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Barriers and Bridges: L2 English Research Challenges and Pedagogical Interventions

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ABSTRACT

Grounded in a socio-cultural perspective, this mixed-methods study examines the barriers that inhibit L2 English university students in Qatar from engaging effectively in academic research. We surveyed 87 students and conducted 20 semi-structured interviews, identifying four interrelated challenging domains: affective and psychological pressures, cognitive and organisational constraints, methodological unfamiliarity, and challenges in academic writing and documentation. These obstacles are shaped by the interplay of institutional infrastructures, instructional practices, and individual learner dispositions. In response, we recommend three evidence-based interventions: targeted time-management workshops to strengthen organisational and planning skills; expanded access to academic resources tailored to learners' cultural and linguistic backgrounds; and the systematic incorporation of culturally responsive teaching strategies within research-focused courses. Moreover, our findings underscore the need for affective support to address anxiety and self-efficacy concerns, as well as structured tools to remedy planning and time-management gaps. Additionally, step-by-step methodological modules and specialised writing consultations are required to address citation and documentation issues. These insights can inform university policy toward creating scaffolded research education environments that cater to diverse student needs. By implementing these interventions and aligning curriculum design with socio-cultural principles, institutions can foster inclusive research cultures and enhance retention and success among linguistically diverse students through targeted training, collaborative support networks, and evidence-based evaluation.

Keywords: L2 English; Academic Research; Socio-Cultural Perspective; Mixed-Methods; Pedagogical Interventions; Qatar

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1. Introduction

In today's increasingly interconnected and information-driven world, the development of research skills has emerged as a critical component of academic and professional success. These skills, which include critical appraisal, information synthesis, decision-making, problem-solving, data collection, analysis, and effective communication, are essential for navigating modern educational and occupational environments. As society progresses into the 21st century, the ability to engage with and contribute to scholarly discourse has become more vital than ever. Educational frameworks increasingly emphasise the need to integrate research skill development into curricula across all levels of education. It has been emphasised that fostering these research writing competencies from an early stage is crucial in meeting the demands of a rapidly evolving global landscape[1]. This necessity highlights the importance of creating explicit opportunities for developing research skills. Moreover, this study is anchored in socio-cultural theory, emphasising that research competencies develop through socially mediated interactions and cultural artefacts[2, 3].

However, despite the recognised importance of academic research skills, acquiring and mastering these competencies presents significant challenges, particularly for students learning in a second language[4, 5]. For L2 English university students, these challenges encompass not only the inherent difficulties of conducting research but also the added complexity of language barriers, cultural differences, and varying institutional expectations[6]. Nonetheless, existing literature has largely focused on individual cognitive strategies, neglecting how socio-cultural and institutional factors mediate L2 students' research engagement[7, 8].

To address this gap, the present mixed-methods study employs a socio-cultural lens to examine the constellation of barriers hindering L2 English students' engagement in academic research at a Qatari university. By integrating comprehensive questionnaires ($n = 87$) with in-depth, semi-structured interviews ($n = 20$) and analysing the data within a mediated action framework, the study uncovers how institutional infrastructures, instructional practices, and individual learner dispositions interact to facilitate or hinder research competence. The methodological design follows established mixed-methods protocols to ensure rigorous integration of quantitative and qualitative findings[9]. In doing so, this research extends socio-cultural theory into a new empirical domain and proposes evidence-informed, culturally responsive interventions to strengthen L2 students' academic research skills. This approach fills a clear gap by illuminating how institutional infrastructures and instructional practices function as mediators in L2 research skill development[10].

One of the greatest hurdles for second language English students engaged in academic research is their focus on sentence-level accuracy, such as choosing precise vocabulary and correct verb tenses, while instructors expect them to organise ideas at the discourse level into a coherent and persuasive argument. For example, a student writing about solar energy in Qatar might spend most of her effort using terms such as "efficiency" and "photovoltaic" correctly, yet neglect to state a central claim. She might then write, "Expanding solar infrastructure will reduce national carbon emissions and diversify the economy." To meet instructors' expectations, she would need to support that claim with logically ordered paragraphs and transition phrases such as *first, moreover and however*. These discourse-level expectations reflect a socio-cultural realisation that writing is embedded in community practices and evaluative norms[8]. Bitchener points out that this mismatch hinders student development and creates a gap between the skills they practise and the criteria used to assess their work[11]. This issue reflects broader inconsistencies in how research writing is taught and evaluated across universities[8]. The study, therefore, bridges theoretical insights with practical interventions in the context of Qatar, offering a model for socio-culturally responsive pedagogy.

Moreover, the challenges faced by L2 English students are compounded by their perceptions of academic writing, which are shaped by factors like prior educational experiences, language proficiency, and pedagogical approaches. Lillis and Curry explore this process of L2 writers' identity formation, emphasising that developing a scholarly voice is influenced by cultural and institutional dimensions[12]. These findings suggest that L2 students' difficulties are not solely linguistic but also tied to the broader learning context.

Despite valuable insights from previous research, a significant gap remains in the literature regarding a comprehensive examination of these challenges, contributing factors, and potential interventions. Existing studies often address these issues in isolation, examining aspects such as challenges with L2 English academic writing[13, 14], institu-

tional support[15], and motivation[16]. However, an analysis considering these factors collectively is lacking. The current study aims to fill this gap by examining the challenges that L2 English university students encounter in academic research. The overarching aims of the current study are threefold: (1) identify the challenges L2 English university students encounter during the research writing process; (2) identify factors that contribute to these challenges; and (3) provide interventions to help students overcome these challenges. By addressing these aims, this study contributes to existing literature and offers practical insights for more effective pedagogical practices.

2. Literature Review

This literature review critically examines the academic research challenges, contributing factors, and potential interventions within the context of L2 English at universities. A socio-cultural framing underscores the interdependence of individual, social, and cultural dimensions in research writing challenges. The review is structured to align with the three research questions that guide the study.

2.1. Challenges in Research Writing

The research writing process is inherently challenging, particularly for L2 English university students. Mastering the conventions of academic writing is a daunting task that requires precision, clarity, and adherence to strict formatting and stylistic guidelines. Hyland highlights that L2 learners often struggle with the technical nature of academic writing, arguing that academic writing requires control of complex lexico-grammatical structures, specialised terminology, and discipline-specific conventions, which many L2 writers find challenging[1]. Yet, few studies address how cultural tools such as academic discourse conventions shape these challenges[17]. The difficulties faced by these students are not merely linguistic but also extend to understanding and applying the conventions of academic genres, such as research assignments. This issue is further exacerbated by the need to develop a scholarly voice, an essential component of academic writing that requires balancing objectivity with assertiveness in presenting one's argument[18]. For many L2 learners, this represents a significant cultural and rhetorical shift from their previous writing experiences, often leading to feelings of inadequacy and frustration. This tension highlights the need for socio-culturally attuned instructional design to promote identity formation and voice development[7].

A critical examination of the literature reveals significant challenges that students encounter when writing research introductions and literature reviews. Swales introduced the CARS model to guide the organisation of research introductions; yet, L2 learners often struggle to apply it effectively, producing introductions that are either too broad or too narrow[19]. This difficulty largely stems from unfamiliarity with English genre conventions, which differ markedly from those in students' native languages[20]. Hyland notes that students also struggle to balance the need for adequate background information with the requirement for conciseness, resulting in introductions that fail to engage readers effectively[21].

