



Investigating the Use of Technology as a Tool for Writing Self-Assessment: The Case of L3 EFL Students at Tlemcen University

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Abstract

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The fast technological advancement in education has impacted the field of assessment. Nowadays, students can assess themselves using AI tools. However, the use of technology is problematic: it either helps learning or lead to cheating, especially in writing. Given the lack of research, at Tlemcen University, regarding technology-based writing self-assessment, the current study aims to identify the strategies used by students to develop writing self-assessment using technology and the teachers' role in this process. To achieve this end, a case study was conducted, and data were collected through a triangular approach that included a semi-structured interview with teachers and a questionnaire for students. Next, data were analysed both quantitatively and qualitatively following a mixed-method approach. The main results of this study reveal that students show positive attitudes towards technology-based self-assessment. They use digital tools to check grammar and vocabulary, brainstorm ideas, find references, and rephrase their original work. As far as teachers are concerned, a large portion of the respondents demonstrate a sort of resistance towards technology integration into their classes. Accordingly, this research contributes, to some extent, to better understand both students' and teachers' attitudes towards this topic. It also provides the rationale behind teachers' standpoint.

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1. Introduction

It is well established in the literature review that the concept of self-assessment is necessary to promote academic achievement. It enables students to become autonomous and take charge of their own learning by identifying their strengths and weaknesses. Nowadays, the technology advancement is having significant impact on teaching and learning processes. The emergence of ChatGPT and similar tools is considered as a revolution since they generate human-like texts and give immediate feedback. EFL students should take advantage of these tools, especially in developing their writing skills.

Writing is an important productive skill to be developed in higher education.; however, students still find this skill challenging. The implementation of self-assessment might help them overcome writing difficulties. This task seems to be made easier thanks to AI tools, which provide immediate feedback that help students make timely corrections of their own work. Nevertheless, students find themselves ill-equipped in terms of strategies that allow them use AI chatbots as scaffolding tools. Thus, it is recent to investigate what are the different strategies used by students and teachers in the era of AI to develop learners' writing self-assessment skills.

The significance of the writing skill relies in the fact that the majority of exams and homework

are supposed to be in written mode. In fact, L3 EFL students at Tlemcen University are still struggling to write their essays and are relying on technology to copy and paste others' work. Some of them cannot even differentiate between well-written compositions and irrelevant ones. Teachers, in their turn, often blame their students on repeating the same mistakes. In fact, students do not benefit from frequent corrective feedback because of overcrowded classes and lack of time. Therefore, technology-based self-assessment implementation might offer a solution to the current situation. The current study will contribute to the understanding of both students' and teachers' attitudes towards the use of technology in developing writing self-assessment.

Given the novelty that AI tools bring to research in self-assessing writing, this study aims to identify the strategies used by L3 students to develop writing self-assessment using technology and the role of the teacher in this process, in the Department of English at Tlemcen University. Writing is taught during the three Licence years as an independent subject. This course is meant to equip learners with the necessary skills that enable them to judge the quality of their work. Nevertheless, students still find it difficult to write their essays. While technology might offer more opportunities for improvement, its integration in the self-assessment process is still subject to inquiry. The present study has two

objectives: Identifying both the strategies used by L3 EFL students to develop writing self-assessment using technology and the teachers' role in guiding their students to develop these strategies.

The study attempts to answer the following questions:

1-What writing self-assessment technology-based strategies are currently being used by L3 EFL students?

2-How do teachers guide their students to best develop these strategies?

These inquiries led to the formulation of the following hypotheses:

1-Most students use technology mainly for editing grammar, spelling and word choice.

2- Although some teachers allow students' use of technology in writing, the majority play no significant role in implementing technology-based self-assessment.

To verify the above-stated hypotheses and answer the research questions, a case study with L3 EFL Tlemcen University students was conducted. A triangular approach was followed to collect quantitative and qualitative data adopting a questionnaire for students and a semi-structured interview with teachers.

2. Literature Review

This section is meant to shed light on the main literature related to the topic. It revolves around three key elements of the current study: writing, self-assessment and technology.

2.1 Teaching Writing as a Process

The focus on students is at the core of this approach (Tribble, 2003), and attention is shifted to the process of generating texts rather than the final product (Nunan, 1989) since writing is considered a cognitive activity (Hyland, 2019). In this regard, Tribble (2003, p.38) mentions that "the focus shifts from the text to the writer". Flower and Hayes (1981) suggest a model that includes three stages: planning, translating (writing), and reviewing. According to this framework, the production of a piece of writing is a "non-linear, exploratory, and generative process" where writers balance between different stages to construct the final product" (Zamel, 1983, p. 165). In this approach, students develop the necessary skills that serve each stage (Seow, 2002) through suitable tasks (Tuffs, 1993), and importance is given to the flow of language rather than grammar (Hyland, 2019). Students are assessed regularly in a formative way that allows them to benefit from teachers' feedback as they progress in their writing (Nunan, 2015). Although this approach has gained popularity in teaching Writing for EFL students, it is not seen as the perfect one because of minimising the focus on grammar and the final product, in addition to treating all types of texts with the assumption that they follow the same process (Badger & White, 2000).

