From Vision to Reality: The Pains and Gains of Establishing a Local College

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ABSTRACT:

The establishment of local colleges has become a strategic mechanism for expanding access to higher education and advancing community development in the Philippines. This study explored the lived experiences of key stakeholders in transforming the vision of a local college into the reality of the Lyceum of Capas in Capas, Tarlac. Using a descriptive phenomenological design, the study examined the challenges encountered, gains realized, and enabling factors that contributed to the institution's successful establishment. Data were gathered through in-depth semi-structured interviews with purposively selected stakeholders, including local government officials, education planners, administrators, technical consultants, and other individuals directly involved in the institution's creation. Colaizzi's method of phenomenological analysis revealed three major themes: Forging a College Amid Complexity, From an Empty Ground to a Living Legacy, and The Power of Convergence. Findings showed that stakeholders navigated complex regulatory requirements, developed institutional systems, and mobilized resources despite limited funding. The establishment of the Lyceum of Capas expanded access to higher education, promoted human capital development, strengthened institutional quality, and fostered a distinctive academic identity responsive to local needs. The study's most significant and novel finding was the emergence of The Power of Convergence, which underscored the alignment of political leadership, community aspirations, technical expertise, institutional commitment, and regulatory support as the key driver of success. The study concludes that establishing a sustainable local college requires more than compliance and resources; it depends on stakeholder convergence and a shared commitment to educational transformation. This convergence model offers a practical framework for local government units seeking to establish community-responsive higher education institutions.

Keywords: local college, higher education, phenomenology, community development, institutional development

1. Introduction

The expansion of access to higher education remains a central development priority in the Philippines, particularly in underserved and rural communities (Chao Jr., 2024; Yee, 2024). In response to persistent inequities in educational access, local government units (LGUs) have increasingly taken an active role in establishing local colleges and universities (LCUs) as instruments for inclusive growth and human capital development (Gamboa, 2022; Rahman et al., 2022). LCUs are public higher education institutions (HEIs) created and funded by municipalities, cities, or provinces to provide affordable and accessible tertiary education to their constituents (Department of Justice, 2008). Their emergence reflects both decentralization policies under the Local Government Code of 1991 (Go, 2023) and the recognition that proximity and affordability are critical determinants of college participation (Cook, 2024).

In the Philippine higher education landscape, the Commission on Higher Education (CHED) plays a vital regulatory and developmental role (Aldaba et al., 2024), ensuring that institutions meet standards of quality, relevance, and sustainability. However, while policies such as CHED Memorandum Order No. 18, series of 2022 provide a framework for institutional recognition, the process of establishing a local college remains complex, resource-intensive, and often fraught with operational, political, and administrative challenges.

The Municipal Government of Capas, Tarlac, through its initiative to establish a local college, represents a microcosm of this broader national effort. Transforming a vision of accessible education into a functioning HEI involves navigating regulatory compliance (Rubio et al., 2024), securing sustainable funding (Usman & Ab Rahman, 2023), building infrastructure (Loughlin, 2026), recruiting qualified faculty (Lintilä & Sivén, 2024; Gallagher, 2022), and ensuring program relevance (Chao Jr., 2024). These processes often reveal both the "pains" (challenges, constraints, and systemic barriers) and the "gains" (opportunities, innovations, and community impact) inherent in institutional development.

This study seeks to explore these dimensions by examining the lived experiences, institutional processes, and contextual realities involved in establishing a local college in the Municipality of Capas. By documenting both the struggles and successes, the research contributes to a deeper understanding of local higher education development and offers insights that may inform policy, practice, and future institutional initiatives.

Review of literature

Local colleges and universities in the Philippine context

LCUs have become significant contributors to the Philippine higher education system, particularly in expanding access to marginalized populations. Established and operated by LGUs, LCUs are designed to provide low-cost or tuition-free education (Carruthers et al., 2025; Keeney et al., 2023; Pascua et al., 2024), enabling students from economically disadvantaged backgrounds to pursue tertiary education. Their development aligns with national goals of improving access, equity, and participation in higher education (Zhao, 2025). Studies highlight that LCUs serve as localized solutions to educational inequality by bringing higher education closer to communities that may otherwise lack access to state universities or private institutions. Their integration within the local governance structure allows them to respond directly to community needs (Jenkins et al., 2022), including workforce development (Deggs & Flores, 2023) and local economic priorities (Atwell et al., 2022). However, despite their importance, LCUs often operate under constrained conditions. Their dependence on LGU funding makes them vulnerable to budget limitations (Dodson, 2023; Ortagus et al., 2024),

shifting political priorities (Brown, 2024), and administrative changes (Eddy & Boggs, 2023). This creates variability in institutional capacity and quality across different localities.

Regulatory environment and institutional development

The regulatory framework governing LCUs is primarily administered by the CHED, which ensures that HEIs comply with national standards for quality and institutional viability. CHED's dual role as both regulator and development partner, however, presents inherent challenges. Research indicates that the agency's emphasis on compliance and regulation can sometimes burden institutions with extensive requirements, limiting their ability to innovate and develop organically (Aldaba et al., 2024; Agapito, 2025). CHED Memorandum Order No. 18, series of 2022 establishes the guidelines for institutional recognition of HEIs, particularly local colleges and universities. Complementing this are other CHED issuances, including policies, standards, and guidelines that emphasize key institutional dimensions such as governance structures, academic program quality, faculty qualifications, adequacy of facilities, and financial sustainability. While these regulatory frameworks are critical in safeguarding educational quality and accountability, they also present considerable challenges for newly established local colleges, especially those operating with limited resources, developing systems, and minimal prior institutional experience. Bureaucratic processes, documentation requirements, and evaluation procedures often prolong the establishment timeline, requiring LGUs to invest substantial time, effort, and financial resources before operationalization.

Challenges in establishing local colleges

A substantial body of literature underscores that the establishment of LCUs is often characterized by multifaceted challenges that test the institutional, financial, and governance capacities of LGUs (Brown, 2024; Chowdhury & Alzarrad, 2025; Dodson, 2023; Eddy & Boggs, 2023; Ortagus et al., 2024). These challenges are not merely operational but are deeply embedded within broader structural, political, and regulatory environments. Understanding these challenges is essential in appreciating the complexity of transforming a local vision for higher education into a sustainable and quality-assured institution.

