



The Rhetoric of Research Gaps across Qualitative, Quantitative, and Mixed-Methods Traditions in Iranian Applied Linguistics Articles

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Abstract

Gap-spotting, identifying and filling perceived deficiencies in existing literature, has become the predominant strategy for formulating research questions across academic disciplines. While recent investigations have documented its prevalence in applied linguistics, this study sought a more nuanced understanding of how gap statements vary across qualitative, quantitative, and mixed-methods articles published in Iranian applied linguistics journals. From a corpus of empirical articles published between 2016 and 2025 in 12 Scopus- or ISC-indexed journals, 220 articles that included gap-based justifications were selected. We excluded articles that did not state explicit research questions, and we analyzed the remaining 215 articles using qualitative content analysis. Using a six-category typology of research gaps, the analysis examined primary gap type, gap statement explicitness, gap claim basis, textual positioning of gap statements, and number of research questions. Findings revealed that knowledge gaps dominated across all three traditions with near-identical proportions (80.9–81.0%), indicating a shared disciplinary norm that transcends paradigmatic boundaries. Tradition-specific variations emerged in attribution use, rhetorical positioning, and research question counts. These patterns aligned with a cumulative, positivistic epistemology that privileges empirical accumulation over conceptual innovation. Findings highlighted the need for more diverse approaches to research question formulation to foster a pluralistic and socially responsive research culture across traditions.

Keywords: Applied Linguistics, epistemology, gap-spotting, knowledge production, methodological Traditions

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Articulating research questions is a foundational moment in the research process, one that fundamentally shapes the trajectory and character of scholarly inquiry. As Conway (2023, p. 9) observes, "identifying and honing research topics and research questions are foundational skills in the practice of research; without getting these pieces right, the rest of the puzzle rarely fits together." Research questions serve as orienting mechanisms that not only demarcate the boundaries of investigation but also channel decisions regarding data collection strategies, analytical procedures, and interpretive frameworks (Kross & Giust, 2019; Sunderland, 2010). Scholars have long recognized that the capacity to pose meaningful research questions may be more intellectually significant than the ability to generate answers, as questions themselves delineate what constitutes legitimate knowledge within a particular domain of inquiry (Alvesson & Sandberg, 2013; Bacchi, 2009). Within applied linguistics, where research traverses language learning, pedagogy, language use, and educational policy, well-crafted questions must demonstrate theoretical coherence, clarity of purpose, methodological feasibility, and the potential to advance disciplinary understanding (Mackey & Gass, 2016). Consequently, formulating research questions is not merely a procedural step in research design but a practice through which researchers define what is worth investigating, how knowledge claims are substantiated, and what kinds of contributions the discipline recognizes. The quality of research questions has been described as a major determinant of methodological rigor, creating a domino effect on data collection, analysis, and the alignment between research design and implementation (Bryman, 2007; Lipowski, 2008).

From this perspective, research questions perform both methodological and rhetorical functions. Methodologically, they guide the selection of appropriate research designs, methods of inquiry, and analytical procedures. Rhetorically, they position a study within ongoing scholarly conversations by demonstrating its relevance, significance, and anticipated contribution to disciplinary knowledge (Swales, 2004). The formulation of research questions is therefore inseparable from the broader process of knowledge production, as it reflects researchers' assumptions about what constitutes worthwhile inquiry, acceptable evidence, and meaningful scholarly contribution. Accordingly, scholars have devoted considerable attention to understanding how research questions are constructed and justified across disciplinary contexts. As Lim (2014, p. 67) observed, methods guidebooks and style manuals "generally mentioned the language used in research questions only in passing," often citing exclusively polar questions and evaluative *wh-questions* without explicitly linking them to other communicative elements. Research methodology textbooks, while providing extensive treatment of data collection and analysis procedures, offer limited direction on how to formulate innovative research questions through critical engagement with existing literature (Sandberg & Alvesson, 2011). In the absence of explicit guidance, researchers have gravitated towards disciplinary conventions and established rhetorical practices when constructing and justifying research questions.

Consequently, scholars have examined the construction of research questions from multiple theoretical and methodological perspectives, attending to their rhetorical, epistemological, and pragmatic dimensions (Alvesson & Sandberg, 2013; Coombe, 2021; Jacobs, 2011; Swales, 2004). Different approaches to constructing research questions reflect different assumptions about how knowledge develops, how scholarly contributions should be justified, and how novelty should be demonstrated. One of the most influential frameworks for understanding these approaches is proposed by Alvesson and Sandberg, first in their 2011 article (Sandberg & Alvesson, 2011) and then extended into their 2013 book (Alvesson & Sandberg, 2013). They distinguish four principal strategies for developing research questions: gap-spotting, problematization, critical confrontation, and new idea generation. These approaches form a continuum from incremental knowledge accumulation to more transformative inquiry. Gap-spotting, the most prevalent strategy, justifies research by identifying an absence, limitation, or underexplored aspect of previous scholarship. Problematization, by contrast, challenges the assumptions underpinning existing theories and thereby reframes the questions researchers ask. Because problematization requires researchers to develop an independent interpretation of existing theories and to question their foundational premises, it is a more demanding and less frequently adopted strategy, particularly among early-career researchers (Chatterjee & Davison, 2020). Critical confrontation exposes weaknesses in dominant theoretical perspectives, whereas the new-idea approach foregrounds conceptual originality without necessarily relying on explicit deficiencies in prior literature. Collectively, these approaches underscore that research questions are shaped not only by empirical interests but also by broader epistemological commitments regarding the nature and development of scientific knowledge.

Sandberg and Alvesson (2011) further differentiated three principal modes of gap-spotting. Confusion spotting identifies contradictions or inconsistencies within existing research that require clarification. Neglect spotting emphasizes topics or phenomena that have received insufficient scholarly attention and was the most prevalent strategy in their analysis of management research. Application spotting, in turn, justifies research by extending existing theories or perspectives to new contexts. Although these modes often co-occur, one typically serves as the study's dominant rationale. Hallgren (2012) subsequently expanded this typology by identifying two additional modes—empirical need or example spotting and research overview spotting—illustrating that researchers may also justify inquiry by appealing to practical concerns or by synthesizing previous work to identify promising future directions. Together, these frameworks show that researchers formulate questions through recognizable rhetorical patterns rather than solely by individual scholarly preference.

Among the various pathways to research question development, gap-spotting has become the predominant and institutionally sanctioned approach across academic disciplines, including applied linguistics (Chatterjee & Davison, 2020; Razavipour & Farzaneh, 2026; Sandberg & Alvesson, 2011; Wald et al., 2024). Although gap-spotting is frequently regarded as a conventional indicator of scholarly originality, a growing body of critical scholarship has

interrogated the epistemological consequences of its unreflective application (Alvesson & Sandberg, 2013; Chatterjee & Davison, 2020; Farzaneh & Rezvani, 2026; Razavipour & Farzaneh, 2026). Critics argue that an over-reliance on gap-spotting can privilege incremental extensions of existing knowledge over more critical or assumption-challenging inquiry (Alvesson & Sandberg, 2013; Wald et al., 2024). The prominence of gap-spotting has also spurred broader debates about the philosophical assumptions underpinning contemporary knowledge production. Rather than viewing literature as a site for questioning established assumptions, gap-spotting often treats previous research as a cumulative body of knowledge to which new studies are expected to add incremental contributions. From this perspective, scholarly novelty is primarily demonstrated by identifying what remains unknown rather than by reconsidering what is already taken for granted. As a result, the rhetorical practice of constructing research questions becomes closely intertwined with wider epistemological assumptions about how scientific knowledge progresses.