The concept of self-assessment has been linked to the process

approach because of the drawbacks of the product approach. It was suggested by Nielsen (2012) that its integration entails developing metacognitive skills by training students to assess content, structure, and the goal of writing. Students are also required to reflect on their writing strategies and to evaluate their effectiveness (Lam, 2010). According to Wong and Mak (2019), self-assessment occurs during the different stages of writing: pre-writing, during, and post-writing. In the first stage, students notice their strengths and weaknesses while planning, outlining the work, and being informed about assessment criteria. In the second stage, students are asked to compose the first draft and revise it. In the final stage, the first draft is proofread before being submitted to the teacher. During all these stages, students benefit from formative assessment, and teachers provide the necessary feedback to reach the objectives of the course.

2.2 Definition of Self-Assessment

Andrade, in 2019, reviewed the literature for a more precise

definition of self-assessment. He found that self-assessment is defined with reference to a wide range of activities such as: checklists and reflective journals. While these activities help the process of self-assessment, they do not help to find a universal definition of the term (Andrade & Du, 2007). Table 2.1 shows different scholars' definitions of this concept. These definitions turn around the idea that self-assessment involves the use of different strategies to compare one's performance with predetermined standards for the sake of improvement. The focus is on the learners' engagement in recognising the desired criteria and deliberately using them in their work. However, Boud (1999) pointed out that the meaning of "good practice in self-assessment" is still unclear despite the abundance of self-assessment activities. Moreover, he criticised these definitions for their focus on the final product rather than the whole process.

Table 2.1: Definitions of Self-Assessment Adopted from Bhatti et al. (2020)

Reference	Definition	In a nutshell
Boud (2000) Zimmerman (2002)	Recognizing learner's weaknesses and strengths with a purpose to make improvement in the learning outcomes	Identification of one's capabilities
Harris and McCann (1994)	Involving learners' needs and expectations, worries and problems, feelings about their	Affective and cognitive mechanism

Table 2.1: Definitions of Self-Assessment Adopted from Bhatti et al. (2020)

	own (learning) process, reactions to the methods and materials being used, and thoughts about the course in general	
Bachman (2000)	Applying criteria to an assigned task to make judgments about the level to which these criteria are met	Application of criteria for decision making
Cassidy (2007)	Taking responsibility for one's own learning and performance	Accountability
Andrade and Valtcheva (2009)	A formative process which requires students to reflect on the quality of their work to evaluate if it meets the stated goals and criteria, and to revise accordingly	Continuous assessment
Gregory, Cameron, and Davies (2011)	Reflecting on the quality of work to judge the degree of its reflection through explicitly stated goals or criteria, following revision accordingly	Reflection on performance
Brown and Harris (2013)	Evaluative and descriptive act carried out by students regarding their own tasks and abilities	Evaluation of performance
Panadero et al.(2016)	A wide-ranging variety of techniques which require students to describe (i.e., assessing and assign merit or worth (i.e., evaluating) to qualities of their own learning processes and products	Learning techniques, Reflection on performance

All these definitions recognise the student's role in the process of self-assessment but dismiss the role

of the teacher. In addition, the cognitive aspect is mentioned, but the emotional one is overlooked. For

a more complete picture, the neglected aspects should be taken into consideration (Bhatti *et al.*, 2020).

2.3 Integrating AI Writing Tools:

Opportunities and Challenges

A plethora of studies highlight the benefits of using AI tools to develop writing skills. For instance, a study conducted by Tambunan *et al.* (2022) proves that Grammarly is an efficient tool to improve students' language proficiency in terms of grammar and punctuation. Grammarly provides immediate recommendations and offers different areas for improvement regarding grammar, clarity, spelling... Another study undertaken by Kurniati and Fithriani (2022) found that QuillBot helps improve students' paraphrasing skills. Moreover, Lam and Moorhouse (2022) conclude that WordTune, another AI tool that adjusts the formality level of students' writing, increases students' awareness about their weaknesses and fosters self-assessment practices. Nowadays, Chat GPT and other similar chatbots have revolutionised the field of education, not least language learning, by offering immediate feedback, generating ideas and text, chatting, and executing different prompts. Mhlanga (2023) found that GPT-3 fosters students' critical thinking and creativity. In the same line of thought, Chocarro *et al.* (2021, p.14) highlight that:

Teachers can find in chatbots an opportunity to increase efficiency and promote the

tool as support when taking charge of certain instructions. Class time could be maximised by downloading certain tasks, such as questions about homework submissions and information requests, in digital assistants such as chatbots. Also, students could learn with chatbots in a personalised way and on demand when there is no teacher available.