Writing a literature review poses additional challenges, requiring students to engage with existing research and critically integrate diverse perspectives. Booth et al. argue that a literature review should critically appraise prior studies, identifying gaps and directions for new inquiry, rather than merely summarising what is known[22]. However, L2 students often find critical analysis and synthesis daunting, particularly in early coursework, because they have limited prior experience with source-based writing and integrating evidence[23]. Additionally, organising a literature review coherently, aligning it with theoretical frameworks, and maintaining an objective tone can be particularly challenging. Undergraduate L2 writers often struggle with source-based synthesis, tending to summarise readings rather than integrate multiple texts into a coherent argument, which reflects challenges in coordinating reading and writing processes[23].

Writing the methods section of a research paper presents its unique challenges. Balancing thoroughness with clear, economical reporting is a core principle in research design, and this balance becomes more challenging in L2 contexts because expressing complex procedures in an additional language adds linguistic and genre demands[21]. The methods section must be written in a way that is both thorough and clear, avoiding unnecessary jargon while ensuring that all relevant details are included. Creswell and Creswell emphasise that this balance between thoroughness and clarity is particularly difficult for L2 learners, who may struggle to express complex procedural details in a second language[23].

Moreover, Hyland notes that students must also consider the ethical implications in their methods section, particularly when working with human subjects, which adds another layer of complexity to the writing process [1].

Finally, the results and discussion sections of a research paper present significant challenges for L2 learners. Swales and Feak argue that the results section requires students to present their data concisely and objectively, without interpretation [24]. However, many students struggle to present their data in a clear, logical manner. The discussion section, on the other hand, requires students to interpret their findings within the context of the existing literature, which demands a high level of critical thinking and synthesis skills. Hyland and Ferris demonstrate that L2 university students must employ citation and metadiscourse to justify their results and position their contributions within disciplinary conversations—work that many find challenging when connecting findings to the broader field and demonstrating significance [25, 26]. Thompson emphasises that the discussion is where writers must argue their study's contribution—evaluating results, staking claims, and projecting an authoritative voice—a rhetorical task that many novice L2 researchers find daunting [27].

2.2. Factors Contributing to Research Writing Challenges

A variety of factors, including language proficiency, cultural differences, institutional support, and psychological factors, influence the challenges faced by L2 learners in the research writing process. Hyland suggests that limited proficiency in English is a significant barrier for L2 students, hindering their ability to express complex ideas clearly and accurately [1]. This is particularly problematic in academic writing. As Lillis and Curry argue, linguistic difficulties are compounded by the social and rhetorical demands of academic publishing, which require not only proficiency in English but also participation in specialised discourse communities [12]. These communities have their own conventions, jargon, and expectations, which can be difficult for L2 students to navigate.

Cultural factors also play a significant role in shaping students' experiences with research writing. Canagarajah highlights that students from non-Western educational backgrounds may struggle with the individualistic and assertive style of argumentation that is often expected in Western academic contexts [17]. In many cultures, knowledge is constructed and communicated differently, with a greater emphasis on collective understanding rather than individual contribution. This cultural mismatch can lead to difficulties in adapting to new rhetorical practices, further complicating the writing process for L2 learners. For example, Tran notes that Asian students, who are often taught to value humility and deference to authority, may find it challenging to assert their own perspectives in their writing, which is a key expectation in Western academic writing [28].

The lack of institutional support is another critical factor influencing the challenges faced by L2 English learners in research writing. Previous research noted that the availability of writing centres, language support programs, and mentorship opportunities can significantly impact students' ability to navigate the research writing process [29]. Writing centres play a crucial role in providing students with the guidance they need to improve their writing skills. However, Montgomery and Baker argue that there are often disparities in the level of support provided across institutions, with some universities offering extensive resources while others provide minimal assistance [30]. This can leave some students, particularly those from underprivileged backgrounds, without the necessary resources to succeed. Furthermore, the expectations of faculty members can vary widely, leading to confusion among students about what constitutes successful academic writing. Hyland points out that these inconsistencies can be particularly challenging for L2 learners, who may already feel uncertain about their writing abilities [21].

Psychological factors, including motivation, anxiety, and self-efficacy, are also crucial in determining students' success in academic research. Previous research emphasises that motivation is a key determinant of students' engagement with research tasks [16]. Highly motivated students are more likely to persevere through the challenges of research writing and produce high-quality work. However, high levels of anxiety, particularly related to language barriers and academic performance, can impede students' ability to focus and complete their work to the best of their abilities [31]. Drawing on Bandura's theory of self-efficacy, students with high self-efficacy are more likely to take on challenging tasks and persist when faced with difficulties, while those with low self-efficacy may avoid tasks they perceive as too difficult [32, 33]. This is particularly relevant for L2 English learners, who

may feel less confident in their abilities to succeed.

Research experience is another crucial factor that impacts students' ability to tackle the challenges of research writing. Results of a previous study suggest that research-experienced students are generally better equipped to handle the complexities of academic writing[34]. However, they may face challenges due to increased expectations from supervisors and peers. Manathunga argues that the pressure to produce high-quality work can lead to stress and burnout, particularly for students with multiple academic responsibilities[35].

2.3. Effective Strategies for Overcoming Research Writing Challenges

Drawing on Vygotsky's concepts of mediation, scaffolding, and the Zone of Proximal Development (ZPD), effective instructional strategies position more capable others and cultural tools to guide learners from assisted to independent performance[36]. Some strategies can be implemented to address the challenges faced by L2 learners in research writing.

Explicit instruction in academic writing serves as a form of expert scaffolding: instructors model genre conventions and gradually transfer responsibility to students as they internalise those practices within their ZPD[37]. For example, Hyland advocates teaching students specific language structures, genre expectations, and citation practices to facilitate their navigation of academic discourse[1]. Ferris and Hedgcock further suggest focusing on the rhetorical patterns and linguistic features characteristic of English-medium academic writing, thereby providing the mediated support learners need before they can apply these features independently[38].

Peer review and collaborative writing activities enact social mediation by placing learners within each other's ZPDs: peers alternate roles as more and less knowledgeable others, co-constructing understanding and gradually internalising new writing behaviours[39, 40]. Topping notes that peer review develops critical thinking and exposes students to multiple perspectives, while Storch highlights how dialogic interaction fosters deeper comprehension of research conventions.

Targeted language support tools, such as writing centres and on-one tutoring, function as cultural artefacts that mediate learner development; they offer just-in-time assistance and exemplars that students can appropriate and transform over time[41]. Writing centres in Qatar's higher education institutions tailor resources, such as grammar guides, writing tutorials, and exemplar papers, to match proficiency levels and cultural backgrounds, enabling the gradual removal of scaffolds as learners gain confidence[42].

Mentorship programs provide sustained mediation across the ZPD by pairing novice researchers with experienced mentors who model research design, methodology, and writing strategies. Over time, mentees internalise these practices and assume full responsibility for their academic work[43, 44].

