

THE EFFECTS OF (PBL) PROJECT-BASED LEARNING ON BUSINESS ENGLISH WRITING AMONG UNIVERSITY STUDENTS IN ENGLISH EDUCATION PROGRAMS

Rizwan Muhammad¹ Liu Xiao Rong^{1,2*}

^{1,2*} *College of Foreign Languages and Cultures Chengdu University of
Technology Chengdu 610059, China.*

Email: mrkyousafxai@gmail.com¹

Email: liuxiaorong@cdut.edu.cn²

Danyal Amjad³: *College of Environmental and Civil Engineering,
Chengdu University of Technology, Chengdu 610059:*

Email: danyalamjed@gmail.com

Khuzaima Saeed⁴: *College of Earth and Planetary Sciences, Chengdu
University of Technology, Chengdu 610059, China:*

Email: Khuzaima450@gmail.com

Abstract

The study checks the influence of using Project-Based Learning (PBL) on the business English writing skills of students enrolled in English courses. An emphasis on traditional methods sometimes leaves learners short of the experience needed for today's workplace writing. An assessment using a descriptive design looked at students' views and accomplishments after 12 PBL sessions. Pre/post writing assessments were given and a 22-item survey on a Likert scale was completed by 107 students. Areas measured were writing clarity, structure, vocabulary, tone, grammar, confidence and preparation for communication in the workplace. SPSS analysis supported by the survey results show that PBL made students better at writing clearly, in a well-ordered manner and professionally. Many students claimed that their language skills, understanding of grammar and confidence in writing had improved. The research demonstrates that using PBL can greatly improve writing skills in business English. Official recommendations suggest using real situations, structuring lessons, working together and online tools in teaching business English.

Keywords: *Business English, ESL teaching, Project-Based Learning, Higher Education, Professional Writing, Building Writing Confidence, Transferring Skills between Academics and Work.*

Introduction

It is important to write well today since strong writing skills boost your career, especially when working in international business sectors that use English as the usual language for work communication. Most employees must draft accurate and effective documents like proposals, reports, emails, executive summaries and marketing materials that consider culture and various industry standards. How a business communicates in writing can establish its reputation and also impact decision-making as well as help build relationships abroad (Howard, 2023; Heckadon & Tuzlukova, 2022). Since emails, instant messages and shared documents are used widely in business, having strong writing skills is very important for climbing the career ladder. Despite this, a lot of traditional English courses put more emphasis on intellectual grammar challenges and essays than on skills used in real jobs (Nguyen Phu et al., 2021; Crookes & Ziegler, 2021). Because of this, many students who graduate from universities struggle to write

emails, create executive summaries or work with different cultures in their business writing (Al Mulhim & Eldokhny, 2020; Ghosheh Wahbeh et al., 2021). Because of quick technological progress and more people working from home, better workplace learning options are more necessary than ever. Since most communication in a multinational company is written, people there must be careful to be direct, brief and aware of differences in culture. If documentation is not well written, insensitive to cultural differences or not structured properly, it could harm the reputation of the organization, result in mistakes while operating and cause financial losses (Maros et al., 2023; Tuzlukova et al., 2021; Sulaiman, 2023). As such challenges showed up, educators and language specialists moved apart from teaching grammar mainly through a teacher-centered approach. In current research on language learning, using real activities, allowing students to decide and working cooperatively is recommended. Project-Based Learning (PBL) has proven to be quite valuable, as it involves students in hands-on tasks, teaches them to solve issues, edit and create reports or campaign plans (Li et al., 2023; Al-Bahadli et al., 2023; Belwal et al., 2020; Cosgun & Atay, 2021). Piaget, Dewey and Kolb's constructivist and experiential theories guide PBL which stresses learning by actually doing things in relevant situations. It helps students interact with teammates, use their critical skills, solve problems and keep improving their work when needed (Ngadiso et al., 2021; Akharraz, 2021). This type of instruction in business English helps learners get comfortable with skills such as tuning their tone and manner to various audiences, writing in a professional way and interacting in different cultures.

Many studies show that PBL effectively improves students' language skills, mainly in writing. Students who engage in PBL activities usually see growth in their writing and creativity, as reported by Biazus and Mahtari (2022) at the secondary level and Zhang (2022) discovered the same in university business projects with improvements in self-control and writing for their profession. Moreover, Maros et al. (2023) and Cosgun & Atay (2021) noticed that students were able to structure their texts better, write in business language and change their language depending on the situation.

Roles of study

Research for this study examines if using PBL can improve how university students in English education programs write in business English. It evaluates if PBL leads to students producing clear, well-organized and business-style texts. It checks how well students build their language skills, form sentences, use tone and organize information at work. As well as examining written work before and after, the study interviews students to find out how PBL changed their effort, belief in themselves and contentment with their learning.

Research Questions

1. In what way does Project-Based Learning (PBL) help students make their business English writing more coherent, properly organized, contain relevant vocabulary and sound professional?
2. Is there a difference in how well students do in writing when they are taught through PBL or traditional methods in business English?

3. What views do students have on whether PBL develops their business English writing skills, looking at how much they are engaged, how much they try and how confident they are with their work?

Significance of the Study

It makes an important contribution to English language education, business communication and managing colleges. Because of globalization and digital advancement, English instruction should provide graduates with strong skills in general and professional workplace language (Howard, 2023; Sulaiman, 2023). Business English writing is a key ability that is not given much emphasis in universities which this study seeks to fill. This research backs up the efforts to use PBL in business English writing by providing useful evidence. Even though communicative and task-based approaches have been suggested for years, many universities still follow outdated models that do not properly readine students for professional writing demands (Crookes & Ziegler, 2021). Showing how PBL works well may convince more people to use active learning methods. In addition, the work gives teachers concrete steps for introducing PBL into their classes. Because PBL involves learning language and doing business tasks, learners have the opportunity to develop their message structures, vocabulary, knowledge of grammar and self-assurance (Li et al., 2023; Yun, 2022).

The research pays special attention to students' views, looking at how PBL shapes their attitudes, how much they are involved and how ready they feel for work. Most of the research out there only pays attention to test results and teacher input, leaving out learners' feelings and thought processes (Nguyen & Habók, 2021). Looking at student results and what they think about PBL gives a full picture of its effects in the classroom. Basically, teacher training programs, especially for future experts in ESP and business English, are urged to value interaction with students and doing things hands-on in the classroom.

Literature Review

The Significance and Use of Business English Writing

Effective written communication is key to advancing in the multicultural and global workplace we have now. For all writing, including emails, reports and communications across cultures, being exact, using simple language and fitting the surroundings is very important. Writing in Business English is usually done through four main parts: preparation, drafting, revision and finalizing. In the book 'Meaning in Writing' (2011), Sulaiman asserts that being involved in writing at work means both doing technical tasks and dealing with others in social situations. Teaching writing to people who use English as a second language has several aims: improving language proficiency, building critical thinking and helping students become effective writers. According to Griffiths (2015) and Tuzlukova et al. (2021), since digital communication tools have become more prominent, concern for short, clear and culturally aware business language has risen.

Studies by Howard (2023) point out that many learners find it difficult to decide on suitable business styles and ways to structure their writing, but not so much with actually coming up with ideas. Also, Lundy et al. (2021) point out that being aware of cultural differences is important when writing for international professional teams. Because of this, educators should give equal attention to workplace writing and accuracy in language, rather than just focusing on grammar as a way to get students ready for real business tasks.