AI tools go beyond grammar and the mechanics of language to enhance students' writing structure and content. The findings of a research conducted by Liu *et al.* (2023) revealed that GPT-3 and 4 help writers elaborate human-like texts by suggesting words, sentences, or even whole paragraphs. Another AI tool called "AI KAKU", developed in Japan, offers learners immediate translation and feedback on grammar, which leads to less cognitive load while writing and thus lower cognitive barriers to English learning (Gayed *et al.*, 2022). AI tools also act as researcher allies who help them accelerate the literature review exploration (Wagner *et al.*, 2022).

However, literature also mentioned the drawbacks of such tools. Iskender (2023) highlights that no learning occurs if students get used to these tools and fix their mistakes without reflection. He added that the over-reliance on AI tools decreases the development of students' critical thinking. In the same vein, Johinke *et al.* (2023)

point out that while educators accept the idea of correcting the language, they are concerned about brainstorming using AI tools because this would hinder originality and critical thinking. Farrokhnia *et al.* (2023) believe that AI tools are limited when it comes to more complex types of writing, such as argumentation. (Haleem *et al.*, 2022) sheds light also on the limitations of AI regarding the tone and contexts that lead to the generation of irrelevant texts. Finally, as stated by Mozumder *et al.* (2023), the use of AI favours those who have access to the internet, which leads to the issue of digital equity.

3. Methodology

The present research is a case study. According to Sagadin (1991, p.31):

A case study is used when we analyse and describe, for example each person individually (his or her activity, special needs, life situation, life history, etc.), a group of people (a school department, a group of students with special needs, teaching staff, etc.), individual institutions or a problem (or several problems), process, phenomenon or event in a particular institution, etc. in detail.

The present case study attempts to explore both Tlemcen University EFL students' and teachers' attitudes towards the use of digital tools in assessing writing. It is important to study both students' and

teachers' beliefs and current practices regarding self-assessment and technology before any decision to implement such strategies in Writing classes.

The present work has a two-fold aim: first, to identify the strategies used by L3 students to assess their writing using technology, and second, to investigate teachers' roles in this process. For this purpose, students were chosen randomly using a probability sampling with a simple random method. Thus, all L3 students had the chance to participate without any previous selection. This makes the research more objective. On the contrary, teachers were selected previously to serve the aim of this research. Not any teacher at the Department had the chance to contribute to this study because Writing teachers were targeted to inform about their classroom practices concerning the CWP module. Consequently, a non-probability (non-random) sampling design with a purposive sampling method was used for teachers.

Before starting the interview, the teachers were asked about their teaching experience in general and their experience in teaching Writing. The sample varied from novice to experienced teachers in the field. One teacher has 5 years of experience (2 years as a part-time teacher and 3 years as a permanent teacher), and she has been teaching Writing for the past five years. Another teacher has been teaching for 15 years, with 13 years in

teaching Writing. Another teacher has been teaching for 33 years. He first started as a teacher in a secondary school from 1991 until 2008 (17 years). In 2008, he joined the University. He has taught many modules, among which is Writing. He taught it for two years (2010-2011 and 2011-2012), and since then, he has not taught Writing, but he is a specialist in self-assessment and learner autonomy.

Because no method is perfect (Messaoudi, 2018), the present study draws on triangulation to ensure more reliability. Different facets of triangulation were used for a more valid analysis: The use of both a questionnaire for students and an interview for teachers is considered as “method triangulation”. This facilitates the collection of data from two different samples (population/data triangulation) and the combination of both qualitative and quantitative research (design triangulation).

The questionnaire is the most suitable tool to investigate students' strategies because of their large number. The one adopted in the current study was administered on Google Forms to L3 students in their Facebook Messenger group. L3 students were chosen because they are the most advanced students at the Licence level. These students have sufficient background knowledge that allows them to self-assess their writing and express their needs and expectations from their teachers, especially since the questionnaire was delivered at the end of their

academic year 2023/2024. 52 students answered the questionnaire, which is a reasonable return rate with regard to the time constraints.

The questionnaire consists of fifteen questions, divided into four sections. The first section explores students' beliefs about self-assessment. The second section investigates the use of self-assessment tools and strategies. The third one is devoted to checking teachers' practices through students' lenses. The last part seeks to disclose both students' engagement with technology and teachers' perceptions about digital tools, as well as their pedagogical role in integrating them in the process of writing self-assessment.

In addition, a semi-structured interview was used to gain more insights from teachers' experiences. The interview consists of twelve questions divided into three parts and prefaced by two extra questions asking about teachers' experience at university and their experience teaching writing. Only three teachers out of six responded to the interview invitation, which limits the generalisation of the findings. Two interviews were conducted face-to-face, while the remaining one was held online via the Teams application. Parts one and two of the interview examine the teachers' beliefs and practices concerning the implementation of self-assessment, respectively. The last part answers directly the research question of the study. It serves to explore both

teachers' beliefs and practices using technology.