Foremost among these challenges are financial constraints, which consistently emerge as the most critical barrier in the establishment and sustainability of LCUs. Unlike state universities and colleges (SUCs) that receive national funding, LCUs rely predominantly on LGU appropriations (Ortagus et al., 2024), which are often limited and subject to competing local priorities such as health services, infrastructure, and social welfare programs. This dependence creates vulnerabilities in sustaining capital-intensive requirements, including the construction of academic facilities, procurement of learning resources, and hiring of qualified personnel. Empirical studies have shown that financial limitations significantly delay institutional development (Hall, 2022; Usman & Ab Rahman, 2023), thereby affecting the ability of LCUs to fully realize their strategic vision.

Closely linked to financial issues are governance and political dynamics, which play a decisive role in shaping the trajectory of LCUs. As institutions embedded within local political structures, LCUs are inherently influenced by leadership transitions, policy shifts, and administrative priorities of elected officials (Brown, 2024; Eddy & Boggs, 2023). Changes in local leadership can result in discontinuity of programs, reallocation of resources, or shifts in institutional direction (Vasvári & Longauer, 2024). This politicized environment may also affect decision-making processes, sometimes prioritizing short-term political gains over long-term institutional sustainability. Consequently, maintaining stability, continuity, and strategic alignment becomes a significant challenge for emerging local colleges.

Another critical concern involves human resource limitations, particularly in the recruitment and retention of qualified faculty and administrators (Lintilä & Sivén, 2024; Gallagher, 2022). Newly established LCUs often struggle to compete with established HEIs that offer more

competitive compensation packages, research opportunities, and professional development pathways. This challenge is further exacerbated by the need to meet minimum qualification standards set by regulatory bodies, which require advanced degrees and relevant expertise. The shortage of experienced academic and administrative personnel can impede curriculum development, weaken instructional quality, and delay institutional readiness.

In addition, infrastructure and resource gaps present considerable obstacles during the early stages of institutional development. Many LCUs begin operations with limited physical facilities, such as classrooms, libraries, laboratories, and student support spaces. While LGUs strive to invest in infrastructure, the pace of development often lags behind regulatory expectations and growing student demand. Insufficient learning resources, including library holdings and laboratory equipment, may hinder the delivery of quality education and affect compliance with national standards (Zulfiqar, 2025). These limitations highlight the tension between immediate operational needs and long-term infrastructure planning.

The compliance burden associated with regulatory requirements further compounds these challenges. The CHED imposes rigorous standards covering governance, academic programs, faculty qualifications, facilities, and financial sustainability. While these standards are essential for ensuring quality and accountability, they also require extensive documentation, planning, and coordination. For newly established LCUs with limited administrative experience, navigating these requirements can be overwhelming. The processes involved in securing permits, undergoing evaluations, and meeting compliance benchmarks often demand significant time, expertise, and resources, thereby slowing institutional progress.

Finally, ensuring quality assurance and program relevance remains an ongoing and complex challenge. LCUs must continuously align their academic offerings with national standards, industry needs, and emerging labor market trends (Bunch, 2024; Kisker et al., 2023). This requires not only adherence to outcomes-based education frameworks but also the capacity to engage with stakeholders, update curricula, and implement effective assessment systems. In a rapidly evolving socio-economic landscape, maintaining program relevance demands agility and innovation, which may be difficult for newly established institutions operating under constrained conditions.

Opportunities in establishing local colleges

Despite the numerous challenges associated with the establishment of LCUs, a growing body of literature emphasizes that these institutions also generate substantial opportunities that contribute to educational equity, local development, and institutional innovation. These opportunities highlight the transformative potential of LCUs as instruments of inclusive growth and as catalysts for socio-economic advancement at the community level.

One of the most significant contributions of LCUs is the expanded access to higher education, particularly for students from low-income households and geographically disadvantaged areas (Gamboa, 2022; Maski & Santoso, 2023). By situating institutions within local communities, LCUs reduce barriers related to distance, transportation costs, and high tuition fees typically associated with private HEIs (Smith-Onyewu et al., 2025). This proximity enables more students to pursue tertiary education who might otherwise be excluded due to financial or logistical constraints. Consequently, LCUs play a critical role in democratizing access to education and increasing participation rates, thereby contributing to the broader national agenda of inclusive and equitable educational development (Pasquerella et al., 2023).

In addition to access, LCUs offer localized and responsive education, which enhances the relevance of academic programs to community needs (Burwell, 2025; Chowdhury & Alzarrad, 2025). Being directly governed and supported by LGUs, these institutions are uniquely positioned to align their curricular offerings with local

economic priorities, labor market demands, and development plans. This responsiveness allows LCUs to design programs that are contextually grounded, such as those addressing local governance, education, agriculture, or community health. As a result, graduates are more likely to possess skills and competencies that are directly applicable to their local context, thereby improving employability and contributing to local workforce development.

Another critical opportunity lies in the role of LCUs in community development and social impact. Beyond their instructional function, LCUs serve as hubs for research, extension services, and community engagement initiatives (Levkoe et al., 2023). They provide platforms for addressing local issues through applied research, capacity-building programs, and outreach activities (Sugawara, 2022). These engagements foster stronger linkages between the institution and the community, promoting a culture of collaboration and shared responsibility for development. In this way, LCUs not only educate individuals but also contribute to the collective advancement of the communities they serve.

The establishment of LCUs also fosters institutional innovation (Corbin & Thomas, 2023), particularly as emerging institutions are often more flexible and adaptive compared to their more established counterparts. In response to evolving educational demands and external disruptions—such as the COVID-19 pandemic—LCUs have demonstrated the capacity to adopt alternative learning modalities, including blended and online instruction (Abril, 2025; D'Amico et al., 2022; Lin, 2025). Additionally, they are more open to forming strategic partnerships with industry, government agencies, and other educational institutions. This openness to innovation enables LCUs to experiment with new approaches in teaching, learning, and institutional management, thereby enhancing their resilience and long-term sustainability.

