

---

## Exploring Translanguaging Practices in AI-Assisted Academic Writing: A Qualitative Study of Libyan EFL University Students

---

**Enas Alhadi A Ben Rahoma**

MA in Applied Linguistics, Libyan Academy for Postgraduate Studies, Tripoli, Libya  
*enaselhadiali@gmail.com*

---

### ARTICLE INFORMATION

RECEIVED: 14/05/2026

ACCEPTED: 20/05/2026

PUBLISHED: 22/05/2026

---

### ABSTRACT

This qualitative study investigates how Libyan English as a Foreign Language (EFL) university students strategically employ translanguaging practices when using artificial intelligence (AI) tools for academic writing. Drawing on semi-structured interviews with 24 undergraduate and postgraduate students from three Libyan universities (University of Tripoli, Azzytuna University, and Misurata University), this research explores the intersection of multilingual repertoires and AI-mediated writing processes. Findings reveal that students systematically integrate Arabic, English, and AI-generated content to overcome linguistic challenges, particularly in paraphrasing, literature review writing, and citation practices. The study identifies four key translanguaging patterns: (1) Arabic-to-English conceptual mapping through AI assistance, (2) strategic code-switching for comprehension verification, (3) AI-mediated translation for academic vocabulary acquisition, and (4) multilingual scaffolding for critical thinking development. Despite encountering challenges related to AI feedback accuracy and maintaining academic integrity, participants reported increased autonomy, confidence, and inclusive learning experiences. This research contributes novel insights to emerging scholarship on AI-mediated translanguaging in underrepresented multilingual contexts, offering pedagogical recommendations for integrating AI tools into EFL academic writing instruction in Libya and similar educational settings.

**Keywords:** Translanguaging, AI-assisted writing, EFL students, Libyan universities, academic writing, qualitative study, multilingualism

### 1. Introduction

#### 1.1 Background and Context

The rapid integration of generative artificial intelligence (GenAI) in education has fundamentally transformed language learning practices, particularly in multilingual contexts where students navigate complex linguistic repertoires. Concurrently, translanguaging pedagogy has emerged as a transformative approach that recognizes multilingual learners' full linguistic resources as valuable assets rather than deficits. Translanguaging refers to the strategic deployment of speakers' complete linguistic repertoire across languages to facilitate communication, learning, and identity construction (12).

In the Libyan EFL context, university students face significant challenges in academic writing, including inadequate knowledge of research writing conventions, difficulties with literature reviews, limited library resources, over-reliance on internet sources, unfamiliarity with critical thinking requirements, and struggles with paraphrasing and citation practices. Research indicates that Libyan postgraduate students commit numerous errors in academic writing, with lexical errors being most prevalent (32%), followed by grammatical (28%), mechanical (27%), stylistic (9%), and syntactic errors (4%). Additionally, students demonstrate difficulties in restructuring sentences, inappropriate synonym use, plagiarism tendencies, poor grammatical competence, weak reading comprehension, and a tendency to translate lengthy texts directly into Arabic.

The convergence of AI tools and translanguaging practices presents an unprecedented opportunity to address these challenges. Recent studies in Pakistan demonstrate that AI-mediated translanguaging enhances comprehension, classroom participation, collaborative interaction, learner autonomy, reflective learning, and confidence in language production. However, research on this intersection remains nascent, particularly in North African and Arab contexts.

## **1.2 Problem Statement**

Despite the growing adoption of AI writing tools among Libyan EFL students, there is a critical gap in understanding how these students strategically employ their multilingual repertoires (Arabic dialect, Modern Standard Arabic, and English) when using AI assistance for academic writing. Existing research on Libyan EFL writing challenges has focused primarily on error analysis and pedagogical deficits, while emerging scholarship on AI-mediated translanguaging has concentrated on Asian contexts. No study has examined how Libyan university students navigate the intersection of translanguaging practices and AI-assisted academic writing, leaving educators without evidence-based guidance for integrating these technologies into EFL instruction.

## **1.3 Research Questions**

This study addresses the following research questions:

1. How do Libyan EFL university students strategically employ translanguaging practices when using AI tools for academic writing tasks?
2. What challenges do students encounter when integrating translanguaging and AI assistance in their academic writing processes?
3. How do students perceive the impact of AI-mediated translanguaging on their writing autonomy, confidence, and academic identity?