4. Results

This part presents the findings obtained from both the students' questionnaire and the teachers' interview separately:

4.1 Students' Questionnaire:

This part presents quantitative and qualitative analysis of data collected from the questionnaire:

4.1.1 Students' Beliefs about Self-Assessment

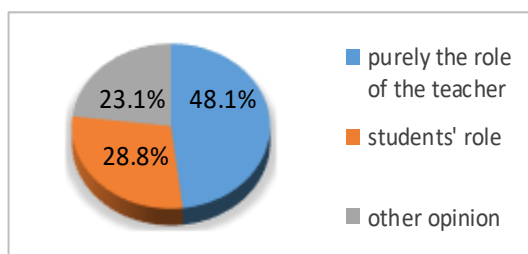


Figure 4.1. Students' Beliefs about Assessment Responsibility

As shown in Figure 4.1, approximately half of the participants (48.1%) declare that assessment is purely the teachers' duty, whereas 28.8% of them believe that they can evaluate their work themselves. The rest of the participants (23.1%) have another opinion than the ones suggested by the researcher. Students were asked a follow-up question to understand the causes of each belief. Only 30 answers received out of 34 are relevant. 11 students have chosen the option "assessment is purely the role of the teacher". The majority of them (7) admit that it is because the teacher is more knowledgeable and has more experience, whereas 4 participants think that this is the

teacher's duty to assess their work. The second group (10 students) believes that assessment is the students' role for different reasons. Some of them mentioned that if they worked hard, they would be able to assess their work. Others assume that if they know the requirements, they will take such responsibility. Others point out that at this level, they should be trusted and given the opportunity to be active learners. One student highlights that good writing is quite visible, and one should just compare their work to a sample to see the gap. The last group, who have another opinion (10 respondents), declare that both teachers and students should share this responsibility because they complement each other.

4.1.2 The Use of Technology in Writing Self-Assessment

This section tackles directly the research questions of the study, and is divided, in turn, into six parts:

• Students' Use of Technology in Writing

From Figure 4.2, it seems that the vast majority of students (90%) use technology in writing their essays. Further questions were asked to know how students benefit from it.

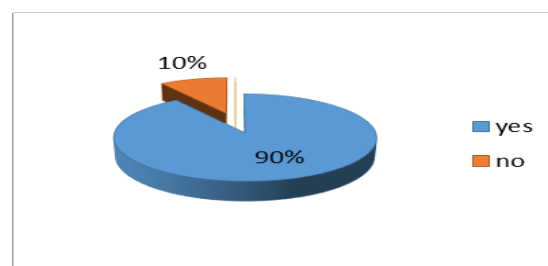


Figure 4.2. Students' Use of Technology in Writing.

- **Digital Tools Used in Writing**

This is an open-ended question meant to gather information about the type of digital tools used by students in writing, and it requires qualitative analysis. When summarising students' answers, it was found that they turn around two main tools: AI (artificial intelligence) and Google. The participants rely on Chat GPT, Gemini, Grammarly, and grammar checkers. Other tools were also mentioned, like WordCount, Quillbot, Copilot, Hemingway, and Hyper Writing. Translation of words and expressions was realised through Google Translate and Reverso Context. Google is used to find sources, verify information, pick up some expressions, check spelling and meaning, and find vocabulary and synonyms. Only one student claims the use of the U Dictionary, and another reveals the reliance on online stories.

- **Students' Strategies in Using Technology in Writing**

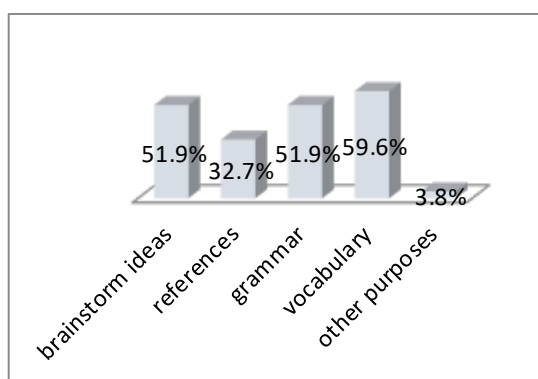


Figure 4.3. The Different Ways Students Benefit from Technology in Writing

Figure 4.3. exhibits how the participants benefit from technology in writing. More than half of the students (59, 6%) use mobile applications and websites to look for vocabulary. Approximately similar relative frequency (51.9%) confirms the reliance on technology in brainstorming ideas and checking grammar. A proportion of 32, 7% of learners claim that technology is a tool to find references. A minority of 3,8% (6 students) express the need for technology to serve other purposes. Only one of them confesses that he/she uses it to get a new version of their essay, which is generally better. Therefore, ideas from both essays are collected.

