Studies in Second Language Learning and Teaching
Department of English Studies, Faculty of Pedagogy and Fine Arts, Adam Mickiewicz University, Kalisz
SSLLT 13 (4). 2023. 811-841
https://doi.org/10.14746/ssllt.40217
http://pressto.amu.edu.pl/index.php/ssllt

Review and analysis of empirical articles published in TESOL Quarterly *over its lifespan*

A. Mehdi Riazi ✉
Hamad Bin Khalifa University, Education City, Qatar
http://orcid.org/0000-0002-7648-8116
ariazi@hbku.edu.qa

Hessameddin Ghanbar
Islamic Azad University, Theran, Iran
https://orcid.org/0000-0002-8895-3791
hessam.ghanbar@gmail.com

Fahimeh Marefat
Allameh Tabatabai University, Theran, Iran
https://orcid.org/0000-0002-5874-3814
fmarefat@atu.ac.ir

Ismaeil Fazel
University of British Columbia, Vancouver, Canada
https://orcid.org/0000-0002-3340-5528
ismaeil.fazel@ubc.ca

Abstract

We report the results of a bibliometric study of 696 empirical articles (EAs) published in *TESOL Quarterly* (TQ) over its lifespan (1967-2019). We report overall and periodic reviews (1967-1979, 1980-1989, 1990-1999, 2000-2009, 2010-2019) concerning the following themes: (1) contexts and participants, (2) research foci and theoretical orientations, and (3) research methodology and data sources. A typical article was written by a single author addressing a learning/teaching English issue related to undergraduates in US universities. The most common research foci were instruction, learning, and assessment.

A quarter of the articles did not have a specifiable theoretical orientation, and for those that had, the main theoretical orientations were linguistic/scientific, linguistic/cognitive, and social. The most frequently used research methodologies were quantitative, qualitative, and eclectic, and the top three data sources used by researchers were elicitation, multiple sources, and observation. Based on the findings, we make suggestions for future research in TESOL. Overall, the present review and analysis of published EAs give readers a birds-eye view of the research gravity in TQ over the last 52 years.

Keywords: applied linguistics; bibliometric study; *TESOL Quarterly*; empirical articles; review paper

1. Introduction

Recently, burgeoning bibliometric studies have echoed diverse topics, including the need for methodological reforms in second language research (Gass et al., 2020; Riazi et al., 2020). These bibliometric studies have drawn upon advanced visualization tools to scrutinize the authorship and trends in applied linguistics studies (e.g., Chen, 2018) or concerns about the underrepresentation of scholars of color in American Association for Applied Linguistics (AAAL) communities (Bhattacharya et al., 2019). Likewise, Lei and Liu (2019b) reported on the evolving research trends in *System* over four decades (1973 to 2017), while Riazi et al. (2018) captured the thematic trends in the empirical articles (EAs) in the *Journal of Second Language Writing* across over the journal's 25-year lifespan. Gao and Wright (2020) conducted a small-scale study on the articles published in the *Journal of Language, Identity, and Education* between 2015 and 2019. They found qualitative methods to be dominant in research on identity and language. Other bibliometric studies have worked with larger corpora comprised of more than one journal. For example, Lei and Liu (2019a) attempted to determine trendy research topics in SSCI-indexed journals. In the same vein, Tojo and Takagi (2017) analyzed the research methods in three leading applied linguistics (AL)/teaching English to speakers of other languages (TESOL) journals, including *TESOL Quarterly* (TQ), and reported an increasing tendency toward qualitative research in the past decade. In a similar vein, Khany and Tazik (2019) analyzed ten major AL/TESOL journals, including TQ, over three decades (1986-2015), and reported a noteworthy increase over time of qualitative research to the point that, in the past decade, a balance between quantitative and qualitative research has been achieved. Such studies indeed help academic professionals and other stakeholders to identify research trends in relevant fields. Accordingly, the current bibliometric analysis aims to provide further information regarding the *TESOL Quarterly* journal over half a century of its lifespan.

TQ has a history of more than half a century (1967-present) and is considered an established journal publishing papers in applied linguistics and TESOL. According to the journal's webpage, it has an impact factor of 2.178, a 5-year impact factor of 3.208, and enjoys a high ranking in the 2018 Journal Citation Report, ranking 27/243 in education & educational research and 6/184 in linguistics. The above indices represent TQ as a prestigious and high-ranking journal, which Swales (1988) referred to as the "flagship publication of the TESOL organization" and one "that is worth more than cursory interest because it self-evidently is something more than a passive reflector of contemporary trends and issues" (p. 151). With a half-century record of publishing theoretical and practical research papers and gaining a high rank in the field, it is timely to review and analyze the EAs published in the journal over its lifespan.

The journal of *Studies in Second Language Learning and Teaching* (SSLLT) is devoted to publishing papers related to the learning and teaching of any language. The journal focuses on issues addressing various aspects of language learning and teaching both in formal and informal settings. Our review and analysis can thus portray the research landscape in AL/TESOL and provide insights into the readership of the journal and different stakeholders for future research directions. We sought to answer the following three research questions:

RQ1: What is the trend of contexts and participants in published empirical articles in the TQ's lifespan, overall and across five time periods?
RQ2: What is the trend of research foci and theoretical orientations in published empirical articles in the TQ's lifespan, overall and across five time periods?
RQ3: What is the trend of research methodology and data sources in published empirical articles in the TQ's lifespan, overall and across five time periods?

Our comprehensive review and analysis of articles included developing a corpus of 696 published EAs. These articles were then imported into the NVivo program for coding. We then extracted codes across three broad themes of "contexts and participants," "research focus and theoretical orientation," and "research methodology and data sources." The review and analysis can thus be framed as a "meta-disciplinary inquiry," or a "historical inquiry" (Matsuda, 2005, p. 71). In so far as the review and analysis looked at and examined the historical development of the contexts, participants, research foci, and theoretical frameworks, as well as methodologies and data sources of the EAs, it can be framed as a meta-disciplinary study. Given that TQ represents one of the significant outlets for publishing AL/TESOL research papers, it would not be an exaggeration to

say that the review and analysis of 696 published EAs over half a century would represent a meta-disciplinary study. It is also a historical inquiry since we present research development as represented in the published EAs across five distinct periods, namely, 1967-1979, 1980-1989, 1990-1999, 2000-2009, and 2010-2019.

This historical review and analysis also help us produce a comprehensive account through which we tell the story of AL/TESOL research as represented in the published EAs. Swales (1988) concurred that one obvious way of studying a periodical's development is to construct a historical account through which we can mainly tell the story of the periodical from within. Accordingly, we hope that our "meta-disciplinary" and "historical narrative" of TQ will help AL/TESOL research community gain a birds-eye view of a product of the "collective wisdom" (Brown, 1991) of at least 50 years of research development in this journal and plan for future research to fill the gaps identified in the three broad themes.

The paper is organized into six sections. After this brief introduction, we will provide a background to the study by reviewing previous reviews of TQ and positioning our review within those reviews. In the third section, we will explain the procedures of developing our corpus of the EAs, our coding scheme, and coding procedures. Subsequently, we will present the results across three broad themes of "contexts and participants," "research focus and theoretical orientations," and "research methodology and data sources." In the fifth section, we will discuss our results, and, finally, we will conclude the paper with some suggestions for future research related to AL/TESOL.

2. Background to the current review

We were able to identify four reviews of TQ. The earliest one belongs to Swales (1988), who reviewed the journal on its 20th publication anniversary. The second one is a reflective paper by Brown (1991) on the 25th anniversary of TESOL. The third one belongs to Canagarajah (2016), who conducted a more comprehensive review of TQ during its 50th anniversary. His review is mostly related to the current review and is thus worth more attention and discussion. The final review included in this section is that of McKinley (2019), who put forth an argument for the teaching-research nexus. The discussion of these review papers is presented in chronological order to help the readers gain a developmental perspective on issues related to TQ.

Swales' (1988) review of TQ during its 20th anniversary showed that single-authored articles constituted a majority percentage (92%) in the early years but had then moved downward in favor of multiple authors. Drawing on Henning (1986), Swales attributed the increase in multiple-authored articles as a possible

partial shift from humanities to a social science orientation of the field of TESOL. Also, the predominance of quantitative research methodology used by TESOL researchers was indicated by Swales as evidence for the transition from humanities to social sciences. The other finding Swales reported was a consistent preponderance of North American (the United States and Canada) authorship with US-located domination of TQ. Countries outside North America occurred only occasionally, as Swales observed. According to his sample, Swales concluded that "there is no country outside North America that has a tradition or track record of having its ESL specialists appear as authors of main articles in the TQ" (p. 154).

