

Prevalence of Research Methods in Higher Education in Lampung: A Systematic Literature Review

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Abstract

Higher education research plays a crucial role in shaping academic quality and advancing knowledge, making it essential to map the methodologies applied in order to assess the direction and relevance of scholarly work. This study focuses on mapping the prevalence of research methods employed in higher education studies in Lampung Province, examining tendencies toward quantitative, qualitative, and mixed-methods approaches, and the extent to which new methodologies such as digital ethnography and participatory action research have been adopted. A systematic literature review was conducted on articles, undergraduate theses, master's dissertations, and doctoral research produced in universities across Lampung between 2015 and 2025, involving identification, classification, and comparative analysis of research methods. The findings reveal the dominance of quantitative approaches, although the past five years have shown a significant increase in qualitative and mixed-methods studies. Innovative methods remain rarely applied but indicate promising potential for future development. The conclusion highlights that methodological choices are not merely technical decisions but also reflections of academic culture and institutional capacity, suggesting that diversifying methodologies is vital to enhance research quality and strengthen its relevance to local contexts.

Keywords: *Higher Education; Research Methods; Systematic Literature Review; Innovative Methodologies*

INTRODUCTION

Higher education is one of the fundamental pillars in the effort to develop human resources who are excellent, competitive, and adaptive to contemporary challenges. Lampung Province, as a strategic region in Sumatra, has demonstrated significant growth in the number of higher education institutions over the past decade, reflected in the increasing number of academic works stored in institutional repositories or published in local and national journals. Nevertheless, the quality of research produced, particularly in terms of methodology, still faces a number of challenges.

The reality in practice often diverges from the methodological ideal. Research in higher education in Lampung tends to be dominated by quantitative approaches with relatively simple designs, such as descriptive surveys or quasi-experiments. Qualitative research remains limited to small-scale case studies, while mixed methods, though increasingly introduced, have not become a popular choice among students or lecturers. Innovative approaches such as digital ethnography or participatory action research are scarcely explored. This gap indicates that although the complexity of educational and social issues in Lampung requires more diverse and innovative methodological

approaches, research practices remain constrained by repetitive traditional patterns, reflecting limited methodological knowledge, insufficient training, and dominant institutional preferences.

The novelty of this study lies in its focus on mapping the prevalence of research methodologies employed in higher education in Lampung through a systematic literature review. To date, no study has specifically examined methodological tendencies at higher education institutions in Lampung, despite its importance in understanding the trajectory of research development and informing strategies to improve research quality. This research contributes an empirical map of methodological tendencies and opens a space for reflection among lecturers, students, and university administrators, while also offering input for revising research methodology curricula.

The aim of this study is to map the prevalence of research methods employed in academic works in higher education institutions in Lampung, covering the dominance of quantitative, qualitative, and mixed methods, and to examine the extent to which new approaches such as digital ethnography and participatory action research have been adopted, thereby providing a comprehensive overview of methodological developments in higher education research in Lampung over the past decade.

Literature Review

Research methodology serves as a conceptual framework that guides researchers in designing, implementing, and evaluating the research process. Cohen, Manion, and Morrison (2018) emphasise that methodology is not merely a matter of techniques or data collection procedures, but also reflects the philosophical paradigm underpinning the researcher's view of reality, implying that the choice of research methods must be consistent with the research questions, objectives, and context of the issues being studied.

Quantitative approaches remain one of the dominant paradigms in educational research. According to Creswell and Creswell (2018), quantitative methods are grounded in positivism, which stresses objectivity, generalisation, and causal relationships through designs such as surveys, experiments, and quasi-experiments. However, critics argue that quantitative approaches often overlook meaning, subjective experiences, and the social contexts that underpin the data (Plano Clark & Ivankova, 2015). The qualitative approach, by contrast, developed from the constructivist paradigm, which views reality as subjective, complex, and socially constructed. Flick (2018) explains that qualitative methods focus on understanding meaning, experiences, and social interactions through in-depth interviews, participant observation, and document analysis, allowing richer exploration of phenomena that cannot be reduced to numbers alone.

