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THE IMPORTANCE OF RESEARCH LITERACY IN PREPARING COMPETITIVE ENGLISH LANGUAGE TEACHERS

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Abstract: Research literacy has become an essential professional competence for English language teachers in the knowledge-based society, enabling them to evaluate educational evidence critically, implement innovative teaching strategies, and engage in continuous professional development. The increasing internationalization of education requires future teachers to possess not only linguistic and pedagogical expertise but also the ability to access, interpret, synthesize, and apply scientific research in classroom practice. This study examines the role of research literacy in preparing competitive English language teachers through a mixed-methods research design. Quantitative findings indicate significant improvements in research competence, instructional decision-making, and academic confidence, while qualitative evidence reveals enhanced reflective practice and critical thinking. The study highlights the necessity of integrating research literacy into teacher education curricula to strengthen professional competitiveness.

Keywords: research literacy, English language teacher education, teacher competitiveness, evidence-based teaching, academic literacy, higher education, critical thinking, professional competence, mixed-methods research, lifelong learning, educational innovation.

Introduction The contemporary educational landscape is characterized by rapid technological advancement, globalization, and increasing expectations regarding teacher professionalism. These developments have fundamentally transformed the role of English language teachers, who are now expected not only to demonstrate linguistic proficiency and pedagogical expertise but also to interpret scientific evidence, evaluate educational innovations, and make informed instructional decisions. Consequently, research literacy has emerged as one of the defining competencies of competitive English language teachers capable of adapting to changing educational environments and contributing to the continuous improvement of teaching quality (Darling-Hammond, 2021).

Research literacy refers to the ability to locate, evaluate, interpret, synthesize, and apply scientific evidence in educational practice. Unlike traditional research methodology courses that primarily emphasize theoretical concepts, research literacy focuses on developing practical competencies enabling teachers to become informed consumers and producers of educational research. International studies suggest that teachers possessing high levels of research literacy demonstrate greater instructional effectiveness, stronger reflective practice, improved problem-solving abilities, and higher levels of professional autonomy (Borg, 2018; OECD, 2023). Similarly, UNESCO (2021) emphasizes that evidence-informed educational decision-making has become a key indicator of teacher quality in modern education systems.

Although previous research has examined teacher competence, academic literacy, and reflective practice separately, comparatively few empirical studies have investigated research literacy as a

comprehensive professional competence within English language teacher education, particularly in developing higher education contexts. Addressing this gap, the present study aims to investigate the contribution of research literacy to preparing competitive English language teachers by examining its impact on professional competence, evidence-based instructional decision-making, academic confidence, and lifelong professional development through a mixed-methods research approach.

Methods

The present study adopted a sequential explanatory mixed-methods research design, integrating quantitative and qualitative approaches to examine the role of research literacy in preparing competitive English language teachers. The selection of a mixed-methods design was based on the assumption that quantitative findings alone would not sufficiently explain the complex relationship between research literacy and professional teacher competence. Therefore, qualitative evidence was employed to complement statistical results and provide deeper insights into participants' experiences, perceptions, and professional development (Creswell & Creswell, 2023).

The research was conducted during the 2025–2026 academic year at two higher education institutions offering bachelor's degree programs in English Language Teaching. A total of 102 third-year pre-service English language teachers voluntarily participated in the study. Using purposive sampling, participants were divided into an experimental group (n = 51) and a control group (n = 51). Prior to the intervention, both groups demonstrated comparable English language proficiency (CEFR B2 level), cumulative grade point averages, and introductory knowledge of educational research. Ethical approval was obtained from the institutional research committee, and all participants signed informed consent forms guaranteeing voluntary participation, anonymity, and confidentiality throughout the investigation.

The intervention lasted 15 weeks and was integrated into the teacher education curriculum. Students in the experimental group participated in a Research Literacy Development Program (RLDP) designed specifically for English language teacher education. The program consisted of six instructional modules: identifying educational problems, searching international academic databases (Scopus, ERIC, Web of Science, and Google Scholar), evaluating research quality, interpreting quantitative and qualitative findings, applying research evidence to lesson planning, and communicating research results through academic presentations and reflective reports. The instructional model emphasized inquiry-based learning, collaborative research projects, problem-based learning, peer review, and reflective practice. In contrast, the control group followed the standard curriculum, which focused primarily on theoretical aspects of research methodology without systematic application to pedagogical practice.

For the quantitative phase, participants completed a standardized Research Literacy Competency Assessment (RLCA) before and after the intervention. The assessment instrument measured six dimensions of research literacy: information retrieval, critical evaluation of scholarly literature, research interpretation, data literacy, evidence-based instructional decision-making, and academic communication. Each dimension was evaluated using a five-level analytical rubric with a maximum score of 100 points. Instrument reliability was confirmed through Cronbach's Alpha ($\alpha = 0.94$), indicating excellent internal consistency. Data analysis was conducted using IBM SPSS Statistics 27, employing descriptive statistics, paired-samples t-tests, independent-samples t-tests, Pearson correlation analysis, and Cohen's d effect size calculations. Statistical significance was established at $p < 0.05$, while confidence intervals were calculated at the 95% level to improve the robustness of the findings.