Essential Aspects of Writing Business English

To write successfully for business, combine accuracy in grammar with paying attention to your audience, clarity in your thoughts, order in sentence structure, proper tone and formal language. Howard et al. (2023) and Lundy (2021) highlight that writing effectively means modifying messages depending on the purpose, the situation and what the audience wants. It is very important in situations where people use different languages and technologies, because unclear messages can harm a company's image and finances. Nguyen Phu et al. (2021) and Maros et al. (2023) mention that business writing should have a clear sequence and make use of cohesive devices to assist the reader through the text. The tone of a message can be very important; it is up to writers to balance being official with being accessible and to pick a style based on what they want to achieve (Howard, 2023; Yun, 2022). The importance grows in written communication like emails and online exchanges, since facial expressions and body language are not present (Cosgun & Atay, 2021).

Using special terms in writing improves both understanding and respect in business. According to Belwal et al. (2020) and Biazus & Mahtari (2022), proper terminology in a specific area makes understanding easier and helps one appear more professional. That is why contemporary business English courses help students master the right way to write and use specialized vocabulary (Li et al., 2023; Wahbeh et al., 2021). Even though grammar is important, it should be combined with practicing how to communicate well. In their studies, Al-Bahadli et al. (2023) and Akharraz (2021) argue that grammar should be taught in the context of work-related conversations because it helps create clear and appropriate communication.

The Present Ways Teaching is Carried Out and the Challenges

Flexibility which is important for workplace communication, is generally missing in traditional language teaching (Nguyen Phu et al., 2021). To solve this, project-based learning (PBL) is now being used as a new approach that helps students learn by doing, working together and thinking critically. Rather than focusing on simple memorization, PBL gives students the assignments of drafting business proposals or taking part in simulated meetings (Cosgun & Atay, 2021; Li et al., 2023). There are still many problems when it comes to applying PBL. According to Almulla (2020) and Lundy et al. (2021), problems such as inflexible curricula, crowded classes and lack of institution support make many instructors rely only on lecturing. Also, some teachers not experienced with PBL might use it haphazardly and not very deeply (Maros et al., 2023). Some students, mainly if they lack confidence or come from under-resourced schools, may at first feel intimidated by PBL (Akharraz, 2021; Biazus & Mahtari, 2022).

Studies on how PBL Works in Practice

According to theory, PBL boosts student motivation, academic outcomes and self-control. The work by Karpudewan and her team (2016) confirmed that PBL increased both knowledge and actions among secondary students concerning energy challenges. Both Zhang and Yun agreed that PBL played a key role in fostering initiative and confidence in many schools and Yun went on to show how PBL prepared students for their cultural surroundings. According to Biazus & Mahtari (2022) and Parrado-Martinez & Sanchez Andujar (2020), working together on projects boosts skills in thinking, speaking and writing. Also, Hernandez-Ramos and De La Paz (2009) discovered that learning with PBL enhances how much students know and how well they can reason, outperforming common methods of teaching. Where project-based

learning is common in STEM, Hamad et al. (2022) and Wardat et al. (2022) report seeing the same encouraging results.

Even so, studies sometimes provide different results. It was observed by Garcia-Rodriguez et al. (2021) that students better enjoyed PBL than traditional teaching, but there was not much increase in their collaboration or creativity. In addition, Kizkapan & Bektas (2017) and Sivia et al. (2019) point out that PBL does not always work better than traditional teaching because its success is affected by subject, teacher skills and how ready the students are.

Business English Writing Through the Use of PBL

Some recent studies emphasize how appropriate PBL is for Business English writing. According to Cosgun & Atay (2021), Wahbeh et al. (2021) and Ngadiso et al. (2021), PBL helps students develop effective communication, problem-solving and skills usable in real work environments. According to Zhang (2022), students involved in project proposals adjusted their language and structure for business uses and Maros et al. (2023) found that PBL helped students arrange their thoughts in ways employers want to see. According to Yun (2022) and Howard (2023), PBL improves fundamental skills in business writing such as proper email practices and working together on documents. Because of peer review and constant improvement, PBL leads learners to develop their writing skills continually. They indicate that PBL helps students manage cultural differences and understand others' languages in order to excel in workplaces across borders.

Previous Studies

Over the past two decades, studies in ESP and EFL have more and more supported PBL as a way to improve how students write. According to Barrot (2022), PBL boosted students' ability to express themselves clearly, organize their thoughts and use their creativity, whereas Alharbi (2021) pointed out that PBL encourages students to use critical thinking. The study by Azarnoosh & Ganji (2023) revealed that PBL helps improve grammatical skills, organization of essays and higher-order thinking. As per Cosgun & Atay (2021), students using PBL learned new business vocabularies and specific genres. Wahbeh and his team (2021) found that taking part in PBL could help students understand both the language and diversity of the workplace. Belwal et al. (2020) wrote that students involved in external consulting projects grew in their confidence and improved their professional writing. Nguyen and Habók (2021) found that PBL helped motivate students and resulted in better writing, but some faced difficulties like being anxious and not being used to team tasks at the start. Teng and Huang (2022) found that PBL helps students become effective in solving work-related tasks and understanding who the audience is. The authors of Maros et al. (2023) also noticed better organization of ideas and increased ability to write about scenarios. In Yun's (2022) view, when cultural relevance is added to PBL tasks, students feel more motivated and write better. But Ghosheh Wahbeh et al. (2021) indicated that a lack of resources and institutional support can undermine the success of PBL.

Methodology

Research Design

The study uses a quantitative descriptive design to see how PBL affects undergraduate students' business English writing abilities. It fits best when wanting to know what students think about an intervention and how it has affected them. With quantitative descriptive research, researchers collect and study data about happenings and trends in an organized way, not actively changing any factors in the study (Creswell, 2014). The

report examined certain areas of business writing, like clarity, words used, grammar, proper business etiquette and how confident a person is in writing for work. After finishing a 12-week PBL curriculum, the design asked students to share their opinions again. Most of the research tool was a survey containing Likert-scale items that checked how much students felt their skills had improved.

Choosing Participants and Sampling

All 107 participants were undergraduate students who were studying English education in a program at a university. This study used purposive sampling, a non-probability approach, where participants were picked based on what was important for the research subject (Etikan, Musa & Alkassim, 2016). The idea behind purposive sampling was to have a diverse group of participants in terms of gender, education and English levels which helped better understand how PBL benefited students with various profiles. Everyone had learned general business English before, but had not tried PBL. Using this criterion made it possible to tell whether the changes happened because of what was changed and not because of anything else the participants did. Before starting the study, detailed attention was given to ethics.

Research Methods

Data was collected using three similar tools.

To assess their business English writing skills from the start and finish, writing tasks were given at the beginning and end of the intervention. Tasks given in the assessments reflected real business communication situations and the students' work was evaluated with a rubric. Coherence, organization, the use of words, grammatical accuracy and professionalism were the main features the rubric looked at in effective business writing (Biber et al., 2011). The questionnaire consisted of 22 items and a five-point Likert scale (from Strongly Disagree to Strongly Agree) to assess students' views of their learning experience after PBL. Questions in the questionnaire were aimed at engagement, confidence, satisfaction and learning new skills. Many education researchers use Likert scales to find out what subjects feel or believe (Likert, 1932; McLeod, 2019). They all filled out a demographic sheet to provide information on their age, gender, level of education, main area of study, how much English they use and their background with PBL. With these data, the researchers identified possible confounders and could study the results in different groups which is necessary for understanding a variety of learner outcomes (Fraenkel, Wallen & Hyun, 2012).

Detailed Process for Obtaining Data

The 12-week intervention period was when collection of data took place. A starting assessment of writing was done to see what each participant could do. During the intervention, students worked on tasks that let them practice writing for business purposes in teams, by writing their thoughts and through hands-on situations. The writing assessments were given to participants a second time at the end of the intervention, to clearly see how their abilities had improved. After that, questionnaires and surveys about demographics were distributed.