Addressing psychological factors also benefits from mediated support. Workshops on stress management and time management offer structured guidance that learners can internalise, improving their self-regulation and self-efficacy[45]. Creating an inclusive environment where open discussion of challenges is encouraged further acts as social mediation, normalising difficulties and building collective resilience[46].

Finally, integrating authentic research experiences into curricula situates students in legitimate peripheral participation, a form of community-based mediation where novices learn by doing alongside experts and peers[47]. Healey and Jenkins argue that such inquiry-based projects provide meaningful scaffolds that gradually recede as learners assume full research responsibilities, while Levy and Petrulis demonstrate that these experiences enhance both competence and confidence in independent research[48, 49].

2.4. Comparative Perspectives in Gulf and Beyond

While our study is deeply rooted in Qatar's unique educational landscape, situating these findings within a broader comparative framework illuminates both shared challenges and distinctive features. In the Arab Gulf, English-medium instruction (EMI) has expanded rapidly, particularly in the United Arab Emirates and Saudi Arabia. However, systematic reviews note persistent concerns about the adequacy of academic literacy support and variability in writing scaffolds across institutions[50]. Complementing this, a correlational study of ninety-nine preparatory-year university students in Saudi Arabia found that learners' L2 writing self-efficacy was

only moderate (M = 3.10) and inversely related to their writing anxiety (M = 3.40; r = −0.42, p < 0.01), indicating that affective barriers may significantly undermine confidence in research-writing tasks [51].

Turning to non-Arab contexts, targeted pedagogical interventions have shown promise in bolstering both competence and confidence. In Malaysia, embedding genre-based instruction led to significant gains in expository performance and students' genre awareness [52]. Similarly, in China, English writing centres, ranging from EAP units to ERPP hubs, are emerging as critical sites for research-writing support; interviews across fifteen universities reveal that, although these centres hold substantial promise for institutionalising writing scaffolds, their impact remains uneven and heavily dependent on local policy priorities [53].

These comparative lenses underscore that, while L2 research writers worldwide grapple with similar linguistic, cognitive, and affective hurdles, the specific constellation of policy choices, resource allocations, and cultural norms in Qatar produces a research-writing profile that aligns with, but also diverges from, neighbouring Gulf states and global peers. Drawing on proven practices, such as centralised EMI writing centres and structured genre-based pedagogy, offers a pathway to enrich Qatari learners' research-writing experiences while preserving the contextual specificity central to our study.

2.5. Theoretical Framework

Socio-cultural theory, developed by Vygotsky, views cognitive development as emerging through social interaction and being mediated by cultural tools. Language, symbols, norms, and artefacts function as mediational means that shape the frameworks through which individuals think, perceive, and act within their communities [54]. Through guided participation and scaffolding by more knowledgeable others, learners internalise community-endorsed patterns of reasoning and behaviour [36]. The zone of proximal development captures the space between what learners can achieve independently and what they can accomplish with appropriate support. These concepts underscore the importance of social interaction, instructor and peer mediation, and the purposeful use of cultural tools in developing academic research competencies.

Grounded in these principles, this study examines the academic challenges faced by L2 English-speaking Arab university students in Qatar, with a focus on the interplay between culture, gender, and language. It considers four interrelated domains of difficulty—affective and psychological pressures, cognitive and organisational constraints, methodological unfamiliarity, and challenges in academic writing and documentation—and analyses how institutional infrastructures, instructional practices, and individual learner dispositions mediate these barriers and inform culturally responsive interventions.

Framed by Vygotsky's socio-cultural theory—which emphasises learning through socially mediated interaction, the guidance of more knowledgeable others, and the use of cultural tools within the zone of proximal development—this study addresses three core questions:

1. What academic research challenges do L2 English university students encounter?
2. What factors contribute to L2 English university students' challenges with academic research?
3. What interventions could help L2 English university students surmount their academic research challenges?

In sections 4.2 and 4.3, we illustrate how both instructor and peer mediation manifest in our dataset and how students internalise these supports, thereby operationalising Vygotsky's key constructs.

3. Methods

This methods section outlines the research approach, detailing the demographic overview of participants and the procedures for data collection and analysis. It also addresses ethical considerations of the research process.

3.1. Mixed-Methods Design

This study employed a mixed-methods design, in which quantitative and qualitative data were collected and analysed independently before being merged for interpretation [55]. Mixed-methods research integrates the strengths of both approaches to provide a more comprehensive understanding of complex phenomena [56]. In our design, the online questionnaire (n = 87) provided broad insights into the prevalence of research barriers, while the semi-structured interviews (n = 20) offered in-depth perspectives on how these barriers

are experienced and mediated. The independent analyses were then compared and combined to draw integrative conclusions.

3.2. Demographic Overview

As shown in **Figure 1**, the demographic overview of the study participants highlights several key characteristics. The sample consists of 87 undergraduate students, aged 18 to 36 years old. The sample is predominantly Qatari, comprising 69.0 % of participants. The remaining nationalities include Jordanians (4.6%), Palestinians (4.6%), Egyptians (4.6%), Yemenis (3.4%), Syrians (3.4%), Sudanese (3.4%), Moroccans (3.4%), and Tunisians (3.4%). In the current study, 55 females and 32 males participated. Twenty participants volunteered to be interviewed.

Although our study offers initial insights into students' perspectives, the predominance of young adults (71.7 % aged 18–22) suggests that the attitudes and experiences captured here may not fully reflect those of mature learners, who often bring greater academic or professional background to their responses. Likewise, with 69.0% of respondents being Qatari and smaller proportions from across the Arab region (ranging from 3.4% to 4.6%), national or culture-specific factors may have exerted an outsized influence on our findings. Finally, the female majority may have introduced gender-related perspectives, particularly on topics where cultural gender roles shape classroom participation or self-efficacy. We therefore urge readers to interpret our results with these demographic contours in mind and recommend that future research seek larger, more balanced cohorts across both age groups and nationalities to test the robustness of our conclusions.

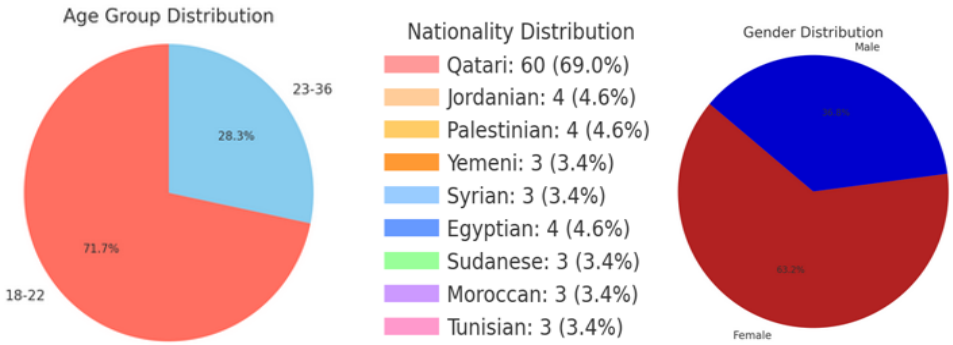


Figure 1. Distribution of participants by age, nationality and gender.