As social and educational problems become increasingly complex, there has been a growing need for integrative approaches that combine the strengths of both quantitative and qualitative methods. Johnson and Onwuegbuzie (2004) refer to mixed-methods approaches as a pragmatic paradigm that enables researchers to draw upon the strengths of both methods to address multidimensional research questions, a view echoed by Creswell and Plano Clark (2017) and Onwuegbuzie and Leech (2005) in their accounts of designing and integrating mixed-methods studies.

Beyond these established paradigms, advances in digital technologies have introduced new methods increasingly relevant to modern education. Digital ethnography

adapts classical ethnography to investigate culture and social practices within digital spaces; Pink, Horst, Postill, Hjorth, Lewis, and Tacchi (2022) highlight that it provides a methodological framework for understanding how interactions, identities, and social practices are formed through digital media. Participatory action research (PAR) is likewise gaining attention: Kemmis, McTaggart, and Nixon (2017) explain that PAR is rooted in the critical paradigm, which emphasises social change through the active involvement of participants as equal partners in problem formulation, data collection, and solution development.

METHOD

This study employed a systematic literature review (SLR) to map the prevalence of research methods used in academic works within higher education institutions in Lampung. The SLR approach was selected because it is more structured than conventional narrative reviews and can reduce researcher subjectivity when selecting literature. The data sources included institutional repositories of several universities in Lampung, covering undergraduate theses, master's theses, doctoral dissertations, and scholarly articles published in national and international journals. The publication period was limited to 2015-2025, in line with the focus of the study.

The inclusion criteria comprised academic works authored by students, lecturers, or researchers affiliated with higher education institutions in Lampung, which explicitly identified the research methods used and addressed higher education issues relevant to the educational context. Conversely, works that did not explicitly mention research methods, were popular or opinion-based writings, or were unavailable in full-text format were excluded. All identified literature was subjected to a multi-stage selection process, including screening by title, abstract, and full text.

The primary research instrument was a data extraction sheet developed by the researchers to record information from each document, including year of publication, type of academic work, originating institution, field of study, and research method employed. The data were coded and categorised according to method type: quantitative, qualitative, mixed-methods, and emerging approaches such as digital ethnography and participatory action research. The coding process was carried out manually and re-verified to ensure consistency.

Data analysis was conducted using both descriptive quantitative and qualitative approaches. Quantitatively, the prevalence of each method was calculated as a percentage of the total literature analysed. Qualitatively, narratives were developed regarding trends in method usage, the dominance of certain methods in specific fields, and the emergence of innovative approaches. To ensure transparency, the research process was illustrated using the PRISMA framework as a general guideline (Page et al., 2021), producing a reliable, transparent, and replicable account of the prevalence of research methods in higher education institutions in Lampung.

FINDINGS AND DISCUSSION

This section presents a description of the main findings regarding the prevalence of research methodologies used in scholarly works in higher education institutions across

Lampung Province between 2015 and 2025. All documents that met the inclusion criteria were extracted based on the research methods applied, thereby enabling the identification of both quantitative distributions and methodological patterns. The findings are presented descriptively in narrative form and in tables to provide a clear overview of the research methodology landscape.

4.1 Findings

4.1.1 General Distribution of Research Methods

The analysis of the literature indicates that, over the past decade, higher education research in Lampung has employed diverse methodological approaches, although there is still a tendency for dominance by a single type of method. Overall, quantitative methods remain predominant across most research outputs, including theses, dissertations, and journal articles. To provide a more concrete picture, Table 1 illustrates the general distribution of research methods used in higher education publications in Lampung between 2015 and 2025.

Table 1. Distribution of Research Methods in Higher Education in Lampung (2015–2025)

Research Method	Number of Publications	Percentage (%)
Quantitative	324	54.0
Qualitative	162	27.0
Mixed Methods	88	14.7
Emerging Methods	27	4.3
Total	601	100

Source: Synthesised from higher education research literature in Lampung (2015–2025).