Finally, LCUs contribute to the alignment with national and global development goals, reinforcing their strategic importance within the broader higher education system (Baron et al., 2024; Gupta & Shiwakoti, 2024; Matu, 2022; Legusov et al., 2022). At the national level, LCUs advance key priorities articulated in the Philippine Development Plan (PDP) 2023–2028, particularly in expanding equitable access to quality education, strengthening human capital development, and improving employability outcomes. By providing affordable and community-based higher education, LCUs directly support the PDP's thrust of reducing regional disparities and ensuring that no sector is left behind. Moreover, their establishment reflects the long-term vision of AmBisyon Natin 2040, which aspires for a matatag, maginhawa, at panatag na buhay for all Filipinos, anchored on accessible, high-quality education that empowers individuals and communities (Lepasana, 2026). Within this framework, LCUs serve as vehicles for social mobility, enabling individuals to acquire the knowledge and skills necessary to participate meaningfully in national development.

At the global level, the mission and functions of LCUs are likewise aligned with international frameworks such as the Sustainable Development Goals (SDGs), particularly SDG 4, which emphasizes inclusive and equitable quality education and the promotion of lifelong learning opportunities for all (Albert et al., 2023). Through their contributions to access, equity, and local capacity-building, LCUs help bridge educational gaps and foster inclusive growth. Taken together, these roles position LCUs as vital instruments not only in advancing national development priorities under the PDP and AmBisyon Natin 2040, but also in fulfilling global commitments to sustainable and inclusive education.

Research gap

A review of available scholarly literature across major research databases revealed a significant gap in empirical studies examining the lived experiences of key stakeholders involved in the establishment of community colleges in the Philippines. Despite the increasing recognition of LCUs as vital instruments for expanding access to higher education and promoting local development, little is known about how these

institutions are conceptualized, developed, and realized from the perspectives of those directly involved in their creation. Addressing this gap, the present phenomenological study explored the lived experiences of key stakeholders in transforming the vision of a local college into the reality of the Lyceum of Capas, Philippines. Specifically, the study sought to uncover the challenges encountered during its establishment, the gains and opportunities generated through its development, and the enabling factors that contributed to its successful realization. Guided by the grand tour question, "How do key stakeholders describe their lived experiences in transforming the vision of a local college into the reality of the Lyceum of Capas, Philippines?", the study aimed to generate a deeper understanding of the processes, meanings, and collaborative efforts that shaped the institution's emergence and growth.

2. Methodology

Research design

This study employed a descriptive phenomenological research design to explore and describe the lived experiences of key stakeholders involved in the establishment of the Lyceum of Capas. Descriptive phenomenology was deemed appropriate as the study aimed to capture the essence of participants' experiences (Abraham & Padmakumari, 2025) regarding the challenges and opportunities encountered from conceptualization to operationalization. Guided by the principles of phenomenology, the research focused on understanding how individuals perceived, interpreted, and made meaning of their involvement in the institutional development process. Bracketing (Ash, 2025) was observed by the researcher to minimize biases and preconceived notions, thereby ensuring that the findings reflected the authentic experiences of the informants.

Informants and sampling technique

The study involved five (5) purposively selected informants who had direct and substantial involvement in the establishment of the Lyceum of Capas. These included the technical working group (TWG) who actively participated in planning, compliance, governance, and implementation processes. A purposive sampling technique was utilized to ensure that participants possessed rich, relevant, and firsthand knowledge of the phenomenon under investigation. Selection criteria included: (1) active involvement in the establishment process, (2) direct participation in decision-making or implementation activities, and (3) willingness to share their experiences. The number of informants was determined based on data saturation, which was reached when no new themes or insights emerged from the interviews.

Research instrument

The primary research instrument was the researchers themselves, consistent with qualitative research traditions. The researchers facilitated the processes of data collection, interpretation, and analysis, while maintaining reflexivity to minimize bias and ensure that the findings authentically reflected the informants' lived experiences. To support the data collection process, a semi-structured interview guide was developed based on the study's objectives and research questions. The guide contained open-ended questions covering key domains, including conceptualization, regulatory compliance, governance, financial sustainability, infrastructure, human resources, and curriculum development. During the interviews, follow-up and probing questions were employed to elicit richer descriptions, clarify responses, and explore emerging insights. The interview guide was subjected to review and refinement to ensure clarity, relevance, coherence, and alignment with the objectives of the study, thereby enhancing the overall quality and rigor of the data collection process.

Data collection and analysis procedures

Data were collected through semi-structured, in-depth interviews conducted with the selected informants. Prior to the interviews, permission was secured and process consent was obtained from all informants. Interviews were conducted face-to-face depending on the informants' availability and convenience. Each interview followed the prepared guide while allowing

flexibility for participants to freely express their experiences. Probing questions were asked to expand responses and capture detailed narratives.

The collected data were analyzed using Colaizzi's method of phenomenological analysis, which provided a systematic and rigorous approach to extracting, organizing, and interpreting significant statements. Initially, all interview transcripts were read repeatedly to obtain a comprehensive understanding of the informants' lived experiences. Significant statements directly related to the phenomenon were identified and extracted, after which meanings were formulated from these statements. These meanings were then organized into clusters of themes, allowing for the emergence of patterns and shared insights. An exhaustive description of the phenomenon was subsequently developed, capturing the depth and complexity of the participants' experiences. From this, the fundamental structure of the experience was identified. Finally, the findings were validated through member checking, wherein the results were returned to the participants to ensure accuracy, credibility, and faithful representation of their perspectives.

Ethical considerations

Ethical standards were strictly observed throughout the conduct of the study. Permission to conduct the research was obtained from appropriate authorities prior to data collection. Process consent was secured from all informants, ensuring that they were fully aware of the purpose of the study, their voluntary participation, and their right to withdraw at any time without penalty. Confidentiality and anonymity were maintained by assigning codes or pseudonyms to participants and ensuring that no identifying information was disclosed in the report. All data collected were treated with strict confidentiality and were used solely for research purposes. The researchers ensured that no harm—physical, psychological, or social—was inflicted on the participants. Additionally, data were securely stored and properly disposed of after the completion of the study. Transparency, honesty, and integrity were upheld throughout the research process. The study also adhered to the principles of responsible and ethical use of Generative Artificial Intelligence (AI). Specifically, ChatGPT (GPT-5.5, OpenAI) was utilized as a language-support tool during manuscript preparation. Its use was limited to improving grammar, sentence structure, clarity of expression, academic writing style, and refining the naming of themes and subthemes to enhance their alignment with the study findings and improve readability.