3.3. Data Collection

The data collection process was carefully designed to ensure the validity, reliability, and trustworthiness of the findings. Two primary data collection methods were used: a questionnaire and semi-structured interviews. Guided by socio-cultural theory, the study aims to understand how these elements shape the research practices and perceptions of L2 English university students. By examining the roles of academic communities, peer interactions, and institutional culture, the research aims to determine how these factors either support or hinder L2 learners in their academic endeavours.

3.3.1. Questionnaire Development: Validity and Reliability

The questionnaire was developed to assess the academic research challenges encountered by students quantitatively, identify the factors contributing to them, and propose potential interventions. The items were designed based on a thorough review of existing literature on research challenges in L2 contexts.

The questionnaire was administered online via Google Forms in both Arabic and English. Comprising a total of 58 questions, the questionnaire began with three demographic queries regarding gender, age, and nationality to ensure a varied and representative sample. Following this, 27 questions assessed challenges in academic research using a five-point Likert agreement scale. Additionally, 12 items specifically addressed the factors contributing to research challenges using the same scale, and 16 questions focused on proposed interventions, also using the same scale.

To ensure content validity, the questionnaire was reviewed by seven experts in educational research for relevance

and clarity of items, ensuring that it accurately captured the key dimensions of the research challenges being studied. The reliability of the questionnaire was established through a pilot study involving thirty L2 English university students of mixed gender who were not part of the main study. The internal consistency of the questionnaire was measured using Cronbach's Alpha, with a coefficient of 0.86, indicating a high level of reliability [57].

3.3.2. Semi-Structured Interview Development: Trustworthiness

To complement the quantitative data, semi-structured interviews were conducted to gain deeper insights into the students' experiences and perceptions of academic research challenges. The interview guide was developed in accordance with the principles of qualitative research design, ensuring that open-ended questions allowed for in-depth exploration of participants' perspectives [58]. Experts also reviewed the interview questions to ensure they were clear, unbiased, and aligned with the study's objectives.

The semi-structured interview targeted a balanced sample of 20 volunteer participants, comprising 10 males and 10 females, to ensure gender representation and capture diverse perspectives. It consisted of ten questions. The interviews were conducted conversationally, encouraging participants to express their views openly and honestly, and lasted approximately 15 to 20 minutes each. Participants were given the choice to be interviewed in L1 Arabic or L2 English. Sixty per cent preferred English and forty per cent preferred Arabic. The interviewer was a research team member with no prior relationship to the participants to minimise bias.

The trustworthiness of the qualitative data was enhanced through several strategies. First, credibility was ensured by triangulating the interview findings with the quantitative questionnaire data, as well as by member checking, where participants reviewed and confirmed the accuracy of their transcripts [59]. Second, transferability was addressed by providing rich, detailed descriptions of participants' contexts, allowing readers to assess applicability to other settings. Third, dependability was maintained by keeping a detailed audit trail of the research process, documenting each step of data collection and analysis. Lastly, confirmability was ensured by having multiple researchers review the data and analyses to minimise bias [60].

3.4. Data Analysis

The data analysis process involved both quantitative and qualitative techniques. Quantitative data from the questionnaire were analysed using descriptive statistics to identify the prevalence and patterns of research challenges among participants [61]. For the qualitative data, thematic content analysis was employed to identify key themes related to research challenges, contributing factors, and potential interventions. Thematic analysis followed Braun and Clarke's six-phase approach, which includes familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report [62].

3.5. Ethical Issues

Ethical considerations were paramount throughout the data collection process. The study was conducted in accordance with BERA ethical guidelines [63] and the university's Institutional Review Board requirements. Informed consent was obtained from all participants, ensuring they were fully aware of the study's purpose, procedures, and their rights. Participants were assured of confidentiality, with all data anonymised to protect identities. They were also informed of their right to withdraw at any time without consequence. Data storage and handling complied with data protection regulations. All digital files were securely stored on password-protected devices, accessible only by the research team.

4. Research Findings

The findings of this study provide a comprehensive overview of the challenges faced by undergraduate Arab students of L2 English in Qatar. By analysing both quantitative and qualitative data, the study identifies key challenges related to emotional and psychological stress, cognitive and organisational hurdles, methodological issues, and writing-related challenges. The findings are aligned with the study's research questions.

4.1. Research Writing Challenges

In addressing the first research question, the study identified four main categories of challenges: Emotional and psychological, cognitive and organisational, methodological, and writing and documentation (refer **Figure 2**). The

findings below mix both quantitative and qualitative data to provide a comprehensive understanding of the research writing challenges. The percentages indicate the proportion of students who found these challenges to be moderately to very difficult, offering insights into the areas where students struggle the most.

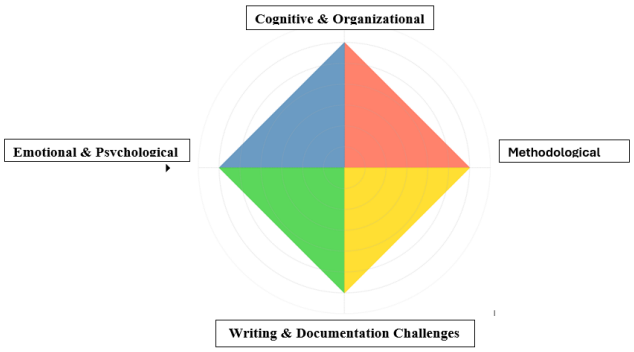


Figure 2. Student views of research challenges.

Participants, exemplified in MP3, described the intense pressure they experienced during the research process, highlighting the significant toll it took on their mental health.

> *I am constantly exhausted from trying to keep up with everything—it is like there is no end in sight. The deadlines are relentless, and it is really taking a toll on my mental health. I am always anxious about whether my work is good enough. (MP3).*

When viewed through Vygotsky's socio-cultural lens, each of our four challenge domains aligns with core SCT constructs. Emotional and psychological pressures (e.g., anxiety, burnout) signal points within students' Zone of Proximal Development where affective scaffolding by more knowledgeable others (instructors, peers) is necessary to support learner progression. Cognitive and organisational constraints (e.g., time management, teamwork coordination) reflect the gradual internalisation of executive functions that were first modelled and mediated by MKOs during collaborative planning activities. Methodological unfamiliarity (e.g., designing data collection tools, performing analyses) underscores the role of cultural tools, such as software, templates, and methodological guides, that MKOs introduce and scaffold until students can use them independently. Finally, writing, citation, and referencing challenges reveal gaps in students' mastery of disciplinary artefacts (academic phrasebooks, citation conventions), highlighting areas where targeted mediation and corrective feedback remain essential before full internalisation is achieved.

MP3 directly aligns with the quantitative results (refer **Table 1**). The emotional and psychological challenges reveal that research burnout (86.7%) is the most significant issue, reflecting high levels of stress among students. Deadline pressure (81.7%) and anxiety (78.4%) are also prominent concerns, indicating a need for time management and anxiety reduction resources. Additionally, students experienced a lack of motivation (73.4%) and feelings of incompetence (78.4%), suggesting that interventions aimed at boosting motivation and building self-confidence could be particularly beneficial.

Table 1. Statistical analysis of research challenges.