In a reflective paper on the 25th anniversary of TESOL, Brown (1991, p. 255) contended that:

> Twenty-five years ago, we were centrally concerned surrounding the linguistic description of language pedagogical applications. We were quite worried about how Chomsky's generative grammar was going to fit into our language classrooms (Lamendella, 1969). We were reluctant to break away from our strong interpretation of the contrastive analysis hypothesis (Wardhaugh, 1970). We were still strongly, if not exclusively, dependent on the discipline of linguistics for our professional and bureaucratic identity. We were only just beginning to question teaching methods that advocated "overlearning" through classroom drill and memorization. (Brown, 1972; Rivers, 1964)

In a more systematic review, Canagarajah (2016) reviewed the developments in significant pedagogical and research domains in TESOL during the 50-year history of TQ. Canagarajah reviewed the broad trajectories of pedagogy, research, and theory in TESOL to present the directions taken as the community moves toward the future. Canagarajah undertook a content analysis of TQ's issues of the past 50 years. In addition to interpretive thematic trajectories, Canagarajah also coded the research methods, publishing genres, authorship, and location of studies (from the first issue in 1967 to the second issue of 2014). Canagarajah chose alternate issues of TQ (the second and fourth) and left out the guest-edited special topic issues to keep the coding of the articles within manageable limits. Our review and analysis cover all the issues and articles from the first issue in 1967 to the third issue of 2019, including the special issues. Besides, our review used a more nuanced coding scheme which enabled us to code micro-context, research focus, and a breakdown of the methodology, which were not included in Canagarajah's (2016) review. The two reviews are, however, complementary.

Regarding theoretical orientation, Canagarajah (2016) presented three theoretical orientations to account for the TESOL studies conducted over the journal's lifespan. The first was linguistic/scientific, which represented the early issues of TQ featuring both structuralist (e.g., Carr, 1967) and Chomskyan (e.g., Long, 1969; Rutherford, 1968) positions. Canagarajah described this orientation in

line with features of modernity, including objective reality. The second orientation was the "linguistic-cognitive paradigm" (Ortega, 2014, p. 33), which Canagarajah believed led SLA research around the 1980s. According to Canagarajah, the linguistic-cognitive paradigm located the grammar norms and knowledge in the human mind and treated its internalization as the basis for competence. The third orientation identified by Canagarajah was social. It characterized TESOL research in the 1990s when researchers "were concerned about adding the diverse contexts, intentions, and motivations in social practice that can be negotiated agentively by learners in order to learn the grammatical structures they needed for their interests" (Canagarajah, 2016, p. 16). Against a purely linguistic and cognitive approach, researchers with a social orientation were making a place for language learning as identity construction, Canagarajah contended. He then used Atkinson et al.'s (2007) metaphor of "mind-body-world" (p. 171) as a heuristic for the exploration of language learning and language use. This metaphor is manifested in sociocognitive orientations (Atkinson et al., 2007), sociocultural theory (Lantolf, 2011), sociolinguistic (Goodwin, 2007), language socialization (Duff & Talmy, 2011), usage-based approaches (Ortega, 2014), and ecological orientations (Van Lier, 1997). Canagarajah also pointed to plurilingualism, dynamic bilingualism, translanguaging, and translingual practice as other orientations TESOL researchers adopted to depart from and question the place of English only in the classroom (Auerbach, 1993). We used both Canagarajah's (2016) and Riazi et al.'s (2018) classification of theoretical orientations to code the articles for this theme.

Canagarajah (2016) related studies' research methodology to research paradigms and theoretical orientations in terms of research methodology. For example, he reported that the late 1970s and 1980s articles tended towards quantitative methodology represented by experimental designs. This was, as Canagarajah observed, in line with the modernist inquiry of the time shaping all the disciplines. However, he reported a gradual appearance of qualitative methodology in the 1990s, including case studies, action research, ethnography, etc. Notwithstanding the appearance and the rise of qualitative methodology in TESOL research, Canagarajah found that studies with quantitative and experimental methodologies were still abundant.

Finally, to put forth an argument for the teaching-research nexus, McKinley (2019) observed that articles published in TQ's first two issues in 1967 offered descriptions of and suggestions for actual classroom practices. These descriptive articles, McKinley noted, were based on either the author's own practices, such as that of Arapoff (1967), or on a combination of literature and personal experience, such as that of Ross (1967). McKinley argues that this trend was changed since, over time, the focus of reported studies changed from anecdotal

teaching experiences towards more empirical TESOL research, grounded in educational, linguistic, or psychological principles. McKinley contends that this trend may indeed have both positive and negative impacts. On the positive side, more empirical TESOL research may indicate more theoretical and research-based studies and thus more professionalism. On the negative side, TESOL practitioners may not read highly research-based reports. McKinley (2019) contended that this could result in "a teaching and research bifurcation, where studies conducted by researchers who are removed from teaching tend to be more highly valued by the TESOL research community than many of the practical classroom-based, teaching-led work done by researcher-practitioners" (p. 875). McKinley made a call for TESOL research "to be more grounded in classroom contexts, and for methods to be more transparent about the messiness of doing real-world classroom research" (p. 576). One of McKinley's solutions is action research, given its potentiality of bringing about a convergence between teaching and research. To support his suggestion, McKinley asserts that the "teacher as researcher" movement in the 1980s resulted in seminal research and development in many domains of TESOL research. Besides, he recommends collaborative action research in which TESOL researchers collaborate with teachers. The idea is that such collaborative research will result in "a holistic, professional TESOL researcher-practitioner perspective" (McKinley, 2019, p. 881).

Notwithstanding the significant contribution of the above and other reviews to the broad discipline of applied linguistics and TESOL, the current review and analysis can complement previous reviews and make its significant contributions. Compared to Canagarajah's (2016) review, for example, this review covers all the empirical articles of TQ over its lifespan, addressing both macro- and micro-contexts, research focus, more detailed analysis of research methodology, and data sources, which were not addressed in Canagarajah's review. Moreover, as Stapleton and Shao (2018) stated, "the results of these review studies, while interesting in themselves, show how surveys of articles over the years can uncover larger trends in a field" (p. 352). The following section will explain the procedures we used to develop a corpus of EAs and our coding scheme and procedure.

3. Procedures and methods

3.1. Corpus of EAs

All issues of the TQ over the last 52 years (1967-2019) were reviewed, and all the published EAs up to the end of September 2019 were pulled out to form a corpus. EAs were defined as those that had collected and analyzed first-hand

data of any kind (quantitative, qualitative, or mixed-methods), including those (e.g., corpus studies) that had no participants in the traditional sense. First-hand data was also defined as data collected from participants and other sources that could be subjected to first-hand analysis. So, all other papers, such as book reviews, brief reports, and the forum, were excluded from our review. Accordingly, a total of 696 published EAs were identified and included in our analysis, comprising articles from 25 special issues. Special issues started in 1993 and were published one per year except for no special issue in 2001. The special issues covered a range of topics. Interested readers may want to check the journal's web page to know more about the special issues.

3.2. Coding procedures

Two corresponding data files (an Excel and an NVivo) were created for data organization and analysis. The Excel file was used to perform some preliminary analysis as well as data organization and recording. The NVivo file mainly was used for the coding of the articles across three broad themes:

- contexts (macro and micro) and participants;
- research focus and theoretical orientation;
- research methodology and data sources.

Related to the "contexts and participants," we coded the articles in terms of the following main categories:

- authorship (whether articles had one, two, or more authors);
- macro-context (the country in which the study was conducted);
- micro context (whether the study was conducted in K-12, college, university, or another setting);
- participants (who were the participants in the study and with what characteristics);
- language addressed in the empirical article.

To identify the "research focus" of the articles, we looked at different parts of the articles (title, abstract, purpose, and particularly research questions). For those articles where identifying a research focus was challenging, a closer reading of the article was conducted by two of us (the first and the second authors) to determine a primary research focus. Since coding research focus was challenging, the first three authors held several Skype meetings to discuss how best to code the research focus. There were three iterations of coding research focus by the first three authors. Each round of coding was followed by a Skype

meeting to check the areas of discrepancy. Finally, the second and third authors coded research focus using an inductive approach. The coding was done in NVivo and a coding agreement was calculated using NVivo's facility. We got a Kappa coefficient of .98 for inter-coder agreement between two coders for research focus. The high agreement between the two coders was expected since, as stated earlier, there were substantial discussions of coding research focus.