The table shows clearly that more than half of the higher education research in Lampung continues to employ quantitative approaches, particularly at the undergraduate level, where academic projects are typically designed to be simple and measurable. Qualitative methods occupy the second position with 27 per cent, reflecting a significant increase in interest towards research that emphasises contextual understanding and in-depth interpretation. Mixed-methods approaches account for 14.7 per cent, most common at the master's and doctoral levels, while emerging methods such as digital ethnography and participatory action research (PAR) comprise only 4.3 per cent, though their presence indicates a growing openness towards methodological innovation.

4.1.2 Trends in Methodological Development

When examined over time, the distribution of research methods reveals notable shifts. During 2015-2018, quantitative methods dominated almost 70 per cent of the research, while qualitative studies accounted for only about 18 per cent, mixed methods

10 per cent, and emerging methods were virtually absent. Between 2019 and 2022, the proportion of quantitative research decreased to 55 per cent, while qualitative studies rose to 30 per cent and mixed-methods approaches increased to 12 per cent. The most significant changes occurred between 2023 and 2025: quantitative research dropped further to 45 per cent, qualitative rose to 32 per cent, mixed methods increased to 18 per cent, and emerging methods reached about 5 per cent, spurred by the digitalisation of learning during and after the COVID-19 pandemic.

These trends suggest that higher education research in Lampung is moving away from quantitative dominance towards greater methodological diversity, aligning with global developments in educational research where multiperspective approaches are increasingly recognised as essential for understanding complex phenomena.

4.1.3 Research Areas and Methodological Linkages

Beyond overall distributions and temporal trends, the findings also reveal distinctive patterns in the use of research methods across subject areas. Quantitative methods were most prevalent in research evaluating teaching practices and academic achievement; qualitative methods were commonly applied in studies emphasising subjective experiences and cultural contexts; mixed-methods approaches frequently appeared in research on programme or policy effectiveness; and emerging methods were closely associated with research in digitalisation and community empowerment. These findings emphasise that the choice of research method in Lampung is strongly shaped by the research topic itself: the more complex and context-specific the subject matter, the more likely researchers are to employ qualitative, mixed, or emerging methods.

4.2 Discussion

This section interprets the findings of the methodological mapping presented above, linking them with the theoretical framework while evaluating their implications for research practices in Lampung's higher education institutions. The main focus of the discussion is: (1) understanding why quantitative methods remain dominant; (2) examining the significance of the rise in qualitative and mixed-methods research; (3) evaluating the adoption of emerging methods alongside their barriers; and (4) outlining practical implications, policy directions, and recommendations for strengthening the quality of local research methodologies.

4.2.1 Interpretation of the dominance of quantitative methods

The dominance of quantitative methods, accounting for the largest proportion of the sample (54.0%), reflects several structural and cultural conditions within Lampung's higher education institutions. Historically and curricularly, many undergraduate programmes emphasise quantitative skills and the use of standardised instruments, making survey- and statistics-based research the most familiar and “safe” choice for students and supervisors alike (Creswell & Creswell, 2018). However, quantitative dominance is not merely a practical choice; its limited ability to capture meaning, experience, and context often results in superficial findings when applied to complex

educational phenomena (Tracy, 2020), underscoring the need for methodological capacity-building.

4.2.2 The significance of the rise in qualitative and mixed-methods research

The growth of qualitative (27%) and mixed-methods (14.7%) research, particularly since 2019, signals a positive paradigm shift among Lampung researchers towards more holistic approaches, responding to the necessity of understanding social-cultural contexts and producing findings that are contextually relevant. Nevertheless, challenges remain: qualitative studies often suffer from insufficient analytical depth, while mixed-methods are sometimes conducted as “simple combinations” without meaningful integration, undermining methodological value (Bazeley, 2018). Increases in quantity therefore do not automatically translate into enhanced methodological quality.