Category	Rank	Challenge	Percentage of Agreement
Emotional & Psychological	1	Research Burnout	86.7%
	2	Deadline Pressure	81.7%
	3	Anxiety	78.4%
	4	Lack of Motivation	73.4%
	5	Perceived Incompetence	78.4%
Cognitive & Organizational	1	Time Management	86.7%
	2	Balancing Teamwork and Individual Contribution	86.7%
	3	Organising Research	71.7%
	4	Selecting a Research Topic	66.6%
	5	Accessing Previous Studies	63.4%
Methodological	1	Designing Data Collection Tools	76.7%
	2	Accurate Data Analysis	73.4%
	3	Quantitative Data Analysis	76.7%
	4	Qualitative Data Analysis	76.7%
	5	Formulating Clear Research Questions	66.7%

Table 1. *Cont.*

Category	Rank	Challenge	Percentage of Agreement
Methodological	6	Ethical Approval	73.4%
	7	Using Data Collection Software	70%
	8	Data Collection	66.6%
Writing, Citations & Referencing	1	Writing the Discussion Section	76.7%
	2	Writing Research Results	75%
	3	Documenting In-Text Citations	71.7%
	4	Creating a Reference List	71.6%
	5	Writing an Engaging Introduction	70%
	6	Writing the Conclusion	66.6%
	7	Critical Writing in Literature Review	66.6%
	8	Argumentative Writing in Research	61.6%
	9	Creating an Appendix	63.3%

In terms of cognitive and organisational challenges, effective time management emerges as a critical challenge for most students (86.7%). Similarly, balancing teamwork with individual contributions is another major challenge (86.7%). The difficulty in organising research materials (71.7%) and selecting research topics (66.6%) further suggests that students would benefit from more structured support in the early stages of their research process. In comparison, the challenge of accessing previous studies (63.4%) highlights a need for improved resource availability and training on how to effectively search for relevant literature. Participants expressed significant challenges in managing their time and balancing group work responsibilities.

> *Managing my time is a constant challenge, especially when I try to balance my work and contribute to group projects. There seems to be never enough time to get everything done properly (FP4).*

FP4 align with the quantitative results mentioned above. These challenges underscore the need for targeted interventions, such as time management workshops and clearer guidelines for group projects, to help students manage their time more effectively and foster enhanced collaboration.

The methodological challenges are also significant, with designing data collection tools (76.7%), analysing both quantitative (76.7%) and qualitative data (76.7%), formulating clear research questions (66.7%), obtaining ethical approval (73.4%), and using specialised data collection software (70%). These challenges suggest a gap in methodological training that could be addressed through more hands-on workshops and practical sessions. Participants highlighted their difficulties with the technical aspects of research, particularly in designing data collection tools and accurately analysing data.

> *Designing the data collection tools was one of the most challenging aspects of the project for me. I did not feel like I had enough training to do it correctly, and it really slowed me down. (MP7).*

The MP7 quotes echo the quantitative results highlighted above, emphasising the need for more robust training in research design and data analysis. This suggests that hands-on workshops or tutorials could help students build the necessary skills to overcome these obstacles.

Finally, in the writing, citations, and referencing category, the following skills appeared to be challenging sequentially: writing the discussion section (76.7%), articulating research results (75%), documenting in-text citations (71.7%), creating reference lists (71.6%), writing engaging introductions (70%), conclusions (66.6%), and critical literature reviews (66.6%). Students expressed significant challenges with the above writing tasks that demand meticulous attention to detail.

> *Writing different sections of my research was much harder than I expected. I struggled to connect my findings to the broader discussion. Creating the reference list felt overwhelming, as I constantly worried about making mistakes. Setting up the context and clearly stating my research question in the introduction was unlike anything I did in essays. The literature review was especially tough because it was not just summarising articles—I had to critically*

analyse and connect them, which was more difficult than I imagined. (FP8).

4.2. Scaffolding in Practice

4.2.1. Supervisor Modelling: Guided Rhetorical Awareness

Participant FP5 recalled a pivotal moment during a one-on-one meeting with their supervisor, who explicitly walked them through an outline of a literature review. As FP5 recounted:

> *She [the supervisor] went through each heading and said, 'This is where you establish the gap, this part is your conceptual framing.' Then she would stop and say, 'Now, what would you put here?' It was like learning how to think about structure, not just content.*

This detailed walkthrough served as an example of social mediation, where the supervisor's think-aloud strategy enabled the student to engage metacognitively with the genre's rhetorical moves.

4.2.2. Peer Collaboration: Scaffolding Through Paraphrasing

In another case, scaffolding emerged through peer interaction. During a collaborative session in the writing centre, one student helped another decipher a dense theoretical source:

> *I couldn't really understand what the article was saying, and she just broke it down for me in simpler terms. Then I thought, 'Oh, I can use that to support my point here,' and I rewrote it in my own words. (FP8)*

This episode illustrates collaborative mediation, where peer support facilitated both comprehension and integration of complex content into academic writing.

4.3. From Mediated Activity to Independent Mastery

4.3.1. Internalisation of Sentence-Level Scaffolds

Participant MP12 described how structured sentence-combining tasks in earlier drafts evolved into autonomous use of complex academic structures:

> *"At first, I was copying the sentence templates from class. But by my third draft, I did not need them. I started writing more naturally—still academic, but my own."*

This shift from guided practice to spontaneous, context-appropriate use of academic syntax illustrates Vygotsky's concept of internalisation.

4.3.2. Personalisation of Cultural Tools

Several participants commented on the long-term impact of an academic phrasebook introduced in a writing workshop. Initially, a scaffold, the phrasebook evolved into a flexible resource. As one student put it:

> *I used to follow the phrasebook word for word, but later I took the idea and adapted the sentence to fit my own argument. It helped me sound more academic but also more like myself. (FP3)*

This demonstrates how cultural tools, once external, can be internalised and creatively adapted—evidence of the learner's increasing agency in academic discourse.

4.4. Factors Contributing to Students' Academic Research Challenges

Addressing the second research question, the study identified institutional, instructional, and personal factors contributing to students' challenges with academic research. The results in **Table 2** and **Figure 3** highlight a range of factors contributing to students' challenges with academic research.

Viewed through Vygotsky's socio-cultural framework, the three sets of contributing factors in **Table 2** and **Figure 3** can be understood as different forms of mediation and internalisation within students' ZPD. Institutional factors, such as research pressure, access to resources, and ethical approval procedures, operate as macro-level cultural tools and contextual supports or hindrances that delimit the boundaries of students' ZPD and scaffold what they can attempt with institutional backing. Instructional factors, notably the availability of research skill training, reflect direct scaffolding by more knowledgeable others (instructors and tutors)

who mediate students' appropriation of disciplinary methods and conventions. Finally, personal factors such as limited proficiency, lack of motivation, and emotional and psychological stress reveal areas where learners must internalise self-regulatory strategies first modelled within their ZPD; these internalised functions then enable independent management of research tasks. These mappings clarify how institutional, instructional and personal dimensions jointly shape L2 students' movement toward autonomous research competence.

Table 2. Factors contributing to students' challenges with research writing.

