

# **Analyzing teachers' perceptions of the impact of Moodle personalized positive feedback on foreign language students' motivation and engagement**

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## **Abstract**

With the considerable growth of e/blended-learning, which has accelerated in HE settings, especially since 2020 due to the COVID-19 global pandemic, automated feedback (FB) has become the focus of increasing research interest (Cavalcanti, 2021). Yet, there is a scarcity of research that thoroughly examines the documented progress made up to date in this regard in Algerian universities. Thus, this study was carried out to capture university teachers' perceptions of the impact of personalized positive FB via the Moodle platform on their students' motivation and engagement in learning. The research design adopted consisted of quantitative data generated from teachers' responses to an online questionnaire. Findings suggest that the importance of personalized positive FB emerges as a pivotal element in enhancing both motivation and engagement. Pearson correlation as a statistical technique was conducted to meet the objectives of this study. The results revealed a very weak relationship between teachers' Moodle training and their quality of personalized automated FB and a weak correlation between teachers' Moodle familiarity with personalized automated FB and their students' motivation and engagement. Some important recommendations are presented.

**Key words:** Moodle Platform, Automated Feedback, Motivation, Engagement, positive feedback

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## **Introduction**

In the educational context, feedback (FB) pertains to language-related responses that a learner receives regarding their progress, pertains to their language production, and encompasses reading and listening abilities, study skills, attitudes, and level of effort (Kerr, 2020). FB is widely recognized as a fundamental and key instructional principle that plays a crucial role in promoting and reinforcing the process of learning (Hyland & Hyland, 2019), resulting in students' enhanced performance (Darling-Hammond et al., 2020), increased learning success (Hattie & Zierer, 2019) and engagement (Zhang & Hyland, 2018; Zheng et al., 2020). In other words, providing explanations regarding the accuracy and inaccuracy of students' work is highly conducive to their learning outcomes. To that end, FB is widely acknowledged as a crucial component in facilitating students' learning process.

Moreover, fostering students' involvement, motivation, and academic success cannot take place without teachers' provision of timely and personalized FB to each student about their performance (Hadden & Frisby, 2019), let alone in blended learning design and delivery in order to tailor their unique learning styles, interests and preferences in learning (Zhang & Hyland, 2018). Therefore, providing well-designed positive FB to language learners is crucial for motivation (Guo & Zhou, 2021) and various aspects of students' engagement in learning (Koltovskaia, 2020; Zhang, 2020).

## **Statement of the problem and the Study Research Questions**

On March 12th, 2020, the Algerian Ministry of Higher Education (MHE) ordered the temporary closure of all universities around the country to limit the spread of the

COVID-19 virus. Confinement became the norm, forcing HE teachers to shift to distance learning quickly. Within this unprecedented situation, multiple initiatives emerged: video capsules, e-learning platforms, and even social networks by those unfamiliar with these new teaching methods. However, this improvisation revealed the need for institutions and universities to develop robust digital infrastructure and train their teachers in the specifics of online education. The ministry of HE, therefore, took steps to encourage the adoption of LMS (Learning Management System) platforms such as Moodle and to systematize e-learning training. The creation of the National Commission for Distance Education (NCDE) reflects this desire to support the digital transition of HE. Its mission is twofold: on the one hand, to support institutions in implementing hybrid systems combining face-to-face and remote teaching, and on the other, to monitor and evaluate these new teaching practices.

A year later, Decree No. 055 of 21 January 2021 added that hybrid/BL teaching/learning would be adopted during that academic year up to the present. Since then, the MHE in Algeria has emphasized using Moodle to deliver content such as syllabi, lectures, assignments, and assessments. Online assessment, formative, summative, or both, has become officially recognized in all HE institutions in Algeria (MESRS, 2021). Because online assessment, particularly in Moodle, has become increasingly used to assess students' progress and success, the Moodle platform provides a diverse range of opportunities for implementing formative and summative evaluation. Because teachers are the best source of insights on what would make their FB more motivating and engaging, investigating their perceptions could improve the system.

With the emergence of novel technologies, it becomes imperative for university teachers to expand their comprehension and implementation of FB, commonly referred to as teacher FB literacy (Carless & Winstone, 2023). The successful implementation of online teaching and learning necessitates the preparedness of all parties involved, including students and teachers. Additionally, it is crucial to consider the contextual aspects that impact the planning and execution of online learning experiences. As teachers' provision of corrective FB in face-to-face learning induces a responsive emphasis on linguistic structure, which occurs throughout both the negotiation of meaning and the negotiation of form processes stated by Ellis (2016), it should also apply to online and BL.