We defined "theoretical orientation" as a lens through which researchers investigated their research problem. As such, we firstly looked for and coded all the articles that had an explicitly stated "theoretical framework" or a variation of it. These articles could be efficiently coded since the authors had identified the theoretical framework(s) through which they investigated the research problem. However, there were only 29 such articles. For the majority of the articles which did not have an explicitly stated theoretical framework, we drew on the concepts and critical theoretical terms the authors referred to and coded them accordingly. Canagarajah's (2016) categorization and coding of theoretical orientation and Riazi et al.'s (2018) were very helpful for this purpose. For example, if the authors were mainly concerned with the linguistic aspects of learners' language using scientific (quantitative) approaches, we coded them as "linguistic/scientific." These articles focused on phonetics and phonology, clauses and sentences, and syntactic aspects of students' writing. On the other hand, if the authors referred to "activity theory" in their article, we coded the theoretical framework as "activity theory/social." If we were unsure about a theoretical orientation, we discussed it in our group meeting to reach a consensus. Despite all these efforts, we could not code about 25% (N = 169) of the articles and thus coded them as NS (not specifiable), as presented in the results section. The coding of the TF was also done in NVivo and we got a Kappa coefficient of .97 inter-coder agreement between the two coders for theoretical orientation. The high index of inter-coder reliability was predictable since there was substantial discussion among the research group. Moreover, as stated earlier, having two sources (Canagarajah, 2016 and Riazi et al., 2018) was a great help in coding TF of the articles.

The third theme of our coding scheme included "research methodology and data sources." For the scope of the current review, we only coded the general methodological orientation, that is, qualitative, quantitative, or mixed methods research (MMR). Similar to Riazi et al. (2018), we adopted Riazi and Candlin's (2014) and Riazi's (2016) classification of mixed methods research – namely, "eclectic," "principled," and "innovative," for a more nuanced categorization of mixed methods research in TESOL studies. Eclectic MMR studies used a combination of qualitative and quantitative data and analysis. However, they did not explicitly mention that their study was mixed methods, nor did they draw on the literature of MMR to frame their study. Eclectic studies were coded using one of the following representations:

- Eclectic (QUAL+quan). The research followed a predominantly qualitative methodology but had a small portion of quantitative data and analysis (e.g., frequencies or percentages of coding categories).
- Eclectic (QUAN+qual). The research followed a predominantly quantitative methodology but had a small portion of qualitative data and analysis (e.g., a small portion of open-ended qualitative questions, interview data, and so on).
- Eclectic (QUAL+QUAN). The research gave similar weight to both qualitative and quantitative data and analysis.

Those articles that explicitly stated a mixed methodology and drew on the relevant literature to frame the study and define its purpose were coded as MMR. We got a Kappa coefficient of .96 for inter-coder agreement between two coders for research methodology.

To code the data sources used in the articles, we adopted Hyland's (2016) classification, which included "elicitation," "introspection," "observation," and "text sample," as described below:

- Elicitation, including self-reports such as "Questionnaire," "Interviews," and "Tests."
- Introspection (collecting verbal or written reports including think-aloud protocols, retrospective reports, and diaries).
- Observation (directed or recorded data of live interactions or writing behaviors including audio or video recording and keystroke logging).
- Text samples (collection of naturally produced samples of writing including single or chains of texts and corpora).

Where researchers reported different data sources within one of these categories (e.g., a questionnaire and follow-up interviews), we coded the data source as elicitation. However, if the researchers reported a combination of data sources from different categories (for example, text samples and interviews), we coded them as multiple to show that data were collected from different data source categories listed above. We got a Kappa coefficient of .97 for inter-coder agreement between two coders for data sources. We then imported all codes into the Excel file for tabulation and estimation of code frequencies.

In addition to investigating the overall patterns, we also analyzed the three themes and their related categories across five time periods of 1967-1979 (N = 119 articles), 1980-1989 (N = 126 articles), 1990-1999 (N = 102 articles), 2000-2009 (N = 144 articles), 2010-2019 (N = 205 articles). This analysis allowed us to make comparisons over the decades to demonstrate the developments in the above three broad themes. The next section presents the results of our coding analysis.

4. Results

Results of the review and analysis of the EAs will be presented according to the three broad themes.

4.1. Contexts and participants

The first broad theme of contexts and participants included categories of authorship, macro and micro contexts, participants, and the language addressed in the EAs. Table 1 summarizes the authorship patterns across the five periods and overall.

Table 1 Authorship pattern across the five periods and overall

Authorship	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
Single author	84 (70.6%)	76 (60.3%)	59 (57.8%)	86 (59.7%)	91 (44.4%)	396 (56.9%)
Co-authored	26 (21.8%)	34 (27%)	38 (37.3%)	30 (20.8%)	74 (36.1%)	202 (29%)
Multiple authors	9 (7.6%)	16 (12.7%)	5 (4.9%)	28 (19.5%)	40 (19.5%)	98 (14.1%)
Total	119 (100%)	126 (100%)	102 (100%)	144 (100%)	205 (100%)	696 (100%)

As Table 1 shows, there was an increasing trend of co-authorship and multi-authorship except for 2000-2009 and 1990-1999, respectively. Thus, TESOL researchers became more collaborative over time due to networking and research expansion in the field. However, the overall column shows that single authorship was predominant, with 56.9% (N = 395) of articles having only a single author.

Table 2 Contribution of different countries to TQ across the four time periods and overall

Macro-context	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
US	89 (74.8%)	95 (75.4%)	61 (59.8%)	61 (42.4%)	73 (35.6%)	379 (54.5%)
Canada	3 (2.5%)	8 (6.3%)	6 (5.9%)	11 (7.6%)	19 (9.3%)	47 (6.8%)
Japan	2 (1.7%)	0 (0%)	3 (2.9%)	12 (8.3%)	14 (6.8%)	31 (4.5%)
China	1 (0.8%)	1 (0.8%)	3 (2.9%)	8 (5.6%)	11 (5.4%)	24 (3.4%)
South Korea	0 (0%)	0 (0%)	2 (2%)	7 (4.9%)	11 (5.4%)	20 (2.9%)
Hong Kong	0 (0%)	0 (0%)	4 (3.9%)	5 (3.5%)	10 (4.9%)	19 (2.7%)
Taiwan	0 (0%)	0 (0%)	1 (1%)	5 (3.5%)	7 (3.4%)	13 (1.9%)
UK	1 (0.8%)	1 (0.8%)	0 (0%)	5 (3.5%)	5 (2.4%)	12 (1.7%)
New Zealand	0 (0%)	2 (1.6%)	0 (0%)	3 (2.1%)	6 (2.9%)	11 (1.6%)
Sweden	0 (0%)	0 (0%)	0 (0%)	1 (0.7%)	7 (3.4%)	8 (1.1%)
Australia	0 (0%)	1 (0.8%)	0 (0%)	3 (2.1%)	3 (1.5%)	7 (1%)
Iran	1 (0.8%)	1 (0.8%)	0 (0%)	0 (0%)	3 (1.5%)	5 (0.7%)
Egypt	2 (1.7%)	2 (1.6%)	1 (1%)	0 (0%)	0 (0%)	5 (0.7%)
Spain	0 (0%)	0 (0%)	1 (1%)	0 (0%)	4 (2%)	5 (0.7%)
Other 37 countries	10 (8.4%)	7 (5.6%)	14 (13.7%)	20 (13.9%)	23 (11.2%)	74 (10.6%)
More than one country	0 (0%)	0 (0%)	0 (0%)	2 (1.4%)	5 (2.4%)	7 (1%)
Not specified	10 (8.4%)	8 (6.3%)	6 (5.9%)	1 (0.7%)	4 (2%)	29 (4.2%)
Total	119 (100%)	126 (100%)	102 (100%)	144 (100%)	205 (100%)	696 (100%)

Table 2 presents the main macro-contexts (the country) in which the studies were conducted. As can be seen from Table 2, the lion's share comes from the US (54.5%, *N* = 379). However, this trend was changed from the 1990s with fewer articles from the US in favor of the other countries. With almost one-eighth of the US contribution, Canada (6.8%, *N* = 47) stands second. Japan, China, South Korea, Hong Kong, and Taiwan together had a total share of 15.4% (*N* = 107). However, their individual share ranged from 1.9% (*N* = 13) (Taiwan) to 4.5% (*N* = 31) (Japan). The UK with 1.7% (*N* = 12), New Zealand with 1.6% (*N* = 11), and Sweden with 1.1% (*N* = 8) overall contributions are among countries with contributions above 1%. Australia with 1% (*N* = 7) and three countries, namely, Iran, Egypt, and Spain, with identical shares of 0.7% (*N* = 5) appear next in the list. The other countries contributed 10.6% (*N* = 74) over the 52 years of the journal's life span, and 4% (*N* = 28) of the articles did not specify where the study was conducted.

