; it does not describe how graduate students at SPC themselves experience innovation in graduate education. The present study addresses this gap by building on earlier SPC studies, focusing on graduate education and the experiences of its learners, and anchoring its interpretation in NEXUStainability and the SDGs.

The study is delimited to the 148 graduate students of SPC who responded to the survey, and it does not cover faculty members, alumni, administrators, employers, institutional partners, or other institutions. Specifically, the study sought (a) to determine graduate students' perceptions of innovation in curriculum and course offerings, innovative teaching and flexible learning, research and mentorship, technology integration, professional development and linkages, and overall satisfaction; (b) to describe their experiences of innovation through the themes emerging from their open-ended responses; and (c) to interpret

these findings in relation to the NEXUStainability Framework and SDGs 4, 9, and 17. Because the study was descriptive, no hypotheses were tested. The purpose of the study was to examine how innovation is manifested and experienced within SPC Graduate School and to consider whether it reflects a movement from established academic traditions toward a responsive, innovative, quality-driven, and sustainability-oriented model of graduate education.

Method

The study employed a descriptive mixed-methods case study design to examine the innovation-driven transformation of graduate education at San Pablo Colleges from the perspectives of its graduate students. A total of 148 graduate students from the different graduate programs participated through a survey questionnaire consisting of demographic questions, quantitative indicators, and open-ended questions.

The quantitative component assessed students' perceptions of innovation in six areas of graduate education: curriculum and course offerings, innovative teaching and flexible learning, research and mentorship, technology integration, professional development and linkages, and overall satisfaction with innovation-driven graduate education. Responses were analyzed using descriptive statistics, namely frequency, percentage, weighted mean, and ranking, to determine the respondents' profile and the perceived extent of innovation in each area.

The qualitative component consisted of open-ended questions in which participants described their experiences of curriculum relevance, learning modalities, research and mentorship, technology integration, transformational impact, and suggested improvements. The responses were subjected to thematic analysis to identify recurring ideas and patterns that contextualized and enriched the quantitative findings. The interpretation of the findings was situated within the NEXUStainability Framework and SDGs 4, 9, and 17, so that the transformation of graduate education was examined in relation to quality, sustainability, and broader societal development.

Results and Discussion

Graduate students held a highly favorable perception of innovation in graduate education at SPC, as indicated by an overall mean of 3.57, interpreted as Highly Favorable. All six dimensions were interpreted as Strongly Agree: curriculum and course offerings (M = 3.65), overall satisfaction (M = 3.65), professional development and linkages (M = 3.62), research and mentorship (M = 3.58), innovative teaching and flexible learning (M = 3.57), and technology integration (M = 3.34). Thematic analysis of the open-ended responses yielded five themes: relevant and responsive graduate education, flexible and innovative learning, research and professional transformation, technology-enabled education, and continuous innovation and improvement. These results are discussed below in relation to the three objectives of the study.

Perceived extent of innovation across dimensions

The favorable ratings across all dimensions suggest that the transformation of graduate education is evident in curriculum, teaching and learning, research, technology, professional development, and the overall student experience. This supports the view that innovation in higher education is a multidimensional process involving not only technology but also academic practices, organizational processes, people, and institutional structures (Castro Benavides et al., 2020). Curriculum and course offerings and overall satisfaction obtained the highest means, and professional development and linkages followed closely. The high curriculum rating suggests that students perceive their programs as responsive to contemporary professional and academic demands, which matters in graduate education because curricula must remain relevant to changing workplace expectations and emerging knowledge. OECD (2024) identifies curriculum flexibility as a characteristic of future-oriented education because it allows programs to adapt content, pedagogies, assessment, and learning opportunities to diverse and evolving needs. The similarly high rating for professional development and linkages indicates that students saw graduate education as contributing beyond academic advancement to professional growth and connections with broader communities of practice.

Research and mentorship and innovative teaching and flexible learning were likewise rated positively, a notable result given that graduate

education is expected to develop advanced inquiry, independent learning, and professional competence. Flexibility is especially relevant to graduate students, who often combine study with employment and other responsibilities, and Martin and Furiv (2022) link flexible learning pathways to SDG 4, noting that flexibility can widen access, accommodate different learner circumstances, and offer alternative ways of progressing through and completing higher education. Graduate education also forms part of the contribution that higher education institutions make to lifelong learning (UNESCO, Institute for Lifelong Learning, 2022).