Main Factors	Sub-Factors	Specific Challenge	Percentage of Agreement
Institutional Factors	Research Pressure	Tight deadlines and expanding project scope cause significant pressure	53.3%
	Resource Access	Difficulty accessing necessary databases due to limited availability	41.7%
	Ethical Approval Process	The complexity of the ethical approval process and the lack of understanding of the guidelines	33.3%
Instructional Factors	Lack of Training in Research Skills	Difficulty writing clear and effective introductions due to a lack of knowledge	43.3%
		Difficulty selecting interesting research topics due to limited exposure to previous studies	28.3%
		Difficulty analysing research data due to a lack of proficiency with data analysis software	43.3%
		Lack of training in research methodology affects argument organisation and clarity	35%
		Lack of practical training in research methodologies	35%
		Challenges in developing a coherent research structure due to insufficient training and feedback	38.3%
Personal Factors	Emotional and Psychological Stress	Anxiety and stress during the research process impact focus and productivity	38.3%
	Lack of Motivation	Procrastination due to a lack of motivation	38.3%
	Limited Proficiency	Limited proficiency in the academic language impedes the clarity of writing	33.3%

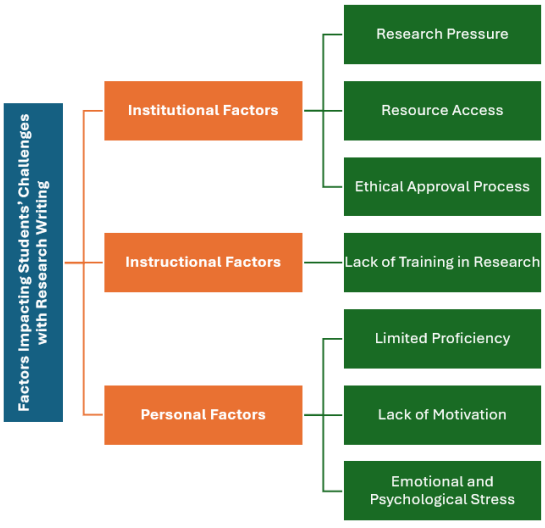


Figure 3. Factors contributing to student challenges with academic research.

4.4.1. Institutional Factors

Institutional challenges are significant, with 53.3% of students indicating that tight deadlines and expanding project scopes create substantial pressure. Additionally, 41.7% of students reported difficulty in accessing necessary databases due to limited availability, which hampers their ability to conduct comprehensive research. The complexity of the ethical approval process, coupled with a lack of understanding of the guidelines, was also noted as a challenge by 33.3% of students, highlighting the need for clearer guidance and support from institutions.

4.4.2. Instructional Factors

Instructional challenges are pervasive as students struggle due to a lack of training in research skills. Specifically, 43.3% of students found writing clear and effective introductions difficult, while 43.3% struggled with analysing research data effectively. The selection of research topics also posed a challenge for 28.3% of students, indicating that limited exposure to previous studies constrains their ability to choose relevant and interesting topics. Moreover, 35% of students reported difficulties in organising and presenting their arguments clearly due to inadequate training in research methodology. Additionally, 38.3% of students found it challenging to develop a coherent research structure.

4.4.3. Personal Factors

Personal factors also play a critical role in students' challenges with research writing. 38.3% of students reported emotional and psychological stress, such as anxiety and stress during the research process, as significantly impacting their focus and productivity. Similarly, another 38.3% of students cited a lack of motivation as a reason for procrastination. Additionally, 33.3% of students struggled with limited proficiency in academic language.

The thematic content analysis provided some insights into the negative impact of the identified factors on the research writing process, as evident in writer's block, lack of self-confidence, and balancing group and individual tasks.

Impact of Writer's Block on Research Progress

Writer's block significantly disrupts research progress for many students, leading to delays and increased time required to complete tasks. This challenge often results in heightened stress levels, reduced productivity, and difficulty maintaining focus and clarity during research activities.

> *I struggle with writer's block almost every time I start a new section. The frustration of not being able to articulate my thoughts is overwhelming, making it difficult for me to stay motivated. I end up spending hours on something that should take much less time. (FP4)*

Impact of Lack of Self-Confidence on Research

A lack of self-confidence severely impacts students' research performance. It leads to indecision, self-doubt, and hesitation in expressing ideas, which in turn causes anxiety, decreased productivity, and a lower quality of research output. This lack of confidence also contributes to psychological stress and a decline in self-efficacy.

> *I feel like I am not capable of producing quality research, and this self-doubt affects everything I do. It is stressful because I know I could do better, but I lack the confidence to push through. (MP7)*

Challenges with Balancing Group and Individual Tasks

Balancing group and individual tasks presents a significant challenge for many students. Effective time management is crucial, but it can be difficult to achieve, especially when dealing with uncooperative team members or unclear task assignments.

> *It is tough to coordinate with everyone in the group, especially when we all have different schedules. I find it difficult to prioritise my tasks while also contributing to the group's work. The lack of clear communication makes it even harder to manage. (FP6)*

The qualitative insights provided above align closely with the quantitative findings that highlight significant challenges in the areas of writer's block, self-confidence, and balancing group and individual tasks. The disruptions caused by writer's block and the psychological impact of self-doubt were echoed in the high percentages of students reporting stress and anxiety during the research process. Similarly, the challenges related to time management and team dynamics reflect the difficulties many students face in organising their

workload effectively, which was a recurring theme in both the qualitative and quantitative data. These insights underscore the need for targeted interventions to help students overcome these barriers and improve their research writing experiences.

4.5. Effective Interventions for Research Writing Challenges

Addressing the third research question, the study identified four proposed interventions: workshops and training sessions, guidance and support, access to resources, and personal development and well-being (refer **Figure 4**). The quantitative and qualitative data provide insight into the proposed interventions.

The results presented in **Table 3** highlight the importance of the proposed interventions in addressing the various challenges students encounter during the research writing process. Firstly, workshops and training sessions are particularly effective, especially in areas like building self-confidence (78.3%) and enhancing data analysis skills (71.7%). Secondly, guidance and support from professors, alongside structured sessions on topics such as conclusion writing (71.7%) and navigating ethical approval processes (55.0%), play a crucial role in refining research quality and keeping students on track throughout their projects. Thirdly, access to resources, including examples of research methods (65.0%) and educational sessions focused on organising supplementary materials (65.0%), offers the clarity and direction necessary for producing coherent and high-quality research. Lastly, personal development and well-being interventions, such as training in relaxation and mindfulness (65.0%) and the use of personal planning tools (66.7%), effectively address the emotional and organisational challenges that often hinder research progress.

The student-proposed interventions are divided into five strategies: skill development, expert guidance, emotional and motivational support, structured task management, and access to resources.



Figure 4. Proposed interventions for research writing challenges.

Table 3. Proposed interventions for research writing challenges.

Intervention Categories	Sub-Categories	Percentage of Agreement
Workshops and Training Sessions	Workshops on Building Self-Confidence	78.3%
	Training on Data Analysis Techniques	66.7%
	Online Tutorials and Support Forums	71.7%
	Group Workshops on Writing Research Results	66.7%
	Workshops on Creative Writing	60.0%
	Training on Designing Questionnaires and Tools	63.3%
Guidance and Support	Guidance on Key Elements of a Strong Conclusion	71.7%
	Peer Review Groups	63.3%
	Training on Citation Management Software	61.7%
	Assistance from Research Professors	61.7%
	Guided Sessions on Ethical Approval Processes	55.0%
Access to Resources	Access to Effective Examples of Research Methods Sections	65.0%
	Educational Sessions on Organising Supplementary Materials	65.0%
Personal Development and Well-Being	Training on Relaxation and Mindfulness	65.0%
	Personal Planning Tools	66.7%
	Motivational Seminars	60.0%

4.5.1. Skill Development Workshops

Workshops and training sessions are crucial for developing foundational research skills, especially in the early stages of research.