In addition to identifying the macro-context, we were also interested in pinpointing the micro-context (the specific setting in which the study was conducted). Table 3 presents the distribution of the settings across the periods and overall.

Table 3 Distribution of micro-contexts across the five periods and overall

Micro-context	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
University	28 (23.5%)	45 (36.6%)	43 (42.2%)	57 (39.6%)	88 (42.9%)	261 (37.5%)
K-12	38 (31.9)	17 (14.3%)	23 (22.5%)	36 (25%)	48 (23.4%)	162 (23.3%)
Institute/college	39 (32.8%)	35 (25.9%)	29 (28.4%)	25 (17.4%)	34 (16.6%)	162 (23.3%)
Institute and university	4 (3.4%)	17 (14.3%)	3 (2.9%)	7 (4.9%)	11 (5.4%)	42 (6%)
K12 and institute	0 (0%)	1 (0.9%)	1 (1%)	1 (0.7%)	1 (0.5%)	4 (0.6%)
K12 and university	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)	2 (0.3%)
Other	10 (8.4%)	11 (8%)	3 (2.9%)	18 (12.5%)	21 (10.2%)	63 (9.1%)
Total	119 (100%)	126 (100%)	102 (100%)	144 (100%)	205 (100%)	696 (100%)

As Table 3 shows, university was a predominant setting (37.5%, *N* = 261) for the reported studies. The share of universities grew from 23.5% (*N* = 28) in the first period to 42.9% (*N* = 88) in the last period. Both K-12 and language institutes and colleges were the second setting (23.3%, *N* = 162) in which TESOL researchers conducted their study. Whereas some projects were conducted in language institutes and universities (6%, *N* = 42), studies conducted in K12 and language institutes 0.6% (*N* = 4) and K12 and universities (0.3%, *N* = 2) were scant. Importantly, 9.1% (*N* = 63) of the authors decided to run their studies in other settings.

The following analysis relates to the distribution of participants in the reported studies. Table 4 presents the distribution of the participants as reported in the articles. Overall, the undergraduates were the chief participants, 31.2% (*N* = 217) in TESOL studies. Following undergraduates, lecturers-teachers and combined participants received TESOL researchers' attention with 13.8% (*N* = 96) and 11.52% (*N* = 80), respectively. Interestingly, both lecturers-teachers and

combined participants followed an increasing pattern over the five periods. The corpus-based studies 9.6% (*N* = 67), as expected, did not report any participants.

Table 4 Distribution of participants across the five periods and overall

Participants	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
Undergraduates	20 (16.8%)	56 (44.4%)	36 (35.3%)	40 (27.8%)	65 (31.7%)	217 (31.2%)
Lecturers-teachers	6 (5%)	12 (9.5%)	16 (15.7%)	22 (15.3%)	40 (19.5%)	96 (13.8%)
Combined (a combination of different participants)	13 (10.92%)	12 (9.48%	16 (15.68%)	17 (11.73%)	22 (10.78%)	80 (11.5%)
No participants (e.g., corpus-based studies)	22 (18.5%)	12 (9.5%)	2 (2%)	14 (9.7%)	17 (8.3%)	67 (9.6%)
Secondary students	6 (5%)	3 (2.4%)	6 (5.9%)	15 (10.4%)	20 (9.8%)	50 (7.2%)
Pre-school	19 (16%)	9 (7.1%)	4 (3.9%)	4 (2.8%)	3 (1.5%)	39 (5.6%)
Elementary students	12 (10.1%)	6 (4.8%)	6 (5.9%)	6 (4.2%)	8 (3.9%)	38 (5.5%)
Adult-non-student language learners	11 (9.2%)	5 (4%)	2 (2%)	10 (6.9%)	7 (3.4%)	35 (5%)
Graduates	3 (2.5%)	7 (5.6%)	10 (9.8%)	5 (3.5%)	10 (4.9%)	35 (5%)
Students in language institutes	6 (5%)	3 (2.4%)	2 (2%)	4 (2.8%)	8 (3.9%)	23 (3.3%)
TESOL professionals*	0 (0%)	0 (0%)	1 (1%)	5 (3.5%)	5 (2.4%)	11 (1.6%)
Not specified	1 (0.8%)	1 (0.8%)	1 (1%)	2 (1.4%)	0(0%)	5 (0.7%)
Total	119 (100%)	126 (100%)	102 (100%)	144 (100%)	205 (100%)	696 100%)

Note. * managers, editors, reviewers, examiners, and so on

The final analysis, associated with the broad theme of "contexts and participants," was concerned with the language addressed in the TESOL research studies. 87.1% (*N* = 606) of the articles reported studies on issues related to the teaching and learning of English. However, only 12.9% (*N* = 90) of articles focused on English and another language in their studies. For example, studies that focused on English and Spanish accounted for 5% (*N* = 35). The following section presents the results of our analysis related to the research focus and theoretical framework.

4.2. Research focus and theoretical framework

A total of 23 primary research focus categories were identified in the corpus of articles. Table 5 presents the top ten most frequent research foci categories, which account for 90.2% (*N* = 628) of the 696 articles. As shown in the table, the instruction category was found to be dominant 27.1% (*N* = 170) both within and across the time spans in TQ since its inception. The second most dominant research focus is learning (13.7%, *N* = 86), followed by assessment (12.1%, *N* = 76). The two categories of teacher education and language and literacy development were equally ranked as the fourth most common category (6.7%, *N* = 42). Other common research focus categories, in order of frequency, were socio-political factors (6.2%, *N* = 39), feedback (5.7%, *N* = 36), learner beliefs and attitudes

(5.3%, *N* = 33), first language (L1) and second language (L2), and identity, which garnered the same frequency and thus both ranked 8th (4.6%, *N* = 29), L1 vs. L2 (4.0%, *N* = 25) and teacher beliefs and attitudes (3.3%, *N* = 21).

Table 5 Top ten research foci across the five periods and overall

Primary category	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
Instruction	29 (27.1%)	39 (33.1%)	24 (24.5%)	25 (21.7%)	53 (27.9%)	170 (27.1%)
Learning	16 (15.0%)	21 (17.8%)	13 (13.3%)	16 (13.9%)	20 (10.5%)	86 (13.7%)
Assessment	26 (24.3%)	25 (21.2%)	5 (5.1%)	8 (7.0%)	12 (6.3%)	76 (12.1%)
Teacher education	5 (4.7%)	5 (4.2%)	10 (10.2%)	8 (7.0%)	14 (7.4%)	42 (6.7%)
Lang. & literacy development	4 (3.7%)	3 (2.5%)	7 (7.1%)	10 (8.7%)	18 (9.5%)	42 (6.7%)
Socio-political factors	1 (0.9%)	3 (2.5%)	4 (4.1%)	14 (12.2%)	17 (8.9%)	39 (6.2%)
Feedback	1 (0.9%)	10 (8.5%)	9 (9.2%)	7 (6.1%)	9 (4.7%)	36 (5.7%)
Learner beliefs and attitudes	5 (4.7%)	1 (0.8%)	4 (4.1%)	6 (5.2%)	17 (8.9%)	33 (5.3%)
L1 and L2	10 (9.3%)	2 (1.7%)	6 (6.1%)	2 (1.7%)	9 (4.7%)	29 (4.6%)
Identity	0 (0.0%)	0 (0.0%)	7 (7.1%)	11 (9.6%)	11 (5.8%)	29 (4.6%)
L1 vs. L2	9 (8.4%)	7 (5.9%)	5 (5.1%)	2 (1.7%)	2 (1.1%)	25 (4.0%)
Teacher beliefs and attitudes	1 (0.9%)	2 (1.7%)	4 (4.1%)	6 (5.2%)	8 (4.2%)	21 (3.3%)
Total	107 (100%)	118 (100%)	98 (100%)	115 (100%)	190 (100%)	628 (100%)

While these generic categories are primarily self-explanatory, they warrant further elaboration:

- Instruction category was used to code the research focus of those articles that primarily focused on English language instruction (e.g., Darian, 1969; Pickering, 2001).
- The learning category was used to code articles' research focus when there was an explicit focus on the L2 learners' learning (e.g., Schmitt & Zimmerman, 2002).
- Assessment category was used to code those articles that explicitly focused on assessing L2 learners for different purposes (e.g., Capco & Tucker, 1971; Henning et al., 1981).
- Teacher education category was used to code articles that focused on different aspects of teacher education (e.g., Cray & Currie, 1996; Kamhi-Stein, 2000).
- The category of language and literacy development was used to code articles that focused on aspects of language and literacy development (e.g., Lam, 2000).
- Articles that addressed issues related to socio-political issues were coded with the socio-political factors (e.g., Peirce, 1995).
- Feedback category was used to code articles that focused on aspects of feedback to L2 learners (e.g., Lee et al., 1970; Panova & Lyster, 2002).
- Articles that investigated learner beliefs and attitudes were coded in this category (e.g., Kamhi-Stein, 2003). Similarly, articles that reported teacher beliefs and attitudes were coded accordingly (e.g., Marks & Heffernan-Cabrera, 1977).
- The category of L1 and L2 essentially refers to researchers' primary focus on examining the role or effect of the first language on second language

learning. In contrast, the L1 vs. L2 category includes studies where the researchers were primarily interested in comparing the performance of multilinguals versus those who speak English as their first language (i.e., native speakers of English).

- The category of language and literacy development refers to studies focusing mainly on development over time (including both linguistic and other more social aspects of language learning).
- The category of learning entails various aspects and factors involved in language learning.

Turning now to the breakdown of categories based on the periods, as shown in Table 5, in the first period, instruction was the most dominant research focus (27.1%, *N* = 29), followed by assessment (24.3%, *N* = 26) and learning (15.0%, *N* = 16). Following a similar pattern, in the second period, instruction remains the most common research area (33.1%, *N* = 39), followed by assessment (21.2%, *N* = 25) and learning (17.8%, *N* = 21). In the third period, instruction continues to be the most common research focus (24.5%, *N* = 24), while the research on assessment declines (5.1%, *N* = 5) and is overtaken by studies on learning (13.3%, *N* = 13).

The dominance of instruction continues in the fourth period as well (21.7%, *N* = 25), with learning being the second common research area (13.9%, *N* = 16). In the interim, there is a burgeoning interest in research on socio-political factors (12.2%, *N* = 14) and identity (9.6%, *N* = 11). In the last period, instruction accounts for 27.9% (*N* = 53) of the research foci. As with the preceding periods, the second most dominant research focus is learning, making up 10.5% (*N* = 20) of the total research foci, followed by language and literacy development (9.5%, *N* = 18), socio-political factors, and learner beliefs and attitudes, both sharing the same proportion (8.9%, *N* = 17) of research foci in this period.

A closer look across the periods reveals that the categories of instruction and learning have been receiving considerable attention across the five time periods. Strikingly, however, while research on assessment received considerable research attention in the first two periods 24.3% (*N* = 26) and 21.2% (*N* = 25), respectively, it declined noticeably to 5.1% (*N* = 5) and 7.0% (*N* = 8) in the third and fourth periods, though it has risen slightly in the last time period 6.3% (*N* = 12).

Regarding theoretical orientation, of all the coded EAs, only 4.17% (*N* = 29) had an explicit, separate section titled "Theoretical Framework" (TF), or one of its variations, such as "Theoretical Frame," or "Conceptual Framework." The first article with an explicitly stated TF appeared in 2001 (Pickering, 2001).

Of the remaining 667 articles, which did not have an explicitly stated theoretical framework, we were able to identify theoretical orientations in 74.66% (*N* = 498) articles. However, we could not confirm the theoretical orientations in

25.34% (*N* = 169) articles. These articles did not provide sufficient clues as to theories or notions framing and informing their research. These articles just reported research findings related to teaching experiences, surveys, investigation of TESOL instructional materials, and so on without intending to link their findings with theories of the field. Table 6 lists the distribution of theoretical orientation across the four periods and overall. As can be seen from Table 6, linguistic/scientific was the predominant theoretical orientation (19.5%, *N* = 130), followed by linguistic/cognitive (15.6%, *N* = 104), social (14.4%, *N* = 96), and cognitive (13%, *N* = 87).

Table 6 Theoretical orientations across the five time periods and overall

Theoretical orientation	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
Not specifiable	21 (17.65%)	49 (38.71)	38 (37.24)	41 (30%)	20 (10.8)	169 (25.35)
Linguistic/scientific	39 (32.76%)	19 (15%)	7 (6.86%)	28 (20.58%)	37 (19.98%)	130 (19.5%)
Linguistic/cognitive	34 (28.56%)	25 (19.75%)	2 (1.96%)	18 (13.23%)	25 (13.5%)	104 (15.6%)
Social	4 (3.36%)	10 (7.9%)	17 (16.66%)	20 (14.7%)	45 (24.3%)	96 (14.4%)
Cognitive	7 (5.88%)	17 (13.43%)	25 (24.5%)	13 (9.56%)	25 (13.5%)	87 (13%)
Bilingualism	12 (10.08%)	2 (1.58%)	3 (2.49%)	0 (0%)	2 (1.08%)	19 (2.85%)
Critical theory	0 (0%)	1 (.79%)	5 (4.9%)	5 (3.68%)	7 (3.78%)	18 (2.7%)
Plurilingualism	1 (0.84%)	0 (0%)	1 (0.98%)	2 (1.47%)	6 (3.24%)	10 (1.5%)
Sociocognitive	0 (0%)	0 (0%)	0 (0%)	0 (0%)	7 (3.78%)	7 (1.05%)
Discourse-oriented	0 (0%)	2 (1.58%)	1 (.98%)	1 (.735%)	3 (1.620%)	7 (1.05%)
Ecological	1 (0.84%)	0 (0%)	0 (0%)	2 (1.47%)	3 (1.62%)	6 (.9%)
Genre-oriented	0 (0%)	1 (0.79%)	0 (%)	1 (.735%)	3 (1.62%)	5 (.75%)
Pragmatic	0 (0%)	0 (0%)	1 (.98%)	3 (2.20%)	0 (0%)	4 (.6%)
Personal practical knowledge (PPK)	0 (0%)	0 (0%)	2 (1.96%)	1 (.73%)	0 (0%)	3 (.45%)
Complexity theory	0 (0%)	0 (0%)	0 (0%)	1 (.73%)	1 (.54%)	2 (.30%)
Total	119 (100%)	126 (100%)	102 (100%)	136 (100%)	184 (100%)	667 (100%)

Figure 1 also shows the trend of theoretical frameworks over time.

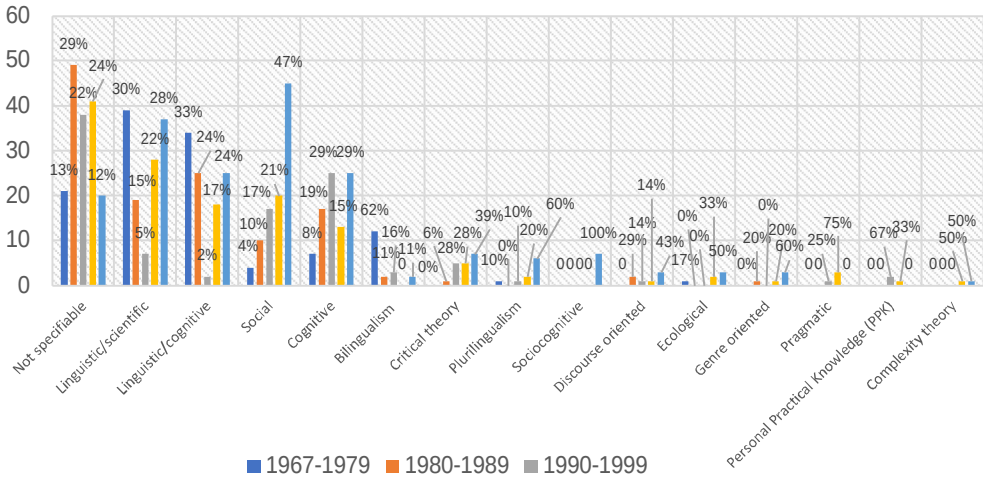

Figure 1 Theoretical frameworks of the articles overtime

Each of the four predominant theoretical orientations is briefly defined below. These definitions are derived from Canagarajah (2016) and Riazi et al. (2018):

- *Linguistic/scientific*, which mainly concerns the linguistic aspects of learners' language using a scientific approach. Articles with this theoretical orientation focused on phonetics and phonology, clauses and sentences, and syntactic aspects.
- *Linguistic/cognitive*, which primarily addresses the investigation of linguistic competence of language learners. This orientation locates the grammar norms and knowledge in the human mind and treats its internalization as the basis for competence.
- *Social*, primarily focused on investigating language learning or teaching by individuals or groups (cognitive aspects may be present) from a social perspective. This broad theoretical orientation includes sociocultural theory, activity theory, socialization theory, and the community of practice theory.
- *Cognitive*, primarily focused on beliefs, perceptions, knowledge, or mental processes related to language learning or teaching (social aspects may be present).

