

Autonomy or Dependency? Exploring Algerian EFL Learners' Use of Artificial Intelligence Tools

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Abstract

This study aims to explore Algerian EFL learners' use of Artificial Intelligence (AI) tools in relation to their learner autonomy. The research was carried out at the Department of Foreign Languages and Letters at the University of 20 août 1955, Skikda, Algeria. The sample consists of 38 Master students who were chosen through random sampling. The study looked in depth into the use of AI tools among Algerian EFL learners and whether it enhances or constrains their autonomy. A (32) items survey was administered in order to assess their perspectives concerning their AI use patterns and autonomous learning perceptions. The findings provide insight into AI tools adoption and self-directed learning in Algerian higher education.

Keywords: Learner autonomy, AI tools, control, EFL, higher education.

بين الاستقلالية والتبعية: دراسة استكشافية لتوظيف متعلمي اللغة الإنجليزية الجزائريين لأدوات الذكاء الاصطناعي في التحكم في تعلمهم

ملخص

تهدف هذه الدراسة إلى استكشاف استخدام متعلمي اللغة الإنجليزية كلغة أجنبية لأدوات الذكاء الاصطناعي وعلاقته باستقلالية المتعلم. أُجري البحث بقسم اللغات الأجنبية بجامعة 20 أوت 1955 سكيكدة بالجزائر. وتكونت العينة من 38 طالباً تم اختيارهم بالطريقة العشوائية. بحثت الدراسة بعمق في استخدام أدوات الذكاء الاصطناعي بين متعلمي اللغة الإنجليزية كلغة أجنبية في الجزائر وما إذا كانت تعزز أو تقيد استقلاليّتهم. تم إجراء استبيان مكون من (32) عنصراً من أجل تقييم أنماط استخدام الذكاء الاصطناعي وتصورات التعلم الذاتي. توفر النتائج نظرة ثاقبة حول اعتماد أدوات الذكاء الاصطناعي والتعلم الموجه ذاتياً في سياق التعليم العالي الجزائري.

الكلمات المفتاحية: استقلالية المتعلم، أدوات الذكاء الاصطناعي، تحكم، اللغة الإنجليزية كلغة أجنبية، تعليم عالي.

Introduction:

Language education is a field that has been constantly altered and, at times, transformed through the use of technology. From language labs in the 70's until the recent affordances through generative AI, technology has played a huge role in adapting pedagogy and shaping how it is carried out inside the language classroom. Increasingly, it has indeed been recognized for "... stimulating different approaches to teaching and learning, shifting learning away from in-place, teacher-centered pedagogical paradigms to more learner-focused experiences that involve, for instance, geographically-distanced collaborative partnership [...] or self-access learning"⁽¹⁾ (Fuchs et al., 2021). While the earliest tools such as computers were used in a behavioristic manner in order to drill the language input (Benson, 2011)⁽²⁾, at present Artificial Intelligence is offering new unprecedented pathways. Language learning is today more decentralized than ever before.

AI tools have undoubtedly initiated a new era in language learning where learners are given total control, which extends through the whole learning process, including personalized learning, adaptable resources and immediate feedback. This has naturally brought to the forefront the concomitant issue of learner autonomy. Certainly, the debate surrounding AI can be dubbed as incomplete without reference to its implications for learner autonomy, as the two are inherently intertwined.

Fuchs et al. (2021), however, caution that contrary to common belief, "merely introducing or coupling technologies with educational settings does not ensure effective and autonomous learning"⁽³⁾. By virtue of this complex dynamic, it is only normal at this juncture to critically examine learners' use of AI tools in language learning and how it interacts with their autonomy. Accordingly, the current research aims at uncovering the following:

- How do Algerian EFL learners use Artificial Intelligence tools to get control on their study?
- What are the underlying patterns of AI use among Algerian University EFL learners and how do they relate to their autonomy?
- What are Algerian EFL learners' perceptions of the role of AI tools in supporting their autonomous learning?