3. Results

Theme 1: Forging a college amid complexity

This theme captures the multifaceted challenges and "birth pains" encountered during the establishment of the Lyceum of Capas as it transitioned from a community aspiration into a functioning HEI. Participants described a complex journey characterized by regulatory compliance, organizational development, and resource mobilization, all of which had to occur simultaneously under evolving conditions. The establishment process demanded continuous engagement with regulatory agencies, meticulous planning, infrastructure preparation, faculty recruitment, and the development of governance and quality assurance systems. Despite limited resources and changing regulatory expectations, institutional leaders demonstrated resilience, adaptability, and strategic decision-making. The findings suggest that establishing a local college is not merely an administrative undertaking but a complex organizational process requiring visionary leadership, institutional commitment, and sustained perseverance to navigate the uncertainties inherent in institutional formation.

Navigating the Labyrinth of Regulation and Legitimacy

Participants described institutional legitimacy as the product of a rigorous and iterative process of compliance with legal, regulatory, and quality assurance requirements. The establishment of the Lyceum required extensive academic planning, legal preparation, financial forecasting, and institutional capacity-building to demonstrate readiness for higher education operations. As one participant noted, "Conceptualizing a local college required careful academic planning, legal

preparation, financial forecasting, and institutional capacity-building." Participants emphasized that institutional documents and policies had to be carefully aligned with national legislation, CHED requirements, and local institutional needs, as reflected in the statement, "The legal documents had to be consistent with national laws, CHED requirements, and institutional needs." Moreover, compliance required demonstrating readiness across governance, academic, financial, personnel, and facility dimensions, highlighting the stringent nature of the quality assurance process. This was reflected in the statement, "CHED requirements demanded evidence of readiness across multiple institutional dimensions." These experiences suggest that institutional legitimacy was achieved not simply through approval or recognition but through a deliberate process of adaptation, compliance, and continuous improvement.

Building systems while building the institution

Participants highlighted the unique challenge of developing institutional systems while simultaneously creating the institution itself. The Lyceum was required to establish governance structures, academic policies, administrative procedures, and quality assurance mechanisms at the same time that it was pursuing regulatory recognition and operational readiness. One participant explained that "The institution had to establish governance structures, academic policies, administrative procedures, and quality assurance mechanisms," illustrating the breadth of foundational work required during the establishment phase. Institutional readiness further demanded the concurrent preparation of facilities, personnel, curriculum, and administrative systems, as reflected in the statement, "Facilities, personnel, curriculum, and administrative structures had to be prepared simultaneously." Through coordinated planning and implementation, the institution successfully evolved from an educational concept into a functioning college, captured in the statement, "The Lyceum transitioned from an educational concept into a functioning higher education institution." The findings indicate that institution-building is fundamentally a systems-building endeavor requiring organizational coherence, integration, and strategic foresight.

Mobilizing resources in the absence of external support

The establishment of the Lyceum of Capas was accomplished without reliance on external funding sources, placing significant responsibility on local leadership and resource stewardship. Participants emphasized that "No external funding sources were utilized during the establishment of the Lyceum," highlighting the institution's dependence on local initiative and commitment. The institution relied entirely on municipal resources, as reflected in the statement, "The institution relied entirely on internally generated and locally appropriated funds." Consequently, leaders were required to make strategic decisions regarding infrastructure, personnel, instructional materials, and operational expenditures while ensuring compliance with regulatory requirements and maintaining long-term sustainability. This balancing act was captured in the statement, "The institution had to balance immediate needs with long-term sustainability." These findings demonstrate how prudent resource management and strong local government support enabled the successful establishment of the institution despite financial constraints.

Theme 2: From an empty ground to a living legacy

This theme captures the transformative gains that emerged from the establishment of the Lyceum of Capas. Participants viewed the institution as more than a college; it became a symbol of opportunity, empowerment, and community development. Through accessible and affordable higher education, the Lyceum expanded educational opportunities, cultivated human capital, strengthened institutional quality, and established a distinctive academic identity responsive to local needs. Participants described the institution as a lasting investment that generates social, economic, and educational benefits for present and future generations. Ultimately, the findings illustrate how a local college can evolve into a transformative legacy that contributes to community advancement and sustainable development.

Democratizing access to higher education

Participants consistently described the Lyceum as a mechanism for expanding educational access and reducing barriers to higher education. The institution addressed longstanding geographic and economic constraints, as reflected in the statement, "The LGU reduced the geographic and economic barriers to higher education." Participants emphasized that local access particularly benefited disadvantaged learners, noting that "Students from low-income families benefited from having a local institution that was closer, more affordable, and more responsive to their context." By eliminating many of the costs associated with studying outside the municipality, the Lyceum enabled more residents to pursue tertiary education while remaining connected to their families and communities. As one participant observed, "The institution transformed higher education from a distant aspiration into a realistic opportunity." These findings suggest that the Lyceum significantly enhanced educational equity by making higher education more accessible and attainable.

Cultivating human capital for local transformation

Participants viewed the Lyceum as a strategic investment in human capital and a catalyst for local transformation. Education was widely perceived as a vehicle for poverty reduction, employability, civic participation, and community advancement, as reflected in the statement, "Education is a powerful instrument for poverty reduction, employability, civic participation, and local development." Beyond providing academic instruction, the institution was envisioned as an active partner in governance, public service, and workforce development. One participant explained that "The institution was envisioned as a partner in governance, public service, community development, and workforce preparation." Participants further emphasized the long-term significance of the institution, noting that "The Lyceum serves as an investment in people and future generations." These findings demonstrate that stakeholders perceived the institution as a means of developing skilled, empowered, and socially responsible citizens capable of contributing to sustainable community development.