Now turning to the theoretical orientation distribution across periods, it is worth mentioning that articles published in the 1980s, 1990s, and 2000-2009 had the highest percentages of lacking a discernible theoretical orientation. These types of articles tend to simply report their research findings rather than framing and interpreting them in light of particular theoretical orientations, as is commonplace in today's scholarly articles. Over the subsequent decades, though, there is an evident burgeoning trend toward utilizing theoretical concepts to inform research.

In the first period, articles with a linguistic/scientific orientation were predominant (32.76%, *N* = 39) followed by linguistic/cognitive (28.56%, *N* = 34). Articles with cognitive and social orientations started to emerge in this period with 5.88% (*N* = 7) and 3.36% (*N* = 4) respectively.

In the second period, the place of linguistic/scientific and linguistic/cognitive is changed with linguistic/cognitive becoming more predominant (19.75%, *N* = 25) followed by linguistic/scientific (15%, *N* = 19). Articles with both a cognitive (13.43%, *N* = 17) and social (7.9%, *N* = 10) orientation somewhat increased in this time period.

In the third period, linguistic/scientific (6.86%, *N* = 7) and linguistic/cognitive (1.96%, *N* = 2) lost ground to cognitive (24.5%, *N* = 25) and social (16.66%, *N* = 17) orientations. However, in the fourth period, once again linguistic/scientific (20.58%, *N* = 28) regained its status followed by social (14.7%, *N* = 20), linguistic/cognitive (13.23%, *N* = 18), and cognitive (9.56%, *N* = 13). Finally, in the

last period, articles with a social (24.3%, *N* = 45) orientation became predominant followed by linguistic/scientific (19.98%, *N* = 37), linguistic/cognitive and cognitive, both with a 13.5% (*N* = 25) share.

4.3. Research methodology and data sources

Table 7 presents the methodological orientations across the five periods and overall. As can be seen from the total column, quantitative methods were predominant 41% (*N* = 286) in TESOL studies followed by qualitative methods (36.5 %, *N* = 254). The third most commonly used methodological orientation was the eclectic methodology (20.5 %, *N* = 143).

Table 7 Methodological orientations in the published articles

Methodology	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
Quantitative	69 (58%)	80 (63.5%)	27 (26.5%)	53 (36.8%)	57(27.8%)	286 (41.1%)
Qualitative	26 (21.8%)	15 (11.9%)	46 (45.1%)	63 (43.8%)	104 (50.7%)	254 (36.5%)
Eclectic	24 (20.2%)	31 (24.6%)	29 (28.4%)	26 (18.1%)	33 (16.1%)	143 (20.5%)
MMR	0 (0%)	0 (0%)	0 (0%)	2 (1.3%)	11 (5.4%)	13 (1.9%)
Total	119 (100%)	126 (100%)	102 (100%)	144 (100%)	205 (100%)	696 (100%)

Studies with an eclectic orientation used both quantitative and qualitative data and analyses. However, there was no explicit explanation of how these two methodological approaches were mixed. Just 1.9% (*N* = 13) of the articles could be coded as MMR. These were the articles in which researchers relied on the MMR literature and explained how they mixed quantitative and qualitative data and analysis, that is, stated a purpose for mixing methods.

As displayed in Table 7, in the first time period, quantitative methods were predominant (58%, *N* = 69), followed by qualitative methods (21.8%, *N* = 26) and eclectic (20.2%, *N* = 24). In the second period, quantitative methods became even more prominent (63.5%, *N* = 80). However, in this period, eclectic methods stood in the second rank (24.6%, *N* = 31), while qualitative (11.9%, *N* = 15) became less popular in this period. This pattern was reversed in the third period since qualitative methods gained the first rank (45.1%, *N* = 46) followed by eclectic (28.4%, *N* = 29) and quantitative (26.5%, *N* = 27).

In the fourth period, the pattern was qualitative (43.8%, *N* = 63), quantitative (36.8%, *N* = 53), and eclectic methods. A featured characteristic of this period was the debut of mixed-methods designs (1.3%, *N* = 2). Finally, in the fifth period, qualitative methods regained prominence (50.7%, *N* = 104). Interestingly, both quantitative (27.8%, *N* = 57) and eclectic (16.1%, *N* = 33) methods declined in this period compared with the previous period which held 36.8% (*N* = 53) and 18.1% (*N* = 26),

respectively. Regarding MMR in this decade, as shown in Table 7, TESOL researchers have been continuing to use MMR with an increasing trend (5.4%, *N* = 11).

Table 8 provides a more nuanced picture of the use of eclectic methods across the five periods. Capital letters show the prominence of the method, and the lowercase letters represent the subordination of the method. As can be seen from the data, of 143 EAs that used eclectic methodology, the majority, 67.8% (*N* = 97), utilized quantitative and qualitative data and analysis in a balanced manner. This trend was also represented in all five periods. Furthermore, 20.3% (*N* = 29) of published articles employed a quantitatively dominant design with a small qualitative portion, a fixed trend across all the five periods except for the third decade. Just 11.9% (*N* = 17) of the published articles used a predominantly qualitative method, with almost half of this number (8 out of 17) published in the third period.

Table 8 A breakdown of eclectic methods across the five periods and overall

Design	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
QUAN + QUAL	11 (45.8%)	23(74.2%)	17 (58.6%)	22 (84.6%)	24 (72.7%)	97 (67.8%)
QUAN + qual	7 (29.2%)	7 (22.6%)	4 (13.8%)	4 (15.4%)	7 (21.2%)	29 (20.3%)
QUAL + quan	6 (25%)	1 (3.2%)	8 (27.6%)	0 (0%)	2 (6.1%)	17 (11.9%)
Total	24 (100%)	31(100%)	29 (100%)	26 (100%)	33 (100%)	143 (100%)

It is worth noting that a total of 10 articles were explicitly framed as action research, with the first of them appearing in 2005 (Pawan & Thomalla, 2005). Most action research studies (70%, *N* = 7) were also implemented between 2015 and 2019.

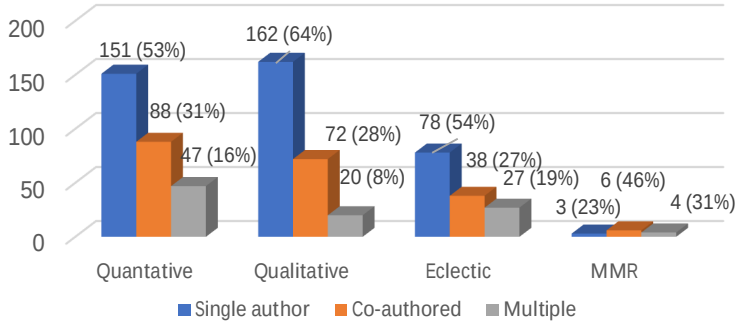

Figure 2 Methodological orientations across different patterns of authorship in 52 years of TQ's lifespan

We conducted further analysis on the breakdowns of different methodological orientations across different authorship patterns. It was intriguing to shed more light on the relationship between the number of authors and the type of research. Overall, as it was shown in Figure 1, single authorship was the most favored one.

More specifically, in all methodological orientations except for MMR, authors tended to work individually, especially in qualitative research with the highest number of single-authored articles, followed by quantitative and eclectic strands.

Having examined different time periods, we witnessed that in the first period, the majority of quantitative studies had a single author (71%, *N* = 49). The same trend was seen for both eclectic (79.2%, *N* = 19) and qualitative orientation (61.5%, *N* = 16). It should be said that we found very few co-authored and multiple-authored quantitative (23.2%, *N* = 16; and 5.8%, *N* = 4 respectively), qualitative (26.9%, *N* = 7 and 11.5%, *N* = 3, respectively) and eclectic (12.5%, *N* = 3 and 8.3%, *N* = 2, respectively) studies. The picture in the second period roughly resembled the first period in that the lion's share of quantitative studies were single-authored (60%, *N* = 48), which can be said to be true both for eclectic (54.8%, *N* = 17) and qualitative orientations (75%, *N* = 11). Here again, like the first period, few co-authored and multiple-authored quantitative (27.5%, *N* = 22 and 12.5%, *N* = 10, respectively), eclectic (25.8%, *N* = 8 and 19.4%, *N* = 6, respectively) and qualitative (25%, *N* = 4; and 0%, *N* = 0, respectively) studies were found.