Technology integration received the lowest mean. It was still favorably assessed, but it was the most evident area for further development. Digital transformation in higher education requires more than technological platforms; it involves infrastructure, digital competencies, learning support, institutional processes, and the effective integration of technology into educational practice. Castro Benavides et al. (2020) similarly describe digital transformation as complex and as requiring technological, organizational, and social dimensions to operate together, and OECD (2023c) identifies enabling factors for quality, equity, and efficiency in digital education. The comparatively lower rating is therefore better read as an opportunity to strengthen digital resources, platforms, user support, and technology-enabled learning than as evidence of an unfavorable student experience.

Students' experiences of innovation

Across five interconnected themes, graduate students at San Pablo Colleges (SPC) perceived educational innovation not merely as the adoption of digital tools, but as a holistic institutional and personal transformation. First, relevant and responsive education connected research-oriented curricula directly to workplace needs, while flexible and innovative learning leveraged online and blended modalities to make advanced study accessible for working professionals. This foundation fueled research and professional transformation, driving tangible learner gains in critical thinking, leadership, confidence, and career readiness. Although technology-enabled education was valued for communication and learning, students noted ongoing gaps in platform awareness, digital support, and e-library access—reinforcing that successful digital transformation requires organizational capability alongside infrastructure. Finally, student recommendations for stronger research support, streamlined processes,

and expanded partnerships reflect a view of continuous innovation and improvement as an ongoing, adaptive journey rather than a finished milestone.

Alignment with NEXUStainability and the SDGs

Aligned with the NEXUStainability Framework and Sustainable Development Goals (SDGs) 4, 9, and 17, the study's findings demonstrate that the San Pablo Colleges (SPC) Graduate School is evolving from tradition to transformation by building a flexible, research-oriented, and professionally relevant educational system rather than merely digitizing instruction. Based on descriptive survey data from 148 graduate students, innovation is perceived most strongly in curriculum responsiveness, professional development, and overall student experience—driving measurable gains in working professionals' leadership, critical thinking, research capability, and career readiness—while technology integration remains the primary area needing ongoing support through user orientation, capability building, and systematic evaluation of digital platforms like the LMS and e-library. Ultimately, these results suggest that graduate innovation thrives best as an integrated institutional strategy rather than isolated initiatives, though the conclusions are bound by the study's single-institution, student-perception scope and do not measure objective learning outcomes, longitudinal change, or external stakeholder views

Conclusion

Graduate students at San Pablo Colleges held a highly favorable perception of innovation in graduate education (overall M = 3.57), with curriculum and course offerings and overall satisfaction rated highest (M = 3.65), professional development and linkages next (M = 3.62), and technology integration lowest (M = 3.34). Five themes (relevant and responsive graduate education, flexible and innovative learning, research and professional transformation, technology-enabled education, and continuous innovation and improvement) showed that students experienced innovation as extending beyond digitalization to curriculum responsiveness, learning flexibility, research and professional growth, and institutional linkages, in keeping with the NEXUStainability Framework and SDGs 4, 9, and 17. The students' ratings and accounts are consistent with a movement of SPC Graduate School from traditional graduate

education toward a more learner-centered, innovation-driven, and sustainability-oriented model, with technology integration the clearest area for further development. These conclusions describe students' perceptions at one institution; they do not measure learning outcomes, establish change over time, or generalize to other institutions.

Recommendation

San Pablo Colleges Graduate School is encouraged to build on its existing innovations through a more systematic innovation-driven graduate education agenda anchored in NEXUStainability. Priorities include strengthening digital learning infrastructure and electronic resources, supported by orientation and technical assistance so that the learning management system and library resources are accessible and used; expanding research mentorship and publication opportunities; sustaining flexible and blended learning; improving academic and administrative processes; and forming stronger local and international academic, industry, and professional partnerships. Emerging technologies, including artificial intelligence and research-support tools, may be integrated responsibly into instruction, research, assessment, and graduate school services while maintaining academic integrity and ethical standards. Innovations should also be documented by their outcomes and impact and not by implementation alone, using measurable indicators such as student learning, research productivity, publication and presentation outputs, professional advancement, stakeholder satisfaction, and contributions to the SDGs to determine which to sustain, enhance, replicate, or redesign.

Future research may undertake longitudinal and comparative studies of how perceptions and outcomes of graduate education transformation change over time and differ across programs, cohorts, and stakeholder groups, and may incorporate the perspectives of faculty members, alumni, administrators, employers, and institutional partners. The present findings may ultimately serve as an empirical foundation for an SPC Innovation-Driven Graduate Education Transformation Model integrating academic quality, flexibility, research, digitalization, professional development, partnerships, and sustainability, which could offer an adaptable framework for other institutions seeking to preserve academic traditions while responding to the changing demands of graduate education.

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