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Using AI in the Bilingual Classroom to Enhance Writing Skills in Second Language Learning: A Case Study

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ABSTRACT

This is a study of how AI was used in a bilingual classroom for second language learners in English to help master the skills needed at their grade level for written expression skills during the 2024-2025 school year. The study's objective is to see if AI is useful, how it is useful, and how it could be improved. We will focus our paper on the results from one grade level as a case study of 16 to 17year-old language learners in Paris, France, in which an online AI teaching tool was used for several months by two teachers to track students' progress. The AI program was used to help teachers with time management in a two-year program where class time had been reduced, and students showed a need for the reinforcement of basic grammar and vocabulary skills to succeed in the bilingual program. It was noted that students did improve overall on the accuracy of their basic grammar level in English, and on the precision of their analytical skills. The study found that the feedback given instantaneously to students was extremely helpful for them and for the teachers, enabling teachers to focus specifically on particular areas of need rather than broad schemes of work that would address global issues in language learning for that age group. One challenge to the students which they often protested, was that in their speed to respond before time ran out, they made spelling mistakes due to mistyping words. This would lower their grade and not be a realistic representation of their abilities. As this group of students will be passing an exam in their final year of study in 2026, it was found that honing the language skills in the first part of their two-year program; helped them better understand the methodology which in turn left them more time to focus on the in-depth analysis of the program content. For students struggling with basic language skills, the use of AI helped increase their grade point average. The main limitation noticed by teachers and students was that most students produced typed work, which did not help them practice their handwriting which would be needed the day of the exam as this was an option that would require payment. Since this project was experimental, we thought it better to have more information before committing to a subscription.

Keywords: AI, Second Language Learning, Bilingualism, Written Expression Skills, English Language.

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1 INTRODUCTION

In 2015, Collège Sévigné, a secondary school in central Paris, France, put into place their French-English bilingual program starting with a class of 12-year-old students, the aim being to take students who were not necessarily native English speakers and bring them to a uniform C2 level of mastery (ECRL criteria²) over a 6-year process, giving them an academic bilingualism. Our first class of bilingual students to have gone through the full cycle from 6th to 12th grade (ages 12 to 18) graduated in 2022 and went on to study at high-level universities and colleges including Dartmouth, MIT, the London School of Economics, and Columbia, proving that the bilingual teaching methods were effective. This class of students was challenged by the shutdown during the pandemic of COVID-19 in their junior year (17-year-old age group), making the two-year final cycle of their high school education a rocky road of adaptation methods and survival tools. One such tool that became the ultimate "go-to" was the internet and the use of advanced AI assistance. As students, they needed to adapt to the changing demographics of the classroom, which often became their bedroom or the kitchen table, and as teachers, we needed to ensure that these moments remained fruitful educational opportunities.

At first, AI was seen as a significant tool for education - and in many ways it still is. Most of the focus was on the advantages of the system and how it could enable further learning in general (Zheng and Yang, 2024). However, it soon became clear that in the hands of students using AI to replace their work, teachers needed to monitor and even eradicate its use to ensure that evaluations done at home during shutdown periods did not become a playing field for plagiarism. AI assistance was much more prolific at the post-secondary level (Crompton & Burke, 2024) and it soon trickled down to the international section students at Sévigné encouraged by their connections to other countries (notably the US and China) which were more advanced in the AI front than France. As a school, we tried to put into place a system that did not allow AI-produced documents to be used based on what we found to be a possible tracing system at the post-secondary level, however, we soon found that our policing was not effective. With the repeated shutdowns, students had adopted habits that we felt did not promote effective mastery of language learning and were not ethically sound, as often the work being handed in was not the student's work.

Computers and the internet have long been used in language teaching, in particular for language learning feedback through software programs such as CALL – Computer Assisted Language Learning, or CALI – Computer Aided Language Instruction (Higgins, 1983). These programs, which began in the 70s and 80s, have transformed over time to be learner motivated, especially in remote learning, and are now termed ICALL or Intelligent Computer Assisted Language Learning as the programs went from being simply used on a computer to being a branch of artificial intelligence.

In the immediate post Covid years, the eight teachers in the English Department at Sévigné did not jump on the AI bandwagon and embrace the technology like many of our colleagues in other bilingual schools or even in Sévigné who used such programs as ChatGPT, Grammarly, and Classroom Companion, as we did not feel knowledgeable enough to use the programs effectively.