1- Conceptual Framework:

1-1- Learner Autonomy in Language Education:

Learner autonomy has received a considerable amount of attention in the literature since its appearance after the Second World War in France. The earliest efforts are credited to researchers at the CRAPEL (centre des recherches en applications pédagogiques des langues) center at the University of Nancy (Benson, 2011)⁽⁴⁾. One of the most cited definitions in the literature goes back to its director Henri Holec (cited as Holec, 1981). While a single definition of the concept is still debatable, scholars agree that control is a fundamental requirement for autonomous learners. In Little's words: "language learner autonomy" denotes a teaching/learning dynamic in which learners plan, implement, monitor and evaluate their own learning." and that "... by exercising agency in the target language they gradually develop a proficiency that is reflective as well as communicative, and the target language becomes a fully integrated part of their plurilingual repertoire and identity" (2020)⁽⁵⁾. On his part Benson (2011)⁽⁶⁾ defines autonomy as the capacity to take control of one's own learning and suggests that it is probably difficult to define autonomy more accurately than this, for control can manifest itself into a number of ways, which he explained a. under control over learning management, b. control over cognitive processing and c. control over learning content.

1-2- Artificial Intelligence Tools and Language Learning:

Generative AI has quickly risen to become a dominant theme in the discussions about language learning and teaching, which is only a reflection of its infiltration into the learning processes inside and outside the classroom. It is defined as: "Computer systems that utilize algorithms to mimic human cognitive abilities and carry out tasks traditionally needing human

intelligence, such as speech recognition, decision-making, and pattern identification (Ali et al., 2024; Sheikh et al. 2023 cited in Moorhouse and Wong, 2025)⁽⁷⁾. Since the launch of OPEN AIs' Chat GPT in November 2022, it has become central to educational debates. Nguyen et al. (2022, pp. 4221 and 4223) describe it as “one of the most pivotal developments in the century” (cited in Zapata, 2025)⁽⁸⁾. Its inception has certainly had a profound impact, which is still witnessed everyday. Meanwhile, its adoption has incited strong reactions ranging between excitement and total rejection. Some institutions have even completely inhibited their students from using ChatGPT (Elsen-Rooney, 2023; Sullivan et al., 2023 cited in Oranga et al., 2025)⁽⁹⁾

Nonetheless, scholars acknowledge the incredible potential that AI tools can bring to the language learning process. While, the concept encapsulates a range of diverse tools with distinct features such as voice recognition and writing assistance, these tools provide groundbreaking affordances, especially for language learning. Moorehouse and Wong (2025)⁽¹⁰⁾ provide a classification of AI tools and platforms that is particularly relevant to language teaching and learning, into three categories:

1- Conversational AI chatbots: It is another name for LLM-based chatbots or GenAI chatbots. It includes tools by OpenAI (e.g., ChatGPT 3.0, GPT-4.0), Google (e.g., Gemini 1.5- Flash), Anthropic (e.g., Claude), and Meta (e.g., Llama). The distinct feature about these tools is that they have a human-like conversational interface. Some of the models are able to interpret multi-modal input. They can perform a wide range of human-like tasks such as:

- Content creation: they are able to generate human-like texts, with unlimited features such as the choice of the tone and the audience.
- Conversation: these tools offer language learners the opportunity to engage in contextualized conversations. Moreover, they can take on the role of a fictional or real character such as a friend or even a fictional character.
- Text evaluation, summarization and analysis: not only are conversational AI chatbots able to read a wide range of multi-modal texts such as audio and video files but they are also able to conduct a range of operations on them such as evaluation and analysis.
- Translation and interpretation: according to Moorehouse and Wong (2025)⁽¹¹⁾ those tools are able to provide more accurate translation than the current tools, by virtue of their ability to interpret the contextual clues within the text.

2- Visual, audio and video generators: AI tools such as Dall-E, and MidJourney, and Adobe Firefly are able to provide the user with modifiable visuals, audio and video. Some can even generate natural-sounding speech with different accents such as Speechflow AI. Others such as Sora AI are able to generate highly creative videos and lively scenes, to name a few.

3- Tools with embedded GenAI functions and specialist AI tools: also known as AI assistants or co-pilots. They continue to dominate the AI scene thanks to their ease of use. Language platforms such as Kahoot have also been integrating them through its AI assistant, where users can generate quizzes for self-assessment. Clearly, AI tools provide incredible opportunities that span all language aspects. They can even be beneficial for many stakeholders in education as well as for learners themselves.