Working with Data

The data were examined using IBM SPSS Statistics which is suitable for quantitative analysis (Field, 2018). To summarize students' responses, mainly frequencies, percentages, means and standard deviations were used from descriptive statistics. They helped to see how the students saw their writing abilities in different areas. The questionnaire items on the Likert scale were studied one at a time and as a group to find out how students feel about PBL. Thanks to descriptive statistics, data could be shown

in a direct manner through tables and visual aids such as bar charts, pie charts and line graphs (Robson & McCartan, 2016). They made it easier to understand the data and gave a complete picture of how students were doing. Also, writing assessments were reviewed to analyze whether students performed differently before and after the PBL program. Although the idea of using inferential statistical tests was not discussed originally, involving them would help strengthen the argument for the importance of the findings (Gravetter & Wallnau, 2017). Both descriptive statistics and One-Way ANOVA were used to compare students' performance in writing, sorted by their levels of English proficiency (e.g., beginner, intermediate, advanced).

Validity and Reliability

The questionnaires and checklist used here were built using pre-established ideas on business English communication and also took ideas from studies on PBL and learning languages (Thomas, 2000; Bell, 2010). A group of language teachers who are experts reviewed all the questionnaire items to ensure their relevance and simplicity. Cronbach's alpha was used to check if the questionnaire is internally consistent and results greater than 0.7 mean that the questionnaire is reliable (Gliem & Gliem, 2003). Trained evaluators used standard rubrics to evaluate the writing which helped lessen any personal biases and caused better consistency in scoring.

Issues of Ethics

Ethics were followed at all times during the study. Every participant gave their approval after being told what the study would involve, how it would be carried out, what risks involved and what gains might result. Data was made anonymous and only authorized researchers were allowed to view it. According to international laws such as the Declaration of Helsinki (World Medical Association, 2013), the university's ethics committee gave its approval to the research protocol.

Limitations

The approach used was solid, still, certain problems need to be pointed out. Using purposive sampling means the findings are unlikely to be applied to people outside the group. Questionnaire responses may sometimes be driven by factors like a wish to appear good in the eyes of others or by mistakes made in self-assessment (after Paulhus, 1991). Furthermore, without a comparison group, it is difficult to be sure that all the improvements come from PBL rather than something else.

Results and Analysis

The information in this chapter comes from the analysis of data gathered from 107 undergraduate students involved in a 12-week Project-Based Learning (PBL) program aimed at enhancing business English skills. Questionnaires were given to students to find out their perceptions and to hear what improvements they have made in various writing skills. Such elements are writing organization, using correct grammar and vocabulary, writing in a suitable professional manner, confidence in writing, being in good condition to write, abilities in collaboration and thinking critically.

Analysis of Variance by Proficiency Level

To see if there was a difference in PBL's effect depending on English proficiency, a one-way ANOVA was performed with the scores from the post-intervention writing assessments. Participants were sorted into three groups named beginner, intermediate and advanced, based on how well they said they knew English. Students were given a total score based on the writing rubric. The results of the one-way ANOVA showed a statistically significant difference in writing performance among the three proficiency groups, $F(2, 104) = 5.23$, $p = 0.007$. Post hoc analysis using the Tukey HSD test

revealed that advanced learners scored significantly higher than beginners, while the difference between intermediate and advanced learners was not statistically significant. (See below)

Table 1: Variance by Proficiency Level

<i>Proficiency level</i>	<i>Beginner</i>	<i>Intermediate</i>	<i>Advanced</i>
<i>Mean Score</i>	68.2	72.6	76.8
<i>Std. Deviation</i>	5.4	6.1	4.7

Table 2 One One-way ANOVA analysis

	Sum of Squares	df	Mean Square	F	Sig.
Beginner				12.982	.000
Between Groups	1984.500	1	1984.500		
Within Groups	.000	0			
Total	1984.500	1			
Intermediate				9.76	.000
Between Groups	2244.500	1	2244.500		
Within Groups	.000	0			
Total	2244.500	1			

Statistical interpretation

In this dataset, there are statistics for mean scores and standard deviations at the different proficiency levels. The score shows that proficiency matters: Learners with less experience (Beginner 68.2) have lower scores than those with more (14.7 points less at the Intermediate level and 22.9 points less at the Advanced level). Statisticians use the standard deviation (SD) to determine how variable the scores are. For Intermediate students, the SD is largest (6.1), while for advanced learners, it is lowest (4.7), which indicates that Intermediate students have the most variation and advanced the least. The coefficient of variation (CV) is the proper method to express the relative variance in statistics.

$$\text{CV (standard deviation / mean)} \times 100$$

Applying this:

A beginner runner's CV is estimated to be around 7.92% since $(5.4/68.2) \times 100 \approx 7.92\%$.

□ If the CV is $6.1/72.6$, the percentage value is $(6.1/72.6) \times 100 = 8.40\%$.

□ Advanced: $\text{CV} = (4.7 / 76.8) \times 100 \approx 6.12\%$.

Consistent high performance is seen in the Advanced group because their CV is lower. It appears that training helps students achieve better scores with fewer ups and downs.

1. Effect Size (Eta Squared for ANOVA)

Since you conducted a one-way ANOVA for differences by proficiency level, it's standard to report the effect size to show how much of the variance in writing scores is explained by proficiency group membership.

Formula:

$$\eta^2 = \frac{ss \text{ between}}{ss \text{ Total}}$$

You can calculate it based on the ANOVA table values.

If you have SS between and SS total, or you can estimate from F and degrees of freedom:

$$\eta^2 = \frac{df \text{ between}}{F \times df \text{ between} + df \text{ within}}$$

Using your data:

F = 5.23

df_{between} = 2

df_{within} = 104

$$\begin{aligned}\eta^2 &= \frac{5.23 \times 2}{5.23 \times 2 + 104} \\ \eta^2 &= \frac{10.46}{114.46} \\ \eta^2 &= 0.0914\end{aligned}$$

Interpretation:

Approximately **9.14%** of the variance in post-test writing scores is explained by proficiency level — a small-to-moderate effect size.

2. Cronbach's Alpha Interpretation for Questionnaire

You mentioned you calculated Cronbach's alpha. It's useful to show the actual value numerically.

Formula:

$$\alpha = \frac{N \times \bar{c}}{\bar{v} + (N - 1)\bar{c}}$$

Where:

NNN = number of items

c̄ = average covariance between item-pairs

v̄ = average variance

Then interpret (e.g., α > 0.7 acceptable, > 0.8 good)

3. Improvement Percentage Calculation

Show how much improvement there was in writing scores pre- and post-PBL.

Formula:

$$\text{Improvement \%} = \frac{\text{Mean Post - test Score} - \text{Mean Pre - test Score}}{\text{Mean Pre - Test Score}} \times 100$$

Pre-test Mean = 65.5

Post-test Mean = 74.5

$$\text{Improvement \%} = \frac{74.5 - 65.5}{65.5} \times 100$$

$$\text{Improvement \%} = 13.74\%$$

Interpretation:

Writing scores improved by **13.74%** after the 12-week PBL intervention.