Empirical research has documented the prevalence of gap-spotting across diverse disciplinary contexts. In organizational studies, Sandberg and Alvesson (2011) found gap-spotting to be the dominant strategy for constructing research questions, with neglect spotting the most common mode. In management information systems, Chatterjee and Davison (2020) similarly report that gap-spotting dominates research question construction, with alternative strategies such as problematization rarely employed. In health sciences, gap-spotting prevails through systematic reviews designed to identify evidence gaps (Hempel et al., 2019; Nyanchoka et al., 2019; Robinson et al., 2011). In project management research, Hallgren (2012) examined 61 articles from four leading journals and found that all articles adhered to gap-spotting patterns, with no evidence of more problematizing modes of research question construction. In higher education research, Wald et al. (2024) examined 124 articles from five top-ranked journals and found that 80% contained gap statements, with knowledge gaps being the most prevalent type. Across these disciplinary contexts, gap-spotting emerges not merely as a common rhetorical strategy but as a dominant convention for legitimizing scholarly inquiry. While these studies span multiple disciplines, they collectively indicate that gap-spotting constitutes a cross-disciplinary scholarly norm, making it a relevant and timely object of investigation within applied linguistics as well.

The widespread adoption of gap-spotting has also motivated scholars to develop more refined conceptualizations of the different forms that research gaps may take. Drawing on Jacobs's (2011) taxonomy of research problems and Müller-Bloch and Kranz's (2015) framework for identifying research gaps, Wald et al. (2024) developed a comprehensive typology comprising six gap types: knowledge, evidence, practice, methodological, theoretical, and evaluation. Knowledge gaps justify research by claiming the absence or insufficiency of previous studies on a particular topic, whereas evidence gaps emphasize inconsistencies or contradictions among existing findings. Practice gaps highlight discrepancies between professional practice and research-based knowledge; methodological gaps advocate alternative

or improved research procedures; evaluation gaps focus on assessing or validating existing models; and theoretical gaps seek to extend, refine, or reinterpret theoretical explanations. This typology provides a systematic framework for examining how researchers rhetorically justify their studies.

Alongside these developments, genre-based research has examined how research questions and gap statements are rhetorically realized within research article introductions. Swales's (1990, 2004) Create a Research Space (CARS) model shows how introductions establish a research territory, create a niche, and occupy that niche, with gap identification as a principal rhetorical resource for justifying new research. In Move 3, authors articulate research purposes, research questions, and, where appropriate, hypotheses and methodological orientations. Moreno and Swales (2018) further refined move analysis by emphasizing the relationship between rhetorical function and linguistic realization. Within applied linguistics, Ozturk (2007) found that the explicit articulation of research questions differs across international and local journals, while Sheldon (2011) showed that disciplinary and cultural backgrounds influence both the explicitness and formulation of research questions. Lim (2014) examined the linguistic realization of research questions in applied linguistics and reported systematic preferences for particular grammatical structures. In contrast, Ghanbar and Rezvani (2023) identified recurring syntactic patterns, including the frequent use of *to what extent* interrogatives. Collectively, these studies demonstrate that research questions are not simply methodological devices but genre-specific rhetorical resources whose realization reflects disciplinary conventions and expectations.

Despite the institutional dominance of gap-spotting, an expanding body of scholarship has questioned whether identifying research gaps alone provides sufficient justification for scholarly inquiry. Chatterjee and Davison (2020) critique the implicit assumption that because something has not yet been investigated, it necessarily deserves investigation. As they argue, research should be undertaken because it addresses questions of genuine academic or practical significance, not merely because a gap can be identified. Similarly, Wald et al. (2024) caution that not every gap warrants investigation and argue that gap statements should be grounded in compelling research problems rather than functioning as formulaic claims of novelty. Their analysis further identifies what they term "justification by association," whereby authors emphasize the importance of a broad topic without clearly explaining why a particular unanswered question matters (Wald et al., 2024, p. 319). Hallgren (2012) similarly argues that a heavy reliance on gap-spotting may encourage reaffirmation of existing assumptions rather than conceptual challenge, potentially limiting theoretical development. Echoing these concerns, Corley and Gioia (2011) argue that theory should be "problem driven—that is, in some fashion addressing a problem of direct, indirect, or long-linked relevance to practice, rather than narrowly *addressing the (theoretical) 'problem' of finding the next mediator or moderator variable or filling theoretical gaps simply because they exist* [emphasis added], while Kilduff (2006, p. 252) along the same lines asserts that "the route to good theory leads

not through gaps in the literature but through an engagement with problems in the world," suggesting that researchers should begin with substantive problems that matter rather than with gaps in the literature.

These critiques have progressively shifted attention from the rhetorical form of gap statements toward the epistemological assumptions that make gap-spotting appear both natural and necessary. In one of the most influential contributions to this debate, St. Pierre (2016) traces the dominance of gap-spotting to the philosophical legacy of logical positivism and its commitment to incremental knowledge accumulation. Within this epistemological tradition, knowledge is assumed to develop cumulatively, with each new study contributing another piece to an expanding body of assumed facts. Researchers are therefore routinely expected to identify a gap in existing knowledge that their study will fill, reflecting the assumption that scientific progress proceeds by gradually adding new findings to an already secure foundation. Drawing on Kuhn (1970), however, St. Pierre argues that this linear account of scientific development obscures the discontinuities, ruptures, and paradigm shifts through which knowledge frequently evolves. As Hacking (1983, pp. 55–56) similarly observes, "there can be heapings up of knowledge without there being any unity of science to which they all add up," suggesting that accumulation alone cannot adequately explain scientific development. From this perspective, gap-spotting represents not simply a rhetorical convention but the expression of a particular philosophy of science—one that privileges continuity, accumulation, and epistemic stability over critical questioning, conceptual transformation, and theoretical disruption.

Recent scholarship has extended these discussions by proposing complementary rather than competing approaches to research question development. Wang et al. (2025), for example, argue that gap-spotting and problematization should be viewed as mutually complementary strategies for generating research agendas. Whereas gap-spotting supports incremental extensions of existing knowledge by accepting prevailing ontological, theoretical, and methodological assumptions, problematization encourages researchers to interrogate those assumptions and reconsider a field's conceptual foundations. Likewise, Fox (2024) proposes rhizomatic review as an alternative to what he terms "gap-hunting" (p. 1111). Drawing on Deleuze and Guattari's (1988) concept of the rhizome, Fox conceptualizes literature review as an iterative process of generating new questions, following emerging conceptual connections, and exploring multiple trajectories of inquiry rather than seeking a single deficiency to be filled. Together, these perspectives suggest that scholarly originality may arise not only from identifying what remains unknown but also from reconsidering how knowledge itself is organized, connected, and questioned.

In applied linguistics, recent empirical investigations have documented the prevalence and consequences of gap-spotting. Razavipour and Farzaneh (2026) examined 238 articles from six leading international applied linguistics journals and reported that 85% employed gap-spotting as the primary strategy for constructing research questions and establishing scholarly contribution. Their analysis indicated that this approach encourages incremental knowledge

building, cultivates a mindset of extending existing literature, and may occasionally narrow research focus through practices such as salami-slicing (i.e., dividing a single study's findings into multiple minimally publishable segments; Ding et al., 2020; Norman & Griffiths, 2008). Similarly, Farzaneh and Rezvani (2026) examined gap-spotting practices in Iranian applied linguistics journals and found that 90% of articles with explicitly stated research questions relied on gap-based justifications, with knowledge gaps constituting 81% of primary justifications, while methodological and theoretical concerns played supporting roles. Taken together, these studies suggest that gap-spotting has become the dominant rhetorical convention through which research questions and scholarly contributions are justified in international applied linguistics publishing, and also in the Iranian context, a semi-peripheral research space where global disciplinary norms intersect with local conventions and thus offer a revealing lens for examining how such practices are enacted.

