THE IMPACT OF PROJECT-BASED LEARNING ON ENGLISH LANGUAGE PROFICIENCY AND LEARNER AUTONOMY IN HIGHER EDUCATION: A MIXED-METHODS RESEARCH PROPOSAL

Teacher at G‘ijduvon District Technical College No. 4

Sharipova Gulchiroy Sohib qizi

Abstract

Project-based learning (PBL) has attracted growing attention in language education because it provides opportunities for learners to use language to investigate meaningful questions, collaborate with peers, and produce tangible outcomes. Nevertheless, evaluating its educational value requires attention to both language development and learner autonomy. This article proposes a mixed-methods investigation into the relationship between project-based English language instruction, language proficiency, and autonomous learning among university students in an English as a Foreign Language (EFL) context. The proposed study adopts a quasi-experimental design in which an intervention group participates in structured project-based learning while a comparison group follows the institution’s regular English language instruction. Quantitative data are to be collected through pre-intervention and post-intervention language assessments and a learner-autonomy questionnaire. Qualitative evidence is to be obtained through semi-structured interviews, student reflections, and selected project artefacts. Quantitative analysis will examine changes in outcomes over time and differences between groups, while qualitative thematic analysis will explore students’ experiences, perceived benefits, and implementation challenges.

Keywords: project-based learning; English language teaching; learner autonomy; language proficiency; higher education; mixed-methods research.

Introduction

English language proficiency is an important educational objective in higher education, where students may need to communicate in academic, professional, and

intercultural settings. However, learning a language involves more than memorising grammatical rules or reproducing vocabulary. Learners also need opportunities to use English purposefully, negotiate meaning, evaluate information, and communicate ideas to different audiences. These demands encourage educators to consider instructional approaches that connect classroom learning with meaningful communicative activity.

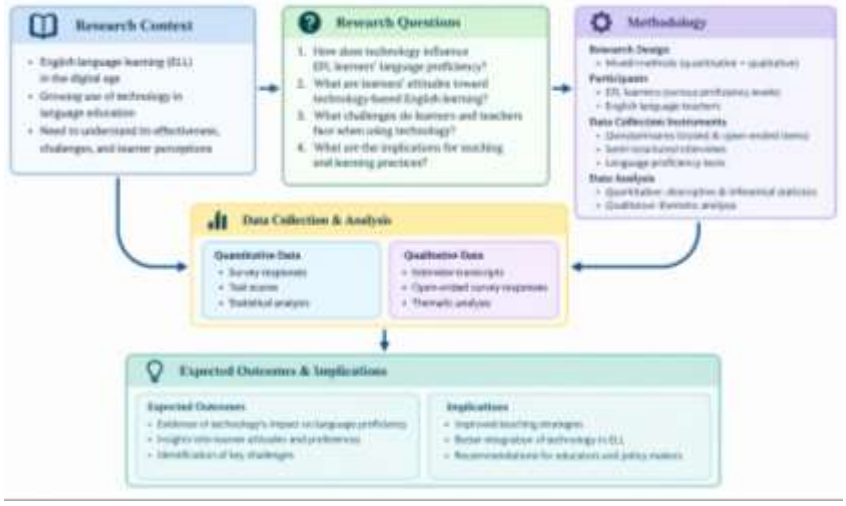
Project-based learning (PBL) offers one possible approach. In a project-based classroom, students work over an extended period to investigate a question, address a problem, or develop a product for a defined audience. A project may involve preparing a local tourism guide in English, conducting a small-scale campus survey, producing an environmental awareness campaign, or developing a presentation about a community issue. Such activities can create a context in which reading, writing, speaking, and listening contribute to a shared objective rather than being practised only as isolated skills.

The educational rationale for PBL is compatible with communicative and learner-centred approaches to language teaching. Learners use language to achieve a purpose, while teachers organise tasks, provide linguistic support, monitor progress, and give feedback. However, the existence of meaningful tasks does not automatically guarantee language development. Project activities may provide uneven opportunities for participation, and students with stronger language skills may dominate group work. Time constraints, assessment difficulties, and differences in individual motivation may also influence implementation. These issues make systematic evaluation necessary.

A second consideration is learner autonomy. In language education, autonomy concerns learners' capacity to participate actively in decisions about their learning, set goals, select strategies, monitor progress, and reflect on outcomes. Autonomy does not mean that students must learn without teachers. Rather, it involves developing the knowledge and skills needed to manage learning with appropriate guidance. Project work may create opportunities for autonomy because students have to distribute responsibilities, plan activities, identify information needs, and revise their work. Nevertheless, whether these opportunities result in measurable changes in autonomous learning requires empirical investigation.