> *The data analysis workshops were a real turning point for me. Before attending, I had limited experience with the software, but after the sessions, I felt significantly more confident in managing my data. The early training sessions also had a huge impact—they helped me understand essential research and writing techniques that I know will be valuable throughout my academic journey.* (MP1)

MP1 underscore the significant impact of early workshops on student confidence and skill development. It highlights how data analysis sessions transformed his ability to handle software. It also emphasises that the research methods and writing techniques learned will benefit him throughout her academic journey.

4.5.2. Expert Guidance and Feedback

Continuous guidance and feedback from professors are critical during the research design and execution phases.

> *My professor's support was a lifesaver during the research design phase. Whenever I struggled, whether it was figuring out how to refine my research question or choosing the best methodology, she was always there to guide me through it. Similarly, my advisor's constant feedback was critical. His insights not only shaped how I approached my research but also kept me on the right track, ensuring I stayed focused. I could not have done it without them.* (FP3)

FP3 emphasises the value of personalised support during the research design phase, where refining questions and selecting methodologies can be particularly challenging. She points out that her advisor's consistent feedback was essential in shaping his research approach. These insights underscore the importance of having accessible, expert guidance to make informed decisions about complex research effectively.

4.5.3. Emotional and Motivational Support

Emotional support from faculty and peers, as well as motivational workshops, play a crucial role in maintaining students' focus, reducing stress, and sustaining their motivation throughout the research process.

> *There were times during data collection when I felt completely overwhelmed, but talking to my peers and professors really made a difference. Their support helped me push through. The motivational workshops at the start of the semester also played a huge role. They helped me set clear goals and stay focused, even when things got challenging.* FP10

FP10 highlight the importance of emotional and motivational support in the research process. She describes how the support from peers and professors was crucial in managing the overwhelming challenges of data collection, emphasising the need for a strong support network during intense research phases. She also reflects on the motivational workshops, noting how they were instrumental in setting clear goals and maintaining focus throughout the semester, even during difficult times.

4.5.4. Structured Task Management

Effective task management, especially in group projects, is vital for ensuring productivity and minimising conflicts.

> *Our group project went smoothly because we divided tasks and set deadlines early on, which helped us stay organised. Balancing individual and group work was challenging at first, but once we defined roles and maintained open communication, everything became much easier to manage.* (MP9).

MP9 highlights how setting clear deadlines and dividing tasks helped his group project run smoothly, demonstrating the value of structured planning in achieving successful collaboration. He acknowledges the initial challenge of balancing individual and group work but notes that once roles were clearly defined and communication was established, the process became much more manageable.

4.5.5. Access to Exemplary Resources

Access to well-structured examples during the research process—whether for research design, writing, or documentation—provides students with clarity and a roadmap for success.

> *Reading examples of previous research really helped me figure out how to structure my own work. It provided me with a clear understanding of what was expected and how to approach each section. Having those examples to reference felt like having a roadmap that guided me through the whole research design process.* (MP10).

MP10 highlight the significant impact of having access to examples of previous research. He explains how these examples provided clarity on structuring his own work and understanding what was expected for the project's successful completion.

In summary, targeted interventions such as workshops, professor guidance, emotional support, clear task management, and access to examples play a crucial role in helping students navigate the challenges of research writing. These strategies empower students to build confidence, stay focused, and produce high-quality research, underscoring the importance of continued, well-rounded support throughout the academic journey.

5. Discussion

In this section, we discuss the research findings in relation to previous research about L2 English university students' academic research challenges, the factors contributing to these challenges, and the proposed interventions.

5.1. Challenges in Research Writing

This study reveals that L2 English Arab university students in Qatar face significant challenges with academic research, including emotional stress, cognitive hurdles, methodological issues, and writing difficulties. The high incidence of burnout (86.7 %) and anxiety (78.4 %) highlights the need for targeted mental health interventions, introducing a novel perspective on how cultural and linguistic factors exacerbate these issues. While previous studies broadly address L2 student challenges, this study specifically highlights the intersection of being L2 English and Arab students in Qatar, expanding the understanding of how these identities compound writing difficulties.

This study adds to the literature by examining these issues within Qatar's unique context, where cultural expectations and academic standards create specific pressures [64]. The high levels of research burnout and anxiety observed not only align with findings from other regions but also reveal how regional academic rigour and cultural norms specifically impact the mental health of Arab students [65].

In comparison to other regions, previous research on Chinese international students abraod highlighted similar stressors [66]. However, the cultural expectations in Qatar add pressure on undergraduate students due to the balancing act between family responsibilities and academic demands. This difference highlights the unique intersectional challenges faced by L2 English-speaking Arab university students in Qatar, providing new insights into the broader understanding of L2 student experiences.

Regarding methodological challenges, this study contributes new insights by identifying gaps in practical research training among L2 English Arab university students in Qatar. While similar challenges were reported in previous research [67], our findings expand upon these by highlighting the compounded effect of limited methodological training and language barriers unique to this context. This novel focus on the interplay between culture, language, and methodology, adding significant value to the existing knowledge.

Writing challenges, particularly in crafting discussion sections (76.7 %) and managing citations (71.7 %), underscore a unique contribution: identifying specific academic writing tasks that are particularly problematic for this demographic. Unlike studies addressing L2 writing challenges more generally, this research highlights how linguistic and cultural expectations in Qatar complicate the mastery of specific academic writing conventions. This targeted understanding can inform more effective support programs tailored to L2 English Arab university students.

5.2. Factors Contributing to Academic Research Challenges

This study identifies the unique pressures faced by L2 English university students from Arab countries in Qatar.

Institutional factors, such as tight deadlines and expanding project scopes, intersect with cultural expectations that prioritise academic achievement and family responsibilities. This interaction creates distinct challenges for these students, emphasising the need for culturally tailored interventions [68].

Research shows that while time management and resource access are significant hurdles for L2 students globally, the additional cultural burdens specific to Qatar are less emphasised in the literature. These include pressures from cultural norms which are not as prevalent in Western contexts, such as those faced by international students in Australia [69]. To mitigate these pressures, structured time management workshops are proposed to help students prioritise tasks and balance academic and personal responsibilities effectively.

Access to research resources is another critical issue, with 41.7 % of students reporting difficulties accessing them. The lack of culturally and linguistically appropriate resources exacerbates these challenges, underscoring the need for enhanced access through partnerships between universities and libraries. Workshops on effective resource utilisation are recommended to bridge these gaps [70].

Instructional challenges in research skills also emerge as a significant barrier, with many students struggling with writing clear introductions and analysing data (43.3 %). The study advocates for culturally responsive research methodology courses that provide hands-on training tailored to the students' cultural and linguistic backgrounds, enhancing their ability to understand and apply research methodologies effectively [71].