At the same time, applied linguistics is characterized by substantial epistemological and methodological diversity. The field encompasses quantitative, qualitative, mixed-methods, and critical, sociocultural, ethnographic, corpus-based, and design-oriented approaches (Hashemi & Babaii, 2013; Riazi, 2016; Riazi & Candlin, 2014). Each tradition carries distinct epistemological commitments, assumptions about what counts as knowledge and evidence, and conventions for constructing and justifying research questions (Creswell & Creswell, 2018; Johnson & Onwuegbuzie, 2004). This diversity reflects the interdisciplinary nature of applied linguistics, which draws on linguistics, education, psychology, sociology, anthropology, and philosophy to investigate language-related problems from multiple perspectives (Phakiti et al., 2018). Consequently, research questions are not formulated in an epistemological vacuum but are shaped by the assumptions and methodological commitments associated with different research traditions.

Quantitative research, typically informed by positivist or post-positivist perspectives, generally seeks explanation, prediction, measurement, and hypothesis testing through systematic empirical observation. Qualitative inquiry, in contrast, is more commonly associated with interpretive and constructivist paradigms that emphasize participants' perspectives, contextual understanding, and the socially constructed nature of knowledge. Mixed-methods research, meanwhile, has largely been associated with pragmatic perspectives that integrate qualitative and quantitative approaches to address complex research problems from complementary vantage points (Creswell & Creswell, 2018; Johnson & Onwuegbuzie, 2004). Although these methodological traditions frequently overlap in practice, each embodies distinctive assumptions regarding what constitutes legitimate knowledge, persuasive evidence, and meaningful scholarly contribution. Accordingly, if methodological traditions embody different epistemological orientations, they may also exhibit distinctive rhetorical practices for constructing, positioning, and justifying research questions. Examining these practices therefore offers a valuable opportunity to connect rhetorical analysis with broader discussions of epistemology in applied linguistics.

From this perspective, how researchers identify, formulate, and justify research gaps may offer insight into how different methodological traditions conceptualize originality, scholarly contribution, and the advancement of knowledge. Investigating these rhetorical choices can therefore illuminate the relationship between research writing and the epistemological assumptions that underpin contemporary applied linguistics scholarship. In light of the preceding review of gap-spotting, research question construction, and methodological diversity, the present study seeks to provide a more nuanced understanding of how gap statements vary across qualitative, quantitative, and mixed-methods articles published in Iranian applied linguistics journals. Specifically, the study examines how primary gap type, gap statement explicitness, gap claim basis, textual positioning of gap statements, and number of research questions vary across methodological traditions.

The Iranian context provides a particularly valuable site for such inquiry, as it represents a semi-peripheral research context where global disciplinary norms interact with local institutional and publishing conventions. Iranian applied linguistics journals have grown substantially in both research output and international visibility over the past two decades, while remaining responsive to international publication conventions. As a result, they provide an informative setting for examining how globally circulating rhetorical practices are adopted, negotiated, and enacted within a local scholarly community.

By highlighting how research questions are framed and justified across methodological traditions, the study aims to contribute to ongoing discussions of knowledge production, epistemological orientation, and rhetorical practice in applied linguistics. The study makes two principal contributions to scholarship on research writing in applied linguistics. First, it moves beyond estimates of overall prevalence to provide deeper insight into how rhetorical practices vary across methodological traditions. Second, it provides empirical evidence that can inform research writing pedagogy, doctoral education, and academic publishing by offering a more comprehensive account of how research questions and gap statements are constructed within different methodological traditions. This study does not assume a priori that gap-spotting is problematic; rather, it aims to map rhetorical patterns systematically and then reflect on their possible epistemological implications.

To achieve these aims, the study draws on rhetorical genre analysis, the typology of research gaps, and the epistemology of science. Rhetorical genre studies (e.g., Swales, 2004) provide the notion that gap statements are conventional moves within research article introductions, while the six-category gap typology (Wald et al., 2024) offers a systematic vocabulary for classifying the content of those justifications. The epistemological literature (e.g., St. Pierre, 2016) offers a framework for interpreting how different gap constructions may reflect differing assumptions about knowledge production. The five analytical dimensions, that is, primary gap type, explicitness, claim basis, textual positioning, and number of research questions, were selected because each captures both a rhetorical choice (how the gap is expressed and where) and an epistemological stance (what kind of contribution is valued, who is recognized as an authority,

and how inquiry is structured). By applying this unified lens to articles from three methodological traditions, the study examines whether rhetorical conventions and epistemological orientations co-vary in published research. To examine these concerns, the study addresses the following research questions:

1. How do primary gap type, gap statement explicitness, and gap claim basis vary across qualitative, quantitative, and mixed-methods articles in Iranian applied linguistics journals?
2. How do the textual positioning of gap statements and the number of research questions differ across these three methodological traditions?
3. What do the observed patterns suggest about the epistemological orientations and rhetorical conventions associated with each tradition in the field?

Method

Design

This study used a descriptive comparative design, cross-tabulating analytical categories and thematic features across three groups: qualitative, quantitative, and mixed-methods articles. The study involved no experimental manipulation or hypothesis testing; rather, it focused purely on pattern identification and descriptive comparison. This approach aligned with interpretive traditions of qualitative content analysis in which analytical categories guide attention without imposing rigid classificatory schemes that would fracture the interpretive integrity of the texts (Cohen et al., 2018; Dörnyei, 2007). To support transparency and reveal patterns across the corpus, frequency counts are presented as a supplementary lens rather than as a claim to objectivity. This practice aligns with qualitative content-analytic conventions, where frequency tables commonly communicate tendencies without implying statistical generalizability (Cohen et al., 2018; Gillespie et al., 2024).

Corpus

The corpus comprised empirical research articles published between 2016 and 2025 in 12 Iranian applied linguistics journals. All journals are published in English, indexed in Scopus and/or ranked in ISC, and approved by Iran's Ministry of Science, Research, and Technology, ensuring their recognized scholarly status within the field. The journals included: *Applied Research on English Language (AREL)*, *Iranian Journal of Applied Linguistics (IJAL)*, *Iranian Journal of Applied Language Studies (IJALS)*, *Iranian Journal of English for Academic Purposes (IJEAP)*, *Iranian Journal of Language Teaching Research (IJLTR)*, *Issues in Language Teaching (ILT)*, *Journal of English Language Teaching and Learning (JELTL)*, *Journal of Language Horizons (JLH)*, *Journal of Modern Research in English Language Studies (JMRELS)*, *Journal of Research in Applied Linguistics (RALs)*, *Journal of Teaching English Language (TEL)*, and *Teaching English as a Second Language Quarterly (TESLQ)*. The timeframe (2016–2025) was selected to capture contemporary research practices during a period in which gap-spotting has been empirically documented as the dominant strategy for research question construction across disciplines and, more recently, in applied linguistics.

We included only empirical research articles to focus on original research contributions in which research questions play a central structuring role; we excluded review articles, theoretical papers, opinion pieces, commentaries, book reviews, and editorials. From an initial pool of 630 empirical research articles published across the 12 journals, a corpus of 220 articles was selected through systematic sampling. The pool was first sorted by journal and then by publication date within each journal to preserve each outlet's temporal structure. We then selected every third article, yielding a sample proportional to the journal and year distribution of the full pool. This procedure approximates a stratified systematic sample and mitigates selection bias by avoiding researcher discretion at selection. The sampling strategy was designed to ensure manageable yet representative coverage across the publication spectrum without presupposing statistical generalizability. All 220 articles contained gap statements (either explicit or implicit) used to justify the research. From this full corpus, 5 articles did not contain explicitly stated research questions—using *aims*, *objectives*, *goals*, or *purposes* instead—and were consequently excluded from the final sample. This yielded a final sample of 215 articles, comprising 68 qualitative, 84 quantitative, and 63 mixed-methods studies (see Table 1). To classify methods, we first consulted the authors' methodological descriptions. When these were not explicitly stated, we closely reviewed the abstracts, keywords, and methodology sections for further guidance. Studies were assigned to the qualitative category if they contained terms such as *ethnography*, *grounded theory*, *discourse analysis*, or *interpretative phenomenological analysis*, or if their analyses relied predominantly on verbal descriptions. Quantitative classification was applied when the analysis depended on numerical or statistical data, and mixed-methods designation was used when both qualitative and quantitative approaches were combined.