Existing research has examined project-based approaches in language education and has also considered learner autonomy as a distinct area of inquiry. Reviews of project-based language learning provide a foundation for understanding the range of activities and outcomes investigated in previous studies. Research on learner autonomy, meanwhile, highlights the diversity of its definitions, assessment approaches, and educational applications (Chong & Reinders, 2025; Fikria et al., 2025). These bodies of literature suggest the value of studying language outcomes and learning processes together rather than assuming that improvements in one necessarily indicate improvements in the other.

The study is relevant to EFL contexts in which English is taught as a foreign language and learners may have limited opportunities to use it beyond the classroom. Its contribution will depend on the context in which it is implemented, the quality of its measurement instruments, and the transparency of its analysis. Rather than presuming that PBL is universally superior to other approaches, the study treats its effectiveness as an empirical question.



Conceptual framework of project-based learning, english language proficiency, and learner autonomy

2. Research problem and objectives

The central research problem concerns the relationship between project-based English language instruction, language proficiency, and learner autonomy. Although project work is often associated with authentic communication and student participation, its contribution

to these outcomes should be assessed through appropriate measures and contextual evidence.

The study has four objectives:

1. To examine changes in English language proficiency among students participating in project-based instruction.
2. To compare these changes with those observed among students receiving regular English language instruction.
3. To investigate whether participation in project work is associated with changes in learner autonomy.
4. To explore students' perceptions of the benefits, difficulties, and learning processes associated with project-based instruction.

The study will also examine whether qualitative accounts help explain patterns observed in the quantitative data.

3. Research questions and hypotheses

The study is guided by the following questions:

RQ1: To what extent do students participating in project-based English language instruction demonstrate changes in language proficiency compared with students receiving regular instruction?

RQ2: To what extent do learner-autonomy measures change over the course of the intervention, and how do these changes compare between groups?

RQ3: How do students describe their experiences of planning, collaboration, language use, and self-directed learning during project-based instruction?

RQ4: How do qualitative findings help explain similarities or differences in the quantitative outcomes?

Where the study design and statistical assumptions permit, the following hypotheses will be examined:

H1: The change in language proficiency from pre-test to post-test differs between the project-based learning group and the comparison group.

H2: The change in learner-autonomy scores from pre-intervention to post-intervention differs between the two groups.

These are non-directional hypotheses. They do not assume that PBL will necessarily produce better outcomes. Directional claims should be justified by a sufficiently developed theoretical argument and the relevant prior evidence before the analysis is conducted.

4. Literature review and theoretical framework

4.1. Project-based learning in language education

Project-based learning organises instruction around sustained engagement with a meaningful question, problem, or product. In language education, projects may involve research, interviews, collaborative writing, presentations, or the creation of materials for a real or simulated audience. Language is used as a means of completing the project while also remaining an explicit learning objective.

The distinction between project-based learning and occasional project work is important. A single poster-making activity does not necessarily constitute a full PBL approach. A more systematic implementation includes a driving question, sustained inquiry, student decision-making, feedback and revision, a public or authentic product, and reflection on the learning process. The extent to which these features are present should be documented when describing the intervention.

PBL may offer opportunities for integrated-skills practice. Students can read sources, discuss interpretations, draft written materials, listen to peer feedback, and present conclusions. Such integration is pedagogically plausible, but the presence of these activities should not be confused with demonstrated gains in proficiency. Learning outcomes depend on factors such as task difficulty, language support, instructional time, and the quality of assessment.

A useful review of project-based language learning is provided by Adilah (2023), which examines research on PBL in English language teaching. Fikria et al. (2025) offer a more recent systematic review of technology-enhanced project-based language learning. Although the latter focuses on technology-supported projects, it is relevant to

understanding the diversity of project formats and the need for more clearly specified research designs.

4.2. Learner autonomy in english language learning

Learner autonomy concerns learners' active involvement in managing their learning. It may include identifying learning needs, setting goals, selecting resources, planning study activities, monitoring progress, evaluating performance, and adjusting strategies. These behaviours are related to self-regulated learning, although the concepts are not identical in every theoretical framework.

Project work can create conditions in which autonomous learning is practised. For example, students may need to agree on a project objective, decide which sources to consult, distribute tasks, identify vocabulary gaps, and revise a presentation following feedback. These activities may encourage planning and reflection. However, teachers still have an important role in establishing expectations, providing language support, ensuring equitable participation, and helping students evaluate their progress.

Chong and Reinders' review of learner autonomy research highlights the breadth of the field and the importance of understanding learners as active participants in the learning process. The present study builds on this perspective by examining autonomy through both self-reported measures and qualitative descriptions of students' actual project-related decisions.