- **Teachers' Permission to Use Technology in Writing**

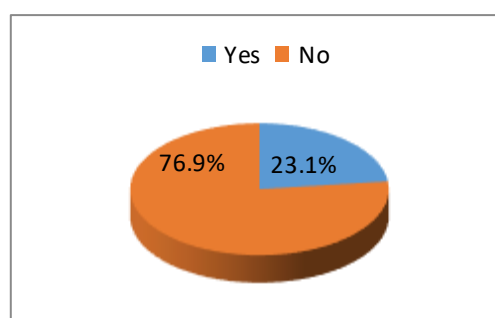


Figure 4.4. Teachers' Permission to Use Technology in Writing

Concerning teachers' permission to use technology, a large percentage of students (76.9%) demonstrate that they are not allowed to do so. The opposite was claimed by the remaining group (23, 1%). To understand the reasons behind this clash of viewpoints, another question was asked to give room for students to express themselves.

According to the respondents' answers, teachers who ban technology in their classrooms claim that it is misused, and then it is harmful to the development of students' skills and brains. They have noticed that students are getting addicted to mobile applications and becoming spoon-fed and unable to rely on themselves. This is why teachers are afraid that technological advancement destroys this generation's creativity. The participants also state that this negative attitude emerges from perceiving technology as favouring plagiarism, cheating, and laziness. They are also warned of failing in the exams because of a decrease in their productivity. A contrasting viewpoint is held by a category of teachers who believe that technology is a double-edged sword that may help either improve writing or cheat. They highlight the usefulness of this educational tool, especially in gaining time and extending ideas. However, they advise their students to avoid copying and pasting whole essays. Finally, it is noteworthy that 03 participants have no idea about their teachers' perception concerning this debate.

- ***Teachers' Role in Guiding Learners to Benefit from Technology in Writing***

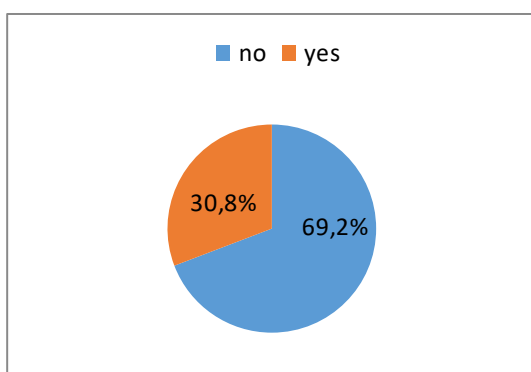


Figure 4.5. Teachers' Guidance about the Use of Technology in Writing.

As illustrated in Figure 4.5, a large group of students (69,2%) claim that they receive no help from their teachers about how to use technology in an adequate way to improve their writing. On the contrary, an important portion of the participants (30,8%) claim that they benefit from teachers' assistance. When asked for further explanation, 10 out of 16 students accepted to answer. Four students mentioned that they were advised first to do the work, in their own words, and then refer to websites and mobile applications to check for mistakes (Grammar was mentioned twice, and style was mentioned once.) One student claims that the literature teacher suggests checking language formality using mobile applications such as Hemingway. Three respondents respectively explain that teachers propose a mobile application or a website to practise writing, ask students to look for exercises with a key and find websites or mobile applications to learn from, or encourage the use of digital tools to promote the writing process through receiving constructive feedback from peers and professionals. One student reports that teachers suggest practising writing by rephrasing the text generated by the tool. For

others, AI is also a means to find references (as mentioned by 2 students). However, one student highlights that it sometimes provides wrong information. Finally, one answer was too vague, and the respondent said that the teacher gave some advice.

4.2 Teachers' Interview Analysis

This part presents the qualitative analysis of data collected from the interview:

4.2.1 Teachers' Beliefs about

Assessment Responsibility

All teachers (3) agreed that assessment is a shared responsibility between teachers and students. One teacher argued that:

All depends on the method you follow in teaching Writing. Now, if you are teaching product writing, then the assessment is on the shoulders of the teacher. Now, if you teach process writing, then assessment is on behalf of the teacher and the students.

He added: "Because process writing dictates that. When you follow this type of writing, you are obliged to do the teacher's assessment and peer assessment, and self-assessment." A follow-up question was asked about which approach he used when teaching Writing to confirm his own belief. He answered that the product approach is outdated, and he believes that all teachers are following process writing now. Another teacher asserted that although assessment is her duty,

students should develop their autonomy to be able to correct themselves when needed. Another teacher mentioned that at the beginning of her career, she thought that assessment was purely her role, but later on, she gained insights into the importance of peer-assessment.

4.2.2 Teachers' Practices in

Implementing Self-Assessment in Writing

This section focuses mainly on the teachers' use of checklists and discussions to develop students' self-assessment.