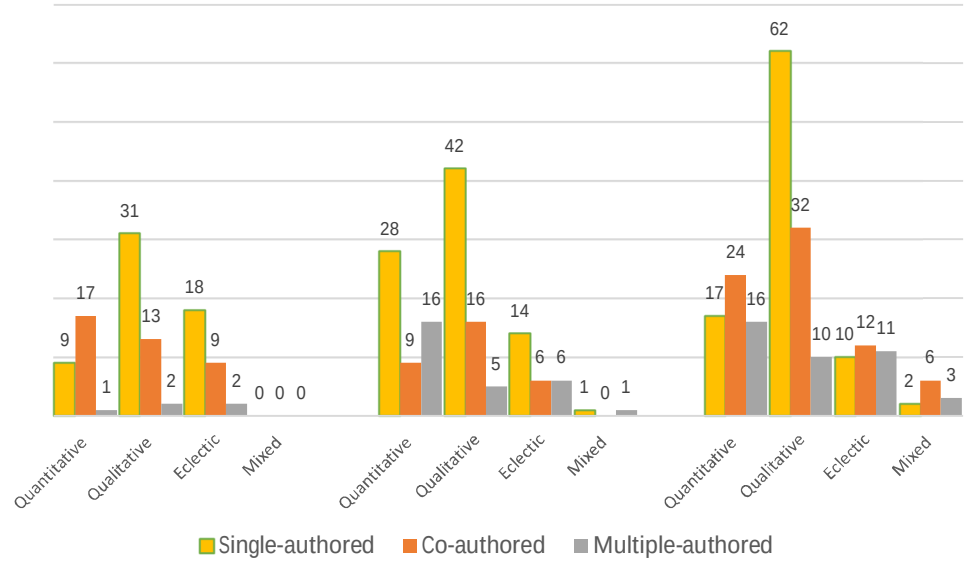

Figure 3 The categories of authorship across different methodological orientations in the three most recent periods of TQ lifespan

Figure 3 shows the categories of authorship across different methodological orientations in the three most recent periods of TQ's lifespan. Accordingly, in the third period, both qualitative and eclectic single-authored studies were dominant, in contrast with quantitative studies where co-authored articles were

more noticeable than the others. In the fourth period, in all the research methodologies, single-author articles were prominent. Intriguingly, in this period, contrary to the third period, quantitative studies were identified to be more single- and multiple-authored than to be co-authored, and the debut of MMR in TQ was with the appearance of a single-authored study. Finally, the picture in the fifth period was similar to that of the third period in that qualitative studies were primarily single-authored. However, regarding quantitative studies, co-authored studies were the most predominant ones. In this period, eclectic studies were evenly distributed among three categories of authorship, as opposed to the burgeoning number of MMR studies (*N* = 6), which were mostly co-authored.

Our subsequent analysis relates to data sources used in these studies. Table 9 presents the distribution of the data sources reported in the published articles. The most frequently used data sources in the articles were elicitation (45.3%, *N* = 315), multiple (26.7%, *N* = 186), observation (13.9%, *N* = 97), and text samples (11.2%, *N* = 78). Introspection was the least frequently utilized data source (2.9%, *N* = 20).

Table 9 Distribution of the data sources reported in the published articles

Data Sources	1967-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total
Elicitation	80 (67.2%)	69 (54.8%)	35 (34.3%)	49 (34%)	82 (40%)	315 (45.3%)
Multiple	7 (5.9%)	18 (14.3%)	36 (35.3%)	51 (35.4%)	74 (36.1%)	186 (26.7%)
Observation	16 (13.4%)	15 (11.9%)	17 (16.7%)	24 (16.7%)	25 (12.2%)	97 (13.9%)
Text samples	15 (12.7%)	20 (15.9%)	8 (7.8%)	14 (9.7%)	21 (10.2%)	78 (11.2%)
Introspection	1 (0.8%)	4 (3.1%)	6 (5.9%)	6 (4.2%)	3 (1.5%)	20 (2.9%)
Total	119 (100%)	126 (100%)	102 (100%)	144 (100%)	205 (100%)	696 (100%)

In the first time period the order was elicitation (67.2%, *N* = 80), observation (13.4%, *N* = 16), text samples (12.7%, *N* = 15), multiple (5.9%, *N* = 7) and introspection (0.8%, *N* = 1). In the second time period, in spite of the dominance of elicitation (54.8%, *N* = 69), text samples, multiple, and introspection were utilized more frequently (15.9%, *N* = 20; 14.3%, *N* = 18 and 3.1%, *N* = 4, respectively) compared to the previous period. Yet, in this period, observation became a slightly less popular (11.9%, *N* = 15) data source compared with the previous period (13.4%, *N* = 16).

In the third period, multiple data sources were utilized considerably (35.3%, *N* = 36), and notwithstanding a sharp drop in the use of elicitation in this period (34.3%, *N* = 35), as compared to the previous decade (54.8%, *N* = 69), it gained the second rank in this period. Observation and introspection received more attention in this period (16.7%, *N* = 17 and 5.9%, *N* = 6, respectively) compared to the previous period. While observation was the third most frequently

used data source in this period, there was a substantial decrease in exploiting text samples (7.8%, *N* = 8) compared to the previous period (15.9%, *N* = 20).

In the fourth period, again, two predominant data sources were multiple (35.4%, *N* = 51) and elicitation (34%, *N* = 49), while observation (16.7%, *N* = 24) maintained its popularity as the third most frequently used data source. Text samples took a different trajectory and increased marginally in this period (9.7%, *N* = 14) compared to the previous decade (7.8%, *N* = 8). However, introspection declined slightly over the third and fourth periods (5.9%, *N* = 6 and 4.2%, *N* = 6, respectively).

In the fifth period, elicitation mirrored its first-period status (40%, *N* = 82). Multiple data sources, which showed a rising trend across the previous four periods, were the second most frequent data source. Observation, decreasing slightly over the last two periods, was the third most prevalent data source. The following commonly utilized data source was text samples, which increased marginally in this period (10.2%, *N* = 21) compared to the fourth period (9.7%, *N* = 14). The most rarely employed data source in this period was introspection with a consistent decline over the last three periods (5.9%, *N* = 6; 4.2%, *N* = 6 and 1.5%, *N* = 3, respectively).

5. Discussion

5.1. Contexts and participants

The typical TQ article was a single-authored article conducted in a university in the US with undergraduate students as participants. Single-authored manuscripts continually enjoyed the peak rate; co- and multiple authorship, however, witnessed an increasing rate over time. Swales (1988), too, reported an increase of multiple-authored articles despite the outstanding share (92%) of single-authored articles since the inception of TQ.

Concerning the originating country of the EAs, the US is prevalently and consistently on top. By the same token, Swales (1988) reported a similar pattern during the 20th anniversary of TQ, with the North American (the United States and Canada) authorship with US-located domination; furthermore, countries outside North America occurred only occasionally. Both Swales' and our finding regarding macro-context may attest that most of the published articles, especially those belonging to the first two periods, were previously presented in the American Association for Applied Linguistics (AAAL) Conference. The authors of these articles noted they found TQ a plausible venue for their publication. However, the gradual decrease traceable in the US-dominated publications since the

early years explains the trade-off of witnessing more manuscripts from other contexts. Moreover, most of the articles from other countries appearing in the journal were making their contributions only in the last two decades, which could signify TESOL research in other contexts.

Regarding micro-context, the university was a current setting for the reported studies. The share of universities grew consistently over the periods, indicating that more TESOL researchers are based in the universities. K-12 and joint projects by institutes and colleges were typical venues. This result represents a lack of collaboration between K-12 teachers/researchers and university researchers.