While the role of FB has been extensively discussed in a plethora of research in language pedagogy emphasizing face-to-face learning, little attention has been paid to the role of corrective FB in online/ blended learning, despite the advent of online learning technologies that have given rise to numerous novel FB practices and methodologies (Jensen et al., 2021). Moreover, recent research literature has positioned second (L2) and foreign (FL) students at the core of the FB process (Darling-Hammond et al., 2020; Hyland & Hyland, 2019, to name but a few), predominantly focusing on students' attitudes towards their teachers' FB practices, existing literature posits that teacher FB has a substantial impact on student learning, yet, relatively little is known about the perceptions of teachers on positive corrective FB and its impact on their students' motivation and engagement in the realm of HE settings. Thus, understanding how teachers perceive the impact of automated positive FB on their students' motivation and engagement is an essential avenue of scholarship. To this end, providing FB on the Moodle platform is essential to involving students in their learning.

As a means to address the aforementioned research gap, based on data from 71 teachers from different HE institutions in Algeria and abroad, this study seeks to investigate the level of teachers' perceptions regarding the importance of providing positive FB on Moodle and its impact on students' motivation and engagement. This study, then, attempts to underscore the urgent need to acknowledge the crucial role of teachers' perceptions of positive FB on their students' motivation and engagement

within the EFL classroom. The findings of this study will hopefully extend our understanding of teachers' views regarding the impact of Moodle-positive PF on FL students' motivation and engagement.

### **Literature Review**

The current discourse surrounding FB has witnessed the emergence of novel approaches, conventionally, oral and written FB. For teachers to effectively execute FB processes, they must thoroughly understand FB, its mechanisms, and the role it may play in guaranteeing its efficacy. As the abovementioned literature confirms, FB constitutes an indispensable element within any educational setting. It serves as a vital mechanism for guiding learners and assessing the congruence of their performance with intended goals (William, 2019).

FB can be categorized as either positive or negative (Huber, 2019; cited in Schwab et al., 2022). Positive FB signifies the correctness of a student's response and is generally viewed positively by students, offering support and motivation. It is a preferred type of FB among learners. In contrast, negative FB signals an incorrect response, often met with reluctance by students due to its perceived negative judgment.

Moreover, Positive FB is widely recognized as a primary educational tool, facilitating the reinforcement of knowledge and incorporating new information into existing understanding (Hyland & Hyland, 2019). Teachers use positive FB to guide students by providing explanations and clarifications, further expanding their thoughts. Thus, teachers need to use positive FB to acknowledge students' proper actions and performance.

Numerous studies underscore the potential impact of teachers' positive FB on students' motivation (Yu et al., 2020). Positive FB is a powerful instrument for conveying support, encouragement, and appreciation, effectively elevating students' motivation; this is substantiated by various research studies, including (Gamage et al., 2022; and Gan and Liu (2021). Moreover, positive FB can also develop all aspects of students' engagement in learning (Koltovskaia, 2020; Zhang, 2020; Xiong, 2020).

Based on previous research, face-to-face positive FB as well as automated FB. According to Henderson et al. (2019), automated FB can give students detailed and accurate evaluations of their progress while also being adaptable to their specified needs.

Students can improve and, sometimes, even accelerate their learning in both school and university environments. Furthermore, an additional finding from prior research suggests that the effectiveness of automated FB learning is heavily influenced by the motivational resources of the students, which determine the extent to which they interact with the platform (Barkela et al., 2023; Gambage et al., 2022).

The fact that many aspects of programming and assessment may be standardized, allowing for automated evaluation, is one reason for this increase. Several research studies have evaluated systems for automatic grading (Caiza & Del Alamo, 2013) and automated FB in programming exercises (Keuning et al., 2018). Furthermore, literature studies have examined tutoring programs in specialized fields of education, including computer graphics instruction (Suselo et al., 2019) and FL instruction (Golonka et al., 2014).