Table 1

Distribution of Methodological Traditions in the Corpus

Methodological Tradition	Full Corpus (N = 220)	Excluded (No RQs)	Final Sample (n = 215)
Qualitative	72 (32.7%)	4 (1.8%)	68 (31.6%)
Quantitative	85 (38.6%)	1 (0.5%)	84 (39.1%)
Mixed-Methods	63 (28.6%)	0 (0.0%)	63 (29.3%)
Total	220 (100%)	5 (2.3%)	215 (100%)

Note. Percentages are column percentages.

Figure 1 provides an overview of the corpus construction procedure adopted in the present study, from the identification and screening of eligible journal articles through systematic sampling to the methodological classification of the final sample according to research approach.

THE RHETORIC OF RESEARCH GAPS ACROSS QUALITATIVE

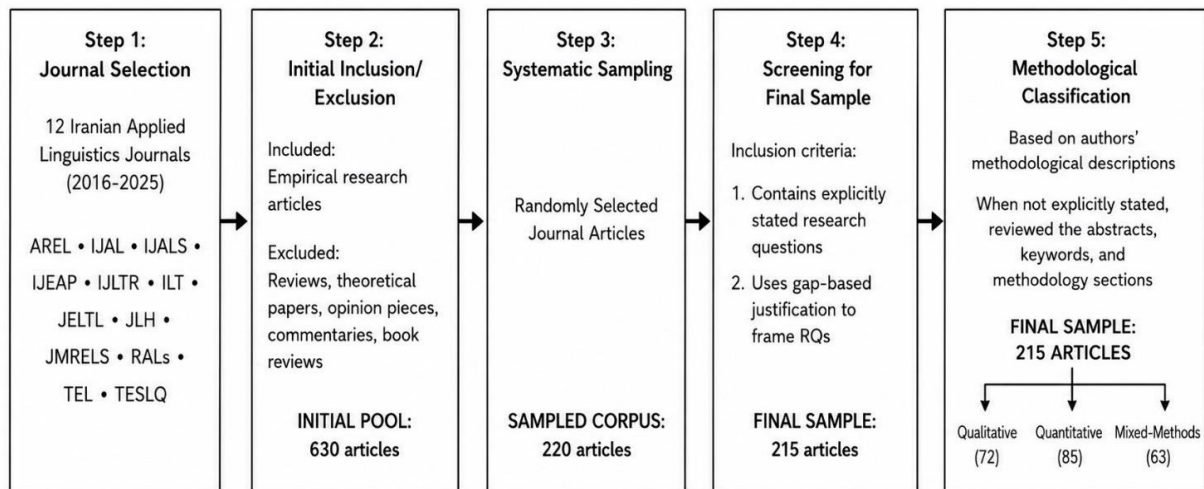


Figure 1
Overview of the Corpus Construction Procedure

Analytical Framework

The study employed Farzaneh and Rezvani's (2026) analytical framework of research gaps and their primary functions. This framework, presented in Table 2, preserves the original gap categories identified by Wald et al. (2024) while reconceptualizing each category in terms of its rhetorical role in research justification, thereby facilitating interpretive analysis. Although Wald et al.'s (2024) typology originated in higher education research, its gap categories are designed to capture general forms of research justification. Farzaneh and Rezvani's (2026) prior employment of this framework in an applied linguistics context confirmed that all six gap types were present in the corpus and that the operational definitions required no substantial modification. The framework was therefore adopted without change in the present study.

Table 2
An Analytical Framework of Research Gaps and Their Primary Functions

Type of Gap	Primary Function in Research Justification
Evidence Gap	Highlights inconsistencies or contradictions across existing findings, often to warrant further empirical testing or clarification.
Knowledge Gap	Justifies research by claiming the absence or insufficiency of prior studies on a particular topic or phenomenon.
Practice Gap	Connects research to discrepancies between professional practice and research-based knowledge, or to undocumented practices.
Methodological Gap	Legitimizes research by proposing alternative, complementary, or improved methodological approaches.
Evaluation Gap	Motivates research aimed at assessing, validating, or empirically testing existing models, frameworks, or propositions.
Theoretical Gap	Frames research as extending, refining, or applying theory to explain phenomena or generate new insights.

Note. From Farzaneh & Rezvani (2026)

The primary analytical category in this study was methodological tradition, comprising three groups: qualitative, quantitative, and mixed-methods. The textual features examined encompassed six dimensions of gap-spotting practices, as summarized in Table 3.

Table 3

Dimensions of Gap-Spotting Practices Examined

Analytical Dimension	Typological Descriptors
Gap Explicitness	Explicit (gap, lacuna, void, hiatus) / Implicit (under-researched, little is known, few studies have examined, paucity of research, etc.)
Primary Gap Type	Knowledge / Evidence / Practice / Methodological / Theoretical / Evaluation
Secondary Gap Type	Same six categories + NONE
Gap Claim Basis	SELF (authors' own selective literature review) / OTHER (attribution to a prior scholar) / SYSREV (attribution to a systematic review) / UNCLEAR
Location of Gap Statement	ABS (abstract only) / INTRO (introduction) / LIT (literature review only) / DED (dedicated section) / MULTI (multiple sections)
Number of Research Questions	Discrete count (1 through 8); articles without RQs excluded

Note. Operational definitions for gap types follow Wald et al. (2024) and Farzaneh and Rezvani (2026)

Analytical Procedure and Trustworthiness

Both authors independently examined a random subset of 25 articles from the full corpus, focusing on all dimensions listed in Table 3. This initial calibration allowed the authors to establish a shared understanding of the analytical categories and decision rules. During this phase, the authors drew on the definitions for gap types (Wald et al., 2024), their primary function in research justification (Farzaneh & Rezvani, 2026), the explicitness/implicitness criteria described by Razavipour and Farzaneh (2026), and the methodological classification guidelines outlined above (see Corpus) to anchor their judgments. We resolved discrepancies through reflexive dialogue and negotiated re-reading of the full textual context, continuing discussions until we reached consensus on all cases. This process established threshold decisions for: what constitutes explicit vs. implicit gap language (e.g., *void* vs. *under-studied*), when a gap is primary vs. secondary (the central justification vs. an additional supporting claim), how to determine location when the gap appears in multiple places (classified according to the most prominent location), and the distinction between SELF and OTHER gap claim basis.

Following the calibration phase, the second author analyzed the remaining articles using the refined framework. The first author independently examined a randomly selected 30% of the remaining articles to verify consistency of interpretation. The authors resolved any remaining disagreements through discussion and reference to the operational definitions. Because the study aligns with interpretive traditions of qualitative content analysis, we did not compute a quantitative index of inter-analyst agreement. Instead, we ensured consistency through transparent decision rules, negotiated consensus, and ongoing reflexive discussion, following established practices in qualitative content analysis (Cohen et al., 2018; Riazi et al., 2023a; Riazi et al., 2023b).

Results

This section presents the findings of the cross-tabulation analysis organized around the three research questions. The results are structured in three subsections: (1) variations in primary gap type, gap statement explicitness, and gap claim basis across methodological traditions; (2) variations in textual positioning of gap statements and number of research questions; and (3) combinatory patterns of gap types across traditions.