4.3. Theoretical integration

The study draws on three complementary perspectives.

First, constructivist approaches provide a rationale for learning through active engagement with problems, information, and social interaction. Within this perspective, learners develop understanding through the process of investigating questions and constructing explanations or products.

Second, communicative language teaching provides a rationale for purposeful language use. Learners need opportunities to express meaning, respond to others, and use language to complete communicative tasks. Project activities can provide such

opportunities when linguistic objectives are explicitly incorporated into project planning and assessment.

Third, learner-autonomy perspectives emphasise students' capacity to make informed decisions about their learning. Projects can create opportunities for goal-setting, monitoring, collaboration, and reflection, while teacher scaffolding supports the development of these capacities.

5. Methodology

5.1. Research design

The proposed study will use an explanatory sequential mixed-methods design with a quasi-experimental quantitative phase followed by a qualitative phase. In the first phase, quantitative data will be collected to examine changes in language proficiency and learner autonomy. In the second phase, interviews and student reflections will be analysed to explore how participants experienced the intervention and to help interpret the quantitative patterns.

A quasi-experimental design is appropriate when students are taught in existing classes and random assignment is not feasible. Ideally, one class will receive the project-based intervention and a comparable class will continue with regular instruction. If possible, more than one class per condition should be included to reduce the risk that an observed difference reflects the characteristics of a particular class or teacher.

Because group assignment is not random, causal conclusions must be cautious. Differences in prior proficiency, motivation, attendance, teacher practice, or class composition may influence results. These factors should be measured or documented where feasible.

5.2. Research context and participants

The study is intended for an undergraduate EFL setting. The final manuscript should identify the institution type, course level, duration of the intervention, instructional hours, and relevant characteristics of the participating students.

The sample size must be determined before recruitment. It should be informed by a power analysis for the primary outcome, the anticipated effect size based on relevant

evidence, the statistical model, and expected attrition. Where a formal power analysis is not feasible, the authors should explain the practical sampling constraints and avoid presenting an underpowered study as definitive evidence.

Inclusion criteria may include enrolment in the selected English course, an appropriate language level for the planned tasks, and informed consent to participate in the research. Participation in research should be distinguished from participation in normal course activities, and students should not be disadvantaged academically for declining to contribute research data.

The final report must state the actual recruitment method, number of eligible students, number who consented, and number included in each analysis. These figures cannot be supplied before recruitment and data collection take place.

5.3. The project-based intervention

The intervention may run for eight to twelve weeks, depending on the course schedule and institutional requirements. The final duration should be established before the study begins and reported accurately.

A possible project is entitled “Improving Our Campus through Student Research.” Students work in small groups to investigate a practical issue, gather information, prepare an evidence-based proposal, and present their recommendations in English.

The intervention may include the following stages:

1. **Project launch:** The teacher introduces the driving question and clarifies the language-learning objectives.
2. **Planning:** Students identify sub-questions, allocate responsibilities, establish deadlines, and identify language support needs.
3. **Inquiry:** Students read appropriate sources, conduct permitted interviews or surveys, and record relevant information.
4. **Language development:** The teacher provides targeted instruction in vocabulary, grammar, academic writing, discussion, and presentation skills.
5. **Drafting and feedback:** Groups develop their products, receive feedback, and revise their work.

6. **Presentation:** Students communicate their findings to classmates or another appropriate audience.

7. **Reflection:** Students evaluate their language learning, contributions, collaboration, and use of learning strategies.

The comparison group should receive the regular course instruction specified in the research plan. Instructional time, course objectives, and assessment opportunities should be documented so that the conditions can be interpreted fairly.

To support implementation fidelity, the researcher should maintain lesson records and a checklist documenting which planned PBL components were delivered. This will help distinguish the proposed teaching approach from variations in how it is implemented.

5.4. Quantitative instruments

English language proficiency assessment

Students will complete a language assessment before and after the intervention. The assessment should correspond to the course level and the intended learning outcomes. Depending on the research focus, it may include speaking, writing, reading, listening, or a defensible combination of these skills.

If speaking and writing are primary outcomes, the study should use explicit scoring rubrics and trained raters. Where feasible, raters should not know students' group membership or whether a submission is from the pre-test or post-test. Inter-rater agreement should be evaluated and reported using an appropriate statistic.

A validated test may be used where licensing, accessibility, and contextual suitability permit. If a researcher-developed assessment is necessary, its development, content validation, piloting, scoring criteria, and limitations should be described transparently.

Learner-autonomy questionnaire

A questionnaire will assess selected dimensions of learner autonomy, such as goal-setting, planning, strategy selection, monitoring, help-seeking, and reflection. An existing instrument with suitable evidence of validity should be considered before developing a new measure.