1-3- Artificial Intelligence as a Catalyst for Autonomous Language Learning:

Although the relationship between learner autonomy and technology dates back to the earliest initiation of the concept and its link to self-access language learning (Benson, 2011)⁽¹²⁾, this dynamic has been accentuated even more today thanks to the appearance of AI tools and platforms. Fuchs et al. contend, “Within the realm of technology-mediated language instruction, the concept of autonomy has been increasingly foregrounded – and now even more so against the background of a worldwide pandemic, which forced much of educational practices into online spaces by spring of 2020.”⁽¹³⁾ (2021). In the same vein, Benson (2011)⁽¹⁴⁾ underscores the strong link between learner autonomy and Computer Assisted Language Learning (CALL), explaining that there are three ways through which CALL can be supportive of learner autonomy, which are:

- 1- Placing the learner as the controller of every aspect of the learning process;
- 2- Allowing wider access to authentic language learning materials;
- 3- Allowing for wider access to the interactive use of the language.

More than ever before, these affordances are applicable to AI environments today, as demonstrated through their aforementioned types. AI technologies offer the user the opportunity to take control of their learning through personalized adaptive systems. They broaden access to authentic materials and similarly offer curated conversation opportunities through conversational agents and Intelligent Tutoring Systems.

As demonstrated in the previous section, AI tools have a tremendous potential to transform language education for different communities, not only through the limitless content they provide, but more importantly through their ability to adapt to different needs and contexts Sasmayunita and Assidiqi (2025)⁽¹⁵⁾. This feature ensures that each learner is moving at his or her own pace. It is crucial in order to fill one of the most important gaps in education, which resulted from the inability to meet the diverse needs of all the learners. Thanks to AI tools, students can learn from any place at any time; they are not even required to refer to their teachers for feedback.

Indeed, AI tools have become one of the main channels through which learners are given control over their learning. Tools such as Grammarly and Duolingo offer real-time feedback and adaptive learning paths based on individual performance, allowing learners to improve without the need for a teacher (Sasmayunita and Assidiqi, 2025)⁽¹⁶⁾. This feedback feature in particular is key in enhancing their control over their learning. Amongst the strongest features of AI tools is their ability to support learner autonomy by providing personalized learning paths to the learners that are grounded in feedback and adaptation.

1-4- The Overreliance on AI Tools:

Although the promises that AI tools afford are transformative to language learning, they are only paralleled by the potential damage they may cause. There is currently ample research about the threats that Artificial Intelligence represents for learners. Researchers have been warning of the risks that started to emerge and which might have severe long-term consequences, if not addressed adequately. In a study by Zang et al. (2024), researchers warn of dangers that have been associated with overreliance on AI by students, including: lethargy, misinformation, reduced creativity, critical and independent thinking (cited in Tjano, 2025)⁽¹⁷⁾. Moreover, these risks are increasingly tied to academic dishonesty and plagiarism. The use of AI is also tied to more ethical issues such as data privacy, algorithmic bias, and the increasing digital divide in the world (Kilinc, 2025)⁽¹⁸⁾:

One of the main risks that scholars are warning of is the overreliance on AI and ChatGPT. Dwivedi et al. (2023) defines “user dependency” as the growing tendency of excessively relying on ChatGPT and other artificial intelligence tools to accomplish tasks such as: problem-solving, information seeking, and decision-making processes (cited in Oranga et al. 2025)⁽¹⁹⁾.

Likewise, researchers underscore that this form of reliance on algorithms’ recommendation can be responsible for creating a “filter bubble”, as learners are constantly exposed to only familiar ideas. Eventually, this limited exposure to diversified perspectives will reduce their ability to think critically and independently (Chan and Hu, 2023; Schönau, 2023, cited in Nopas, 2025)⁽²⁰⁾.

2- Research Methodology:

2-1- Research Design:

The current research employs a quantitative, exploratory approach. It was carried out during the second semester of the 2024-2025 academic year at the Department of Letters and Foreign Languages - 20 août 1955 University in Skikda. The study employed a convenience sampling method. The targeted population consisted of 106 Masters’ Level one (M1) students enrolled in the Linguistics and Applied Languages program. The sample is equal to (38) participants and was drawn out from two groups for which the researcher was also the

assigned instructor for the Academic Writing module. The sample was predominantly comprised of female participants, with 35 females and 3 males. Their age range is between 21–37 years old. The mean age for this sample is 22.5 years old. The majority of the respondents are 21–22 years old.