Notably, studies conducted by Chen et al. (2020) showed that automated FB empowers teachers to promptly respond to students' work. It can automatically evaluate tests, quizzes, and assignments, saving time and effort compared to manual grading. This quick response time for comments guarantees that students get help right when needed. Consequently, implementing automated FB has many benefits, such as increased effectiveness, scalability, and the ability to provide students with immediate, tailored input. Effective implementation can improve educational

outcomes, support instructors, and enrich the learning experience. Rajendran and Murthy (2018) have developed a strategy to respond to students' frustration by offering motivational messages through Intelligent Tutoring Systems. They found that these personalized affective FB helped the students to reduce frustration and continue with their session.

Existing research has highlighted the effect of personalized positive FB on students' motivation and engagement in learning. Maier and Klotz (2022) and Hwang et al. (2020) advocate that teachers can better meet their students' personal needs and learning styles with the help of personalized digital learning tools. The findings are also consistent with previous research carried out by Henderson et al. (2019), which confirms that automated FB can provide students with precise and in-depth insights into their own performance and responsiveness to their indicated demands. It also gives students helpful information promptly. Students can improve and, sometimes, even accelerate their learning in both school and university environments. Additionally, another good fit of existing studies implies that the efficiency of automated FB during learning depends significantly on learners' motivational resources that decide how much students engage with FB (Barkela et al., 2023) and, more specifically, via Moodle, be it formative or summative assessment, as has been evidenced by (Gamage et al., 2022).

In conclusion, positive FB shows promise as a potent catalyst for raising students' motivation and engagement, especially when customized to meet their specific objectives and align with their intrinsic motivation. Moreover, much progress has been made towards integrating automated FB in education has significantly increased in the last few years.

### **The Present Study**

The primary objective of this research study is to highlight teachers' perceptions of the Impact of Moodle Positive FB on their students' motivation and engagement. In order to accomplish this, our study intends to investigate:

The above-mentioned theoretical considerations serve as the foundation for formulating and developing the research questions and hypotheses pertinent to this study.

**Research question 1:** Which characteristics of Moodle automated FB do teachers recognize as significantly enhancing their positive impact on language courses?

**Research question 2:** What are teachers' perceptions of the impact of Moodle personalized positive FB in enhancing students' motivation and learning engagement?

**Research question 3:** Is there a significant relationship between receiving Moodle training and teachers' ability to provide positive automated FB?

**a.H0:** There is no relationship between receiving Moodle training and teachers' ability to provide positive automated FB.

**b.H1:** There is a significant relationship between receiving Moodle training and teachers' ability to provide positive automated FB.

**Research question 4:** Is there a significant correlation between teachers' familiarity with the various characteristics of Moodle and their ability to provide effective automated FB that positively impacts students' motivation and engagement?

**a.H0:** There is no correlation between teachers' familiarity with the various characteristics of Moodle and their ability to provide effective automated FB that positively impacts students' motivation and engagement.

**b.H1:** There is a positive and significant correlation between teachers' familiarity with the various characteristics of Moodle and their ability to provide effective automated FB that positively impacts students' motivation and engagement.

### **Significance of the Study**

Even with the proliferation of academic research concerning FB in L2 and FL contexts, additional research is warranted to ascertain its efficacy. This research, then, makes several novel contributions. Firstly, it contributes to the limited body of knowledge on the relationships between teachers' perceptions of the impact of FB on their students' motivation and engagement in their FL classrooms, a hitherto underexplored context. This insight is essential in understanding the role of teachers in shaping the learning experience and motivating students. The findings of this research have significant pedagogical implications. Teachers and educational stakeholders can benefit from a deeper understanding of how positive and automated FB can impact student motivation and academic performance. The research findings can serve as a resource for teachers seeking ways to improve students' academic performance. By understanding the relationship between FB and motivation and engagement, teachers can tailor their FB practices to create a more conducive learning environment and support student success.

### **Ethical Considerations**

This section emphasizes the significance of ethical considerations and describes how this study addressed ethical issues. Research involving human subjects raises ethical concerns, as do most forms of academic inquiry. Therefore, the researchers conducted this study in strict adherence to the ethical guidelines outlined in the literature, which align with the standards set by the Faculty of Letters and Foreign Languages at Batna 2 University. This was done to ensure that ethical considerations and guiding principles were upheld.