5.2. Research focus and theoretical orientation

The typical research focus in TQ was instruction, learning, assessment, teacher education, and language and literacy development in order of frequency. At the same time, there were other research foci indeed. This trend seems expected for a journal that publishes articles on English language teaching (instruction) and learning and their related issues. It is also worth noting that, while interest in research on L1 vs. L2 decreased over time, there has been an upward trend in research on teacher education, language and literacy development, and socio-political factors. It is also remarkable to note that identity research, which started only in the third period with the pioneering work of Norton Peirce (1995) has also been receiving sustained scholarly attention. This finding resonates with those reported by Lei and Liu (2019b). It is worthwhile noting that Peirce's (1995) notion of *social identity* is more broadly reflective of the burgeoning influence of sociology on the field and the *social turn* in applied linguistics research (Block, 2003).

Concerning the theoretical orientation of the articles, a quarter of the articles (*N* = 169) could not be specified for their orientation. McKinley (2019) observed that early articles published in TQ offered descriptions of and suggestions for actual classroom practices. Furthermore, McKinley noted that such descriptive articles were based on the author's own practices, such as Arapoff (1967), or a combination of literature and personal experience such as Ross (1967). Our findings, however, show that this trend (not having a specifiable theoretical orientation) continued over the periods except indeed for the last decade (2010-2019). Admittedly though, we agree with McKinley that this trend was changed since, over time, the focus of reported studies changed from anecdotal teaching experiences towards more empirical TESOL research, grounded in theories from different disciplines.

The predominant theoretical orientations were linguistic/scientific, linguistic/cognitive, social, and cognitive. Our finding regarding the pattern of the theoretical orientation is resonate with Brown (1991) and Canagarajah (2016).

The dominance of linguistic/scientific and linguistic/cognitive orientations can be explained by the profound influence of linguistics and psychology on the field, as noted by previous systematic research (e.g., Stapleton & Shao, 2018).

Of importance is that out of 29 articles with an explicit theoretical orientation, 58.62% (*N* = 17) had a social orientation. Given that the first article with an explicitly stated theoretical orientation appeared in 2001, it makes sense to say that: (a) TESOL researchers have recently (in the last two decades) started to clearly and explicitly state their theoretical orientation and that (b) when they do, they have mostly opted for social orientation, which reflects the *social turn* (Block, 2003) in the field.

5.3. Research methodology and data sources

Quantitative research was the principal research methodology in TQ articles, followed by qualitative and eclectic research methodologies. The periodical analysis, however, portrayed a different yet more detailed picture of methodological shifts across periods. Accordingly, the methodological lifespan of TQ can be divided into two periods: before 1990 (quantitative dominance) and after 1990 (qualitative dominance). The crucial methodological shift happened in the third period (1990-1999) when the quantitative paradigm lost its prominence. This finding aligns with those reported by Tojo and Takagi (2017), Khany and Tazik (2019) and Ghanbar and Rezvani (2023b). Canagarajah (2016) also related studies' research methodology to research paradigms and theoretical orientations and reported that the articles in the late 1970s and 1980s displayed a strong tendency towards quantitative methodology represented by experimental designs. This was, as Canagarajah observed, in line with the modernist inquiry of the time shaping all the disciplines. However, he reported a gradual appearance of qualitative methodology in the 1990s, including case studies, action research, ethnography, etc. This finding illustrated that TESOL researchers have been more inclined to comply with the constructivist paradigm, following an increasing trajectory across recent periods. In fact, by following the constructivist paradigm, focusing on relative ontology and subjective epistemology, they have had this propensity to delve into multiple mental constructions and give more voice to the researchees in their interaction with researchers during the construction of the knowledge propositions. However, we cannot omit the pronounced effect of dominant paradigms and theories such as postmodernism and sociocultural on this orientation.

The appearance of action research in TQ in 2005 and its popularity after 2015 can be linked with McKinley's (2019) observation of the "teacher as researcher" movement in the 1980s and the current recommendations in TESOL research. English

language teachers are urged to conduct action research considering local educational contexts and practices. In line with Canagarajah (2016), Benson (2013) reported that qualitative methods burgeoned in top-tier journals such as *Applied Linguistics* and *TESOL Quarterly* in the 1990s. However, notwithstanding the appearance and the rise of qualitative methodology in TESOL research, as Canagarajah also reflected, studies with quantitative and experimental designs are still abundant.

Worthy of mentioning here is the use of eclectic methods in all the periods by TESOL researchers. TESOL researchers have attempted to use quantitative and qualitative data and analysis to provide more comprehensive answers to their research questions through the eclectic methodology. However, this attempt needs to be made more systematically by framing the studies within mixed methods research literature and demonstrating the purpose of mixing the two methodologies. Only in the last two periods can we see TESOL researchers start to use principled MMR.

Regarding data sources, elicitation was prevailing before 1990, while multiple data sources were more prevailing after that period. However, there was an exception, the last period when elicitation, again, has become the most popular data source. One reason for the popularity of multiple data sources in recent years might be the flourishing of qualitative and eclectic methodologies. As stated earlier, the outside forces and macro theoretical trends such as postmodernism and sociocultural theory may have been the reason for shifting from single data sources to multiple data sources. As a result, the surge of ethnographic studies (De Costa, 2014) and studies examining identity construction in TQ required researchers to use multiple knowledge sources for providing a thick description. In line with Riazi (2016, 2017) and Riazi et al. (2020), we maintain that each data collection method has its strengths and rigor. TESOL researchers seem to rely on eclectic orientation and MMR with several data collection techniques to address their research problems from multiple perspectives. The case study, which has now been frequently used in different prominent L2 journals, necessitates using multiple data sources. Again, this fact can be mentioned as another underlying reason for utilizing multiple data sources in the sampled articles. Even the rise of elicitation in the last period may be attributed to the popularity of narrative inquiry over the recent years in TQ and the use of interviews (a subset of elicitation) as a method of data collection (see Riazi, Ghanbar, & Rezvani, 2023; Riazi, Rezvani, & Ghanbar, 2023 for more discussion on qualitative data collection and analysis).

6. Conclusion

In light of our bibliometric findings, we highlight some future directions and implications for future TESOL research. Future TESOL research may address a swing

away from typical undergraduate and K-12 based in the US to other levels of participants and education and contributions from other than the powerhouse countries. TQ editorial policy may thus create more space for studies from diverse regions and a variety of participants. The implication of this observation for teachers would be to embark on TESOL research in their K-12 context. Teachers may consider action research as a potential methodology to address relevant classroom-based research topics. The research may be conducted in collaboration with more experienced researchers to tackle issues related to the learning and teaching of English in particular contexts.

While the trend of research on the typical areas of inquiry (i.e., instruction, learning, assessment, teacher education, and language and literacy development) will likely continue to predominate in TESOL, there remain less explored avenues worth researching. One crucial research direction meriting more attention is the socio-political facets and factors in language learning and pedagogy. The implication of this observation for future research can further bring to the fore and illuminate issues surrounding (micro and macro aspects of) power, equity, and social justice in TESOL and implications thereof for theory and practice. Future research can also delve deeper into the affective and emotive aspects of language learning, as called for by scholars (e.g., Liyanage & Canagarajah, 2019; Pavlenko, 2013). Finally, future research should also address the new and emerging communicative needs of language learners in today's globalization and multimodal communication era.

As revealed by our analysis, a considerable proportion of articles (25.34%) published in TQ's life cycle lacked a discernible or explicit theoretical or conceptual framework. We strongly encourage future researchers to use a clear and explicit theoretically informed framework to guide their research inquiry. Using a theoretical framework helps the researcher coherently analyze and explain the phenomenon under investigation, which can yield further theoretical insights. It is hoped that future research in TESOL will be increasingly informed by existing and emerging theories in the field, which can have potential implications for theory development and future research. Future research can also involve interdisciplinary insights and collaborations to push the field beyond its current boundaries and limitations and to develop a more comprehensive understanding of factors and issues affecting language learning and teaching.

Finally, our findings showed mono method (qualitative or quantitative) dominance in TQ. While mono method studies have their value and contribution, we strongly recommend using integrated methodologies such as MMR, given the popularity of complex L1 and L2 identity issues. TESOL researchers used both quantitative and qualitative data and analysis at the level of method in an eclectic way rather than as a methodology in principled and innovative

ways resulting in the abundance of eclectic orientation and paucity of fully-fledged mixed-methods designs. We, here, echo Riazi (2016) and urge prospective studies to use MMR at the level of methodology, which enables the researchers "to integrate different epistemic perspectives in innovative ways and in the service of a more comprehensive conceptualization of the research problem" (p. 38). On data sources, we witnessed the preponderance of one knowledge source, elicitation, in TQ. In parallel with using MMR as a methodology, researchers will naturally exploit multiple data sources to provide a more comprehensive understanding of the research phenomenon (see also Ghanbar & Rezvani, 2023a).

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