

The Effects of Inquiry-Based Learning on Critical Thinking Skills in Argumentative Essay Writing: A Study of Advanced Level English Language Learners

Mohammed Hussain Fathima Husna

PhD in Education(R), MEd, BA in English Language, National Diploma in ELT, Diploma in Early Childhood Education and Teacher Training, Sri Lanka

Corresponding author

Mohammed Hussain Fathima Husna, PhD in Education(R), MEd, BA in English Language, National Diploma in ELT, Diploma in Early Childhood Education and Teacher Training, Sri Lanka

Received: September 01, 2026; **Accepted:** September 14, 2026; **Published:** September 29, 2026

ABSTRACT

Writing argumentative essays is one of the most demanding tasks facing second-language learners, requiring not only linguistic competence but also the capacity to reason, weigh evidence, and organise ideas persuasively. This study examines the impact of Inquiry-Based Learning (IBL) on the critical thinking skills that underlie argumentative essay writing among Advanced Level English Language learners in Sri Lanka. Using a pre-experimental, time-series design, thirty students selected through comprehensive sampling completed three argumentative essay writing pre-tests, received a four-week IBL intervention, and then completed three parallel post-tests. Quantitative data were analysed descriptively in Microsoft Excel, while qualitative data from focus group discussions and student reflective journals were analysed narratively. Mean essay scores rose from the high 30s in the pre-tests to the mid-60s in the post-tests, and error analysis using rubric showed marked reductions across content, organisation, vocabulary, language use, and mechanics, with mechanics-related errors, particularly capitalisation, remaining the most persistent difficulty. Qualitative findings indicated that students developed stronger interpretation, analysis, evaluation, inference, explanation, and self-regulation skills [1]. The findings support IBL as an effective pedagogical approach for developing critical thinking in second-language writing instruction and carry implications for curriculum design, teacher training, and further research into inquiry-driven language pedagogy.

Keywords: Inquiry-Based Learning, Critical Thinking, Argumentative Essay Writing, English as A Second Language, Writing Pedagogy, Advanced Level Students

Introduction

English is taught as a second language in Sri Lankan schools, and among the four core skills, writing is widely regarded as the most demanding because it requires learners to merge ideas and opinions into coherent written form. Constructing meaningful sentences, organising a composition logically, and applying correct grammar, vocabulary, capitalisation, and punctuation remain persistent challenges for learners, and the English Language teacher plays a central role in equipping students with the strategies needed to overcome them [2].

Working as an English teacher in a government school, the researcher observed that Advanced Level students performed adequately when writing on tightly specified topics but struggled considerably when required to question, explore, and construct explanations independently -precisely the demands of

argumentative essay writing. The traditional, teacher-centred method of instruction offered these students little opportunity to develop the underlying critical thinking skills. Inquiry-Based Learning (IBL), by contrast, engages learners in analysing concrete data and constructing their own understanding, and has been shown to support the development of ideas and content for writing tasks.

An argumentative essay is a piece of writing in which the author expresses a position supported by evidence, with the goal of persuading the reader. Producing one requires the writer to select and understand a topic, marshal evidence, and organise the resulting argument-skills that are cognitively demanding for second-language learners who are simultaneously managing the linguistic demands of English. This study investigates whether an IBL approach can address both the linguistic and cognitive dimensions of this challenge.

The research was guided by the following questions:

- Why do learners face difficulty writing argumentative

Citation: Mohammed Hussain Fathima Husna. The Effects of Inquiry-Based Learning on Critical Thinking Skills in Argumentative Essay Writing: A Study of Advanced Level English Language Learners. *J Journalism Media Manag.* 2026. 2(3): 1-4. DOI: doi.org/10.61440/JJMM.2026.v2.51

essays?

- How effective is IBL in increasing critical thinking skills among learners?
- How can this effect be assessed?
- Does IBL develop critical thinking skills?
- What teaching methods support the implementation of IBL for essay writing?

The corresponding objective was to identify the effects of an IBL approach on the critical thinking skills of Advanced Level students who struggle with argumentative essay writing, and, more specifically, to identify the problems learners encounter, analyse the development of their critical thinking skills through IBL, and consider the implications for learners' use of these skills beyond the classroom.

Literature Review

Writing is a recursive, multidimensional process that draws on content knowledge, organisational strategy, vocabulary, control of language conventions, and mechanical accuracy. Effective writing instruction therefore needs to address these dimensions in combination rather than in isolation, and a substantial body of research has examined which pedagogical models best support this integration [3].