2-2- Data Collection Tool:

The adopted data collection tool was a questionnaire developed by the researcher. It consists of (32) items. The constructs are developed with reference to the literature about learner autonomy, (Benson, 2011)⁽²¹⁾. Its purpose is to measure learners' AI use habits and how they relate to their autonomy. An online survey on Google Forms was distributed among all the students through email. The (32) items are divided into three sections. The first section is the **demographics** and it includes three questions that ask about education level, gender, and age; the second section, entitled “**AI Usage Patterns**” and it includes (23) questions; the items were measured on a 5-point Likert scale ranging from 1 (Never) to 5 (Always) (see appendix: 1)

The third section is comprised of six questions that are grouped under the title “**AI Use and Learner Autonomy**”. All the items were ranked on a 5-point Likert agreement scale: Strongly disagree (1) to strongly agree (5), (see appendix: 2). Participation was voluntary and anonymous. The answers were received between June 4th, and June 6th, 2025.

2-3- Psychometrics:

The reliability of the 29 items in sections two and three of the survey was assessed using Cronbach's Alpha and Composite Reliability to evaluate the internal consistency of the items. The analysis revealed excellent results (Cronbach's $\alpha = 0.924$, CR = 0.815). Due to the exploratory nature of the study and the sample size ($n=38$), only those two metrics were used; construct validity was not calculated through factor analysis. The high internal consistency, however, indicates that the instrument is reliable for measuring the intended constructs and provides a solid foundation for interpretation of the survey.

Table n°1: Psychometrics

Reliability Metric	Value	Interpretation
Cronbach's Alpha (α)	0.924	Excellent
Composite Reliability (CR)	0.815	Good
Number of Items	29	---
Sample Size	$n = 38$	---

Note: Cronbach's α and Composite Reliability (CR) assess internal consistency of the survey instrument.
 Interpretation thresholds: Cronbach's α : ≥ 0.90 = Excellent, 0.80-0.89 = Good, 0.70-0.79 = Acceptable, < 0.70 = Questionable.
 Composite Reliability: ≥ 0.80 = Good, 0.70-0.79 = Acceptable, < 0.70 = Poor

3- The Results:

The results obtained through the survey were carefully analyzed. The researcher used descriptive statistics, including percentages and means, in order to obtain a comprehensive view of the learners' usage frequencies and patterns through the second section (23 items), in addition to their perceptions about their AI usage as it relates to their autonomy in the last section (06 items).

3-1- Learners’ AI Tools Use Patterns:

Table n°2: AI Use Patterns

Item No.	Item Description	Mean	Never (%)	Rarely (%)	Sometimes (%)	Often (%)	Always (%)
1	AI for learning inside classroom	2.97	7.9	18.4	47.4	21.1	5.3
2	AI for learning outside classroom	3.61	2.6	15.8	31.6	18.4	31.6
3	AI for writing tasks	2.95	5.3	21.1	52.6	15.8	5.3
4	AI for speaking/oral presentations	2.08	34.2	34.2	21.1	10.5	0.0
5	AI to correct grammar	2.82	18.4	18.4	36.8	15.8	10.5
6	AI to learn vocabulary	3.05	18.4	15.8	28.9	15.8	21.1
7	AI to explain lesson concepts	3.97	5.3	2.6	18.4	36.8	36.8
8	AI for reading tasks	1.82	52.6	21.1	21.1	2.6	2.6
9	AI for listening tasks	1.74	63.2	15.8	10.5	5.3	5.3
10	Get feedback on classroom tasks	2.61	28.9	21.1	21.1	18.4	10.5
11	Correct assignments	3.0	13.2	26.3	23.7	21.1	15.8
12	Explain difficult concepts	4.08	2.6	2.6	21.1	31.6	42.1
13	Set learning goals	2.61	36.8	10.5	21.1	18.4	13.2
14	Evaluate course progress	2.45	36.8	18.4	18.4	15.8	10.5
15	Suggest resources (books/articles)	3.76	5.3	7.9	23.7	31.6	31.6
16	Help with study schedule	2.26	44.7	18.4	13.2	13.2	10.5
17	Writing assistance (brainstorming/drafting/editing)	2.63	21.1	28.9	23.7	18.4	7.9
18	Evaluate work and suggest improvements	2.82	15.8	26.3	28.9	18.4	10.5
19	Rely on AI feedback to adjust learning	2.58	21.1	34.2	21.1	13.2	10.5
20	Break down complex topics	3.66	7.9	7.9	28.9	21.1	34.2
21	Assess progress and identify improvement areas	2.92	15.8	23.7	26.3	21.1	13.2
22	Assess learning habits and identify improvements	2.55	36.8	18.4	13.2	15.8	15.8
23	AI quizzes for self-evaluation	2.66	34.2	21.1	10.5	13.2	21.1