Furthermore, personal factors like emotional stress and lack of motivation, reported by 38.3 % of students, are exacerbated by cultural expectations linked to gender and academic success. This study emphasises the importance of integrating culturally sensitive well-being programs, proposing workshops on relaxation, stress management, and motivational strategies to address emotional and motivational barriers and enhance research engagement [72].

5.3. Effective Interventions

The study proposes several key interventions tailored to the cultural and psychological needs of L2 English-speaking Arab university students. For example, while workshops and training sessions are commonly recommended, this study specifically contextualises them to address the unique challenges posed by the intersection of culture and language in Qatar. This contextualisation offers new insights into more effective intervention designs [72]. These interventions could be implemented in Qatari universities through structured programs that focus on addressing both academic and cultural challenges. Faculty training sessions could ensure culturally responsive instruction, and mentorship programs pairing students with faculty or peers who share similar cultural backgrounds could enhance support networks [73].

Challenges such as faculty resistance to culturally responsive methods or logistical difficulties in coordinating mentorship programs may arise. To overcome these challenges, institutions could pilot interventions in select departments to gather effective data and refine the approach before implementing it more widely. Engaging faculty in discussions on cultural sensitivity and offering incentives for training could help mitigate resistance.

Continuous guidance from professors is crucial. This study adds a new dimension by suggesting that mentorship programs include cultural sensitivity training for faculty, ensuring support is academically robust and culturally appropriate. This recommendation builds on current understandings of mentorship by integrating cultural competency as a critical component [73].

Access to resources, such as research method examples (65.0 %) and sessions on organising supplementary materials (65.0 %), was also identified as significant for improving research outcomes. This study focuses on the need for culturally and linguistically relevant resources, a gap that has been overlooked in previous research. Advocating for these resources introduces a novel approach to enhancing research experiences for L2 English Arab university students [70].

Finally, personal development interventions, including relaxation and mindfulness training (65.0 %) and the use of personal planning tools (66.7 %), were effective in managing emotional and organisational challenges. This study makes a unique contribution by emphasising the need to integrate these strategies with cultural and gender-specific considerations, offering a more holistic support approach that has not been fully explored in the literature [72].

Before embracing these interventions, it is essential to recognise the limited resources and the need for institutional support in some contexts. Many universities operate under tight budgets and demanding faculty workloads. These obsta-

cles can make launching new workshops or mentoring initiatives challenging. To address this issue, we suggest forming a small steering committee comprising passionate faculty members, librarians, and student representatives. This group can collaboratively refine the intervention's goals, assess the necessary resources, and seek initial support from academic leaders. Involving key stakeholders can develop a strong case and explore potential funding opportunities, both internally and externally.

Once the planning phase is complete, conducting a pilot implementation within a single department or cohort can yield valuable formative data without overwhelming institutional capacity. For instance, a culturally tailored writing workshop series could be held over one semester, with attendance meticulously tracked and participant feedback gathered through brief surveys and focus groups. This pilot data can then be analysed to assess changes in self-reported confidence, satisfaction with the workshops, and observable improvements in writing skills. With these preliminary findings in hand, the steering committee can refine instructional materials, craft a succinct business case, and pursue broader scale-up opportunities, whether by reallocating internal funds or seeking external grants. Ongoing monitoring, including quarterly steering committee meetings, attendance logs, and periodic self-efficacy surveys, will ensure that the program remains responsive to student needs and aligned with institutional resources, ultimately enhancing the feasibility and sustainability of the proposed interventions.

6. Conclusions

This study highlighted the academic research challenges faced by L2 English Arab university students in Qatar. These challenges are deeply rooted in the intersection of culture, gender, and language, creating unique pressures that have been underexplored in existing research. The high levels of burnout, anxiety, and difficulties in methodological training, alongside specific writing challenges, underscore the need for targeted interventions. This research demonstrates that culturally sensitive support systems, such as skill development workshops, continuous academic guidance, and improved access to culturally relevant resources, can significantly enhance the research experiences and outcomes for these students.

6.1. Implications and Recommendations

The findings of this study reveal critical implications across three main areas: institutional, instructional, and personal factors. The study highlights how tight deadlines and expanding project scopes, combined with cultural expectations, significantly contribute to student burnout and anxiety. Institutions should implement structured time management workshops that are specifically designed to help students prioritise tasks, set realistic deadlines, and effectively balance their academic and personal responsibilities. Additionally, enhancing access to culturally and linguistically relevant academic resources is vital. Universities should expand their libraries and online databases to include materials that cater to the specific research interests and linguistic needs of L2 English Arab students. Institutions should also provide training on effective resource utilisation to ensure students can navigate these resources efficiently.

The study underscores the inadequacy of current instructional strategies in addressing the unique needs of these students, particularly in research methodology. Implementing culturally responsive research methodology courses is recommended, with a focus on hands-on training that considers the students' cultural and linguistic backgrounds. Faculty development programmes should be established to train educators in culturally responsive teaching methods, ensuring that instruction is not only academically rigorous but also culturally relevant and accessible to these students.

The research identifies significant emotional and motivational challenges exacerbated by cultural expectations related to gender and academic achievement. Integrating mental health and well-being programmes tailored to the cultural context of these students is crucial. These programmes should include workshops on relaxation techniques, stress management, and culturally sensitive motivational strategies to help reduce stress and increase student engagement with their research. Furthermore, personal development interventions such as mindfulness training and the use of personal planning tools can provide students with strategies to manage their emotional and organisational challenges more effectively. By addressing these institutional, instructional, and personal factors through targeted, culturally sensitive interventions, institutions can create a more supportive and effective learning environment for L2 English Arab university students in Qatar.

6.2. Limitations & Further Research

While this study provides valuable insights, it is not without limitations. The research focused exclusively on L2 English Arab university students in Qatar, which may limit the generalisability of the findings to other contexts or demographics. Additionally, the sample size was relatively small, which could limit the extent to which the findings can be applied to the broader population. The study also relied on self-reported data, which may have been influenced by personal biases or the desire to conform to perceived expectations. The cultural specificity of the research may also necessitate adaptation of the proposed interventions when applied in different cultural or educational settings. Future research should explore the challenges and interventions discussed in this study across a broader range of contexts and student demographics. Comparative studies between different cultural and educational environments would be valuable in understanding how these challenges manifest and how interventions can be tailored to meet the needs of diverse student populations. Additionally, longitudinal studies could provide deeper insights into the long-term effectiveness of the proposed interventions, helping to refine strategies for supporting L2 students in higher education globally.

Author Contributions

Conceptualisation, A.M.A., L.M.R., and N.F.A.-D.; methodology, A.M.A., L.M.R., and N.F.A.-D.; data collection and validation, L.M.R.; formal analysis, A.M.A. and N.F.A.-D.; writing original draft preparation, A.M.A.; review and editing, L.M.R. and N.F.A.-D.; visualisation, A.M.A. and L.M.R.; project administration, A.M.A. and L.M.R. All authors have read and agreed to the published version of the manuscript.

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Informed Consent Statement

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Data Availability Statement

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Conflicts of Interest

The authors declare that they have no conflict of interest.

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