Inquiry-Based Learning positions students as active investigators rather than passive recipients of instruction. It shares conceptual ground with problem-based learning and design-based learning, both of which place learners in the position of identifying questions, gathering and evaluating evidence, and constructing explanations [4]. Applied to writing instruction, IBL typically proceeds through stages of orientation, conceptualisation, investigation, conclusion, and discussion, during which learners generate their own topics, gather and evaluate information, draft with evidence, seek feedback from peers, and revise.

Critical thinking—commonly decomposed into interpretation, analysis, evaluation, inference, explanation, and self-regulation—is widely identified as a key outcome of inquiry-driven instruction. A finding consistent with the theoretical rationale for applying IBL to argumentative writing, where the writer must anticipate counter-arguments and support claims with reasoned evidence [5].

Reflective practice is also central to the IBL model. Although some students are initially reluctant to engage in self-evaluation, viewing it as the teacher's domain, sustained reflection has been shown to move learners from external to intrinsic motivation and to improve academic performance [6,7]. Focus group discussion, as a qualitative method, is similarly valuable for capturing not only what students think but how and why they think it, through the interactive exchange it generates among participants [8].

Taken together, the literature suggests that IBL is theoretically well-suited to argumentative essay writing instruction, but relatively little prior research has examined its effects specifically within this genre, as opposed to writing instruction in general—a gap this study addresses.

Methodology

Research Design

The study adopted a combined qualitative and quantitative pre-experimental design using a time-series structure with a single group of participants. Students completed three consecutive argumentative essay pre-tests, received a four-week IBL intervention, and then completed three consecutive, comparable post-tests. The independent variable was the IBL approach; the dependent variables were the pre-test and post-test essay scores.

Participants

Thirty Advanced Level students were selected from a cohort of 300 using comprehensive sampling. All participants had previously completed workshops covering communicative English and basic-to-intermediate writing, providing a comparable baseline of prior instruction.

Instruments and Procedure

Data were collected through three instruments: timed essay tests, focus group discussions, and student reflective journals. Each test was scored against an argument rubric addressing focus and organisation, evidence and elaboration, and writing conventions, drawing on the error-analysis framework of covering content, organisation, vocabulary, language use, and mechanics [1]. Three experienced graduate resource persons, trained on the rubric, scored the essays; inter-rater reliability, calculated using Pearson's correlation, was 0.85. The intervention consisted of four weeks of IBL-based instruction in which students selected their own topics, gathered and evaluated evidence, drafted essays, exchanged feedback with peers, and revised their work. A focus group discussion and reflective journal entries were collected following the intervention to capture qualitative data on students' developing critical thinking skills.

Data Analysis

Quantitative data were analysed descriptively using Microsoft Excel, comparing mean pre-test and post-test scores. Qualitative data from the focus group discussion and reflective journals were analysed narratively, with responses grouped according to the six critical thinking sub-skills examined: interpretation, analysis, evaluation, inference, explanation, and self-regulation.

Results

Quantitative Findings

Mean essay scores were similar across the three pre-tests (38.15, 38.00, and 38.35) and across the three post-tests (65.90, 65.70, and 66.25), indicating that the intervention produced a consistent gain of roughly 27 to 28 points on average, rather than a result driven by a single test occasion.

Table 1: Frequency and Percentage of Student Errors Across Five Writing Dimensions (Aggregated Pre-and Post-Test Essays)

Dimension	Pre-test errors	Post-test errors	Reduction
Content	41	23	44%
Organisation	44	25	43%
Vocabulary	116	62	47%
Language use	87	47	46%
Mechanics	123	83	33%

Across all five dimensions, error frequency fell substantially between the pre- and post-test essays. Vocabulary and language-use errors—largely word choice, prepositions, and subject-verb agreement—showed the largest proportional reductions, while mechanics, dominated by capitalisation and punctuation, remained the single largest source of error in both phases, accounting for 47% of all documented errors in the pooled pre-test analysis. Content and organisation errors were comparatively infrequent throughout, suggesting that students' underlying grasp of argumentative structure was less problematic than their command of surface-level conventions.

A supplementary questionnaire administered during the focus group discussion asked students to identify specific sources of difficulty. Sixty-seven percent reported difficulty developing paragraphs and using appropriate formal language; fifty-three percent reported difficulty constructing logical arguments and arranging sentences; and forty percent reported difficulty writing conclusions. Difficulty selecting a topic was comparatively rare, reported by only thirty-three percent of students, suggesting that once a topic was chosen, the harder challenges lay in organisation, argumentation, and language control rather than topic generation itself.