- ***Teachers' Opinion about the Use of Checklists***

The three respondents have used ready-made checklists that they have tried to adapt to respond to their course objectives. They all agreed that checklists were very beneficial for their students because they show them the track that they should follow. One teacher pointed out that checklists also raise students' attention and motivation. However, she specified that the improvement seen was at the level of paragraph or essay structure (indent, topic sentence...), but checklists did not help improve students' grammar, spelling, and punctuation. She also mentioned that their use is challenging, at the beginning, with L1 and L2 students, because when they cannot answer it, they tend to be noisy, and they skip it. "Training students to get used to them takes some time, but later on, the experience becomes more enjoyable," she added. However, she highlighted that she motivated her

students with TD marks because, without grades, students resist working. A follow-up question was asked to this respondent to examine the situation with L3, where the module of Writing at this level is 100% (i.e., without TD marks). She answered that teaching Writing to L3 is very challenging because they are demotivated. She added:

Believe it or not. I was teaching the same group in L2, and then I moved with them to L3. They become different students, though they are mine in L2. They become demotivated. Some do not come at all, and before in L2, they were very motivated: they had good marks, they were attentive, they participated in class, etc, but in L3, their behaviour, their classroom engagements, their interaction in class changed at 180 degrees.

Another follow-up question was asked to investigate the causes of this behaviour from the teachers' perspective. She linked the reasons to the syllabus, the coefficient, to the fact that there is no TD for this module. She claimed that these are more administrative staff than professional ones.

- ***Discussion Benefits for Teachers***

One among the three teachers highlighted that from discussing with students about their problems in writing, he noticed that most students, mainly novice ones, suffer from negative transfer from their

mother tongue into the target language, and his role was to give them advice about their concerns. The two other teachers claimed that discussion allows them to notice misunderstandings and to re-explain the missing points. One of them explained that it is an occasion for shy students, especially, to feel at ease and ask for help, and this is for her “a big accomplishment”. However, the other one mentioned that she gathers the common mistakes and highlights them on the board because she cannot teach everyone how to improve every mistake in their draft. It is noteworthy to mention that when interviewing this teacher, the interviewer felt that the question was misunderstood at the beginning, and the answer focused more on how students benefit from discussion rather than the teacher herself. Therefore, the question was reformulated to gain more clarification from this teacher, and it was as follows: What about your teaching? For example, when you see that something is unclear for them or presents a problem, do you insist on it? She answered that she focuses on the common mistakes before exams, before the makeup exam, before tests, and after finishing a unit. She pointed out that she advises her students to work on reducing or avoiding such mistakes.

4.2.3 The Use of Technology

This section focuses on the core question of the study.

- ***Teachers' Permission to Use Technology in Writing***

This was a yes/no question that aimed to investigate whether the interviewees allow their students to use technology in writing their essays or not. The results revealed that only 1 out of the 3 teachers permits its use. Then teachers were asked to express themselves and justify their answers. The proponent of technology claimed that: “as far as checking, as far as writing and having feedback from ChatGPT, it is a teacher in parallel”. The two teachers who have a different viewpoint argued that they encourage students to use their writing abilities because if they allow them to use Chat GPT, they will totally over-rely on it, and it will be a tool for cheating (copy and paste). One among them explained that: “In writing essays for other modules, maybe, but for the Writing module, no, because this module develops writing”. She added that the Algerian context is not suitable for such a thing. She pointed out:

I believe improving a skill should be purely done by students, because you know, if we are dealing with other students from a different culture, I can use it, but we should not lie to ourselves. Our students like ready things...

The second teacher, having a similar opinion, declared that she prefers having a piece of writing full of red, and feels that it is made by humans rather than something taken from another source, just to finish the assignment. She claimed that:

I was happy to read a piece of writing made by the students because you are here to learn from your mistakes, but if you take something pre-made, you will never improve, neither in your writing nor your knowledge. Because when you read, when you analyse, when you paraphrase, when you summarise, using your own understanding, you did it, and then you can ask to proofread, to correct mistakes but taking the content, which is wrong, and I can confirm that what comes out of Chat GPT is wrong... What is the point?”

A follow-up question was asked to the one who encourages the use of technology in Writing to gain insight about any suggested mobile applications or websites and how to use them adequately for self-assessment. The informant replied: “No, I'm not in that. I am very primitive in this domain ... these students nowadays are better informed than us teachers”. He mentioned that he can give them advice and speak about ethics in teaching and in studying, but he cannot control every classroom because of the large number of students.

• Teachers' Reflections about their Role in Assessing Writing within the AI Era

In this question, the interrogated teachers were asked if it is high time to rethink the role of the

teacher in assessing writing with the widespread use of AI tools such as ChatGPT and Gemini. The three teachers found it a nice idea. However, they had some reservations about it. One of them asserted that people in Europe could discuss this, not us, because the problem is that we do not have paid versions of ChatGPT. He added that free versions do not give access to some tasks, which are then the teachers' role. The second teacher emphasised that teaching writing and ethics should go hand in hand. The third one claimed that the huge technological advancement is beneficial but dangerous, and maybe these tools are going to replace people. However, she would like her students to benefit from AI tools, but not rely on them 100%. She gave an example of what happened to her when teaching 'Study Skills'. She mentioned that she gave a lecture about how to make a presentation using PowerPoint or Canva. However, when she assigned students to apply what they had learnt, they relied on an AI tool (Gamma) that she did not know. Therefore, she felt that they had not learnt.