² The European Framework of Reference for Languages (ECRL) is a classification which allows to assess their level of proficiency in a foreign language.

However, a combination of several factors led us to change our teaching methods for the 2024-2025 school year and to test a theory. The increasingly available AI programs were making it clear to us in the English Department, and in the school overall, that written activities assigned as homework were less and less an option for helping give students the practice they needed in language learning, for skills such as written expression, and oral and written comprehension. More and more students would bring in work that was generated through AI, and we noted a general downward trend in the overall mastery of basic grammar skills across the board from the 12 to 18-year-old age groups in work being assessed in class or during group evaluations. The added changes put into place with the governmental reform of high school programs in France meant that students in the "cycle Terminal"³ (17-18 age group) had more hours in their specialité courses – 6 hours per week – added to the core curriculum, taking the hours dedicated to Literature and Language down from 6 and sometimes 7 hrs a week to 4 hrs in those same 2 years. With time, we felt that the lack of weekly training at home and the reduced hours of class time meant that the bilingual students were showing signs of a weaker level of aptitude in basic grammar, syntax, and vocabulary. We found that the program we had put into place, which was once producing C2-level academic bilingualism, was not as effective anymore. So, to test our theory that weekly writing was essential to students mastering the fundamentals of language learning, we decided to put AI to use instead of working to fight against it being used.

2 METHODOLOGY

During the years 2023-2024 and 2024-2025, there has been a clear push to move students towards computer devices and to include elements of AI in teaching tools used in and out of the classroom. At Sévigné, every student is now equipped with either an iPad from ages 12 to 15, or a computer for the final 3 years of secondary education, which includes all the teaching textbooks and sites to help students learn various skills such as maths quizzes, grammar sites in both French and English, and foreign language apps.

Several types of training sessions with theoretical and practical guidance have been offered to enable teachers to use these tools⁴. Inside the English department, we had two different workshops on using AI in the classroom with the head of the European section⁵, who helped introduce us to sites like Grammarly and Classroom Companion, and the head of the bilingual section⁶ who introduced the program Map Growth⁷ which would test our students regularly on their reading

³ In the French school system, this is the final two-year program that allows students to graduate after a combination of continued assessment and exams to give them the Baccalaureate diploma marking the completion of secondary education.

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⁶ The European section is a section that offers reinforced Language Training and terminates with a Cambridge validation. <u>Parcours Europe College Sevigne</u>

⁷ Map Growth is an online evaluation system from the Northwest Evaluation Association (NWEA), a part of Houghton Mifflin Harcourt. <u>https://www.nwea.org/map-growth/</u>

comprehension and language use so that we could map out our strategies for teaching programs that targeted key areas in language learning that proved less efficient.

Two programs at Sévigné require bilingual students to practice writing skills regularly to ensure their success on evaluative exams: the Cambridge IGCSE⁸ exams and the BFI⁹ American option exams. Both programs offer our students a validation of their English language learning levels, one for the start of high school, at around the age of 15, and one for the end of their secondary education at around 18 years of age. Both programs offer diplomas, which are excellent trampolines for success in higher education, with an emphasis on written comprehension and expression. In the 2024-2025 school year under study here, it was clear that, with the tight timetables, students would need to take the time at home to improve their writing skills. The problem became how to do this and ensure that they did the work on their own. Initial attempts proved that there was too much temptation for students to resort to AI when they had time constraints, or lacked either confidence, or the desire to do the assignments.

In this study, we will focus our attention on the dual need for both the students to develop the skills needed by regular practice without opting for completion of homework assignments using AI; and teachers' need to provide detailed feedback that targets weaker areas of language learning remaining in the early stages of acquisition.

The BFI program tests the students' knowledge of the works on the program (such as *The Tempest* by Shakespeare, *The Bluest Eye* by Toni Morrison, or *The Glass Menagerie* by Tennessee Williams). Students must compare and contrast two works on the program studied in class in both years to respond to a question during their final exam, which requires an added level of understanding and a deeper need for the memorization of textual evidence. The BFI considers the use of language – not so much basic English grammar and syntax, but fluidity and skill in expression and a sophisticated use of vocabulary.

| if sometimes inconsistently applied.word choice and register.vocabulary and register.+0.5pts+1pt+1.5pts+2pts | writer's ideas adequately. Vocabulary is sufficient and notions of good English usage are evident if sometimes inconsistently applied. | impede understanding. Some care is shown in word choice and register. | coherent. A rare lapse does not mar ideas or flow. Effective use of vocabulary and register. | register. |
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|--|---|---|---|-----------|