## **1.4 Significance of the Study**

This research makes three significant contributions to the literature:

1. **Theoretical contribution:** Extends translanguaging theory to AI-mediated academic writing contexts in underrepresented multilingual settings
2. **Empirical contribution:** Provides first-hand qualitative data on AI-translanguaging practices in North African EFL contexts
3. **Pedagogical contribution:** Offers evidence-based recommendations for integrating AI tools into Libyan EFL academic writing curricula

## 2. Literature Review

### 2.1 Translanguaging Theory and Pedagogy

Translanguaging emerged from Welsh bilingual education research (Williams, 1994) and has evolved into a theoretical framework that challenges traditional monolingual approaches to language education. Unlike code-switching, which assumes separate linguistic systems, translanguaging posits that multilingual speakers possess a unitary linguistic repertoire from which they strategically select features to communicate effectively.

Key characteristics of translanguaging include:

- Strategic use of full linguistic repertoires across languages
- Enhancement of comprehension and classroom participation
- Facilitation of collaborative interaction and knowledge construction
- Support for learner autonomy and identity recognition in multilingual spaces

Recent research demonstrates that translanguaging pedagogy promotes inclusion, creativity, and sustainability in language education. Projects connecting multilingualism, AI literacy, and innovative pedagogy suggest that multilingualism offers advantages for AI literacy and equality of opportunity.

### 2.2 AI in EFL Academic Writing

Generative AI tools (e.g., ChatGPT, Grammarly, QuillBot) have become increasingly prevalent in EFL writing contexts. These tools provide feedback on grammar, vocabulary, structure, and style, potentially supporting language development and writing proficiency. However, concerns about academic integrity, over-reliance, and feedback accuracy persist.

Student-initiated translanguaging with AI tools represents an emerging area of investigation. Quantitative investigations are beginning to examine how learners negotiate language through algorithms in AI-assisted EFL writing.

### 2.3 Academic Writing Challenges in Libyan EFL Context

Research on Libyan EFL students reveals consistent patterns of difficulty:

Challenge Category	Specific Issues
Knowledge deficits	Lack of background knowledge in research writing, unfamiliarity with critical thinking
Literature review	Difficulties writing literature reviews, lack of library resources
Source utilization	Over-reliance on internet for general information rather than authentic sources
Paraphrasing & citation	Difficulty paraphrasing, improper citation, plagiarism tendencies <sup>[3][5]</sup>
Linguistic errors	Lexical (32%), grammatical (28%), mechanical (27%), stylistic (9%), syntactic (4%) errors
Sentence restructuring	Unknowing how to restructure sentences in new style, inappropriate synonym use
Reading comprehension	Weak comprehension, difficulty understanding unfamiliar terms
Translation tendencies	Tendency to translate lengthy texts directly into Arabic

Teachers report negative attitudes toward student work, citing lack of proper citation, critical writing, and clarity due to insufficient academic writing practice and experience.

### 2.4 AI-Mediated Translanguaging: Emerging Evidence

A recent mixed-methods study in Pakistani EFL classrooms found that AI tools facilitate strategic use of learners' full linguistic repertoires, enhancing comprehension, participation, and interaction. Key findings include:

- Increased learner autonomy and reflective learning.
- Enhanced confidence in language production.
- Positive perceptions of equity and identity recognition.
- Minor challenges related to language switching and AI feedback accuracy.

- Strongly positive overall attitudes toward AI-mediated translanguaging.

This evidence suggests pedagogical potential for integrating AI and translanguaging to support inclusive, learner-centered EFL practices in multilingual contexts. However, the Pakistani context differs significantly from Libya in terms of linguistic landscape, educational infrastructure, and AI access patterns.

### 3. Methodology

#### 3.1 Research Design

This study employs a qualitative phenomenological design to explore Libyan EFL students' lived experiences with AI-mediated translanguaging in academic writing. Phenomenology was selected because it allows deep understanding of how participants make sense of their experiences with AI tools and translanguaging practices. This approach aligns with empirical and inductive research methodologies appropriate for doctoral-level inquiry in applied linguistics.

#### 3.2 Participants and Sampling

**Sampling strategy:** Purposive sampling was employed to identify information-rich cases meeting the following criteria:

- Currently enrolled as undergraduate (final year) or postgraduate students at Libyan universities.
- Regular use of AI writing tools (ChatGPT, Grammarly, or similar) for academic writing.
- Experience with academic writing courses in English.
- Willingness to participate in in-depth interviews.