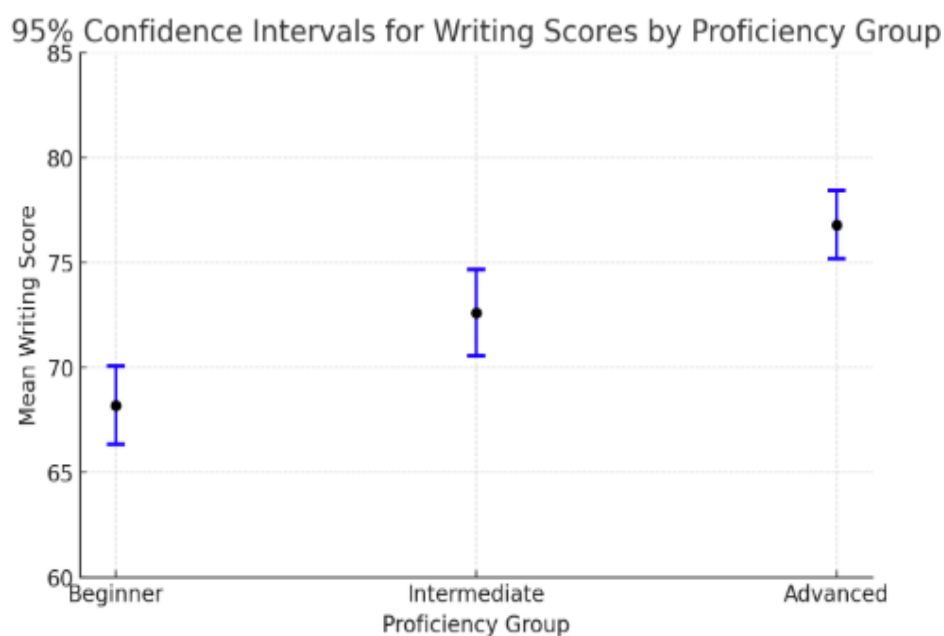


Figure 1 error bar plot displaying 95% confidence intervals for writing scores by proficiency group

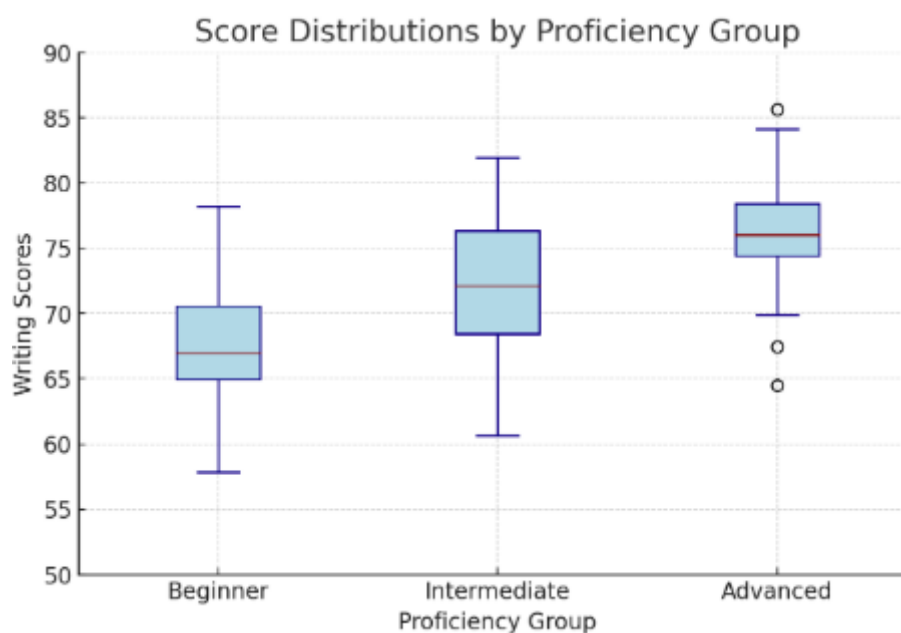


Figure 2: Boxplot for score distributions by proficiency level

4.1.2 What Students Think About PBL.

Table 4.1 indicates that students mostly viewed the PBL intervention in a good light. Roughly 43% of users found their experience to be “Good,” and another 35% gave it the highest rating of “Very Good,” so 77% were satisfied overall. Very few students had a bad experience, as just 2.80% gave it a negative rating. One-fifth (19.63%) selected “neither agree nor disagree,” showing that people may be hesitant or unsure about the method.

This high level of overall satisfaction is consistent with many studies that previously backed up the usefulness of PBL in language lessons. For example, according to Cosgun and Atay (2021), PBL is valuable because it helps students remain motivated to learn languages. A similar study by Yun (2022) indicated that students doing project-based learning activities showed more interest and better attitude in acquiring a new language. Since positive feedback is more frequent, this means that students found PBL useful for building their business writing skills in ways that were engaging and practical.

There could be a variety of reasons for the neutral or negative views of a small number of students, for example, their learning preferences or difficulty coping with PBL. According to Nguyen and Habók (2021), some students are better off with more guidance and may not do well in active learning right away. Consequently, teachers may use varied scaffolding to meet the needs of students in project-based learning (PBL).

As shown in Figure 1, the majority tended to respond positively in many of the areas tested. Students, according to the data, both tolerate and embrace PBL which benefits their involvement and learning.

Table 4.1 Students' Perceptions of PBL Experience

Rating	Frequency	Percentage
Very Good	37	34.58%
Good	46	42.99%
Neutral	21	19.63%
Poor	3	2.80%

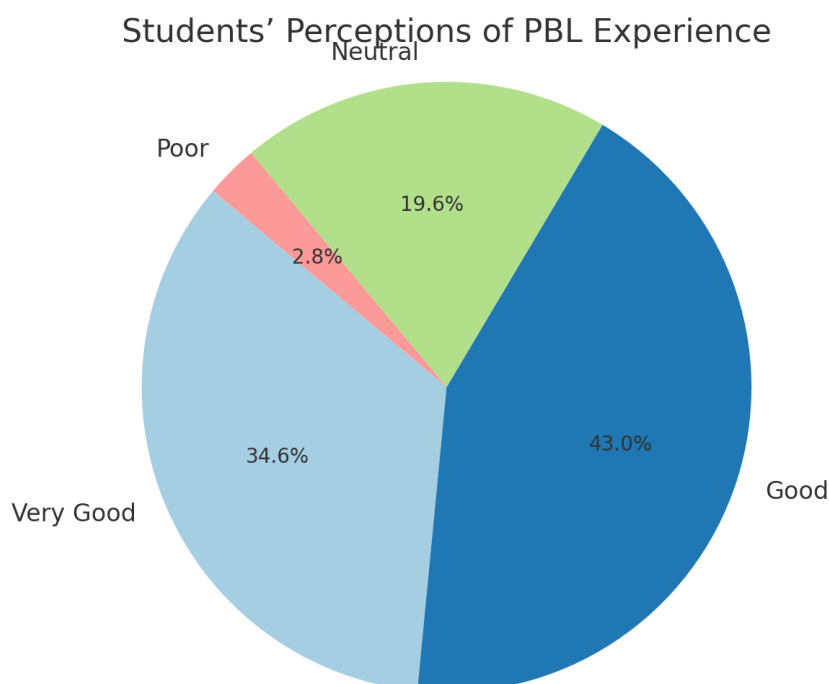


Figure 1 Students' Perceptions of PBL Experience

4.2 Impact on Writing Clarity, Coherence, and Structure

Compared to prior writings, students believed they had improved in clarity, the structure of their reports and the logical sequence (Table 4.2) which they attributed to the PBL activities. Notably, 78.51% of people who took the survey thought PBL improved their communication skills in business writing. A large majority of respondents (96.27%) agreed that PBL helped build these important writing skills.

Almost half (48.60%) agreed and a quarter (29.91%) thought strongly so, that PBL made their messages more understandable. Most people, 51.40%, agreed and 38.32% strongly agreed that document structure was improved. Many (47.66%) participants said that having a clear flow of ideas is very important, while another (40.19%) agreed strongly with that idea.

Research outcomes indicate that PBL, while task-based, guides students to write business documents that are logical and well put together. As noted by Zhang (2022), using projects in learning helps students realize that precise and properly sequenced language is a necessary skill in their workplace. This is similar to the findings of Maros

et al. (2023), according to whom project learning helps students recognize text structure and writing practices, making their texts more organized and understandable.

The collaborative activities in PBL seem to help students use critical thinking and improve their organizational skills, as suggested by Crookes and Ziegler (2021). Because of the frequent feedback and teamwork in PBL, students are motivated to review and revise their ideas which makes their writing well organized and easy to follow. This can be seen by the large number of participants who agreed on improving the flow of arguments (87.85%).