High (M >= 3.5)

Medium (2.5 <= M < 3.5)

Low (M < 2.5)

As demonstrated in Table 2, which pertains to the second section of the survey, there are many important insights that can be deduced. According to the obtained results, a number of trends emerge. The first observation that can be noticed is that learners prefer to use AI tools to accomplish certain tasks more than others. As illustrated in the above table, learners use AI tools mainly in order to explain difficult concepts; this can be seen through the following statements, which received the highest means; they relate to the following tasks: **explain concepts (4.08)**, **concept explanation (3.97)**, and **breaking down topic (3.66)**. This reveals

that the learners are using those tools strategically in order to improve their understanding. It certainly demonstrates a considerable exercise of agency among the learners.

Moreover, the second important pattern that can be traced through the results is represented through statements such as **Resource suggestion (3.76)** and **AI usage outside the classroom (3.61)**. Resource selection is a crucial skill for autonomous learners. This reveals that learners are not using AI only in the most direct way, which consists of answering questions, but in an even more elaborate way, which extends beyond what the teachers offer inside the classroom. Students' use of AI outside the classroom is an indicator of their awareness of its potential for their learning, even when they are not in an educational environment.

Although the majority of the statements are positively indicative of the fact that the learners are using AI tools to take control of learning, it is worth to point out those statements such as: **set learning goals (2.61)**, **work evaluation (2.82)**, and **set a learning schedule (2.26)**, received considerably lower means. This is equally insightful as the previous statements. It can be an indication that learner's use of AI tools is still elementary. Although skills such as self-evaluation are fundamental to create a successful learning experience and for the learner to adjust their learning, there still seems to be a gap in this area. It can also be seen through the learners' inability to use AI in order to plan their learning and set short-term goals or schedules. As both of these skills are fundamental for autonomous learners, the results demonstrate that learners' control of their learning using AI tools is limited and is interestingly focused on their immediate needs. The mismatch between these essential skills and learners' use of those tools for understanding certainly reveals that learner's use of AI to direct their learning is seemingly only superficial.

Analysis of section number two reveals that there is a clear discrepancy in the results, with strong implications for learner autonomy. The difference in the means is notable. Whereas statements such as number (7), (12), and (20) are above (3.5), conversely, statements such as those related to higher metacognitive skills received markedly low means. This includes statement number (14), which pertains to the evaluation of course progress, which received only (2.45). Similarly, statement number (16), which asks about the use of AI in setting a study schedule received only (2.26). Statements number (10), (11), (18), (21), (22) and (23) pertaining to self-monitoring and evaluation received only a medium mean which does not exceed three out of 5. Statement number (13), asking about the use of AI to set learning goals, received an even lower mean which is equal to (2.61). This reveals that although students are making use of AI tools to support their understanding, they are still not taking full advantage of them in order to improve their metacognitive skills such as strategic planning, monitoring, and self-evaluation.

It is also important to highlight that when it comes to language skills, learners rely on AI tools to improve their vocabulary (3.05), Writing tasks (2.92) and Grammar (2.82) which is demonstrated through statements number (06), (03) and (05). Conversely, the speaking skill received one of the lowest means with only (2.08), which suggests their lack of awareness of the full potential of those tools.

3-2- AI Use and Learner Autonomy:

The last section of the survey asked students about some features of learner autonomy such as: taking control of their learning, confidence, dependence on the teacher, and motivation.

Table n°3: AI Use and Learner Autonomy

Item No.	Item Description	Mean	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
1	AI increases my motivation	3.24	2.6	23.7	31.6	31.6	10.5
2	Less dependent on teacher with AI	3.13	7.9	26.3	18.4	39.5	7.9
3	More confident managing learning with AI	3.37	13.2	18.4	7.9	39.5	21.1
4	Difficult to complete tasks without AI	2.55	15.8	31.8	34.2	18.4	0.0
5	Rely on AI instead of self-effort	2.34	23.7	36.8	23.1	18.4	0.0
6	AI as guide - more control of learning	3.79	5.3	7.9	15.8	44.7	26.3

High (M >= 3.5)

Medium (2.5 <= M < 3.5)

Low (M < 2.5)

The questions in this section are more specific in the sense that they directly evaluate the learner's autonomy and dependency behaviors. Final results suggest that learners' use of AI tools can be regarded as moderately positive. The statement that asks about their **control over the learning** has surprisingly the highest mean (3.79), which could be a good indication of the positive effect that the use of AI tools has on learners' sense of autonomy and self-direction of learning. This feeling of empowerment and control can also be traced through the statement that asks about their sense of **confidence in managing their own learning** (3.37). In the same vein, statement number (02) in this section, asking about **their sense of independence from the teacher** received a considerably high mean (3.13). The same pattern can be traced through statement number (01) asking about **their motivation** (3.24). There is a clear consistency in the results.