In accordance with Creswell and Creswell's (2018) recommendation, it is imperative to take all necessary measures to guarantee that participants remain completely unidentifiable and untraceable in any given situation. In essence, it is imperative to guarantee their entitlement to maintain anonymity. To that end, respondents to the questionnaire were apprised that their names and personal data gathered throughout the study would be safeguarded and treated with confidentiality during the analysis phase, exclusively for research purposes

### **Methodology**

#### **1. Research Design**

Seeking to uncover the most suitable methodology that effectively addressed the questions under investigation, this section was set to lay the research design appropriate to the study at hand. Regarding teachers' perceptions of the impact of automated FB on students' motivation and engagement in learning, which was the main reason for the investigation, this study adopted the quantitative method, using an online questionnaire for teachers to collect answers to the research questions.

#### **2. Data Collection Procedure**

To generate the desired data that will ultimately provide answers to the research questions under investigation, the process of data collection, from which this study proceeded, went through the administration of a four-section questionnaire. Section one captured the personal and professional characteristics of the respondents. For the present study, the demographic characteristics that were obtained included teachers' gender, age, and years of teaching experience at the university. Section two was designed to obtain data on teachers' prior training to use the Moodle platform, whether it was self-training, online training provided by their universities or both self and university training. Section three was devoted to collecting information about teachers' opinions about the characteristics of positive FB and which of the eight examples provided to them are positive FB statements. Finally, section four asked teachers about the primary purpose of providing students with automatic FB via

Moodle in language courses, the types of automatic FB that are more likely to motivate students in their language learning journey, and How automatic FB in Moodle can be personalized to enhance their students' motivation and engagement.

Note that for sections three and four, a Likert scale was used to generate the respondents' opinions and attitudes on a range of questions. It consisted of a series of three answer statements that indicate the degree of agreement or disagreement with the given statements. The questionnaire was administered via Google Forms. Subsequently, the link was posted on different teachers' Facebook groups for one month during the 2022-2023 academic year. Furthermore, the statistical analyses in the current study were performed using the Statistical Package for Social Sciences (SPSS) Version 29. The interconnections between automated FB and students' motivation and engagement were calculated using Pearson correlation.

### **3. Validity and Reliability of Data**

To ensure that the data gathered adhered to scientific rigour, issues about trustworthiness, i.e., validity and reliability, which form the crux of any research study, were also acknowledged from the outset. Accordingly, the questionnaire was trialled through a small-scale pilot study before being sent to the whole population to determine the extent to which it reflects the specific intended objectives and check whether all areas were appropriately covered within the set of items without any ambiguity in their formulation. To this end, four teachers from the Department of English and Literature were chosen to review and check whether there was any misunderstanding or ambiguity in the wording of the questionnaire.

In this regard, the teachers advocated that the items only needed minor adjustments, and their FB was duly acknowledged. Most of the received remarks were related to statements to be re-worded or removed. For instance, a joint decision was made to drop the question "Do you use Moodle platform as a support tool in your teaching? If yes, how often?" since the MHE and the National Commission for Distance Education (CREAD) have recommended the application of Moodle as mandatory to provide distance or hybrid education. Therefore, the decision was made to revise the item statements according to the teachers' FB within this examination process.

To measure the reliability of the teachers' questionnaire, all the items used were checked for consistency and tested across Cronbach's alpha. The value is more than 0.7; therefore, the reliability of the questionnaire was confirmed.

## **Results**

### **1 Descriptive Statistics**

#### **1.1 Section One: Demographic background**

To better understand specific background characteristics of the university teachers who participated in the study, the analysis of its results came as follows:

##### **1.1.1 Respondents' gender frequency and percentage**

As shown in Table 1 below, of all the 71 teachers who participated in this study, only 23.9% were males, while females comprised the bulk of respondents (76.1%). This suggests that among the university teachers included in this study, there is a notable gender disparity. These results may impact the representation and diversity of viewpoints and experiences in FL instruction at the university level. It might also reflect the social and cultural elements that affect men's and women's decisions about education and careers in Algeria and outside.

**Table 1. Gender frequency and percentage**

	N	%
Male	17	23.9%
Female	54	76.1%

**1.1.2 Age range of respondents**

Based on results demonstrated in Table 2, most respondents (25.4%) fall within the 31–35 age range. This suggests that they are not too old and have had some experience instructing at the university level. Furthermore, 23.9% of respondents are between the ages of 41 and 45, indicating that they are more experienced and mature teachers at the university level. Moreover, 16.9% of respondents are between the ages of 46 and 50, suggesting they have a wealth of expertise in instructing at the university level. The remaining respondents are split among the various age groups, with 25–30 (8.5%) and 51 years of age or older (9.9%) being the least common.