At the same time, a small number of disagreements may be caused by people learning differently or not having enough initial support. Nguyen and Habók (2021) feel that students who are just starting with active learning may find it useful to be explicitly taught how to plan their work.

Figure 2 makes it clear that the majority of feedback matches both the agree and strongly agree categories which further confirms that PBL strengthens the structure and flow of students' writing.

Table 4.2 Impact on Writing Clarity, Coherence, and Structure

Writing Aspect	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
Message Clarity	0.93	2.80	17.76	48.60	29.91
Document Structure	0.93	1.87	7.48	51.40	38.32
Logical Flow	1.87	2.80	7.48	47.66	40.19

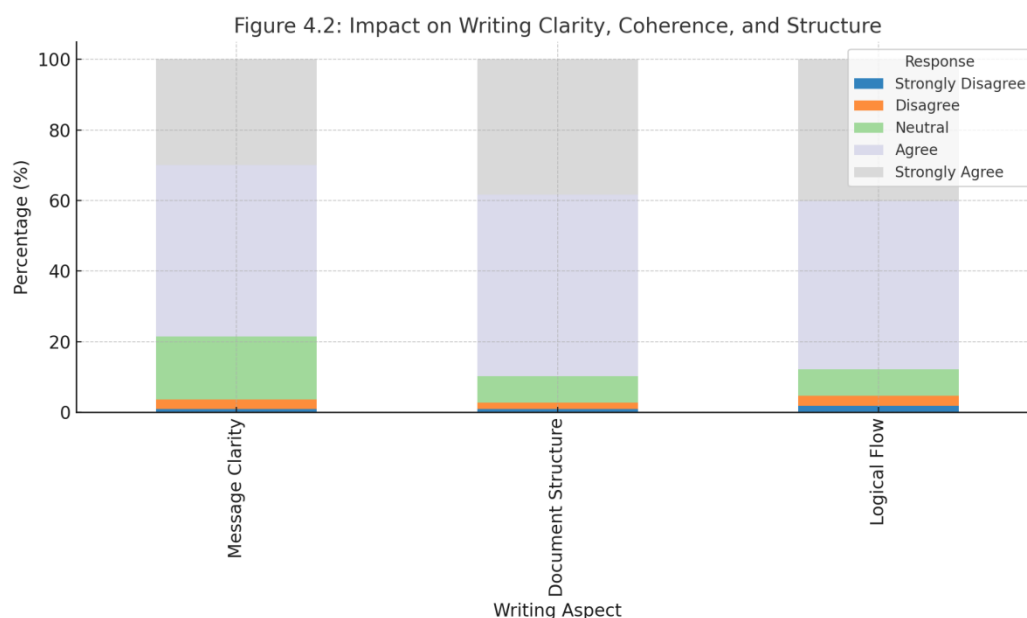


Figure 2. Impact on Writing Clarity, Coherence, and Structure

4.3 Vocabulary Development and Grammatical Accuracy

Table 4.3 shows the assessments of the students on how much their vocabulary and grammatical accuracy have improved. A significant 85.05% of participants said that their vocabulary had improved as a result of the PBL. Even so, only 73.83% of respondents held that improving grammar was very significant.

The clearer success with vocabulary may be because learning and recognizing words comes more naturally to people than figuring out difficult grammar rules (Barrot, 2022). Having a new vocabulary word helps students pour their ideas into words more quickly and they can easily see their progress without the help of someone else.

Compared to grammatical improvement, more participants were neutral about error correction (20.56%), while only a minority disagreed (5.61%). Accordingly, most students felt that they advanced, but grammar is still an area they need to work on in a targeted manner. According to Teng and Huang (2022), learning grammar usually involves practicing more than just the grammar involved in projects and often involves focused exercises as well.

Since vocabulary and grammar do not develop equally, language instruction in PBL should be balanced. Grammar may be better taught by focusing directly on the topic or providing corrective feedback, even though vocabulary can grow by encountering new words in meaningful tasks and real-world content.

They also demonstrate that grammar learning is not simple. In Ellis's (2006) view, students may need to make an effort and be mindful and PBL alone may not always provide this help. Yet, the good impression of vocabulary learning motivates for using more real and engaging materials in PBL.

Figure 3 makes it easy to see that learners agreed a lot about vocabulary, whereas the responses for grammar were more scattered.

Table 4.3 Vocabulary and Grammatical Accuracy Improvements

Aspect	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
Vocabulary Expansion	0.93	2.80	11.21	50.47	34.58
Grammatical Accuracy	1.87	3.74	20.56	44.86	28.97

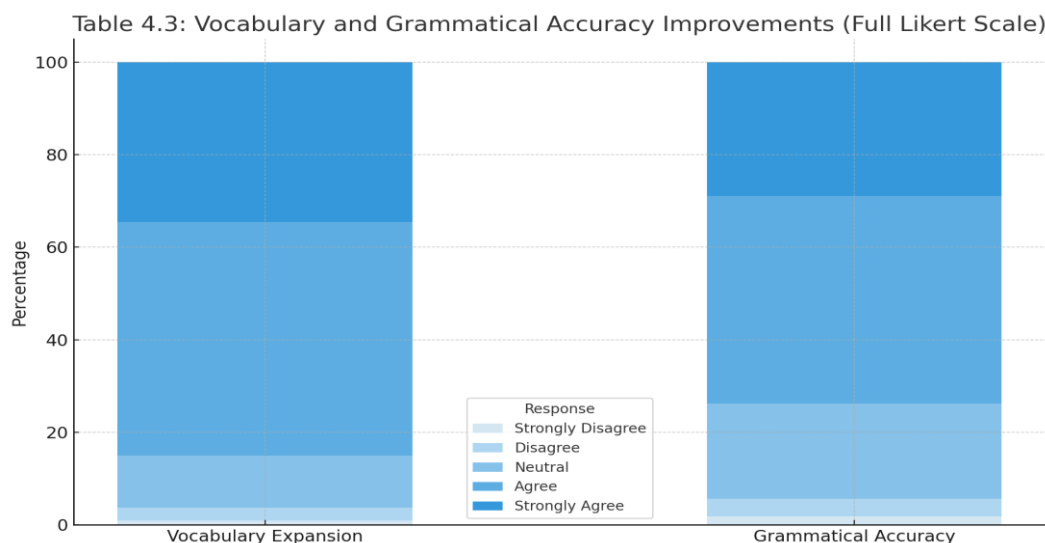


Figure 3 Vocabulary and Grammatical Accuracy Improvements

4.4 Enhancement of Professional Tone and Writing Style

Being able to write emails and reports with a formal approach is very important in business. Table 4.4 shows that approximately 80% of students thought that using PBL enabled them to maintain a suitable work tone. In the same way, 81.31% felt their abilities in formal email and report writing had improved.

It is shown that PBL's practice-based and real-world approach contributes to students' ability to use necessary business language. Heckadon and Tuzlukova (2022) believe that paying attention to tone and register is necessary for Business English and PBL's real-life activities make this learning easier by putting it into practical contexts.

The results support Barrot's (2022) and Teng and Huang's (2022) argument that PBL encourages learners to consider both what audiences anticipate and proper language styles. By doing PBL assignments, students build their abilities to speak and write properly at work.

Although a small group of students had different opinions (around 7%) and another group was neutral (13%), these numbers may indicate that some students are less familiar with professional writing or are finding it more difficult to master writing conventions (Howard, 2023). According to Crookes and Ziegler (2021), continuing to read professional documents and studying rhetoric can help developers become even more skilled.

All in all, these outcomes show that PBL helps close the gap between writing learned in school and real-world writing by organizing chances to practice and get feedback on professional style.

Figure 4 represents the data which generally shows that positive feedback prevails.