Research Question 1: Variation in Primary Gap Type, Gap Explicitness, and Gap Claim Basis

Across all three methodological traditions, the primary justification for research was overwhelmingly a claim of absent or insufficient prior knowledge. As Table 4 shows, knowledge gaps dominated across all three traditions with remarkably similar proportions: 80.9% in qualitative, 81.0% in quantitative, and 81.0% in mixed-methods articles. This near-uniform distribution suggests that knowledge gaps are a shared disciplinary norm that transcends methodological boundaries. Evidence gaps, claims of contradictory or inconsistent findings, constituted a distant second, appearing in fewer than one in ten articles in any tradition. Practice, evaluation, theoretical, and methodological gaps were each invoked as the central rationale in only a handful of cases, consistently representing 5% or less of primary justifications. The marginal status of methodological and theoretical gaps is particularly revealing. Although these concerns were occasionally acknowledged, they were seldom treated as the principal warrant for inquiry. In effect, the rhetorical architecture of research justification in this corpus is built upon the claim of missing knowledge, with other forms of justification serving, at most, as secondary supports.

Table 4

Distribution of Primary Gap Type Across Methodological Traditions (n = 215)

Primary Gap Type	Qualitative (n = 68)	Quantitative (n = 84)	Mixed-Methods (n = 63)	Total (N = 215)
Knowledge	55 (80.9%)	68 (81.0%)	51 (81.0%)	174 (80.9%)
Evidence	4 (5.9%)	6 (7.1%)	4 (6.3%)	14 (6.5%)
Practice	3 (4.4%)	3 (3.6%)	2 (3.2%)	8 (3.7%)
Evaluation	2 (2.9%)	3 (3.6%)	2 (3.2%)	7 (3.3%)
Theoretical	2 (2.9%)	2 (2.4%)	2 (3.2%)	6 (2.8%)
Methodological	2 (2.9%)	2 (2.4%)	2 (3.2%)	6 (2.8%)

Note. Percentages are column percentages. Row percentages may not sum to 100% due to rounding.

The distribution of explicit versus implicit gap statements was relatively balanced across traditions. In qualitative articles, 47.1% employed explicit gap statements while 52.9% used implicit formulations. Quantitative articles exhibited a similar pattern, with 46.4% explicit and

53.6% implicit. Mixed-methods articles showed a slightly higher proportion of explicit gap statements (54.0%) compared to implicit (46.0%). In other words, implicit formulations (e.g., *under-researched*, *little is known*, *paucity of research*) were slightly more common than explicit lexical markers (e.g., *gap*, *lacuna*, *void*, *hiatus*) in both qualitative and quantitative articles. At the same time, mixed-methods work showed a mild preference for the explicit variants. The overall pattern suggests that while explicitness is a matter of stylistic choice rather than methodological allegiance, mixed-methods researchers may gravitate toward the more emphatic formulation when justifying the added complexity of a multi-strand design.

With respect to the basis on which gap claims were established, the findings revealed that across all traditions, authors overwhelmingly relied on their own selective engagement with prior literature to establish gap claims, a pattern expressed through phrases such as *"to the best of the researchers' knowledge"* and *"as far as the researchers reviewed the related literature."* This self-attributed basis was nearly universal in qualitative work (over four-fifths of articles) and only slightly less dominant in quantitative studies. Mixed-methods articles, however, showed a distinctly higher reliance on attribution to other scholars; approximately one in four cited a named researcher or an authoritative source as having identified the gap, suggesting that mixed-methods authors may seek external validation when advocating for a design that integrates multiple methodological traditions. Notably, systematic reviews were rarely invoked as the foundation for a gap claim (fewer than 1% of articles), indicating that in this corpus the identification of research gaps remains a largely informal, author-centered activity.

The interweaving of these three dimensions, that is, gap type, explicitness, and claim basis, paints a coherent picture. Knowledge gaps, typically stated implicitly, are grounded in the authors' own literature appraisal. When authors wish to reinforce their justification, they may recruit an external voice, an option more often exercised in mixed-methods research. Together, these patterns suggest that while the fundamental logic of gap-spotting is shared, the rhetorical strategies through which it is enacted are subtly shaped by the methodological context.

Research Question 2: Variation in Textual Positioning and Number of Research Questions

Gap statements varied in location across traditions, though certain patterns were shared. Across all traditions, the two most common locations for gap statements were the introduction and the literature review. In qualitative articles, the literature review was the most common location (around two-fifths of articles), followed by the introduction (roughly one-third). In quantitative articles, the introduction was the most common location (nearly half), followed by the literature review (just under one-third). In mixed-methods articles, the introduction and literature review appeared with similar frequencies (each accounting for about one-third of cases). These patterns suggest a tradition-specific tendency: qualitative researchers positioned gap statements most often in the literature review section, while quantitative researchers positioned them most often in the introduction. Mixed-methods articles, drawing on both traditions, exhibited a balanced distribution. Moreover, the abstract served as the location for

gap statements in roughly one-tenth of articles across traditions, indicating that authors frequently preview their gap-based justifications in the abstract. Dedicated sections were more common in mixed-methods articles (about one in eight) compared to qualitative (fewer than one in fifteen) and quantitative (a similar small fraction), perhaps reflecting the need for more elaborate justification of multi-strand designs. Multiple locations appeared in a small minority of articles, with the highest proportion in mixed-methods articles.

The distribution of research questions showed striking differences across methodological traditions (see Table 5). Mixed-methods articles overwhelmingly favored two research questions (nearly three-quarters of the sample), reflecting the dual-strand nature of mixed-methods designs where researchers typically pose separate questions for quantitative and qualitative components. By contrast, qualitative articles showed the most varied distribution, with just under a third having one question, about a third having two questions, and substantial proportions having three or more questions (less than one-fifth with three, around one in eight with four, and a small fraction with five or more). Quantitative articles showed a pattern somewhat similar to the other two traditions, with just over a quarter having one question and roughly two-fifths having two questions, and smaller proportions having three or more.

Table 5

Distribution of Number of Research Questions Across Methodological Traditions (n = 215)

Number of RQs	Qualitative (n = 68)	Quantitative (n = 84)	Mixed-Methods (n = 63)	Total (N = 215)
1	21 (30.9%)	23 (27.4%)	10 (15.9%)	54 (25.1%)
2	22 (32.4%)	33 (39.3%)	47 (74.6%)	102 (47.4%)
3	12 (17.6%)	16 (19.0%)	3 (4.8%)	31 (14.4%)
4	9 (13.2%)	10 (11.9%)	1 (1.6%)	20 (9.3%)
5+	4 (5.9%)	2 (2.4%)	2 (3.2%)	8 (3.7%)

Note. Percentages are column percentages. 5+ includes articles with 5–8 research questions.

Across traditions, the median number of research questions was consistently two. However, qualitative articles showed a bimodal pattern (one or two questions) and the widest spread (1–7), while mixed-methods articles were the most tightly constrained (1–4). Quantitative articles occupied a middle ground, occasionally extending to eight questions. Thus, mixed-methods work emerges as the most structurally uniform in its research questions, qualitative work as the most diverse, and quantitative work as intermediate, with occasional outliers reflecting complex hypothesis-driven designs.

Research Question 3: Combinatory Patterns of Gap Types Across Traditions

The combinatory patterns revealed that knowledge gaps were not only the dominant primary gap type but also frequently combined with other gap types. Overall, about one quarter of articles relied exclusively on a knowledge gap. In contrast, a similar proportion (just over a quarter) combined a knowledge gap with a practice gap, roughly one in seven combined

knowledge with evidence, fewer than one in twelve combined knowledge with methodological, fewer than one in fifteen combined knowledge with evaluation, and fewer than one in twenty combined knowledge with theoretical (see Table 6).