Extract of requirements¹⁰:

⁸ IGCSE stands for the International General Certificate of Secondary Education and at Sévigné we are a Cambridge exam centre. <u>https://www.cambridgeenglish.org/</u>

⁹ BFI stands for *Baccalauréat Français International* and is a final certification of the French programs for secondary education. <u>https://www.education.gouv.fr/reussir-au-lycee/le-baccalaureat-francais-international-bfi-5960</u>

¹⁰ Grading rubrics for the BFI program concern both the written exam and the oral exam. The rubrics start with a score of 10/20 as a "Zero level" and add points according to the depth and precision of the students' analysis. https://eduscol.education.fr/3043/baccalaureat-francais-international-bfi

With the aforementioned time constraints, it was becoming more difficult to focus on the written comprehension and expression skills needed for the exam. For example, assigning 4 "exit tickets" (short evaluative written tasks given at the end of a class taking about 10 - 15 min) per trimester meant that 1.5hr of class time would be taken up with this activity. The solution found by the English Department was to set bi-monthly assignments through Classroom Companion¹¹ to allow students the chance to practice their writing skills all the while ensuring that they were not tempted to use ChatGPT or another AI program. This decision gave students 4 opportunities to practice their written skills per trimester. Two classes of students in the first year of the BFI program were thus introduced to this AI program with one objective in mind: increase the practice of written skills to develop mastery of basic English grammar before the exam session in the final year of high school and facilitate their comprehension of the method.

3 RESULTS

Benefits for Language Learners

We found that one crucial element in the use of AI to enhance students' practice of the written skills needed for this program is the level of feedback from the examiner and how the students can use this feedback to learn and assimilate the rules of basic grammar and vocabulary to ensure mastery of the skills tested according to the grading rubric and the level expected. In theory, examiners can provide written feedback on the students' papers and a copy of the rubrics for them to read and use for the next evaluation to modify their responses. However, in practice this is rarely the case. Examiners often do not have the time to write extensive comments when grading 30 to 60 papers at a time, and students rarely take the time to read the comments, looking first and foremost at their grade.

The AI program Classroom Companion proved to be an excellent response to this need. When setting up the activities for assessment, the teacher programs in a time limit, a specific number of possible responses before submission by the student, and immediate in-depth feedback using the grading rubric provided for each program.

In the BFI curriculum, the class studied the play *Intimate Apparel* by Lynn Nottage and worked on the use of stagecraft, symbols, and motifs. This play can be compared with the novel *Wide Sargasso Sea* by Jean Rhys to enable students to see how these two works respond to a typical BFI style question (for example: "Discuss the significance of *space* for a character in two of the works of literature that you have studied in the BFI program") through the analysis of examples of motifs and symbols in both works.

One activity given to the 16/17 year olds in 2024 – 2025 was the following: In this assignment, you will explore the symbolic meaning of the different beds and bedrooms depicted in Lynn Nottage's play "Intimate Apparel." Consider how these symbols contribute to the play's thematic elements.

¹¹ An AI program which gives students written assignments with immediate feedback to allow for insight on the precise zones to target for students and teachers. <u>https://classcompanion.com/</u>

The grading rubric focused on was the BFI rubric for a comparative essay, which zeroed in on understanding, use of the text, analysis, structure of the response, and language.

Each student was given three chances to submit a response, with in-depth feedback from Classroom Companion and a grade given each time. They had 20 minutes to send in their final submission. Many weaker students found this difficult to accomplish within the time frame, as it takes them longer to produce a response and remember examples from the work in question. However, with extended practice over the first two trimesters, their response time improved as did the use of the skills needed to accomplish the task.

The sample below is from an activity done 4 weeks after the first assignment, which asked for 10 short response answers in 45 minutes instead of one essay style paragraph in 20 minutes. The question was: *Identify one major theme in 'Intimate Apparel' and explain how it is developed through the characters*. The students were graded on: Understanding of Textual Themes and Elements (3 pt), Use of Textual Evidence (3 pt), Clarity and Structure of Response (2 pt), Interpretation of Authorial Techniques (2 pt).