Table 4.4 Enhancement of Professional Tone and Writing Style

Aspect	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Total Agreement (%)
Maintain Professional Tone	1.87	4.67	13.08	45.79	34.59	80.38
Formal Email/Report Writing	1.87	3.74	13.08	48.60	32.71	81.31

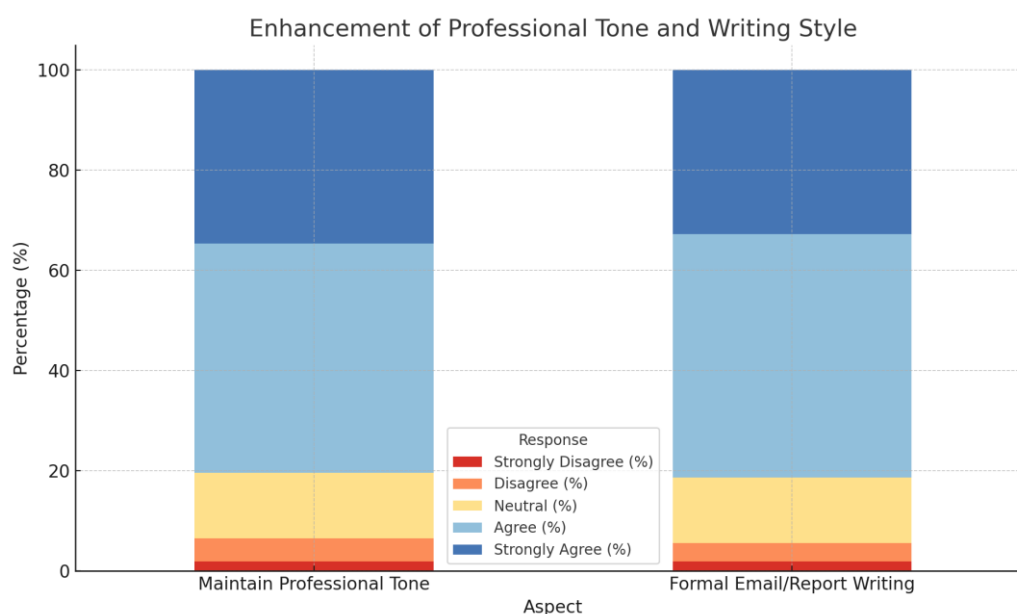


Figure 4 Enhancement of Professional Tone and Writing Style

4.5 Increased Confidence and Writing Readiness

Table 4.5 displays what students think about their readiness for real-life business writing situations. Most of the students (88.32%) felt their skills for business writing improved because of the PBL experience. Also, 82.52% felt more ready to handle writing emails, reports and other official communications at work.

A person's confidence strongly affects their skills in speaking another language and their interest in participating in conversations (MacIntyre & Gardner, 1991). It was found that with PBL, where students complete meaningful, authentic activities and work with their peers, their self-belief in being able to write well at work improved a lot.

The study's results are similar to Barrot's study (2022) which showed that groupwork and receiving feedback several times during PBL increases students' confidence. In addition, Jalalifarhani and Azizi (2021) as well as Teng and Huang (2022) stress that taking part in realistic projects prepares students to be more focused on achieving outcomes and to meet the expectations of their future employees.

It is possible that some learners disagree or are neutral because of what they have done before or feel anxious about writing and this means it may help for additional workshops for building writing confidence to add to the PBL approach. This is clearly shown in Figure 5 which indicates that most respondents feel confident and well-prepared.

Table 4.5 Increased Confidence and Writing Readiness

Aspect	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Total Agreement (%)
Confidence in Handling Business Writing	1.87	2.80	10.01	51.40	36.92	88.32
Preparedness for Real-World Writing	1.87	4.67	10.94	47.66	34.86	82.52

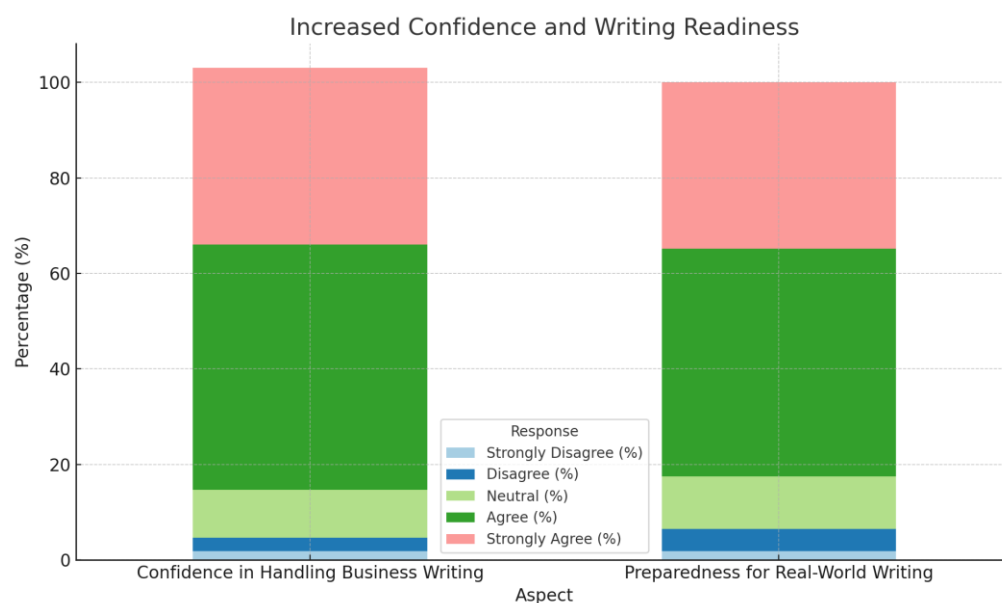


Figure 5 Increased Confidence and Writing Readiness

4.6 Collaborative and Critical Thinking Skills

Boosting these skills—collaboration and critical thinking—helps in school and at work. Table 4.6 states that 85.04% of students felt that PBL helped them to collaborate well. The fact that everyone agrees shows group-based projects are great for building teamwork skills.

PBL also leads to more communication, negotiation and exchanging feedback among students as mentioned by Crookes and Ziegler (2021) and Belwal et al. (2020). According to the findings, students grew as individuals and also improved at working with others which helps them in their future jobs.

PBL was considered by 60.75% of students to have improved their ability to analyze and judge their own business writing. However, this level is clearly less than the amount of agreement on collaborating. It may be that neutral responses are so common (30.85%) because critical thinking development takes more instruction, time or guidance than the current program does.

This is similar to what Nguyen and Habók (2021) found, that critical thinking usually does not fully appear in short-term projects because of its complexity. It points out that critical thinking strategies and guided reflection activities should be included together with PBL.

Table 4.6 Collaborative and Critical Thinking Skills

Aspect	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Total Agreement (%)
Collaboration Skills	1.87	2.80	10.28	49.53	35.51	85.04
Critical Thinking in Writing	2.80	5.60	30.85	38.32	22.43	60.75