Transforming compliance into institutional excellence

Participants described how compliance evolved from a regulatory obligation into a catalyst for institutional improvement and excellence. Rather than viewing CHED requirements as burdensome mandates, institutional leaders utilized them to strengthen governance, planning, and organizational systems. This was reflected in the statement, "Compliance with CHED standards helped develop stronger institutional systems." Participants further emphasized that compliance was embraced as an ongoing process of consultation, evaluation, and refinement, as reflected in the statement, "The institution embraced compliance as a continuous process of consultation, feedback, revision, and improvement." Through this process, accountability, discipline, and quality assurance became embedded within institutional culture. As one participant noted, "Regulatory requirements contributed to long-term institutional sustainability." These findings suggest that compliance functioned as a developmental mechanism that enhanced institutional effectiveness and credibility.

Creating a distinctive academic identity

Participants emphasized that the Lyceum intentionally developed a unique academic identity that balanced national standards with local relevance. The selection of academic programs was strategically aligned with community needs and labor market demands, as reflected in the statement, "The BECED and BPA programs were carefully selected to address both community needs and labor market demands." A distinctive feature of the institution was the integration of local priorities into the curriculum through specialized institutional courses, highlighted in the statement, "A distinctive feature of the curriculum is the inclusion of nine units of institutional courses." Participants further described the curriculum as both nationally compliant and locally responsive, emphasizing that "The curriculum is not only CHED-compliant but also locally grounded,

socially responsive, and future-oriented." These findings indicate that the institution established a distinctive academic character that contributes to its relevance, uniqueness, and developmental impact.

Theme 3: The power of convergence

This theme represents the most distinctive and novel finding of the study—the convergence of political leadership, community aspirations, technical expertise, institutional commitment, and regulatory support that collectively enabled the successful establishment of the Lyceum of Capas. Participants described an uncommon level of stakeholder alignment characterized by cooperation, shared ownership, and collective commitment to expanding educational opportunities within the municipality. This convergence minimized barriers, accelerated decision-making, strengthened compliance efforts, and facilitated institutional development. More importantly, the findings suggest that the success of the Lyceum was not attributable to any single factor but rather to the convergence of people, expertise, resources, and purpose working together toward a common educational vision.

Unity of purpose across leadership levels

Participants consistently emphasized the collective nature of leadership throughout the establishment process. The realization of the institution depended upon the coordinated efforts of local government officials, planners, consultants, administrators, and community stakeholders, as reflected in the statement, "The realization of the institution required the collective efforts and unwavering commitment of the Municipal Mayor, the Sangguniang Bayan, education planners, technical consultants, administrators, and various community stakeholders." Participants stressed that the Lyceum was not the achievement of a single leader or office, noting that "The establishment of the Lyceum was not the accomplishment of a single individual or office." Instead, all stakeholders were united by a common educational goal, as reflected in the statement, "All sectors worked toward a common goal of providing accessible and quality higher education." These findings demonstrate how collaborative leadership and shared purpose served as critical drivers of institutional success.

A community ready for its college

Participants described a municipality that was not only receptive to the establishment of a local college but actively prepared for it. The institution addressed a recognized educational need and enjoyed widespread community support, reflected in the statement, "The institution was both needed and welcomed." Participants noted that demand was evident in the growing number of senior high school graduates seeking affordable higher education opportunities, as captured in the statement, "The demand was evident in the number of senior high school graduates seeking affordable college options." Beyond educational access, the institution became a symbol of collective aspirations and community advancement, reflected in the statement, "The institution reflected the aspirations of the municipality." These findings suggest that community readiness and public support significantly contributed to the successful establishment and legitimacy of the institution.

Collective competence as a strategic advantage

Participants identified technical expertise and professional competence as major factors contributing to institutional success. A significant strategy was the creation of a dedicated Technical Working Group, as reflected in the statement, "One of the most significant practices was the creation of a dedicated Technical Working Group." Participants further emphasized the recruitment of highly qualified faculty members and educational leaders, noting that "The faculty members recruited were seasoned academicians, content specialists, educational leaders, curriculum developers, and OBE practitioners." The availability of expertise enabled efficient planning, curriculum development, and compliance efforts, as reflected in the statement, "Strong technical expertise facilitated efficient institutional development." These findings indicate that collective competence functioned as

a strategic institutional asset that accelerated development, strengthened organizational capacity, and enhanced institutional credibility.

4. Discussion

The establishment of the Lyceum of Capas illustrates the complex realities involved in creating a local HEI within a highly regulated and resource-constrained environment. Participants described a challenging process characterized by simultaneous demands for regulatory compliance, organizational development, infrastructure preparation, faculty recruitment, and resource mobilization. These findings affirm the observation of Chao (2024) that HEIs in the Philippines operate within a stringent regulatory environment that requires adherence to quality assurance standards while responding to local educational needs. The experiences of the participants demonstrate that institutional establishment extends beyond legal recognition and involves the deliberate construction of governance systems, organizational structures, and operational capacities necessary for long-term sustainability. In particular, the extensive preparation required to satisfy CHED requirements reflects the developmental role of regulatory frameworks in shaping institutional readiness and accountability, a perspective likewise emphasized by Aldaba et al. (2024) and Agapito (2025). Rather than perceiving regulation as a barrier, the findings suggest that compliance served as a formative process through which the institution strengthened its internal systems, clarified its strategic direction, and established its legitimacy within the higher education sector.

The challenges encountered by the Lyceum further highlight the importance of institution-building as a process of systems development. Participants emphasized that governance structures, academic policies, administrative procedures, and quality assurance mechanisms had to be established while the institution itself was still being formed. This finding resonates with Loughlin's (2026) assertion that educational institutions are built not only through physical infrastructure but also through the simultaneous development of organizational capacities that support institutional functioning. Similarly, Eddy and Boggs (2023) argued that effective educational leadership requires the creation of structures capable of sustaining organizational growth and adaptation. The experience of the Lyceum demonstrates that successful institution-building depends upon the integration of multiple organizational dimensions, including governance, curriculum, personnel, facilities, and administrative management. The institution's ability to transition from a conceptual vision into a functioning college underscores the importance of strategic planning, coordination, and organizational coherence during the establishment process.