The second interesting insight in this section can be seen through the results pertaining to statements number (04) and number (05) which aim to uncover the students' reliance on AI for learning, which have received a moderately medium score (2.55) and (2.34) correspondingly.

Although the scores are relatively low compared to the above statements, they are still significant. Both are above the average score. Statement number (04) particularly, indicates the extent to which AI tools have become an integral part of the learning process and how students are beginning to rely more on AI than on their own independent thinking. The results demonstrate that there are students who are clearly at-risk. Given the above number, this phenomenon can easily propagate in the future. It is particularly insightful and alarming because the sample is constituted of Master students who are supposed to show more intellectual autonomy and higher cognitive and metacognitive skills. If not addressed properly, this can signal a real issue in education in the near future.

Conclusion:

This study examined Artificial Intelligence tool and its integration in learning amongst Algerian University EFL learners through the analysis of AI use patterns and attitudes across a (32) item survey. The findings are particularly insightful for an exploratory study. They reveal clear unbalanced trends and discrepancies that require further studies.

Noticeably, through analysis of the second section of the survey, it was revealed that students are relying on AI tools mainly to support their understanding, as indicated in statements such as number (07) and (12). These two statements had the highest mean. This reveals that learners use AI as an explanatory tool. Although this helps to exercise more

control over their learning (Benson, 2011), it still shows that their usage is still basic. Metacognitive skills, which are an essential part of learners' autonomy, scored consistently medium to low means, as indicated through statements (23), (18), and (10).

Results from the last section of the questionnaire came to support insights from the second section. Learners' use of AI tools is globally positive due to the sense of control they provide them with. This can be observed in statement (06) as well as in statement (03). The latter provides them with the sense of confidence. This is concomitantly challenged by the other results, which indicate that there is a considerable risk that should be taken with careful consideration. Statements such as (04) and (05), which ask about the ability of the learners to carry out their task without relying on AI, back up this insight. Although their means are somehow medium, they are particularly indicative in light of the chosen sample. Master's students are expected to demonstrate more self-reliance and higher autonomy both cognitively and metacognitively. We are still at the initial stage of AI use, but if this issue is not addressed, it risks multiplying and escalating in the near future. Apparently, students' reliance was only pivoted from the teacher to Artificial Intelligence tools.

To conclude with, the results challenge the binary view about AI in education. It was revealed that although some of the students are using AI tools to support their learning, this exists alongside significant concerns such as overreliance on AI and AI dependency. As AI tools are increasingly becoming an integral part of learners' lives, thus more studies are necessary in order to find out more about their usage and how they constantly interact. It is equally essential to develop the adequate pedagogies that harness the power of those tools while maintaining meaningful learning through cognitive engagement and autonomy.

Endnotes:

- 1- Fuchs, C., Hauck, M., & Dooly, M. (Eds.). (2021). Language education in digital spaces: Perspectives on autonomy and interaction. Springer Nature Switzerland AG, p. 4.
- 2- Benson, P. (2011). Teaching and researching autonomy in language learning (2nd ed.). Pearson Education, p. 10.
- 3- Fuchs, C., Hauck, M., & Dooly, M. (Eds.). (2021). Language education in digital spaces: Perspectives on autonomy and interaction. Springer Nature Switzerland AG, p. 1.
- 4- Benson, P. (2011). Teaching and researching autonomy in language learning (2nd ed.). Pearson Education, p. 9.
- 5- Little, D. (2020). Language learner autonomy: Rethinking language teaching. *Language Teaching*, *53*, 1–10, p. 1.
- 6- Benson, P. (2011). Teaching and researching autonomy in language learning (2nd ed.). Pearson Education, pp.92-118.
- 7- Moorhouse, B. L., & Wong, K. M. (2025). Generative artificial intelligence and language teaching. Cambridge University Press. <https://doi.org/10.1017/9781009618823>, p. 12.
- 8- Zapata, G. C. (Ed.). (2025). Generative AI technologies, multiliteracies, and language education. Routledge, p. 1.
- 9- Oranga, J., Njurai, E., Gisore, B., & Areba, G. N. (2025). Impact of artificial intelligence on education: Does ChatGPT facilitate or impede learning? In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 71-86). Springer. https://doi.org/10.1007/978-981-96-9251-4_3, p. 72.
- 10- Moorhouse, B. L., & Wong, K. M. (2025). Generative artificial intelligence and language teaching. Cambridge University Press. <https://doi.org/10.1017/9781009618823>, pp. 6-16.
- 11- Moorhouse, B. L., & Wong, K. M. (2025). Generative artificial intelligence and language teaching. Cambridge University Press. <https://doi.org/10.1017/9781009618823>, pp. 6-16.
- 12- Benson, P. (2011). Teaching and researching autonomy in language learning (2nd ed.). Pearson Education, p. 10.
- 13- Fuchs, C., Hauck, M., & Dooly, M. (Eds.). (2021). Language education in digital spaces: Perspectives on autonomy and interaction. Springer Nature Switzerland AG, p. 1.
- 14- Benson, P. (2011). Teaching and researching autonomy in language learning (2nd ed.). Pearson Education, p. 152.
- 15- Sasmayunita, & Assiddiq, M. A. (2025). The role of artificial intelligence (AI) in promoting autonomous learning in language education: Benefits and challenges. In *Proceedings of the 5th*

International Conference on Linguistics and Cultural Studies (ICLC-5 2024) (pp. 349-363). Atlantis Press. https://doi.org/10.2991/978-2-38476-394-8_40, p. 350.

16- Sasmayunita, & Assiddiq, M. A. (2025). The role of artificial intelligence (AI) in promoting autonomous learning in language education: Benefits and challenges. In Proceedings of the 5th International Conference on Linguistics and Cultural Studies (ICLC-5 2024) (pp. 349-363). Atlantis Press. https://doi.org/10.2991/978-2-38476-394-8_40, p. 351.

17- Tjano, R. N. (2025). Rethinking education: Artificial intelligence-powered learning tools, human–computer interaction, and transhumanism on cognitive learning and well-being. In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 3-26). Springer. https://doi.org/10.1007/978-981-96-9251-4_1, p. 17.

18- Kilinc, S. (2025). Personalizing education in the AI era: The comprehensive impact of customized chatbots across educational domains. In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 27-65). Springer. https://doi.org/10.1007/978-981-96-9251-4_2, p. 28.

19- Oranga, J., Njurai, E., Gisore, B., & Areba, G. N. (2025). Impact of artificial intelligence on education: Does ChatGPT facilitate or impede learning? In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 71-86). Springer. https://doi.org/10.1007/978-981-96-9251-4_3, p. 79.

20- Nopas, D. (2025). Algorithmic learning or learner autonomy? Rethinking AI's role in digital education. *Qualitative Research Journal*. <https://doi.org/10.1108/QRJ-11-2024-0282>, (no page).

21- Benson, P. (2011). *Teaching and researching autonomy in language learning* (2nd ed.). Pearson Education.

References:

1- Books:

– Adarkwah, M. A., Amponsah, S., Huang, R., & Thomas, M. (Eds.). (2025). *Artificial intelligence and human agency in education: Volume two: AI for equity, well-being, and innovation in teaching and learning*. Springer Nature. <https://doi.org/10.1007/978-981-96-9251-4>

– Benson, P. (2011). *Teaching and researching autonomy in language learning* (2nd ed.). Pearson Education.

– Fuchs, C., Hauck, M., & Dooly, M. (Eds.). (2021). *Language education in digital spaces: Perspectives on autonomy and interaction*. Springer Nature Switzerland AG.