**Table 2 :Age**

	N	%
25-30	6	8.5%
31-35	18	25.4%
36-40	11	15.5%
41-45	17	23.9%
46-50	12	16.9%
51 or more	7	9.9%

**1.1.3 Years of Experience of Respondents**

According to the data extracted from the questionnaire, the respondents have different teaching experiences at the university level, ranging from 1-5 years to 21 years and over. This indicates that they have different levels of expertise and knowledge in the teaching profession. The most common teaching experience is 11-15 years (28.2%), which suggests they have a considerable time teaching university students. The second most common teaching experience is 1-5 years and 6-10 years (both 25.4%), implying that they have a moderate teaching period. The third most common teaching experience is 16-20 years and 21 years and over (11.3%), meaning they have a long time teaching FLs to university students.

**Table 3: Respondents' Years of Experience**

	N	%
1-5 Years	18	25.4%
6-10 Years	17	23.9%
11-15 Years	20	28.2%
16-20 Years	8	11.3%
21 Years and over	8	11.3%

**1.2 Section two: Respondents' Prior Training to Use Moodle**

With regard to prior training to use the Moodle platform, as shown in Table 4 below, the respondents have received different types of training to use the Moodle platform. This suggests that their degrees of familiarity and competency with the Moodle platform vary. Self- and university-led training is the most popular (39.4%) training,

indicating that they have a well-rounded and thorough approach to learning the Moodle platform. They have enhanced their Moodle abilities by using university resources and their initiative.

The second most common type of training is training provided by the university (28.2%), suggesting they had a formal and structured method for teaching students how to use the Moodle platform. Self-training (21.1%) is the third-most prevalent form of training, indicating that teachers use Moodle in independent and self-directed learning. They have used their curiosity and motivation to develop their Moodle skills. The least common type of training is no training (11.3%), which indicates that they have a low or no level of proficiency with the Moodle platform. They have not received any training or assistance to learn how to use the Moodle platform.

The other training possibilities that teachers listed to gain knowledge in using Moodle were: free and paid online training for one to three weeks, TESL Ontario – Workshops, Post-graduation specialized-PGS, training program abroad, CEIL (Intensive Centre of Language Education), E-Summer training and colleagues.

**Table 4: Teachers’ Training to Use Moodle**

	N	%
Self-training	15	21.1%
Training provided by the university	20	28.2%
Both self and university training	28	39.4%
No training	8	11.3%

### 1.3 Section three: Teacher opinions on the characteristics of positive feedback

In order to address research question N°1, the researchers set the first two sub-sections below.

#### 1.3.1 Teachers’ Understanding of the characteristics of Positive Feedback

To gauge teachers’ understanding of positive FB, the researchers addressed the following question: **“Which of the four statements are not characteristics of positive Moodle automated FB in language courses?”** The insights gained from teachers’ responses will assist the researchers in gauging how much respondents acknowledge the significant impact of positive FB in enhancing their students’ language courses.

Table 5 below details these statements. The results show that the majority of the respondents, i.e., 53 teachers, provided the correct answer, ‘vague and open to interpretation’. This statement is not a characteristic of positive FB, as positive FB should be clear and specific. Only 25.4% of the respondents disagreed with this statement, while 74.6% agreed with it. This indicates that a majority of the participants possess an adequate understanding of what positive FB is and is not. As for the second statement, only 12.7% of respondents agreed with the assertion that positive FB is not specific and measurable, and 87.3% disagreed. This indicates that most respondents know this statement is the main characteristic of positive FB.

Concerning the third statement, 77.5% of the respondents disagreed that positive FB should align with the overall course goals., while only 22.5% agreed. This means most respondents recognize the importance of aligning FB with the course objectives. Regarding the fourth statement, 85.9% of the respondents disagreed, while only 14.1% agreed that positive FB should give students a clear sense of direction. This means that most respondents understand that positive FB should help students improve their performance and learning outcomes.