The qualitative phase sought to investigate participants' perceptions regarding the practical value of research literacy in their professional preparation. Data were collected through 20 semi-structured interviews, classroom observations, weekly reflective journals, focus-group discussions, and portfolio analysis. Interview questions explored participants' confidence in locating scientific evidence,

applying research findings to instructional planning, evaluating educational innovations, and engaging in reflective professional practice. Classroom observations documented participants' interactions during collaborative inquiry activities, while portfolios included lesson plans, research summaries, literature reviews, and reflective essays developed throughout the intervention.

Qualitative data were analyzed using Braun and Clarke's (2022) thematic analysis framework, involving systematic coding, categorization, and interpretation of recurring themes. To ensure credibility and trustworthiness, the study employed triangulation across multiple data sources, member checking, peer review, and independent coding by two experienced educational researchers. Quantitative and qualitative findings were subsequently integrated during the interpretation stage to identify convergent and complementary patterns. This methodological approach enabled a comprehensive evaluation of how research literacy contributes to the preparation of competitive English language teachers by combining objective statistical evidence with authentic professional experiences.

Results and Discussion

The findings of the study demonstrate that the systematic development of research literacy significantly enhanced the professional competence of pre-service English language teachers. The integration of quantitative and qualitative findings revealed that participants who completed the Research Literacy Development Program (RLDP) not only achieved higher research literacy scores but also demonstrated greater confidence in evidence-based instructional decision-making, reflective teaching, and professional problem-solving. The convergence of statistical evidence with participants' reflections confirms that research literacy constitutes a fundamental component of competitive teacher preparation rather than merely an additional academic skill.

Prior to the intervention, the independent-samples t-test revealed no statistically significant difference between the experimental and control groups ($p > 0.05$). The baseline findings indicated that both groups possessed similar levels of information retrieval skills, research interpretation, and academic communication. Following the fifteen-week intervention, however, the experimental group demonstrated statistically significant improvements across all measured dimensions of research literacy.

Table 1. Comparative Results of Research Literacy Competencies among Pre-service English Language Teachers

Research Literacy Competency	Experimental Group (Pre-test)	Experimental Group (Post-test)	Control Group (Post-test)
Information Retrieval	66.2	91.5	76.8
Critical Evaluation of Literature	61.8	89.7	72.9
Research Interpretation	63.4	90.8	74.1
Data Literacy	59.7	88.6	70.5
Evidence-based Teaching Decisions	62.1	92.4	73.7
Academic Communication	65.6	91.2	77.3
Overall Mean Score	**63.1**	**90.7**	**74.2**

Source: Developed by the author based on the results of the pedagogical experiment (2026).

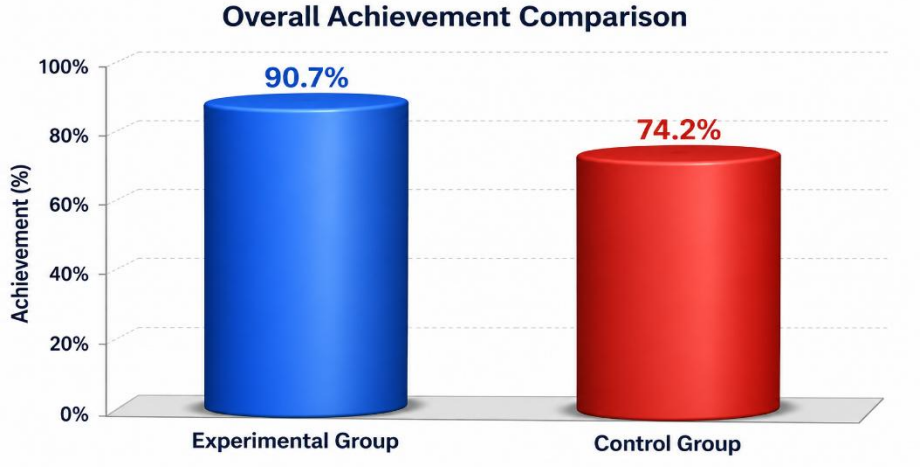
As presented in Table 1, the experimental group demonstrated a substantial increase in all research literacy indicators following participation in the Research Literacy Development Program. The overall mean score increased from 63.1 to 90.7, whereas the control group achieved an average score of only 74.2 after completing the traditional curriculum. The highest level of improvement was observed in evidence-based teaching decisions, where participants improved from 62.1 to 92.4. This finding indicates that systematic engagement with scientific literature and empirical evidence enables future teachers to make more informed pedagogical decisions rather than relying solely on intuition or routine instructional practices.

Significant progress was also identified in critical evaluation of scholarly literature**,** increasing from 61.8 to 89.7**.** Throughout the intervention, participants learned to distinguish between high-quality and low-quality research, interpret methodological limitations, compare empirical findings, and identify implications for classroom practice. These outcomes are consistent with Hyland (2019), who emphasizes that research literacy develops through continuous interaction with authentic academic literature and reflective analysis rather than through theoretical instruction alone.