Table 6

Combinatory Patterns of Primary and Secondary Gap Types by Tradition (n = 215)

Pattern (Primary → Secondary)	Qualitative (n = 68)	Quantitative (n = 84)	Mixed-Methods (n = 63)	Total (N = 215)
Knowledge only	19 (27.9%)	22 (26.2%)	13 (20.6%)	54 (25.1%)
Knowledge → Practice	19 (27.9%)	23 (27.4%)	17 (27.0%)	59 (27.4%)
Knowledge → Evidence	10 (14.7%)	12 (14.3%)	10 (15.9%)	32 (14.9%)
Knowledge → Methodological	4 (5.9%)	5 (6.0%)	7 (11.1%)	16 (7.4%)
Knowledge → Evaluation	3 (4.4%)	8 (9.5%)	2 (3.2%)	13 (6.0%)
Knowledge → Theoretical	2 (2.9%)	3 (3.6%)	4 (6.3%)	9 (4.2%)
Other primary gaps	11 (16.2%)	11 (13.1%)	10 (15.9%)	32 (14.9%)

Note. Percentages are column percentages. "Other primary gaps" includes articles where the primary gap type was evidence, practice, evaluation, theoretical, or methodological (with or without secondary gaps).

The most common combinatory pattern across all traditions was a knowledge gap paired with a practice gap (just over a quarter of articles), followed by knowledge gaps alone (about a quarter). This pattern suggests that researchers often frame their studies around an identified knowledge gap and then strengthen their justification by noting the study's practical relevance (practice gap). The knowledge-evidence combination (roughly one in seven articles) was the third most common pattern, where researchers highlighted both the absence of research and inconsistencies in existing findings.

Across traditions, the patterns were remarkably similar. The proportion of knowledge-only articles ranged from about one-fifth in mixed-methods to just over a quarter in qualitative. The knowledge-practice pattern was consistently the most common combinatory pattern across all traditions (just over a quarter in each case). The knowledge-evidence pattern was also relatively consistent (around one in seven across traditions). Other combinatory patterns appeared in smaller proportions, with mixed-methods articles showing slightly higher proportions of knowledge-methodological combinations (about one in nine) compared to qualitative (fewer than one in fifteen) and quantitative (a similar small fraction).

Discussion

This study examined how gap-spotting practices vary across methodological traditions in Iranian applied linguistics research, focusing on primary gap type, gap statement explicitness, gap claim basis, textual positioning of gap statements, and number of research questions. Analysis of 215 empirical articles revealed that while gap-spotting dominates research question formulation and justification across all three methodological traditions, certain patterns vary by

tradition and carry important epistemological implications. This discussion is organized around three overarching patterns: the shared dominance of knowledge gaps across traditions, tradition-specific variations in textual and rhetorical practices, the auxiliary status of methodological and theoretical concerns, and the epistemological orientations that different gap constructions enact.

The Shared Dominance of Knowledge Gaps Across Traditions

The most notable finding of this study is the near-identical dominance of knowledge gaps across qualitative, quantitative, and mixed-methods articles, all at roughly 81 percent. This uniformity suggests that the reliance on knowledge gaps as the primary justification for research transcends methodological boundaries and constitutes a deeply embedded disciplinary norm within Iranian applied linguistics journal articles. This pattern corroborates the observations of Razavipour and Farzaneh (2026) in top-tier international applied linguistics journals, who found that, regardless of paradigmatic orientation, the overwhelming majority of articles draw on gap-spotting strategies to formulate researchable questions and establish their scholarly significance. This convergence suggests that the phenomenon reflects broader disciplinary norms in applied linguistics rather than being unique to the Iranian context.

Drawing on Alvesson and Sandberg (2013), whose critique of gap-spotting highlights the taken-for-granted, self-evident logic it often assumes, and on Chatterjee and Davison (2020), who argue that the gap-spotting approach rests on the fallacious premise that "because something has not yet been done, there is value (a contribution) in doing it" (p. 1), Farzaneh and Rezvani (2026) argue that the rhetorical power of knowledge gaps lies in their apparent self-evidence. Claims that "*little is known*" or "*few studies have examined*" function as intuitively compelling warrants because they tap into a shared understanding that scholarship ought to expand the boundaries of what is known. Yet this self-evidence masks a set of choices: what counts as worth knowing, whose contexts merit investigation, and whether absence from the literature constitutes a sufficient reason for inquiry. In treating knowledge gaps as natural justifications, researchers across all methodological traditions may inadvertently foreclose more fundamental questions about whether existing frameworks of understanding are adequate.

The persistence of this near-uniform reliance on knowledge gaps across paradigmatic divides raises a fundamental question: why has gap-spotting, and particularly the knowledge gap, become such a remarkably homogeneous rhetorical practice? Consistent with Razavipour and Farzaneh (2026), we contend that such methodological conventions are rarely neutral technical choices; rather, they may well be symptoms of a broader and deeper epistemological phenomenon—specifically, the enduring influence of positivist thought in the social sciences. In quantitative research, this legacy is readily apparent, given its historical anchoring in positivist and post-positivist traditions. Less overtly, however, qualitative inquiry has frequently been co-opted by the same logic. Despite its interpretive origins, much qualitative work in applied linguistics has adopted positivist-inflected language and sought legitimacy through positivist-aligned quality criteria—gap-spotting, systematic data collection procedures,

triangulation, member checking, data coding, saturation, inter-coder reliability, and audit trails (St. Pierre, 2016). In this way, the interpretive turn can be understood as having been progressively shaped by the broader socio-political logics of neoliberal academia, which promote market-driven rationalities and audit cultures and, in turn, encourage an emphasis on measurable rigor over critical reflexivity (Morley, 2023; Shore & Wright, 2015). Mixed-methods research, despite its declared commitment to epistemological pluralism, may paradoxically reinforce a similar positivist architecture. Its organizing logic—combining the presumed rigor of numbers with the contextual depth of words—tacitly installs a hierarchy in which the quantitative strand functions as the hard, confirmable core of the inquiry. At the same time, the qualitative component is relegated to a supplementary, illustrative, or elaborative layer (Creswell, 2011). In practice, integration tends to shore up a fundamentally positivist design rather than unsettle its epistemic foundations. The cumulative consequence, as Mirhosseini (2018) observes, is that even when research appears methodologically pluralistic on the surface, the operative epistemology remains narrowly positivist. This epistemological straitjacket arguably sustains the universalized appeal of the knowledge gap: as the most frictionless, decontextualized justification available, it requires no epistemic self-reflection and fits seamlessly into a positivist logic that privileges incremental accumulation over critical interrogation of foundational assumptions. Admittedly, content analysis alone cannot determine whether these patterns stem from deeply held epistemological commitments, pragmatic adaptation to publication norms, or simple disciplinary convention. Future research employing interviews or reflective accounts, for example, would be needed to disentangle authors' actual epistemological orientations from their rhetorical choices.

Tradition-Specific Variations in Textual and Rhetorical Practices

While knowledge gaps dominate across traditions, the data reveal several tradition-specific variations in how gap-spotting is enacted textually and rhetorically. These variations provide insight into how different methodological traditions conceptualize research justification and position their contributions.

The gap claim basis in our sample showed a notable pattern. Authors across all traditions predominantly relied on their own selective literature review. This reliance is evident in the language researchers use. Across the corpus, authors typically articulated this self-attributed basis through formulations such as "*to the best of the researchers' knowledge*" [10] and "*as far as the researchers reviewed the related literature*" [7], among others. Such formulations position the authors as the primary agents in synthesizing prior work to identify significant absences in the literature. However, mixed-methods articles showed the highest proportion of attribution to other researchers compared to qualitative and quantitative articles. Several interrelated factors may explain this pattern. First, the inherent complexity of mixed-methods research problems, which are often "intricate and complex" and "contingent upon the nuanced differences among social and cultural contexts" (Younas et al., 2023, p. 484), may compel researchers to demonstrate that other scholars have recognized the need for such integration,

thereby establishing the legitimacy of their multi-strand designs (Creswell & Plano Clark, 2018; Younas et al., 2023). Second, mixed-methods research requires a clear justification for using both qualitative and quantitative methods, and citing other researchers who have called for such approaches serves as a rhetorical strategy to strengthen this justification (Younas et al., 2023). Third, the relatively recent emergence of mixed methods research as a "third methodological movement" (Teddlie & Tashakkori, 2009) or "third research paradigm" (Johnson & Onwuegbuzie, 2004)—having only gained widespread acceptance in applied linguistics over the past few decades (Riazi & Candlin, 2014)—may encourage researchers to establish credibility through citation of authoritative sources that have legitimized the approach. The higher proportion of attribution to other scholars in mixed-methods articles indicates that attribution to other researchers is not uniformly rare across all traditions but rather varies systematically by methodological orientation.