4.2.3 Adoption of emerging methods: potential, barriers, and the Lampung context

Although accounting for only 4.3 per cent of the studies, the adoption of digital ethnography and participatory action research (PAR) indicates early signs of methodological innovation responsive to technological developments and demands for community engagement (Pink et al., 2022; Kemmis et al., 2017). Nevertheless, their adoption faces significant barriers: low methodological literacy in digital and online ethnographic techniques, uneven technological infrastructure across Lampung, ethical and regulatory uncertainty around online data collection, and academic reward systems that still privilege conventional quantitative outputs.

4.2.4 Implications for research quality, policy, and academic practice

The mapping results hold important implications at several levels. At the academic level, quantitative dominance without sufficient qualitative or integrated research undermines the theoretical contribution and contextual relevance of findings. At the policy level, institutional reforms are needed to provide incentives for mixed-methods and PAR, budgetary support for digital research, and the establishment of methodological centres offering consultancy, while local journals and editorial boards should broaden assessment criteria to value methodological diversity and qualitative rigour more highly.

4.2.5 Practical recommendations and future research directions

Based on the analysis, several practical recommendations can be outlined: (1) strengthening methodology education at all levels by incorporating mixed-methods, digital ethnography, and PAR modules into curricula; (2) establishing supporting facilities such as methodology labs and consultancy centres; (3) developing context-sensitive ethical and technical guidelines for online data collection in Lampung universities; and (4) providing academic incentives for innovative research. For future studies, in-depth qualitative investigations into the determinants of methodological choice, comparative studies across faculties, and applied participatory action research involving local communities are recommended.

4.2.6 Broader Potential and the Trajectory of Methodological Development

Beyond the immediate findings, the trajectory identified in this review carries broader potential for higher education research in Lampung to align more closely with international standards of methodological rigour and transparency. The use of a structured protocol to guide this review, in line with the PRISMA reporting standard (Page et al., 2021), demonstrates that local researchers can adopt globally recognised procedures for systematic literature review. Similarly, the potential of mixed-methods designs to genuinely integrate, rather than merely juxtapose, quantitative and qualitative strands (Creswell & Plano Clark, 2017; Onwuegbuzie & Leech, 2005) suggests a pathway for Lampung researchers to produce studies with both statistical robustness and interpretive depth.

The emerging methods identified in this study also point towards further, largely untapped potential. Digital ethnography could evolve toward more structured netnographic protocols (Kozinets, 2015), while participatory action research could benefit from established action-research frameworks (Reason & Bradbury, 2008). At the same time, any expansion of qualitative and emerging methods must be accompanied by stronger analytical rigour, for instance through systematic thematic analysis procedures (Braun & Clarke, 2006), well-documented case study protocols (Yin, 2018), and comprehensive qualitative design guidance (Merriam & Tisdell, 2016; Hesse-Biber, 2010), so that methodological diversification translates into genuine gains in research quality rather than a superficial broadening of technique.

CONCLUSION

The findings of this study affirm that the methodological landscape of educational research in higher education institutions in Lampung remains dominated by quantitative approaches. While such approaches provide convenience in measuring variables and conducting statistical analyses, they fall short in capturing the layered meanings and complexities of educational phenomena. On the other hand, the increasing proportion of qualitative and mixed-methods research indicates a paradigm shift towards greater openness to diverse and integrative approaches.

The emergence of new methods such as digital ethnography and participatory action research, although still limited, demonstrates considerable potential for methodological innovation relevant to the demands of the digital era and the need for community empowerment. These findings address the initial research questions concerning the prevalence of methods, the trends in methodological shifts, and the degree of adoption of new approaches. More substantively, the choice of research methods is not merely a technical matter, but represents structural conditions, academic culture, and institutional vision in shaping educational research.

The future prospect of research development lies in expanding the implementation of qualitative and mixed-methods research with more mature integration, while simultaneously promoting the exploration of innovative and contextually relevant methods, such as digital research and participatory action studies. Ultimately, educational research in Lampung is expected to generate knowledge that is not only academically

robust but also has tangible impact on educational practice and social development in the era of digital transformation.

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