If an instrument is translated into Uzbek or another language, the translation and adaptation procedure should be documented. This may include independent translation, reconciliation, expert review, and pilot testing. Reliability should be evaluated using a statistic appropriate to the instrument and its dimensional structure; reliability alone does not establish validity.

Background and implementation data

Relevant background information may include prior English learning experience, baseline proficiency, attendance, and exposure to English outside class. Only information justified by the research questions should be collected. Personal data should be minimised and stored securely.

5.5. Qualitative data collection

The qualitative phase will use semi-structured interviews with a purposively selected subset of consenting students. Selection may take into account variation in quantitative outcomes, participation patterns, or reported project experiences. The purpose is to understand different experiences rather than to construct a statistically representative sample.

Possible interview questions include:

- Which stages of the project helped you use English most meaningfully?
- How did you decide what to study or practise during the project?
- What difficulties did you experience when working with classmates?
- How did feedback influence your language use or final product?
- Did the project change how you plan or evaluate your English learning? Please explain.
- What would you change about the project to make it more effective?

Students may also submit short reflections at selected stages. With appropriate consent, project plans, drafts, peer feedback, and final products may be analysed to examine evidence of planning, revision, and language use.

Interviews should be audio-recorded only with permission, transcribed accurately, and anonymised before analysis. Translations of interview excerpts should preserve meaning, and any translation procedure should be documented.

5.6. Quantitative data analysis

The analysis plan should be established before examining the main outcomes. Descriptive statistics will summarise the sample, baseline characteristics, outcome distributions, and missing data.

The primary analysis will examine whether changes over time differ between the intervention and comparison groups. Depending on the sample structure, distributional assumptions, and baseline differences, an appropriate approach may be an analysis of covariance using post-test scores with baseline scores as covariates, or a group-by-time model. If students are clustered within classes, the analysis should account for that structure where the available data and sample size permit.

The study should report effect estimates, confidence intervals, and effect sizes alongside p-values. Statistical significance should not be interpreted as equivalent to educational importance. Assumptions, missing-data procedures, exclusions, and any deviations from the planned analysis should be reported.

Learner-autonomy questionnaire scores should be analysed according to the instrument's validated scoring structure. If the questionnaire includes multiple dimensions, the analysis should avoid combining them into a single total score without theoretical and psychometric justification.

5.7. Qualitative data analysis

Interview transcripts and student reflections will be analysed thematically. The process will include familiarisation with the data, initial coding, development of candidate themes, review of themes against the dataset, definition of final themes, and selection of illustrative excerpts.

The analysis may begin with concepts relevant to the research questions, such as planning, self-monitoring, collaboration, feedback, and perceived language development.

However, the coding should remain open to experiences that do not fit these categories, including unequal participation, anxiety, workload, or limited opportunities to use English.

The researcher should maintain an audit trail documenting coding decisions and changes in interpretation. Reflexive notes can help identify how the researcher's role as an English teacher may influence data collection and interpretation. If multiple coders are involved, the procedure for discussing disagreements should be explained rather than claiming agreement without evidence.

Because the study has not yet been conducted, this section does not report empirical findings. The completed article should include the following analyses only after real data have been collected:

- **Participant flow and baseline characteristics:** Recruitment, consent, attrition, group sizes, and relevant baseline measures.
- **Language proficiency outcomes:** Pre-test and post-test summaries, between-group estimates, confidence intervals, effect sizes, and appropriate statistical tests.
- **Learner autonomy outcomes:** Questionnaire scores and changes in the dimensions supported by the instrument.
- **Qualitative themes:** Themes grounded in the interview and reflection data, supported by anonymised excerpts.
- **Mixed-methods integration:** A comparison of quantitative patterns and qualitative explanations, including contradictory evidence.

Tables and numerical values should be generated from the actual dataset. No means, standard deviations, sample sizes, significance values, or interview quotations should be inserted before they are verified.

Conclusion

The conclusion of the completed study should provide a direct answer to each research question, summarise the main empirical contributions, and identify practical implications for English language teaching in higher education.

Recommendations may address project design, explicit language instruction, formative feedback, equitable group participation, and opportunities for reflection.

However, recommendations should follow from the observed evidence rather than from assumptions about the superiority of PBL.

The final article should also acknowledge methodological limitations, including non-random group assignment where applicable, the duration of the intervention, sample characteristics, instrument limitations, and the possibility that results may differ in other educational settings.

References

1. Adilah, N. (2023). Systematic literature review: Project based-learning in English language teaching. *Langue (Journal of Language and Education), 1*(2). https://doi.org/10.22437/langue.v1i2.24771

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