The near-absence of systematic reviews as a basis for gap claims across all traditions is noteworthy and warrants attention. Despite the growing number of systematic reviews in applied linguistics (Rezvani & Riazi, *in press*) and advocacy for such reviews as rigorous methods for identifying research gaps (Ghanbar & Rezvani, 2024; Norris & Ortega, 2006; Nyanhoka et al., 2019; Robinson et al., 2011), researchers in this corpus primarily relied on their own informal, less rigid, and selective reviews regardless of methodological tradition.

Regarding the positioning of gap statements, mixed-methods articles more often used dedicated sections (DED) than qualitative and quantitative articles. Multiple locations (MULTI) also appeared most frequently in mixed-methods articles. This suggests that mixed-methods researchers may feel compelled to provide a rationale for their gap claims not only in a dedicated section but also repeatedly across multiple sections. As Younas et al. (2023, p. 2) observe, mixed-methods researchers are often required to provide "an explicit rationale for using an MMR design" and to articulate "a clear justification for using qualitative and quantitative methods." The need to justify the integration of qualitative and quantitative strands—a defining feature of mixed-methods research—may thus require more elaborate and repeated articulation of the research gap, reinforcing the argument that mixed-methods researchers employ multiple rhetorical strategies to establish legitimacy for their methodological choices (Creswell & Plano Clark, 2018; Younas et al., 2023). Qualitative articles favored the literature review (42.6%), while quantitative articles favored the introduction (45.2%). This pattern may reflect differing epistemological orientations: qualitative researchers, engaging in interpretive synthesis of prior work, may position gaps in the literature review to demonstrate deep engagement with the scholarly conversation. Quantitative researchers, by contrast, may foreground gaps in the introduction to establish the study's focus and justify the hypothesis-driven design before presenting methodological details. This finding aligns with genre-based studies showing how rhetorical choices reflect disciplinary norms and expectations.

Finally, the number of research questions constructed based on the identified gaps showed the most striking tradition-specific variation. Mixed-methods articles were highly constrained, with nearly three-quarters of the sample having exactly two research questions, reflecting the dual-strand structure of mixed-methods designs where researchers typically pose separate questions for quantitative and qualitative components. This standardization suggests that mixed-methods research operates within a well-defined structural template that shapes not only methodological choices but also rhetorical practices. Qualitative articles showed the greatest diversity (mean: 2.3; range: 1–7), consistent with the exploratory and emergent nature of qualitative inquiry, where research questions may evolve during the research process. Quantitative articles showed a similar pattern (mean: 2.2; range: 1–8), reflecting the structured nature of hypothesis-driven research while still allowing for multiple research questions in complex designs. The similarity between quantitative and qualitative articles in mean and range suggests that while mixed-methods research shows a constrained pattern, qualitative and quantitative traditions show comparable diversity in research question formulation.

The Auxiliary Status of Method and Theory Across Traditions

Another pattern concerns the relative marginalization of methodological and theoretical gaps as independent drivers of research agendas across all three traditions. Across the corpus, only a tiny proportion of articles positioned a methodological gap as their primary justification, and a similarly small fraction did so for theoretical gaps. In most cases where these gap types appeared, they served supportive rather than primary roles, strengthening knowledge-gap claims rather than independently motivating inquiry.

This pattern warrants careful interpretation. Methodological and theoretical concerns are not absent from the corpus; rather, they are rarely framed as the central rationale for conducting research, regardless of methodological tradition. When authors invoke methodological gaps, they typically argue that previous approaches have been limited in ways that justify a different design. Yet, the justification remains anchored in the claim that the topic itself is underexplored (a knowledge gap), with the methodological innovation serving as an additional warrant. For instance, [86] observes that prior studies had "*predominantly employed corpus-based and survey approaches*" before arguing for a "*mixed-methods approach*," yet the primary justification remains the knowledge gap. Similarly, [59] frames a theoretical gap as a secondary concern: "*much less is known about Iranian EFL teachers' identity development in online classes*," with the theoretical dimension serving as an auxiliary warrant. In both cases, theory functions as a resource to extend or specify rather than as an object of critical interrogation.

Building on Alvesson and Skoldberg (2009), whose discussion of reflexive methodology treats methodological and theoretical gaps as frequently secondary, Farzaneh and Rezvani (2026) contend that the auxiliary status of methodological and theoretical gaps reveals something important about the epistemological commitments underlying research practice in this corpus. Knowledge production is conceived primarily as an empirical endeavor: adding new observations, documenting new contexts, generating new data. Method and theory, while

acknowledged as important, are treated as means to this end rather than as sites of contribution in their own right. This orientation keeps research grounded in empirical phenomena and responsive to the specificities of context. Yet marginalizing theoretical and methodological contributions as independent rationales may also limit the field's capacity for conceptual innovation across traditions. When theory always serves empirical description, it becomes difficult to ask questions that challenge the adequacy of existing frameworks or to imagine phenomena in ways prevailing theories cannot capture.

This pattern is also consistent with Corley and Gioia's (2011, p. 22) argument that theories should be problem-driven to serve practical relevance, not the narrow pursuit of new variables or the filling of gaps simply because they exist; focusing on the latter, they warn, advances theory for its own sake rather than for utility. The rarity of theoretical gaps as primary justifications in this corpus suggests that applied linguistics research, across all methodological traditions, may be more oriented toward empirical description than toward theoretical innovation.

Epistemological Orientations Enacted Through Gap-Spotting

The cumulative pattern of gap use across the corpus enacts a distinctive orientation toward scholarly inquiry, privileging accumulation, contextual replication, and empirical verification over conceptual disruption or paradigm transformation (Razavipour & Farzaneh, 2026). This orientation frames scholarly progress as the gradual filling of voids and the progressive clarification of ambiguous findings through additional empirical work. The assumption is that more research—conducted in more contexts, with more participants, using more refined instruments—will eventually yield a comprehensive and reliable understanding of phenomena. This orientation is particularly consequential, for research does not unfold in a value-neutral space; rather, it is always shaped by researchers' own social and academic trajectories, their worldviews, and the positions from which they speak (Bhattacharya, 2017). The near-identical dominance of knowledge gaps across all three methodological traditions may thus reflect not only disciplinary conventions but also shared socialization into particular ways of seeing scholarly problems. These ways treat accumulation and empirical verification as natural and necessary modes of inquiry. Whether this rhetorical uniformity signals a need for greater reflexivity about epistemological assumptions merits further consideration.

The prevalence of evaluation gaps as secondary justifications reinforces this orientation. When authors argue that existing frameworks or interventions have not been systematically evaluated, they position their studies within the logic of validation. The goal is to test whether something works, not to ask whether the categories of "working" or the frameworks themselves are adequate to the complexities of educational practice. Research becomes an exercise in confirming or disconfirming existing propositions rather than in generating new ways of thinking about educational problems (Ellis, 1997). This confirmatory logic, as Ellis (1997) observed, promotes an "applied science" view of education that treats research as testing

interventions rather than interrogating the underlying assumptions about what "working" means.