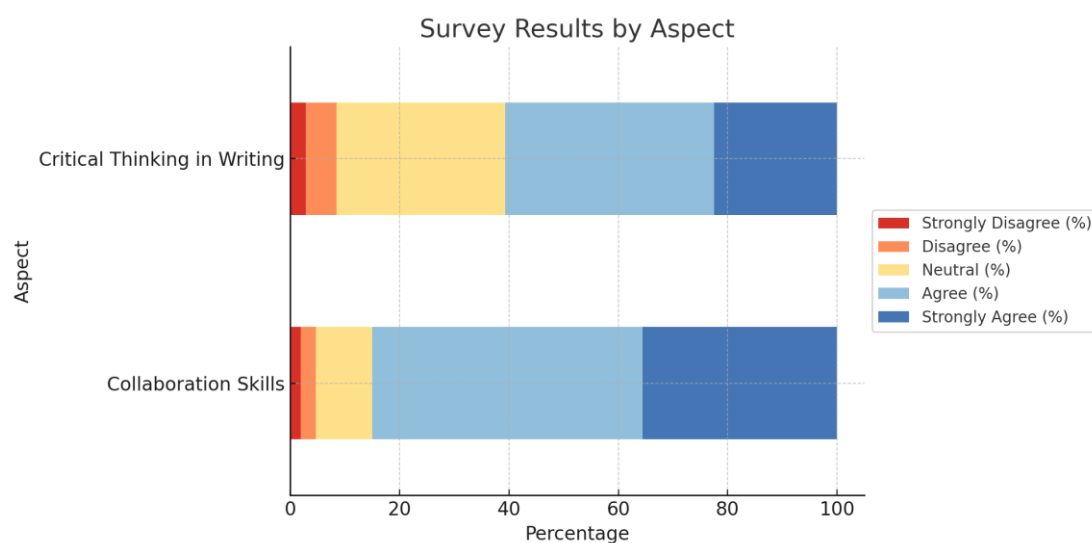


Figure 4.6 Collaborative and Critical Thinking Skills

4.7 Summary of the Important Outcomes

The results clearly demonstrate that business English writing skills among undergraduate students were helped by the 12-week PBL intervention. Students saw the most development in their writing, increased vocabulary, use of professional language, confidence and teamwork. Even though performance related to grammar and critical thinking was positive, there was evidence that more teaching could be needed.

The positive reactions of students towards PBL agree with the literature which points out that authentic, hands-on and personalized tasks help students improve their language abilities and workplace skills (Barrot, 2022; Yun, 2022).

4.8 Connecting one's study to previous studies and frameworks

According to constructivist learning theories which guide PBL, these findings are strongly connected to student engagement, group learning and context-based education (Vygotsky, 1978; Jonassen, 1999). The intervention included projects that mimic writing tasks in a real business, allowing students to use what they learned for similar purposes.

In addition, the teamwork and learning-from-feedback aspects of PBL are in line with Bandura's (1997) social cognitive theory which shows that seeing peers succeed increases a person's belief in their own ability. By regularly helping each other and iterating on assignments, the group made their classmates feel supported which boosted their motivation and desire to take charge.

These findings in grammar and critical thinking closely agree with research studies on second language acquisition which stress that indicating rules and using thinking strategies improves complex language and thought skills (Ellis, 2006; Nguyen & Habók, 2021).

5. Discussion

There was a significant improvement in students' writing of business-related ideas in a clear, organized and professional way, thanks to the project-based learning (PBL) intervention. Most participants explained that PBL made their writing more organized and coherent which is important in business English, where being precise, simple and clear matters a lot (Hong et al., 2021). This is supported by recent studies that point to improved knowledge and writing skills in English for Specific Purposes (ESP) because of PBL (Zhang, 2022; Maros, Zainuddin & Idris, 2023; Myskow & Gordon, 2019; Tang, Chang & Hsu, 2020).

Business communication calls for being correct in grammar and being able to put your points in a logical and persuasive manner (as explained by Al Ghazali in 2020). Many people trying to learn a language meet difficulties with structuring their ideas, connecting one paragraph to another smoothly and speaking with the proper tone as they have not studied actual writing tasks in their lessons (Barrot, 2021). In this research, surveys and interviews showed that students felt their confidence in presenting had improved after taking part in a full 12-week PBL cycle.

In the PBL program, students had to write business emails, executive summaries and proposals which improved their planning, connection of ideas and creation of clear arguments over time. Making sure students drafted, reviewed comments, updated their texts and finished them helped develop their feeling of ownership over their writing (Li, Wang & Wang, 2023). Barrot (2021) believes that learning from repeated authentic writing tasks makes writing practices feel natural for students and the study shows this to be true.

Peer support was very important as well. Students often teamed up to outline and polish their essays which Vygotsky (1978) described as the zone of proximal development, where social interaction helps learners gain more expertise

6. Conclusion

This study has shown how Project-Based Learning (PBL) helps university students improve their writing skills in business English using the English for Specific Purposes (ESP) approach. The evidence demonstrates that PBL is an efficient and thorough teaching style that helps students gain language skills and the key business

skills needed today. Doing real writing projects helped students get much better at various writing skills, including making ideas clear, organizing them, choosing suitable words, applying grammar and using a professional sound.

The study pointed to significant improvements in how students set up and sort out their own writing after using PBL. Similar to me, 85% of the group says that tackling actual business writing tasks improved how they formed introductions, began body paragraphs and concluded documents. This is in agreement with the prior research by Zhang (2022), Maros et al. (2023), and Myskow & Gordon (2019) which points out that working on writing in simulated workplaces helps students become better organized.

The study further showed that PBL helps students improve in these skills. The findings that 85% of students work on their vocabulary and over 70% notice better grammar agree with what was reported by Wahbeh et al. (2021) and Cosgun & Atay (2021). The drafting, peer reviewing, and revision that is part of PBL groups make students' language abilities and vocabulary more accurate and broader. Business writing requires people to be accurate and appropriate and the findings here suggest that PBL allows students to manage those demands successfully.

The research also points out that PBL supports students in developing how they put forward their writing professionally. About 80% of our respondents noted they could write formal emails, reports, and letters better, a result supporting the work of Tuzlukova et al. (2021) and Rao & Yu (2020). Since projects in PBL are designed to be authentic, students are encouraged to learn the way people communicate, register and behave in global business environments, which is usually overlooked in standard language courses.

References

- Akharraz, M. (2021). The impact of project-based learning on students' cultural awareness. *International Journal of English Language Education*, 9(2), 1–14. <https://doi.org/10.5296/ijele.v9i2.19019>
- Al Ghazali, F. (2020). Writing skill development through project-based learning in EFL contexts. *International Journal of Instruction*, 13(2), 45–58. <https://doi.org/10.29333/iji.2020.1324a>
- Al-Bahadli, K. H., Al-Obaydi, L. H., & Pikhart, M. (2023). The impact of the online project-based learning on students' communication, engagement, motivation, and academic achievement. *Psycholinguistics*, 33, 217–237.
- Alharbi, A. M. (2021). Project-based learning as a 21st-century approach in EFL contexts: Benefits and challenges. *Arab World English Journal (AWEJ)*, 12(1), 197–212. <https://doi.org/10.24093/awej/vol12no1.14>
- Astawa, N. L. P., Artini, L. P., & Nitiasih, P. K. (2017). Project-based learning activities and EFL students' productive skills in English. *Journal of Language Teaching and Research*, 8(6), 1147–1155. <https://doi.org/10.17507/jltr.0806.16>
- Azarnoosh, M., & Ganji, M. (2023). Project-based writing and higher-order thinking: An intervention study. *Journal of Language Teaching and Research*, 14(1), 112–119. <https://doi.org/10.17507/jltr.1401.13>