– Kilinc, S. (2025). Personalizing education in the AI era: The comprehensive impact of customized chatbots across educational domains. In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 27-65). Springer. https://doi.org/10.1007/978-981-96-9251-4_2

– Liu, W. (2024). The integration of ChatGPT in language education: Exploring contexts, assessing impacts, and unpacking implications. In F. Pan (Ed.), *AI in language teaching, learning, and assessment* (pp. 1–21). IGI Global. <https://doi.org/10.4018/979-8-3693-0872-1>

– Moorhouse, B. L., & Wong, K. M. (2025). *Generative artificial intelligence and language teaching*. Cambridge University Press. <https://doi.org/10.1017/9781009618823>

– Oranga, J., Njurai, E., Gisore, B., & Areba, G. N. (2025). Impact of artificial intelligence on education: Does ChatGPT facilitate or impede learning? In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 71-86). Springer. https://doi.org/10.1007/978-981-96-9251-4_3

– Pan, F. (Ed.). (2024). *AI in language teaching, learning, and assessment*. IGI Global. <https://doi.org/10.4018/979-8-3693-0872-1>

– Tjano, R. N. (2025). Rethinking education: Artificial intelligence-powered learning tools, human–computer interaction, and transhumanism on cognitive learning and well-being. In M. A. Adarkwah, S. Amponsah, R. Huang, & M. Thomas (Eds.), *Artificial intelligence and human agency in education: Volume two* (pp. 3-26). Springer. https://doi.org/10.1007/978-981-96-9251-4_1

– Zapata, G. C. (Ed.). (2025). *Generative AI technologies, multiliteracies, and language education*. Routledge.

2- Journal articles:

– Fakheth, I. (2024). Exploring learner autonomy readiness among Algerian university EFL learners: The case of first year master students at 20 août 1955 University, Skikda. *Ziglobitha, Revue des Arts, Linguistique, Littérature & Civilisations*, 9, 439–450.

- Little, D. (2020). Language learner autonomy: Rethinking language teaching. *Language Teaching*, *53*, 1–10. <https://doi.org/10.1017/S0261444820000488>.
- Ni Uanachain, D. M., & Aouad, L. I. (2025). Generative AI in education: Rethinking learning, assessment & student agency for the AI era. *Thresholds in Education*, 48(1), 111-132.
- Nopas, D. (2025). Algorithmic learning or learner autonomy? Rethinking AI’s role in digital education. *Qualitative Research Journal*. <https://doi.org/10.1108/QRJ-11-2024-0282>.
- Sasmayunita, & Assiddiq, M. A. (2025). The role of artificial intelligence (AI) in promoting autonomous learning in language education: Benefits and challenges. In *Proceedings of the 5th International Conference on Linguistics and Cultural Studies (ICLC-5 2024)* (pp. 349-363). Atlantis Press. https://doi.org/10.2991/978-2-38476-394-8_40.
- Sehlaoui, F. Z. (2024). Integrating AI in foreign language teaching and learning: Learner autonomy and tool utilization in an Algerian university. *Passerelle*, 13(2), 116-139.

Appendix 1: Learners’ AI Usage Patterns (second section)

Please, Rate these statements according to your personal habits *

	NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
I use AI tools for learning inside the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI tools for learning outside the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to accomplish my writing tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to accomplish my speaking tasks (oral presentation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to correct my Grammar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to learn new vocabulary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to explain concepts from a lesson	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to accomplish a reading task	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use AI to accomplish a listening task	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
GET FEEDBACK ON MY CLASSROOM TASKS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CORRECT AN ASSIGNMENT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EXPLAINING DIFFICULT CONCEPTS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SETTING LEARNING GOALS FOR MYSELF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EVALUATING MY PROGRESS IN A COURSE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASKING FOR SUGGESTIONS ABOUT RESOURCES SUCH AS BOOKS OR ARTICLES	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASKING AI TO HELP WITH STUDY SCHEDULE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WRITING ASSISTANCE (BRAINSTORMING,DRAFTING, WRITING,EDITING)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EVALUATE MY WORK AND SUGGESTING IMPROVMENT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I RELY ON AI FEEDBACK TO ADJUST MY OWN LEARNING	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I USE AI TO BREAK DOWN COMPLEX TOPICS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I USE AI TO ASSESS MY PROGRESS AND IDENTIFY AREAS THAT NEED IMPROVEMENT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I USE AI TO ASSESS MY LEARNING HABITS AND IDENTIFY AREAS THAT NEED IMPROVEMENTS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I USE AI QUIZZES TO SELF EVALUATE MY UNDERSTANDING OF A TOPIC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 2: Learners' AI Use and Learner Autonomy (third section)

To what extent do you agree with the following *

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I feel motivated when I am using AI during the learning process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel less dependent on the teacher thanks to AI tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more confident in managing my learning thanks to AI tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it difficult to complete learning tasks without the help of AI tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rely on AI assistance instead of trying to answer questions myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With AI I feel more in control of my own Learning . I use it only as a guide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>