Practice gaps operate in a similar vein, constructing knowledge as something that should ultimately inform professional action. This orientation privileges knowledge for its usefulness—its capacity to improve teaching, inform policy, or enhance learning outcomes. While this practical orientation is understandable given the field's applied mission, it also entails significant risks. When usefulness becomes the primary criterion for valuing knowledge, research that complicates rather than informs practice, or that questions the very goals toward which practice is oriented, may struggle to find justification within this framework. This tension echoes the argument elaborated earlier (see Section 4.3) that theories should be problem-driven rather than gap-driven, and that overemphasizing scientific utility at the expense of practical utility can result in theories that are rigorous but often irrelevant to practitioners and societal needs (Corley & Gioia, 2011).

From the patterns observed, it might be argued that this epistemological configuration foregrounds cumulative and confirmatory contributions, leaving less visible space for inquiry that aims to disrupt or transform existing understandings. Theoretical gaps, which might provide such space, appear rarely and then primarily as calls for refinement rather than reconceptualization. The dominant mode of knowledge production evident in this corpus is cumulative and confirmatory: adding to what is known, verifying what has been proposed, extending what has been found to new contexts. The possibility that research might challenge the adequacy of prevailing frameworks or reveal the limits of dominant constructs does not feature prominently in the rhetorical strategies observed here. Whether such work is genuinely absent from the field, however, or simply expressed through different conventions, we acknowledge, cannot be revealed by content analysis alone.

Barley's (2006, p. 20) reflections on the sociology of interesting research offer a cautionary note here. He observed that if everyone attempted to write interesting papers, the field would become a "mess"—no subjects would be studied more than once, no methods would be refined, and no ideas would be worked through. The development of knowledge, Barley argued, requires both incremental refinement and occasional transgression. The challenge is not to abandon gap-spotting entirely but to create space for both modes of inquiry.

As far as our corpus illustrates, this is not to suggest that individual studies lack critical or transformative potential, nor that Iranian applied linguistics research is uniformly conservative in its orientation. The corpus's paradigmatic diversity, including qualitative, critical, and sociocultural approaches, suggests the presence of alternative epistemological commitments. Yet the dominance of knowledge-gap justification across these diverse approaches indicates that even studies with potentially transformative aims are framed within conventional rhetorical structures (Sandberg & Alvesson, 2011). The question becomes whether this framing contains or constrains their transformative potential, or whether it simply represents a strategic accommodation to disciplinary expectations about what counts as legitimate research.

The dominance of gap-spotting has also been traced by St. Pierre (2016) to the philosophical legacy of positivist traditions, where identifying and filling gaps is framed as the central mode of scholarly progress. In applied linguistics, this manifests in the privileging of incremental contributions and small extensions to existing knowledge, supported by ideals of rigor, replication, and systematic accumulation (Amini Farsani & Babaii, 2018). Scholars have cautioned that an overemphasis on incremental contributions may reinforce epistemic silos and impede theoretical synthesis (Chu & Evans, 2021; Hulstijn et al., 2014). The present study provides empirical support for these concerns, indicating that researchers across all methodological traditions could benefit from more critical engagement with the assumptions underlying gap spotting and from exploring more generative approaches to knowledge production.

Conclusion

While gap-spotting provides a useful rhetorical tool for situating new studies, its uncritical dominance risks promoting incrementalism at the expense of innovation, critical interrogation, and transformative inquiry. Our findings align with these critiques, indicating that applied linguistics researchers in our sample across all methodological traditions would benefit from more critical scrutiny of gap-spotting's underlying assumptions and greater openness to more constructive alternatives. The near-identical dominance of knowledge gaps across qualitative, quantitative, and mixed-methods traditions suggests that the pressures toward incrementalism operate uniformly across paradigmatic boundaries, making this a disciplinary-wide concern rather than a problem confined to any single methodological orientation.

Overall, our findings indicate three evidence-based implications for research practice. First, the overwhelming reliance on knowledge gaps, coupled with the auxiliary status of methodological and theoretical gaps, suggests that applied linguistics research, regardless of tradition, primarily frames contribution as empirical accumulation. Researchers and mentors should therefore encourage greater intentionality in selecting gap types. Second, the near-absence of systematic reviews as a basis for gap claims (fewer than 1% of articles) points to an opportunity for more rigorous gap identification. Thus, editorial gatekeepers and doctoral programs might promote systematic synthesis as a means of strengthening research justifications. Third, the tradition-specific differences in rhetorical positioning and research question counts offer concrete guidance for genre-based writing pedagogy. These implications flow directly from the descriptive patterns documented in the study.

Beyond these immediate implications, the patterns we observed also evoke a wider epistemological reflection. Barley (2006) reminds us that interesting papers typically depart from the mainstream in subject matter, methods, or theoretical framing, yet papers that break too many rules risk being dismissed as "flaky or wrongheaded" (p. 19); and if taken up by too many researchers, such transgression would lead to a mess. Knowledge develops through both incremental refinement and occasional transgression. Our recommendation, then, is not to

abandon gap-spotting entirely but to create space for both modes of inquiry. This necessitates a fundamental rethinking of the entrenched attachment to epistemological principles associated with positivism. We argue that researchers would benefit from cultivating critical reflexivity that examines not only the gaps they identify and why they focus on them but, more fundamentally, the epistemological assumptions that render gap-spotting and certain gaps visible and compelling. Incorporating insights from traditions such as interpretivism, critical theory, hermeneutics, and post-structuralism could enable applied linguistics to move beyond the narrow incrementalism of gap-filling and the positive accumulation of established findings toward a more pluralistic, reflexive, and socially engaged research culture.

We offer the following reflections not as direct deductions from our observations but as a provocation for the field. To illustrate the practical implications of these different epistemological orientations, consider how the present study could have been justified under alternative traditions. Had it adopted a conventional gap-spotting approach, its justification might have been framed as follows:

While previous studies have not systematically examined how gap statements differ across qualitative, quantitative, and mixed-methods articles in Iranian applied linguistics journals, little is known about the extent to which methodological traditions shape gap construction. The present study fills this gap by examining rhetorical variations in gap statements across these methodological traditions.

However, the present study does not adopt this gap-identification rationale. Instead, it draws on interpretive/constructivist orientations to suggest exploring complexity, enriching understanding, and acknowledging variation:

In light of the preceding review of gap-spotting, research question construction, and methodological diversity, the present study seeks to provide a more nuanced understanding of how gap statements vary across qualitative, quantitative, and mixed-methods articles published in Iranian applied linguistics journals.

A different possibility emerges from Sandberg and Alvesson's (2011) notion of problematization, rooted in critical theory and hermeneutics. A study adopting this orientation might justify itself by challenging the assumptions that structure existing research rather than by identifying a missing area of inquiry. For instance:

This study problematizes the uncritical reliance on gap-spotting as the dominant rationale for establishing research significance in applied linguistics. By critically investigating how gap statements are rhetorically constructed in research articles published in applied linguistics journals, it challenges the taken-for-granted view that gap-spotting constitutes a uniform and methodologically neutral practice. In doing so, the study invites a reconsideration of how research significance is rhetorically negotiated within the field.

Other pathways, such as rhizomatic review (see Fox, 2024), could also generate novel research questions through non-linear, transdisciplinary exploration, though their implications remain empirically untested. By encouraging researchers to follow unexpected conceptual leads, they may open up lines of inquiry that conventional gap-spotting overlooks. Collectively, these alternatives are not merely stylistic variations; they represent fundamentally different epistemological stances toward what constitutes a legitimate research problem and how scholarly significance is established. If applied linguistics is to cultivate a genuinely pluralistic intellectual culture, researchers must move beyond the gravitational pull of gap-spotting and embrace modes of inquiry that prioritize critical reflexivity, contextual attunement, and transformative engagement over the safe accumulation of incremental findings. The challenge, ultimately, is epistemological as much as it is rhetorical.

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Conflict of Interest

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