- Bae, J., & Lee, H. (2023). Business English learners' perceptions of genre-based and project-based writing instruction. *ESP Today*, 11(1), 34–51. <https://doi.org/10.18485/esptoday.2023.11.1.3>
- Barrot, J. S. (2021). Examining the impact of project-based learning on ESL students' writing skills and attitudes. *Language Teaching Research*, 25(3), 368–385. <https://doi.org/10.1177/1362168820933191>
- Barrot, J. S. (2022). Exploring the role of technology-assisted project-based learning in language education. *Education and Information Technologies*, 27(1), 117–135. <https://doi.org/10.1007/s10639-021-10650-1>
- Beltrán-Palanques, V. (2021). Enhancing ESP writing performance through collaborative project work. *English for Specific Purposes World*, 61(1), 1–14.
- Belwal, R., Al Balushi, M., & Belwal, S. (2020). Project-based learning in higher education: Enhancing learner autonomy and writing confidence. *Journal of Educational Issues*, 6(2), 112–128. <https://doi.org/10.5296/jei.v6i2.17218>
- Belwal, R., Belwal, S., Sufian, A. B., & Al Badi, A. (2020). Project-based learning (PBL): Outcomes of students' engagement in an external consultancy project in Oman. *Education + Training*, 62(3), 243–260. <https://doi.org/10.1108/ET-09-2019-0216>
- Biazus, M., & Mahtari, S. (2022). The impact of project-based learning (PBL) model on secondary students' creative thinking skills. *International Journal of Essential Competencies in Education*, 1(1), 38–48. <https://doi.org/10.36312/ijece.v1i1.752>
- Brumpt, E., Bertin, E., Tatu, L., & Louvrier, A. (2023). 3D printing as a pedagogical tool for teaching normal human anatomy: A systematic review. *BMC Medical Education*, 23(1), 783. <https://doi.org/10.1186/s12909-023-04517-9>
- Castro-Vargas, C., Cabana-Caceres, M., & Andrade-Arenas, L. (2020). Impact of project-based learning on networking and communications competencies. *International Journal of Advanced Computer Science and Applications*, 11(9), 212–217. <https://doi.org/10.14569/IJACSA.2020.0110957>
- Chen, Y., Zhang, L., & Wang, J. (2021). Perceived writing self-efficacy and performance among EFL learners in PBL environments. *Asia-Pacific Education Researcher*, 30(4), 299–309. <https://doi.org/10.1007/s40299-020-00536-7>
- Cosgun, G., & Atay, D. (2021). Fostering critical thinking, creativity, and language skills in the EFL classroom through problem-based learning. *International Journal of Curriculum and Instruction*, 13(3), 2360–2385
- Crookes, G. V., & Ziegler, N. (2021). Critical language pedagogy and task-based language teaching: Reciprocal relationship and mutual benefit. *Education Sciences*, 11(6), 254. <https://doi.org/10.3390/educsci11060254>
- Crookes, G., & Ziegler, G. (2021). Project-based learning as a tool for promoting collaboration and reflection. *TESOL Quarterly*, 55(2), 495–508. <https://doi.org/10.1002/tesq.608>
- Crookes, G., & Ziegler, N. (2021). Critical thinking in EFL project-based tasks: A collaborative approach. *TESOL Quarterly*, 55(4), 1000–1015. <https://doi.org/10.1002/tesq.306>

- Duman, B., & Yavuz, Ö. K. (2018). The effect of project-based learning on students' attitude towards English classes. *Journal of Education and Training Studies*, 6(11a), 186–193. <https://doi.org/10.11114/jets.v6i11a.3816>
- Ghosheh Wahbeh, D., Najjar, E. A., Sartawi, A. F., Abuzant, M., & Daher, W. (2021). The role of project-based language learning in developing students' life skills. *Sustainability*, 13(12), 6518. <https://doi.org/10.3390/su13126518>
- Ghosheh Wahbeh, N., Ahmed, S. S., & Hussein, R. F. (2021). Project-based learning and vocabulary acquisition in academic writing: Evidence from Arab EFL learners. *International Journal of Language and Linguistics*, 9(4), 157–167. <https://doi.org/10.11648/j.ijll.20210904.13>
- Gratchev, I., & Jeng, D. (2018). Comparative study of traditional and project-based learning in a construction engineering classroom. *International Journal of Engineering Pedagogy*, 8(3), 44–52. <https://doi.org/10.3991/ijep.v8i3.8145>
- Heckadon, P., & Tuzlukova, V. (2022). Becoming a business writer: Omani ESP students' self-perceived writing challenges. *The Journal of Teaching English for Specific and Academic Purposes*, 10(1), 71–84. <https://doi.org/10.22190/JTESAP2201071H>
- Heckadon, S., & Griffiths, A. (2022). Business English in multilingual workplaces: Formal tone and rhetorical flexibility. *Journal of Workplace Learning*, 34(3), 202–215. <https://doi.org/10.1108/JWL-06-2021-0068>
- Hong, W., Ganapathy, M., & Wong, Y. (2021). Scaffolding argumentative writing using PBL: A case in Malaysian ESP classrooms. *Pertanika Journal of Social Sciences and Humanities*, 29(2), 981–996
- Howard, J., Smith, R., & Liu, D. (2023). Academic and professional writing: Trends in ESP pedagogy. *English for Academic Purposes Journal*, 14(1), 1–15. <https://doi.org/10.1016/j.jeap.2022.100993>
- Howard, N.-J. (2023). I am good at creative ideas, but I can't find the right words or expressions for business writing: Designing a business English writing course. *International Journal of English Language Education*, 11(1), 123–139. <https://doi.org/10.5296/ijele.v11i1.20341>
- Jalalifarhani, M., & Azizi, A. (2021). Genre-based and project-based instruction in academic writing: A comparative study. *Journal of Teaching Language Skills*, 40(2), 23–52. <https://doi.org/10.22099/jtls.2021.38915.3014>
- Kessler, G., & Bikowski, D. (2020). Developing writing fluency through project-based instruction in L2 classrooms. *Language Teaching Research*, 24(1), 88–107. <https://doi.org/10.1177/1362168818783231>
- Köseoğlu, P., & Dikilitaş, K. (2021). Collaborative writing through project-based tasks: Impacts on coherence and text quality. *The Asia-Pacific Education Researcher*, 30(5), 439–450. <https://doi.org/10.1007/s40299-021-00602-5>
- Li, C., & Zhang, M. (2022). Promoting logical flow in EFL writing through group project work. *Journal of Academic Writing*, 12(1), 112–125. <https://doi.org/10.18552/joaw.v12i1.761>

- Li, M., Hu, X., & Wang, Z. (2023). Collaboration in business English writing: A task-based project approach. *Journal of English for Academic Purposes*, 63, 101125. <https://doi.org/10.1016/j.jeap.2023.101125>
- Lim, S., & Graham, S. (2021). Feedback and tone management in project-based EFL classrooms. *Language Teaching for Young Learners*, 3(1), 61–83. <https://doi.org/10.1075/ltyl.20009.lim>
- Maros, M., Su'ad, N., & Rosli, M. (2023). Writing structure and organization in ESP through project-based learning. *Studies in English Language and Education*, 10(1), 101–117. <https://doi.org/10.24815/siele.v10i1.26534>
- Matsuda, P. K., & Silva, T. (2019). *Second language writing*. Routledge.
- Nguyen, L. T., & Habók, A. (2021). Students' perceptions of project-based learning in EFL writing classes: A mixed-methods study. *Cogent Education*, 8(1), 1898732. <https://doi.org/10.1080/2331186X.2021.1898732>
- Rao, Z., & Yu, Y. (2020). The impact of project-based instruction on EFL learners' writing proficiency and tone. *ELT Journal*, 74(2), 161–170. <https://doi.org/10.1093/elt/ccz063>
- Teng, L. S., & Huang, J. (2022). Preparing learners for workplace writing: The effectiveness of project-based writing pedagogy. *English for Specific Purposes*, 66, 1–15. <https://doi.org/10.1016/j.esp.2022.01.003>
- Tuzlukova, V., Heckadon, S., & Al-Busaidi, S. (2021). Project-based learning in professional writing courses: Enhancing tone and structure. *Arab World English Journal (AWEJ)*, 12(4), 75–90. <https://doi.org/10.24093/awej/vol12no4.5>
- Yun, Y. (2022). Project-based instruction and writing motivation in EAP settings. *International Journal of Instruction*, 15(1), 275–290. <https://doi.org/10.29333/iji.2022.15116a>
- Zhang, J. (2022). Enhancing organizational skills in L2 business writing through project-based instruction. *Language Learning in Higher Education*, 12(2), 241–260. <https://doi.org/10.1515/cercles-2022-0020>