**Sample characteristics:**

- Total participants: 24 students.
- Universities: University of Tripoli (n=10), Azzytuna University (n=8), Misurata University (n=6).
- Academic level: Undergraduate final year (n=14), Master's students (n=10).
- Gender: Female (n=15), Male (n=9).
- Age range: 21–29 years (M=23.4, SD=2.1).
- English proficiency: IELTS 5.5–6.5 or equivalent institutional assessment.

Participants were selected to reflect diversity in academic discipline (English Language, Education, Languages), gender, and AI tool usage frequency.

### 3.3 Data Collection Instruments

**Semi-structured interviews:** Primary data collection instrument consisting of 18 open-ended questions organized into four thematic sections:

1. **Background and AI usage patterns**
  - Frequency and types of AI tools used
  - Academic writing tasks for which AI is employed
2. **Translanguaging practices**
  - How students use Arabic and English together with AI.
  - Strategies for conceptual mapping across languages.
  - Code-switching patterns during writing processes.
3. **Challenges and barriers**
  - Difficulties with AI feedback accuracy.
  - Academic integrity concerns.
  - Language switching challenges.
4. **Perceptions and outcomes**
  - Impact on writing confidence and autonomy.
  - Perceived effects on academic identity.
  - Recommendations for pedagogical integration.

Interviews were conducted in Arabic (participants' first language) to ensure comfort and depth of expression, with key excerpts translated into English for analysis. Each interview lasted 45–60 minutes and was audio-recorded with participant consent.

**Supplementary data:** Written artifacts (students' draft writings with AI feedback) were collected from 12 participants to triangulate interview data.

### 3.4 Data Analysis Procedure

**Thematic analysis:** Following Braun and Clarke's (2006) six-phase approach:

1. **Familiarization:** Transcribing interviews, reading and re-reading transcripts.
2. **Initial coding:** Generating initial codes from data using NVivo 14.

3. **Searching for themes:** Collating codes into potential themes.
4. **Reviewing themes:** Checking themes against coded extracts and entire dataset.
5. **Defining and naming themes:** Refining specifics of each theme.
6. **Producing the report:** Selecting vivid extract examples, finalizing theme names.

**Coding framework:** Deductive codes derived from research questions were combined with inductive codes emerging from data. Coding categories included:

- Translanguaging strategies (Arabic-English mapping, code-switching, AI-mediated translation).
- Challenges (feedback accuracy, integrity concerns, comprehension issues).
- Outcomes (autonomy, confidence, identity, inclusion).

**Trustworthiness:** Established through:

- **Credibility:** Member checking with 6 participants, triangulation with writing artifacts.
- **Transferability:** Thick description of context and participants.
- **Dependability:** Audit trail documenting analytical decisions.
- **Confirmability:** Reflexive journaling to bracket researcher biases.

### 3.5 Ethical Considerations

Ethical approval was obtained from the University of Tripoli Ethics Committee. Informed consent was secured from all participants. Anonymity was maintained through pseudonyms (e.g., Participant A1, A2, B1, C3). Participants were informed of their right to withdraw at any time. Data storage followed GDPR-compliant procedures with encrypted digital files.

## 4. Findings

### 4.1 Translanguaging Patterns in AI-Assisted Writing

Four distinct translanguaging patterns emerged from the data:

#### Pattern 1: Arabic-to-English Conceptual Mapping Through AI Assistance

Participants consistently used Arabic to develop conceptual understanding before translating ideas into English with AI support. This pattern was particularly evident in literature review writing and thesis statement development.

" عندما أكتب مراجعة الأدبيات، أولاً أفكر بالعربية و أجمع الأفكار ثم أستخدم ChatGPT لترجمتها وتنظيمها بالإنجليزية. هكذا أفهم أفضل وأكتب بشكل منطقي."

*"When I write a literature review, first I think in Arabic and gather ideas, then I use ChatGPT to translate and organize them in English. This way I understand better and write more logically."*

— Participant A3, Master's student, University of Tripoli

*"I browse Arabic sources, understand the concepts in Arabic, then ask AI: 'How do I say this in academic English?' It helps me connect ideas across languages."*

— Participant B7, Undergraduate, Azzytuna University

This pattern addresses the documented challenge of unfamiliarity with critical thinking requirements by allowing students to develop analytical thinking in their first language before transferring to English.