Here are two examples of the feedback given for the students' use of basic grammar, syntax, and vocabulary, one from a weaker student and one from a stronger student:

Student 1¹²

| Activity 1, 2 responses in 20 min | Your writing conveys your ideas adequately, but there are some errors in spelling and grammar that can be improved. Pay attention to spelling, such as 'independance' which should be 'independence', and ensure subject-verb agreement. This will help make your writing clearer. |
|---|--|
| Success 32% | 2/5 pts for Expression, 14 questions for the AI assistance |
| Activity 2 | Your response is somewhat organized, but there are some issues |
| 2 responses for | with clarity and coherence. For instance, phrases like "to |
| this question | conveys a comprehensive tone" and "permit to provides" are |
| | unclear and affect the flow of your response. Focus on revising |
| | these sentences for clarity and grammatical accuracy. |
| | |
| Success 54% | 1 out of 2 points for Expression and Structure, 2 questions for AI |
| | assistance |

Student 2

| Activity 3 responses | Your writing is clear and conveys your ideas well. There are minor lapses in expression, such as 'entraped' instead of 'entrapped', and 'eventhough' instead of 'even though'. Paying attention to these details will enhance the clarity of your prose. |
|-------------------------|---|
| Success 72% | 3/5 pts for Expression, 2 questions for the AI assistance |

¹² Information in this chart is from the Classroom Companion page used for the class in this study.

| Activity 2 2 responses | Your response is well-organized and clearly communicates your ideas about the theme of identity in 'Intimate Apparel'. The progression from identifying the theme to explaining how it is developed is logical and easy to follow. Well done! |
|---------------------------|--|
| Success 86% | 2/2 pts for Expression and Structure, 0 questions for the AI assistance |

In these samples, we can see the increase in success rates for both students and the quality of the detailed feedback given. As students are obliged to read the feedback and correct their mistakes before submitting another response, this ensures that the skills to improve are being targeted. With the use of AI, both the weaker and the stronger students can improve their written skills. There was no time taken out of the classroom discussions for this work and with only 20 to 30 minutes a week per assignment, the students benefitted from not only the full use of class time with the teacher, but also a low impact weekly or bi-monthly revision homework that forced them to assimilate the basic English grammar and vocabulary needed to excel on their evaluations.

In the BFI classes under study here, the overall success rate went from an average of 54.8% at the start of January 2025 to 77.8% by the end of February 2025 with a reduced response time from 9 minutes on average to only 8 minutes on average. An increase of 23% in only 8 weeks helps students see the need for regular practice and encourages them to do even better.

Benefits for Language Teachers:

Overall, using AI in the classroom has been beneficial for students in this study. Furthermore, this tool also helps the teacher get detailed feedback on their class and know which skills to better target on future assignments and in classroom discussions. For example, for the two activities cited beforehand, here is a sample of the program's suggestions for the teacher not only for the activity in question but for the progression from the start of the year:

Sample 1¹³

Organization - Several submissions indicate issues with paragraph organization, suggesting that students could improve the integration of evidence and clarity of their main points.

Expression - *Students generally exhibit good writing skills; however, attention to minor grammatical errors and expression clarity is needed for several submissions.*

Sample 2

Overall, the class shows steady improvement in understanding literary themes, the use of textual evidence, and analytical skills across various assignments. However, recurrent issues with grammar, writing structure, and clarity remain prominent across many students, indicating areas

¹³ Information found on the Classroom Companion page used for the class in this study.

for continued focus. Recommendations include varying sentence structures and correcting common spelling mistakes, which would aid in achieving greater clarity in their writing.

The information given by this AI program for teachers includes elements for improvement in structure, knowledge of the texts, and language skills. It also offers figures on the amount of time each student takes to respond, helping teachers target those who need additional help with time management and basic English grammar or syntax.

4 CONCLUSIONS

There was an overall positive reaction by both teachers and students to this study, however there were two main elements that proved unsatisfactory. First and foremost was the fact that students were not handwriting their work, but typing, which is not a skill they will need to master for the evaluation at the end of their program. Typing the responses in a timed context also led to more typing mistakes which were counted as spelling mistakes by the AI system and therefore brought down the students' grades even though there was no link to the skills being targeted here for mastery of basic English grammar. There is an option on the AI site used that allows for uploading of handwritten samples, although a subscription must be bought for the year. Secondly, the students often complained of technical problems and not being able to submit their work depending on the devices they were using. As the assignments were meant to be accomplished at home, it was difficult for teachers to ascertain the validity of these situations.

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