Compounding these challenges was the absence of external financial support, which placed considerable responsibility on local government leadership to mobilize and manage resources effectively. Participants revealed that the Lyceum relied entirely on locally appropriated funds and internally generated resources, requiring careful prioritization of expenditures and prudent financial management. This finding supports Gamboa's (2022) observation that financial sustainability remains one of the most significant challenges faced by local colleges and universities in the Philippines. Likewise, Keeney et al. (2023) and Ortagus et al. (2024) emphasized the critical influence of local funding on institutional capacity and long-term viability. The experiences of the Lyceum suggest that local government commitment can compensate for the absence of external funding when accompanied by strategic decision-making and strong stewardship of available resources. Consistent with Hall's (2022) argument regarding financial constraints and organizational growth, the findings demonstrate that institutional success often depends on the ability to maximize limited resources while maintaining a long-term perspective on sustainability.

While the establishment process was characterized by considerable challenges, participants consistently emphasized the transformative gains that emerged from the creation of the institution. The Lyceum evolved beyond its physical infrastructure and regulatory

accomplishments to become a symbol of opportunity, empowerment, and community development. One of its most significant contributions was the expansion of access to higher education among residents who previously faced substantial geographic and financial barriers. This finding aligns with Cook (2024), who found that proximity to HEIs significantly affects educational participation and affordability. Similarly, Smith-Onyewu et al. (2025) demonstrated that accessibility remains a key determinant of college enrollment and persistence. Within the Philippine context, Lomer and Lim (2022) and Yee (2024) argued that equitable access to higher education is fundamentally linked to issues of social justice and inclusive development. The experiences of participants suggest that the Lyceum democratized access to higher education by transforming college education from a distant aspiration into an attainable opportunity for students, particularly those from economically disadvantaged backgrounds.

Beyond expanding access, the institution was widely perceived as a strategic investment in human capital and local transformation. Participants viewed education as a mechanism for reducing poverty, enhancing employability, promoting civic engagement, and strengthening community development. These findings support Albert et al. (2023), who identified quality education as a central pillar of sustainable development. Likewise, Legusov et al. (2022) and Baron et al. (2024) emphasized the role of HEIs in advancing sustainable development goals through human capital formation and community engagement. The Lyceum's establishment reflects a developmental philosophy that places people at the center of progress, recognizing that long-term community advancement depends upon the knowledge, skills, and capabilities of its citizens. This perspective is further reinforced by Sugawara (2022), who argued that HEIs contribute significantly to local capacity-building and social transformation. The findings therefore suggest that the Lyceum functions not merely as an educational provider but as a strategic partner in governance, workforce preparation, and community development.

Another noteworthy outcome of the institution's establishment was the transformation of regulatory compliance into a mechanism for institutional excellence. Participants described how CHED requirements were embraced as opportunities to strengthen governance systems, improve organizational discipline, and cultivate a culture of continuous improvement. This finding supports Aldaba et al. (2024), who emphasized the developmental function of regulatory frameworks in strengthening institutional effectiveness. Likewise, Agapito (2025) argued that compliance mechanisms contribute to organizational improvement by encouraging accountability and quality assurance. Rather than perceiving compliance as a one-time requirement, the Lyceum institutionalized processes of consultation, feedback, evaluation, and refinement. As a result, regulatory requirements contributed not only to institutional recognition but also to the development of stronger systems capable of supporting long-term sustainability and effectiveness.

The institution's efforts to create a distinctive academic identity further illustrate its commitment to balancing national standards with local relevance. Participants emphasized that the selection of academic programs and the integration of institution-specific courses were deliberately designed to address local needs while remaining responsive to broader workforce and societal demands. This finding aligns with Bunch (2024) and Atwell et al. (2022), who stressed the importance of aligning academic programs with labor market requirements and community priorities. Similarly, Deggs and Flores (2023) argued that successful community colleges establish strong connections between educational offerings and local development needs. The Lyceum's curriculum demonstrates how local colleges can simultaneously satisfy regulatory expectations and preserve contextual relevance by embedding community realities and aspirations into the educational experience. Such an approach enhances institutional

distinctiveness while strengthening its contribution to local development.

While the challenges and gains associated with the institution's establishment provide important insights into local college development, the most significant and novel finding of this study lies in the extraordinary convergence of leadership, expertise, community support, and institutional commitment that characterized the Lyceum experience. Unlike many institution-building initiatives that encounter political resistance, fragmented leadership, competing interests, and stakeholder conflict, the Lyceum benefited from an uncommon alignment of actors united by a shared educational vision. Participants consistently described how local government leaders, education planners, technical consultants, administrators, faculty members, community stakeholders, and regulatory authorities worked collaboratively toward a common objective. This convergence created an environment of cooperation rather than contention, enabling the institution to navigate challenges more efficiently and effectively. The findings support Go's (2023) argument regarding the importance of collaborative governance within decentralized systems, as well as Rahman et al.'s (2022) assertion that successful educational initiatives depend upon strong partnerships among government, educational institutions, and community stakeholders. Likewise, Levkoe et al. (2023) emphasized that meaningful collaboration strengthens organizational effectiveness and community impact.

What distinguishes the Lyceum experience, however, is not merely the presence of collaboration but the depth and breadth of stakeholder alignment that permeated every stage of institutional development. Participants described a remarkable unity of purpose across political, administrative, technical, and community sectors, allowing decisions to be made efficiently and institutional goals to be pursued collectively. This finding resonates with Eddy and Boggs' (2023) multidimensional leadership model, which highlights shared leadership and collaborative governance as essential drivers of organizational success. At the same time, the strong public demand for a local college and the widespread community support observed during the planning and establishment phases demonstrate that the institution emerged within a municipality that was socially prepared for its own HEI. This observation aligns with Pasquerella et al. (2023), who argued that community colleges are most successful when their goals reflect the aspirations and needs of the communities they serve. Similarly, Pascua et al. (2024) found that Filipino families place high value on accessible higher education opportunities as pathways to social mobility and economic advancement.