Inferential statistical analysis confirmed the effectiveness of the intervention. The post-test comparison revealed a statistically significant difference between the experimental and control groups **(**$t = 7.14$, $p < 0.001$**).** Furthermore, the calculated Cohen's $d = 1.31$ indicates a large educational effect, suggesting that the intervention produced meaningful improvements in research literacy. Pearson correlation analysis also demonstrated a strong positive relationship between research literacy and professional teaching competence **(**$r = 0.84$, $p < 0.001$**)**, implying that participants with higher research literacy were more likely to demonstrate confidence in instructional planning, classroom problem-solving, and reflective decision-making.

To illustrate the comparative post-intervention achievement, Figure 1 summarizes the overall performance of both groups.

Figure 1. Overall Research Literacy Achievement after the Intervention



Source: Prepared by the author based on quantitative research findings (2026).

Figure 1 clearly demonstrates the effectiveness of integrating research literacy into English language teacher education. The difference of approximately 16.5 percentage points between the two groups confirms that structured research literacy instruction substantially contributes to professional competence development.

The qualitative findings further explain these statistical improvements. Thematic analysis of interviews, classroom observations, focus-group discussions, and reflective journals generated four major themes: development of evidence-based professional thinking**,** enhanced confidence in

educational decision-making, strengthened reflective practice, and increased readiness for lifelong professional learning.

Participants consistently reported that before the intervention they relied primarily on textbooks and instructors' recommendations when planning lessons. After completing the Research Literacy Development Program, however, they increasingly searched for recent empirical studies, compared different pedagogical approaches, and selected teaching strategies supported by scientific evidence.

One participant explained:

"Previously, I accepted teaching methods without questioning their effectiveness. Now I first examine research findings before deciding how to organize my lessons."

Another participant noted:

"Learning how to evaluate journal articles helped me distinguish reliable educational recommendations from unsupported opinions. This has made me much more confident as a future teacher."

Reflective journals demonstrated a gradual transition from descriptive reflections toward analytical and evidence-based professional reasoning. Students increasingly referred to concepts such as validity, reliability, systematic review, empirical evidence, triangulation, and research ethics when discussing classroom challenges. Classroom observations likewise showed that participants became more active during collaborative lesson planning, frequently supporting their instructional decisions with findings obtained from recent educational studies.

Portfolio analysis further confirmed these developments. Compared with assignments produced at the beginning of the semester, final portfolios contained more comprehensive literature reviews, stronger theoretical justification, clearer research-based lesson planning, and more sophisticated reflective analyses. Participants also demonstrated improved competence in interpreting statistical findings and integrating research evidence into pedagogical recommendations.

These findings support previous studies emphasizing that research-literate teachers are more capable of implementing evidence-based instruction, adapting to educational innovations, and engaging in continuous professional development (Borg, 2018; Darling-Hammond, 2021). Rather than functioning solely as consumers of educational knowledge, research-literate teachers become reflective practitioners capable of generating context-specific solutions to classroom challenges through systematic inquiry.

Conclusion

The findings of the present study confirm that research literacy represents one of the most significant professional competencies in preparing competitive English language teachers. The integration of research literacy into teacher education not only improves prospective teachers' ability to access, evaluate, and apply scientific knowledge but also strengthens their pedagogical reasoning, reflective practice, and professional autonomy. The quantitative findings demonstrated statistically significant improvements in research literacy competencies, including information retrieval, critical evaluation of scholarly literature, data interpretation, academic communication, and evidence-based instructional decision-making. These improvements were further supported by qualitative evidence showing that participants developed greater confidence in solving educational problems through systematic inquiry and scientific reasoning.

The results indicate that research literacy should be considered a core component of English language teacher education rather than an optional or supplementary competence. Future teachers who possess advanced research literacy are better prepared to adapt to educational reforms, evaluate innovative teaching approaches critically, and implement instructional strategies supported by empirical evidence. Such competencies contribute directly to teacher competitiveness in both national and international educational contexts by promoting continuous professional learning and informed pedagogical practice.

From a practical perspective, teacher education institutions should redesign curricula to incorporate research literacy throughout all stages of professional preparation. Research-oriented learning activities, systematic literature analysis, classroom-based inquiry, collaborative research projects, and digital research platforms should become integral components of teacher education programs. Moreover, greater emphasis should be placed on developing students' abilities to interpret educational data, conduct reflective classroom investigations, and disseminate research findings through academic conferences and scholarly publications.

Although the present study provides valuable empirical evidence, several limitations should be acknowledged. The research was conducted within two higher education institutions over a single academic semester, which may limit the generalizability of the findings. Future investigations should include larger and more diverse participant samples, longitudinal research designs, and comparative international studies to examine the long-term impact of research literacy on professional teacher development. Furthermore, future research should investigate the contribution of artificial intelligence, learning analytics, digital academic databases, and open science practices to the development of research literacy among English language teachers. Such investigations will support the modernization of teacher education and contribute to preparing globally competitive educators capable of responding effectively to the evolving demands of twenty-first-century education.

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