The three teachers were requested to extend their answers concerning their role in assessing grammar, spelling, and word choice. They were asked if they would delegate these tasks to students using AI, and then focus on other responsibilities like content and structure. Two out of three teachers refused the idea. One of them

claimed that: "No, never. We should not do or say this" because students will have to rely on themselves in the exams. A similar view was held by her colleague, who asserted that: "... give me clean work, and I focus on the content! No, it is my duty. I am a teacher. I am here to highlight the mistakes. I'm not a lazy teacher..." She explained that students would become lazy and write in a messy way because they know that they will be corrected by AI tools. However, when she raises their awareness, as indicated by her, she pushes them to self-assess their abilities. She pointed out that she would allow this if she were teaching a content module like Civilisation but never in Writing. She concluded that: "It can never replace the teacher"

One out of the three teachers asserted that he cannot answer such questions because he does not have scientific proof about the benefits or the harmful effects of doing that on students' learning. However, he assumed that students need no permission to correct themselves using AI tools. He believes that they are mature enough and knowledgeable enough about this kind of thing.

5. Discussion of the Main Results

This study aims to investigate students' and teachers' awareness and implementation of self-assessment practices using technology. In other words, it is an exploration of the mindset and the genuine application of different writing self-assessment technology-

based strategies. The adopted triangulation approach helped to give a comprehensive view through a variety of qualitative and quantitative findings collected from both students and teachers. The results obtained help to answer the research questions stated from the start of this work and allow the researcher to confirm or reject the hypotheses. This section presents the main findings and relates them to the research questions, hypotheses, and similar findings.

Research Question 1: What writing self-assessment technology-based strategies are currently being used by L3 EFL students?

The first research question aims to investigate students' engagement in using digital tools to improve their writing through self-assessment practices. Students are targeted, as they are the first ones who can inform about their attitudes. A questionnaire was designed, administered to students, and then analysed.

As far as self-assessment is concerned, the main findings of the questionnaire show that students hold a positive attitude and readiness toward self-assessment, which is a good sign if self-assessment is to be implemented in class (see Fig. 4.1). These findings align with other studies (Belachew *et al.*, 2015; Dhanarattigannon *et al.*, 2022) and a study made in the Algerian context (Kadri *et al.*, 2021) conducted at the University of Bejaia, which concludes that students show

positive attitudes towards self-assessment.

When it comes to the use of technology in self-assessment, the results revealed that students are familiar with technology (see Fig. 4.2). They use different AI tools and websites to check grammar and vocabulary, to brainstorm ideas, and to find references. Few students use AI tools to rewrite their essays in a better version, as shown in Figure 4.3. Such a result was not expected at the beginning of the study, which leads to the conclusion that hypothesis 1 is partially confirmed because it assumes that most students use technology mainly for editing grammar, spelling, and word choice.

Research Question 2: How do teachers guide their students to best develop these strategies?

As far as teachers' beliefs about self-assessment are concerned, all the interviewed teachers believe that students share a part of the responsibility in assessing themselves. This is reflected in teachers' classroom practices through the use of checklists, feedback, and discussion with students about their problems in writing. However, it is noteworthy to add that one teacher mentioned that it is very challenging to implement self-assessment for L3 students because of their demotivation. While the teacher attributed the reasons to the syllabus content and the absence of TD marks, the reason may be the students' level (intermediate). Richards (2008), in his book *Moving*

Beyond the Plateau, describes the situation of learners at the intermediate level as frustrating. Learners feel that they are no longer progressing in learning languages, and they perceive the gap between their receptive and productive skills. In the same vein, Fan Yi (2011, p.138) points out:

As the learning process goes on, the learner finds it harder and harder to take in new language data. The teacher also finds that his input, no matter how much he or she tries to make it interesting, is no longer as easily taken in by the learners as it used to be. The students are more and more discouraged by the fact that their ambition of mastering English as a means of communication turns out to be a false assumption.

Fan Yi (2011, p.138) added: "It is during this period of time that many EFL learners suffer great anxiety and eventually give up their efforts to learn the English language." Therefore, teachers should be aware of the specificity of L3 students if self-assessment is to be implemented because, as mentioned previously, it is not a challenge related to beliefs but rather might be a psychological challenge related to the plateau phenomenon. Teachers should explain the situation to their students and work more on helping them overcome this difficulty.