Equally important was the presence of strong technical expertise throughout the establishment process. Participants highlighted the strategic role of the Technical Working Group and the recruitment of experienced academicians, curriculum specialists, educational leaders, and quality assurance practitioners. These findings support Lin (2025), who emphasized the importance of competent leadership in managing organizational complexity, and Lintilä and Sivén (2024), who identified the recruitment of qualified personnel as a critical factor in institutional success. The findings suggest that expertise functioned as a form of institutional capital that accelerated compliance, strengthened organizational capacity, and enhanced institutional credibility.

5. Conclusion

The findings suggest that the true success of the Lyceum of Capas cannot be attributed solely to regulatory compliance, financial investment, infrastructure development, or leadership. Rather, its success emerged from the convergence of these elements into a unified and mutually reinforcing system of support. This "Power of Convergence" represents the most distinctive contribution of the present study and may be considered a best-practice model for local college establishment. The Lyceum experience demonstrates that when political will, community aspirations, technical expertise, institutional commitment, and regulatory support converge

around a shared vision, institution-building becomes significantly more effective, sustainable, and transformative. Consequently, other local government units seeking to establish local colleges may benefit from adopting a similar convergence model that prioritizes stakeholder alignment, shared ownership, technical competence, and collaborative governance. In this regard, the Lyceum of Capas offers not only a successful example of local college development but also a replicable framework for creating sustainable and community-responsive HEIs in the Philippines and beyond.

References

Abraham, D. M., & Padmakumari, P. (2025). A methodological framework for descriptive phenomenological research. *Western Journal of Nursing Research, 47*(2), 536-551.

Abril, M. E. (2025). *A post COVID-19 pandemic exploration of teaching strategies, attitudes, and values of Southern California community college faculty*. Kansas State University.

Agapito, J. J. (2025). *Implications of Certificate of Program Compliance (COPC) implementation on Engineering programs in Philippine SUCs*. Available at SSRN 5120945.

Albert, J. R. G., Basillote, L. B., Alinsunurin, J. P., Vizmanos, J. F. V., Muñoz, M. S., & Hernandez, A. C. (2023). *Sustainable development goal 4: How does the Philippines fare on quality education?* Philippine Institute for Development Studies.

Aldaba, F. T., Sescon, J. T., & Alconis, K. E. (2024). *Strengthening CHED's developmental and regulatory capacity* (PIDS Discussion Paper Series No. 536-551). Philippine Institute for Development Studies. https://doi.org/10.62986/dp2024.41

Ash, A. (2025). Descriptive or interpretive? A reflexive framework for methodological choice and bracketing in phenomenology. *International Journal of Qualitative Methods, 24*, 16094069251400060.

Atwell, A., Ecton, W., Klein, S., D'Amico, M. M., & Sublett, C. (2022). Community college responses to align career and technical education programs with changing labor markets. *New Directions for Community Colleges, 2022*(197), 536-551. https://doi.org/10.1002/cc.20496

Baron, J., Lawrence, S. A., & Nevins-Bennett, C. (2024). Sustainable development goals: A case of the community college student initiative project. *European Journal of Education and Pedagogy, 5*(3), 536-551.

Brown, P. S. (2024). *Political ideology as determinative of higher education funding: Exploring the distinctions between community college and university funding under differing political regimes* (Doctoral dissertation, University of South Dakota).

Bunch, C. A. (2024). *Workforce education and labor market demands for North Carolina community colleges* (Doctoral dissertation, Old Dominion University).

Burwell, N. T. (2025). *Bridging community needs and accreditation: Enhancing continuing education program design in rural southeastern US community colleges* (Doctoral dissertation, Prescott College).

Carruthers, C. K., Fox, W. F., & Jepsen, C. (2025). What knox achieved: Estimated effects of tuition-free community college on attainment and earnings. *Journal of Human Resources, 60*(6), 536-551. https://doi.org/10.3368/jhr.536-5519R2

Chao Jr, R. Y. (2024). Higher education in the Philippines. In *International Handbook on Education in Southeast Asia* (pp. 536-551). Springer Nature Singapore.

Chowdhury, S., & Alzarrad, A. (2025). Advancing community-based education: Strategies, challenges, and future directions for scaling impact in higher education. *Trends in Higher Education, 4*(2), 21. https://doi.org/10.3390/higheredu4020021

Cook, A. (2024). College proximity and college costs: Is it more expensive to attend a far-away college? *Journal of Student Financial Aid, 53*(3), 1. https://files.eric.ed.gov/fulltext/EJ1457473.pdf

Corbin, R. A., & Thomas, R. (Eds.). (2023). *Community colleges as incubators of innovation: Unleashing entrepreneurial opportunities for communities and students*. Taylor & Francis.

D'Amico, M. M., Atwell, A. K., Spriggs, J. N., & Cox, J. A. (2022). Are we doing enough? COVID responses from urban and rural community colleges. *Community College Journal of Research and Practice, 46*(536-551), 536-551.

Deggs, D. M., & Flores, A. (2023). Urban community college pathways and partnerships: Modern workforce development, dual enrollment, and non-degree credential programs. *New Directions for Community Colleges, 2023*(204), 536-551. https://doi.org/10.1002/cc.20599

Department of Justice (DOJ). *Issue of jurisdiction and authority of the Commission on Higher Education (CHED) in the exercise of supervision and reasonable regulation of public higher education institutions, specifically local universities and colleges (LUCs) and other non-chartered schools that are established/created by local*

government units (LGUs), through corresponding local ordinances issued by appropriate Sanggunian councils. https://www.doj.gov.ph/opinion.html?y=2008

Dodson, R. A. S. (2023). *Community college management strategies for balancing the budgets*. Walden University.

Eddy, P. L., & Boggs, G. R. (2023). *Community college leadership: A multidimensional model for leading change*. Routledge.

Gallagher, S. R. (2022). *The future of university credentials: New developments at the intersection of higher education and hiring*. Harvard Education Press.

Gamboa, A. G. (2022). Institutional sustainability of local colleges and universities (LCUs) in region: An evaluation. *International Journal of Multidisciplinary: Applied Business and Education Research, 3*(5), 536-551. http://dx.doi.org/10.11594/ijmaber.03.05.12

Go, J. R. R. (2023). Decentralisation experiences in the Philippines: Social services sectors and the Local Government Code of 1991. In Tadem, T.S.E., Atienza, M.E.L. (eds) *A Better Metro Manila? Palgrave Macmillan*. https://doi.org/10.1007/536-551-536-551-3_5

Gupta, S. P., & Shiwakoti, R. (2024). Community colleges in Nepal and the quest for sustainability: Challenges, prospects and SDG alignment. *Shiksha Shastra Saurabh, 24*, 536-551.