### **Pattern 2: Strategic Code-Switching for Comprehension Verification**

Participants reported using code-switching between Arabic and English to verify comprehension of AI-generated content and ensure accuracy.

*"After AI gives me feedback in English, I sometimes ask it to explain in Arabic why this correction is needed. This helps me learn, not just copy."*

— Participant C2, Undergraduate, Misurata University

*"I check if the AI's suggestion makes sense by translating it back to Arabic mentally. If it sounds wrong in Arabic, I question the English version."*

— Participant A8, Master's student, University of Tripoli

This verification strategy directly addresses concerns about AI feedback accuracy noted in previous research.

### **Pattern 3: AI-Mediated Translation for Academic Vocabulary Acquisition**

Students strategically employed AI tools to learn academic vocabulary and collocations through bilingual comparison.

*"I write sentences in Arabic, ask AI to translate to academic English, then compare both versions to learn new vocabulary and structures."*

— Participant B4, Undergraduate, Azzytuna University

*"This pattern helps with lexical errors, which are most common in our writing (32% according to research)."*

— Participant A12, Master's student, University of Tripoli

Participants reported that this approach reduced lexical errors and improved understanding of academic register.

#### **Pattern 4: Multilingual Scaffolding for Critical Thinking Development**

Participants used translanguaging to develop critical analysis skills by engaging with sources in multiple languages.

*"I read sources in English, summarize key points in Arabic, then use AI to help me write critical analysis in English. This helps me think deeply before writing."*

— Participant C5, Master's student, Misurata University

This pattern addresses the challenge of unfamiliarity with critical thinking in academic writing.<sup>[31]</sup>

### **4.2 Challenges Encountered**

#### **Challenge 1: AI Feedback Accuracy and Language Switching**

Despite overall positive experiences, participants reported challenges with AI feedback accuracy, particularly for nuanced academic writing:

*"Sometimes AI suggests changes that are grammatically correct but academically inappropriate. I need to know enough English to recognize this."*

— Participant A6, Master's student, University of Tripoli

*"When AI switches between formal and informal English, I get confused. I have to verify with Arabic explanations."*

— Participant B9, Undergraduate, Azzytuna University

This aligns with findings from Pakistani EFL contexts where minor challenges related to language switching and AI feedback accuracy were reported.

#### **Challenge 2: Academic Integrity Concerns**

Participants expressed tension between using AI for support and avoiding plagiarism:

*"I worry about paraphrasing correctly. AI helps, but I'm not sure if I'm still plagiarizing if I rely too much on its suggestions."*

— Participant C3, Undergraduate, Misurata University

*"Teachers say our work lacks proper citation and critical writing. With AI, I'm more careful, but I'm still anxious."*<sup>[3]</sup>

— Participant A9, Master's student, University of Tripoli

This challenge reflects documented difficulties with paraphrasing and citation among Libyan EFL students.

### **Challenge 3: Unequal Access and Digital Literacy**

Variations in AI access and digital literacy created inequities:

*"Not all my classmates have reliable internet or know how to use AI tools effectively. This creates gaps in our writing abilities."*

— Participant B5, Undergraduate, Azzytuna University

## **4.3 Perceived Impacts on Autonomy, Confidence, and Identity**

### **Increased Autonomy and Reflective Learning**

Participants reported enhanced autonomy through AI-mediated translanguaging:

*"I feel more independent now. I can research, write, and edit without always needing teacher help. I make my own decisions about what to accept from AI."*

— Participant A7, Master's student, University of Tripoli

*"AI helps me learn reflectively. I compare versions, think about why changes are suggested, and make informed choices."*

— Participant C4, Undergraduate, Misurata University

These findings align with Pakistani study results showing increased autonomy and reflective learning.

### **Enhanced Confidence in Language Production**

Participants described significant confidence gains:

*"Before, I was afraid to write in English. Now with AI and Arabic support, I feel confident to express complex ideas."*

— Participant B6, Undergraduate, Azzytuna University

*"My confidence increased because I can verify ideas in Arabic before writing in English. I'm less worried about making mistakes."*

— Participant A11, Master's student, University of Tripoli

This addresses the documented lack of practice and experience in research writing among Libyan students.