As for technology, the role of teachers in implementing

technology-based self-assessment is put into question. This study reveals the existence of a sort of resistance from a large portion of teachers to technology integration in their classes. This is reported through both students' questionnaires (see Figure 4.4) and teachers' interviews: 76.9% of students do not have teachers' permission to use digital tools in writing their essays, and only 1 out of three teachers allows it. When asked about the reasons behind this opinion, students' responses demonstrate that teachers are afraid that the reliance on technological advancement destroys this generation's creativity, in addition to encouraging plagiarism, cheating, and laziness. Therefore, students risk failing in their exams. Similar findings are collected from teachers' interviews. The opponents of technology, in this study, see that its use, especially AI tools, is not adequate to the Algerian culture because of cheating and total reliance on it. As a result, there would be a decrease in learning and writing abilities.

As a direct answer to the second research question, the questionnaire shows that 30.8% of students claim that they benefit from teachers' guidance about how to best benefit from technology in writing. They claim that teachers advise them to write first, and then use technology to check mistakes, grammar, style, and language formality. Others report that some teachers propose a mobile application or a website to practise

writing, ask students to look for exercises with keys, find websites or mobile applications to learn from, or encourage the use of digital tools to promote the writing process through receiving constructive feedback from peers and professionals. One student reports that teachers suggest practising writing by rephrasing the text generated by AI tools. For other teachers, AI is also a means to find references. In addition, the interview revealed that the only one out of three teachers who sees no problem in using technology, shows a passive role in helping students use technology in an adequate way in writing. He explains that he is very primitive, and students nowadays are better informed than teachers. He added that if he were to do it, he would advise learners and speak about ethics in teaching and in studying.

The last question of the interview urges teachers to rethink their role in assessing writing with the widespread use of AI tools such as ChatGPT. One out of three teachers claims to be open to innovation, provided that there would be scientific evidence about the positive outcome of integrating AI tools as a scaffold to help students self-assess their writing, in addition to the availability of premium versions of such tools that allow tasks similar to the teacher's ones. Therefore, he believes that this kind of question can be discussed in Europe or America, not in our context. Otherwise, he will not ban technology in his classroom, but his

role will remain the same. Two out of three teachers show resistance to any further change in their role as Writing teachers. Although they find it a nice idea to reflect on their role in the future, their beliefs reveal the opposite. This is obvious in their answers when they were asked if they could shift the responsibility of correcting grammar, spelling, and word choice to students using technology. They seem to cling tenaciously to these practices and see them as their duty. They explain that they will never do it because it affects the learning process. One of them explains that it is an unreliable source of information that will never replace the teacher. The rationale behind the resistance of some teachers to technology aligns with what was previously mentioned in the literature review. Iskender's study (2023) reveals that no learning occurs if students get used to these tools and fix their mistakes without reflection. He added that the over-reliance on AI tools decreases the development of students' critical thinking. In the same vein, Johnke *et al.* (2023) point out that educators are concerned about brainstorming using AI tools because this would hinder originality and critical thinking. However, the positive side of AI tools in improving learning is also acknowledged by many studies: Tambunan *et al.* (2022), Kurniati and Fithriani (2022), Lam and Moorhouse (2022), and Mhlanga (2023), as mentioned in the literature review (see Integrating AI Writing Tools: Opportunities and

Challenges). Thus, the results of the current study confirm the second hypothesis that supposes that although some teachers allow students' use of technology in writing, the majority have no significant role in implementing technology-based self-assessment.

6. Conclusion

The findings stated above revealed conflicting views between the students and their teachers regarding the use of technology as a scaffolding tool for writing self-assessment. While students claim to be familiar with technology to self-assess their writing, the majority of the teachers view its integration as challenging and debatable. It is noteworthy to mention that this study was not undertaken without limitations. The first one was the lack of collaboration from the teachers. Although six teachers were emailed, only three accepted the invitation. The second limitation was the number of respondents to the questionnaire. The latter was shared in L3 students' groups on social media to reach a large sample. However, only 52 students participated in this research. Thus, the findings of this research cannot be generalised to all L3 students, as well as the teachers of Tlemcen University, let alone to the Algerian territory.

This situation opens doors to further research to explore the Algerian context. Some suggestions are listed below:

- Duplication of the research on a larger sample.

- Collaboration with other researchers from different Algerian universities.
- Innovation in the methodology, for example, seeking a real implementation through an experiment to study the effectiveness of AI tools in writing self-assessment in comparison to the usual strategies of self-assessment implementation.

As for suggestions to overcome the challenges that might be encountered:

- Workshops to train teachers enhance their AI literacy and change their beliefs about technology-based self-assessment.
- Collaboration with other teachers to choose one level in the department to implement self-assessment using technology and exchange ideas about the experience.

The actual implementation of these suggestions may enrich the Algerian literature review concerning this topic and serve as an innovation in teaching writing. It also allows opportunities for action research to happen.

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