Hall, G. (2022). Lack of finance as a constraint on the expansion of innovatory small firms. In *Routledge Library Editions: Small Business* (pp. Vol2_39-Vol2_57). Routledge.

Jenkins, D., Lahr, H., & Fink, J. (2022). Rethinking community colleges to serve 21st-century students and communities: Lessons from research on guided pathways. *New Directions for Community Colleges, 2022*(197), 536-551.

Keeney, N. E., Katsinas, S. G., & Bray, N. J. (2023). Local funding and tuition and fee charges at US community colleges. *Journal of Education Finance, 48*(3), 536-551.

Kisker, C. B., Cohen, A. M., & Brawer, F. B. (2023). *The American community college*. John Wiley & Sons.

Legusov, O., Raby, R. L., Mou, L., Gómez-Gajardo, F., & Zhou, Y. (2022). How community colleges and other TVET institutions contribute to the United Nations sustainable development goals. *Journal of Further and Higher Education, 46*(1), 536-551.

Lepasana, N. (2026). Perceptions, expectations, and engagement of PSU–Narra students toward the attainment of Ambisyon Natin 2040. *Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields, 2*(1), 536-551.

Levkoe, C. Z., Andrée, P., Ballamingie, P., Changfoot, N. A., & Schwartz, K. (2023). *Building action research partnerships for community impact: Lessons from a national community-campus engagement project*. https://carleton.scholaris.ca/server/api/core/bitstreams/58c3536-551b-417c-8d7c-327348a041ce/content

Lin, J. (2025). *Exploring leadership strategies in community colleges for in-person and distance learning during post-pandemic enrollment recovery: A qualitative case study*. American College of Education.

Lintilä, T. & Sivén, S. (2024) *Recruitment challenges in hiring lectures for higher education institutions in Finland*, ICERI2024 Proceedings, pp. 536-551.

Lomer, S., & Lim, M. A. (2022). Understanding issues of 'justice'in 'free higher education': policy, legislation, and implications in the Philippines. *Policy Reviews in Higher Education, 6*(1), 536-551. https://doi.org/10.1080/23322969.2021.2012242

Loughlin, C. (2026). Building higher education: The tension between espoused educational values and physical infrastructure. *Higher Education, 91*(1), 536-551. https://doi.org/10.1007/s1536-551-0536-551

Maski, G., & Santoso, D. B. (2023). Public spending and financial inclusion and their impact on inclusive growth in Indonesia: A spatial approach. *Media Trend, 18*(1), 536-551.

Matu, J. B. (2022). How multi-level governance frameworks assist community colleges in identifying education-related sustainable development goals. *Career and Technical Education Research, 47*(2), 536-551.

Ortagus, J. C., Baker, D., Rosinger, K. O., Kelchen, R., Morales, O., Peters, A., & Lingo, M. (2024). The revenue implications of community colleges' reliance on local funding. *AERA Open, 10*, 23328584241258487. DOI:https://doi.org/10.1177/23328584241258487

Pasquerella, L., Pura, R. L., & Parker, T. L. (2023). *The community's college: The pursuit of democracy, economic development, and success*. Routledge.

Pascua, L., Rivera, R. M., & Aperocho, M. D. (2024). Parents' outlook on free college education in the Philippines. *The International Journal of Diversity in Education, 25*(1), 536-551. DOI:10.18848/536-551/CGP/v25i01/536-551

Rahman, A., Saodi, S., Irfan, M., & Nasrah, N. (2022). Education partnerships between local education authorities and universities: A promising strategy but undeveloped. *Journal of Innovation in Educational and Cultural Research, 3*(2), 536-551. https://doi.org/10.46843/jiecr.v3i2.85

Rubio, F., Llopis-Albert, C., Palacios-Marqués, D., García-Hurtado, D., & Zeng, S. (2024). Navigating the evolving landscape of higher education: A critical examination of governance and policy. *Multidisciplinary Journal for Education, Social and Technological Sciences, 11*(2), 536-551.

Smith-Onyewu, Z., Stein, M. L., Cortes, J. B., Kim-Christian, P., & Dewey, N. (2025). Public transit and urban community college access. *Research in Higher Education, 66*(1), 5.

Sugawara, C. L. (2022). Higher education institutions' roles in strengthening local capacity for community development: An analytical framework. *Journal of Higher Education Outreach and Engagement, 26*(3), 536-551.

Usman, M., & Ab Rahman, A. (2023). Funding higher education through waqf: A lesson from Malaysia. *International Journal of Ethics and Systems, 39*(1), 536-551. https://doi.org/10.1108/IJOES-536-551-0217

Vasvári, T., & Longauer, D. (2024). Against the tide: how changes in political alignment affect grant allocation to municipalities in Hungary. *Public Choice, 198*(3), 536-551. https://doi.org/10.1007/s1536-551-01138-w

Yee, K. M. (2024). At all costs: Educational expansion and persistent inequality in the Philippines. *Higher Education, 87*(6), 536-551. https://doi.org/10.1007/s1536-551-01092-y

Zhao, Y. Z. (2025). Overall planning and development of modern higher education in the Philippines. *Asian Research Journal of Education, 2*(1), 536-551. http://ojs.myeduheart.com/index.php/arje/article/view/96

Zulfiqar, N. (2025). *Barriers to learning: The consequences of insufficient school resources*. Available at SSRN 5278660.

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Author Declaration

The authors hereby declare that this work is original and has been prepared solely by themselves, except where appropriate acknowledgment and citation have been made. To the best of the authors' knowledge, this manuscript has not been previously published, submitted, or accepted for publication in any other journal, institution, or academic program, whether in whole or in part.

The authors further declare that there are no conflicts of interest that could have influenced the conduct of the study, the interpretation of its findings, or the preparation of this manuscript. The authors affirm full responsibility for the accuracy, integrity, and ethical conduct of the research presented herein.