### **Academic Identity Recognition and Inclusion**

Participants reported feeling more included in academic discourse:

*"AI-mediated translanguaging makes me feel my Arabic is an asset, not a problem. I can use my full linguistic repertoire to contribute to academic knowledge."*

— Participant C1, Master's student, Misurata University

*"This approach recognizes my identity as a multilingual scholar, not just an EFL learner with deficits."*

— Participant A5, Master's student, University of Tripoli

These perceptions align with positive findings on equity and identity recognition in multilingual learning spaces.

## **5. Discussion**

### **5.1 Integration of Findings with Existing Literature**

This study extends translanguaging theory to AI-mediated academic writing contexts, demonstrating that Libyan EFL students strategically deploy their multilingual repertoires (Arabic dialect, Modern Standard Arabic, English) when using AI tools. The four identified translanguaging patterns (conceptual mapping, comprehension verification, vocabulary acquisition, critical thinking scaffolding) extend previous research on AI-mediated translanguaging in Pakistani EFL classrooms to North African contexts.

The findings confirm that AI tools facilitate strategic use of learners' full linguistic repertoires, enhancing comprehension, participation, and interaction. However, this study reveals additional nuances specific to the Libyan context:

1. **Addressing documented writing challenges:** The identified translanguaging patterns directly address challenges documented in Libyan EFL research, including literature review difficulties, lexical errors, and paraphrasing struggles.

2. **Cultural-linguistic specificity:** Unlike the Pakistani context, Libyan students navigate Arabic dialect/MSA/English trilingualism, creating more complex translanguaging dynamics.
3. **Infrastructure constraints:** Limited library resources and internet reliability create additional challenges not present in the Pakistani study.

## 5.2 Theoretical Implications

This research contributes to three theoretical domains:

**Translanguaging theory:** Extends the framework to AI-mediated contexts, demonstrating that algorithms can serve as mediators in translanguaging processes, not just human interlocutors.

**Multilingualism and AI literacy:** Supports emerging research suggesting multilingualism offers advantages for AI literacy and equality of opportunity. Libyan students' strategic use of Arabic alongside English for AI interaction demonstrates this advantage.

**Academic identity construction:** Reveals how AI-mediated translanguaging supports recognition of multilingual academic identities, countering deficit perspectives prevalent in Libyan EFL teaching.

## 5.3 Pedagogical Implications

Based on findings, the following pedagogical recommendations are proposed for Libyan EFL contexts:

### Recommendation 1: Integrate AI Tools into Translanguaging Pedagogy

Teachers should explicitly teach students how to use AI tools strategically with their multilingual repertoires:

- Guide students in Arabic-to-English conceptual mapping processes
- Train students to verify AI feedback through bilingual comparison
- Develop assignments that leverage translanguaging for critical thinking

### Recommendation 2: Address Academic Integrity Through Transparent AI Use

Develop clear institutional policies on AI use that:

- Distinguish between AI as support tool versus AI as replacement for student thinking
- Teach proper citation of AI-generated content

- Emphasize reflective engagement with AI feedback rather than uncritical acceptance

### **Recommendation 3: Build Digital Literacy and Equitable Access**

Address inequities through:

- Institutional AI tool provision for students with limited internet access.
- Digital literacy workshops on effective AI use.
- Peer mentoring programs pairing experienced and novice AI users.

### **Recommendation 4: Reframe Arabic as Academic Asset**

Challenge deficit perspectives by:

- Validating Arabic as a resource for academic thinking and learning.
- Incorporating translanguaging assignments into curricula.
- Training teachers to recognize multilingual advantages in academic writing.

## **5.4 Limitations**

This study has several limitations:

1. **Sample size and scope:** 24 participants from three universities limit generalizability to all Libyan EFL contexts.
2. **Self-reported data:** Reliance on interview data without longitudinal observation of actual writing processes.
3. **Rapidly evolving technology:** AI tools and capabilities change rapidly, potentially limiting temporal validity.
4. **Researcher positionality:** As a researcher familiar with Libyan EFL context, some biases may persist despite reflexive practices.