Qualitative Findings

Focus group discussions and reflective journal entries converged on similar themes across the six critical thinking sub-skills. Students described a new ability to interpret controversial themes and paraphrase source material in their own words; to analyse relationships between claims and identify supporting or opposing evidence; to evaluate the credibility and logical strength of competing arguments; to draw inferences and reach reasoned conclusions from gathered evidence; to explain their reasoning to persuade an audience; and to self-regulate by monitoring, questioning, and revising their own judgements during the writing process. Several students specifically noted that, prior to the intervention, they had rarely produced essays they considered persuasive, and that the IBL process changed how they approached evidence and audience.

Discussion

The consistent gap between pre-test and post-test mean scores, together with the qualitative accounts of improved reasoning, indicates that the IBL intervention had a measurable effect on students' argumentative writing and the critical thinking skills that underlie it. This is broadly consistent with finding that inquiry-based activity improves EFL students' capacity to examine, evaluate, and explain information, and extends that finding to the specific genre of argumentative essay writing, which places particularly high demands on evaluative and inferential reasoning [5].

At the same time, the persistence of mechanics-related errors—particularly capitalisation and punctuation—after the intervention suggests that IBL's benefits are concentrated more in the cognitive and organisational dimensions of writing than in surface-level accuracy, which may require more targeted, form-focused instruction alongside an inquiry-driven approach. This distinction has practical significance: a purely inquiry-based curriculum may need to be paired with explicit mechanics instruction to address the full range of difficulties learners face.

The study's design, a single-group pre-test/post-test structure without a comparison group, means that the observed gains cannot be attributed to IBL with the same confidence as a controlled experimental design would allow; maturation, practice effects, and the general effect of sustained essay-writing practice cannot be fully ruled out. Nonetheless, the convergence of quantitative score gains with qualitative reports of specific, skill-by-skill improvement in interpretation, analysis, evaluation, inference, explanation, and self-regulation strengthens the case that the intervention itself, rather than practice alone, was a meaningful contributor.

Conclusion and Recommendations

This study set out to examine the difficulties Advanced Level students face in writing argumentative essays and to test whether an Inquiry-Based Learning approach could address these difficulties by developing students' critical thinking skills. The findings indicate that IBL is associated with substantial gains in essay scores and with qualitative improvements across all six critical thinking sub-skills, while mechanics-related errors, especially capitalisation, remain the most resistant area of difficulty.

For classroom practice, the findings suggest that teachers introducing IBL should pair it with explicit attention to writing mechanics, begin units with open-ended, curiosity-driving questions, gradually transfer responsibility for inquiry to students as their proficiency develops, and use authentic assessment formats such as portfolios or presentations alongside conventional testing. For students, the findings point to the value of sustained, reflective practice in argumentative writing, particularly in planning and revising drafts before submission. For future research, replication with a control group, application to other essay genres, and longer intervention periods would help to establish the durability and generalisability of the gains observed here.

Overall, the study adds to the evidence base for inquiry-driven pedagogy in second-language writing instruction, and specifically extends prior work on IBL and critical thinking into the underexamined context of argumentative essay writing among Advanced Level EFL learners in Sri Lanka.

References

1. Jacobs HL, Zinkgraf SA, Wormuth DR, Hartfiel VF, Hughey JB. Testing ESL composition: A practical approach. Newbury House. 1981. https://www.researchgate.net/publication/247716030_Testing_ESL_Composition_a_Practical_Approach.
2. Graham S, Perin D. A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*. 2007. 99: 445-476.
3. Graham S. Effective writing instruction for all students. Renaissance Learning. 2016. https://www.researchgate.net/publication/242695295_Effective_Writing_Instruction_for_All_Students.
4. Barrows H. Problem-based learning in medicine and beyond: A brief overview. In L. Wilkerson & H. Gijsselaers (Eds.), *Bringing problem-based learning to higher education: Theory and practice*. Jossey-Bass. <https://onlinelibrary.wiley.com/doi/10.1002/tl.37219966804>.

5. Ghaemi F, Mirsaeed SJG. The impact of inquiry-based learning approach on critical thinking skill of EFL students. *EFL Journal*. 2017. 2: 89-102.
6. Cavilla D. The effects of student reflection on academic performance and motivation. *SAGE Open*. 2017. 7: 1-13.
7. Yancey KB. Reflection in the writing classroom. Utah State University Press. 1998. https://www.jstor.org/content/oa_book_monograph/j.ctt46nsh0.
8. Kitzinger J. Qualitative research: Introducing focus groups. *BMJ*. 1995. 311: 299-302.