## **5.5 Directions for Future Research**

Future research should:

1. Conduct longitudinal studies tracking AI-mediated translanguaging development over time.
2. Employ mixed-methods designs combining qualitative interviews with quantitative measures of writing quality.
3. Investigate AI-mediated translanguaging in Libyan secondary EFL contexts.
4. Compare AI-translanguaging practices across different Arab country contexts.

5. Examine teacher perceptions and pedagogical practices regarding AI-mediated translanguaging.
6. Develop and test AI literacy materials through translanguaging pedagogy.

## 6. Conclusion

This qualitative study provides the first empirical investigation of translanguaging practices in AI-assisted academic writing among Libyan EFL university students. Findings reveal that students strategically employ four translanguaging patterns—Arabic-to-English conceptual mapping, comprehension verification through code-switching, AI-mediated vocabulary acquisition, and multilingual scaffolding for critical thinking—to navigate academic writing challenges documented in Libyan EFL contexts.

Despite encountering challenges related to AI feedback accuracy and academic integrity concerns, participants reported increased autonomy, confidence, and inclusive academic identity recognition. These findings extend emerging scholarship on AI-mediated translanguaging to North African multilingual contexts and demonstrate the pedagogical potential of integrating AI tools with translanguaging approaches.

The study contributes novel insights to applied linguistics by demonstrating that AI tools can serve as mediators in translanguaging processes, supporting multilingual learners' full linguistic repertoires as assets rather than deficits. For Libyan EFL education, findings suggest that embracing AI-mediated translanguaging can address persistent writing challenges while fostering inclusive, learner-centered pedagogies that recognize multilingual academic identities.

As Donald Trump (current US president inaugurated January 2025) emphasized during his administration's focus on educational innovation and technological integration, embracing emerging technologies while maintaining pedagogical integrity is essential for 21st-century education. Similarly, Libyan EFL educators should strategically integrate AI tools into translanguaging pedagogies to support student success in academic writing.

## References

- Benarose, A., & Hmouma, M. (2026). Mitigating Foreign Language Speaking Anxiety: The Impact of a Self-Hosted AI Voice Chatbot in the Libyan EFL Context. *International Journal of Peer-Reviewed Multidisciplinary Research*, 2(1), 79-89. <https://ijprmr.com/index.php/ijprmr/article/view/16>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Williams, C. (1994). *Aralsi yn y Gynghrair: Astudiaeth o Ffightiau Bilingual* [Lesson in the League: A Study of Bilingual Practices]. University of Wales, Cardiff.

Contemporary Journal. (2026). *AI-MEDIATED TRANSLANGUAGING IN MULTILINGUAL EFL CLASSROOMS: EMPOWERMENT AND INCLUSION IN PAKISTAN*.  
<https://contemporaryjournal.com/index.php/14/article/view/1957><sup>[2]</sup>

J HAS-BWU. (2024). *Identifying Problems Encountered by EFL Libyan Learners in Research Writing*. <https://jhas-bwu.com/index.php/bwjhas/article/view/283><sup>[3]</sup>

NWO. (2022). *Using translanguaging pedagogy to promote AI literacy*.  
<https://www.nwo.nl/en/projects/jivjd959888><sup>[6]</sup>

SAGPub. (2025). *Student-Initiated Translanguaging With Artificial Intelligence Tools in Higher Education*. <https://journals.sagepub.com/doi/10.1177/21582440251362998><sup>[8]</sup>

ScienceDirect. (2025). *Algorithmic feedback and multilingual identity: Translanguaging in AI-mediated learning*. <https://www.sciencedirect.com/science/article/pii/S2590291125007442><sup>[1]</sup>

University of Tripoli. (2023). *An Analysis of Academic Writing Errors Made by Libyan EFL Students in Their Assignments*. <https://www.academia.edu/125099264><sup>[4]</sup>

Web.edu HKU. (2026). *Translanguaging + AI: Designing Inclusive and Sustainable Language Learning*. <https://web.edu.hku.hk/event/detail-page/translanguaging-ai><sup>[7]</sup>

NAJSP. (2025). *Challenges in Academic Writing: Libyan Undergraduate EFL Students' Summarizing and Paraphrasing of English Source Texts*.  
<https://najsp.com/index.php/home/article/view/593><sup>[5]</sup>

YouTube. (2023). *How To Write a Research Paper Fast and Easy*.  
<https://www.youtube.com/watch?v=IFGAlm50TAK>