**Table 5: Multiple Choice Analysis of Teachers’ Understanding of Positive Feedback**

	Disagree		Neutral		Agree	
	Count	Row N %	Count	Row N %	Count	Row N %
1. Vague and open to interpretation	18	25.4%	0	0.0%	53	74.6%
2. Specific and measurable	62	87.3%	0	0.0%	9	12.7%
3. Align with the overall course goals	55	77.5%	0	0.0%	16	22.5%
4. Provide a clear sense of direction for students	61	85.9%	0	0.0%	10	14.1%

### 1.3.2 Teachers’ Positive Feedback

The researchers then set eight FB expressions and asked the teachers to find which could be an example of positive FB. The teachers’ answers came as follows: 71.8% ranked first the correct answer, expressed in the following statement: **“Great job! You got all the answers correct!”**. The second statement says: The results show the percentage of respondents who disagree, are neutral or agree with each statement. Here is an analysis of the results:

**“Your answer is wrong.”**: This statement is **negative FB** through Moodle because it blames and points out students’ mistakes without providing guidance or encouragement. 91.5% of the respondents disagree with this statement, while only 8.5% agree. This means that most respondents can distinguish negative FB through Moodle from positive FB online through Moodle.

**“Great job! You got all the answers correct!”**: This statement is a **positive FB** through Moodle because it praises and acknowledges students’ performance. 71.8% of the respondents agree with this statement, while only 28.2% disagree. This shows that most respondents recognize positive FB through Moodle when they see it.

**“You’re getting there; keep working on it.”**: This statement is a **positive FB** because it encourages and motivates students to continue their efforts and improve their learning outcomes. 64.8% of the respondents agree with this statement, while only 35.2% disagree. This indicates that most respondents appreciate positive FB supporting students’ growth and development.

**“You consistently struggle with this topic.”**: This statement is a **negative FB** because it judges and discourages students’ performance without offering help or direction. 91.5% of the respondents disagree with this statement, while only 8.5% agree. This implies that most respondents reject negative FB through Moodle, which undermines students’ confidence and self-esteem.

**“Error. You need to improve your performance.”**: This statement is **negative FB** because it points out students’ errors and weaknesses without giving specific or constructive suggestions. 83.1% of the respondents disagree with this statement, while only 16.9% agree. This reveals that most respondents dislike negative FB through Moodle, which lacks clarity and quality.

**“You’ve made an error here.”**: This statement is a **negative FB** because it highlights students’ mistakes without explaining why they are wrong or how to correct them. 81.7% of the respondents disagree with this statement, while only

18.3% agree. This demonstrates that most respondents prefer negative FB that provides FB and guidance.

**“Your response is incorrect.”:** This statement is a **positive FB** since it corrects students’ responses without blaming or judging them. 18.3% of the respondents agree with this statement, while 81.7% disagree. This suggests that some respondents have difficulty identifying positive FB that is respectful and honest FB.

**“You are on the right track, but some adjustments are needed.”:** This statement is a **positive FB** because it guides and helps students to improve their performance and learning outcomes. 71.8% of the respondents agree with this statement, while only 28.2% disagree. This confirms that most respondents value positive FB that is specific and helpful.

From the two statements above, the respondents know what positive FB is and how it helps students. They prefer positive FB over negative FB online through Moodle. However, they may confuse respectful and honest FB with negative FB.

**Table 6: Teachers’ Positive Feedback**

	Disagree		Neutral		Agree	
	Count	Row N %	Count	Row N %	Count	Row N %
"Your answer is wrong."	65	91.5%	0	0.0%	6	8.5%
"Great job! You got all the answers correct!"	20	28.2%	0	0.0%	51	71.8%
"You're getting there; keep working on it."	25	35.2%	0	0.0%	46	64.8%
"You consistently struggle with this topic."	65	91.5%	0	0.0%	6	8.5%
"Error. You need to improve your performance."	59	83.1%	0	0.0%	12	16.9%
"You've made an error here."	58	81.7%	0	0.0%	13	18.3%
"Your response is incorrect."	58	81.7%	0	0.0%	13	18.3%
"You're on the right track, but some adjustments are needed."	20	28.2%	0	0.0%	51	71.8%

**1.4 Teachers perceptions of the impact of Moodle Positive FB in enhancing students’ motivation and learning engagement**

Research question N° 2 was set to explore teachers’ viewpoints regarding the **impact** of Moodle positive FB on boosting their students’ motivation and active involvement in learning. To that end, the three subsequent subsections below were set.

**1.4.1 The primary purpose of providing students with positive feedback via Moodle in language courses.** To gauge the respondents’ understanding of the fundamental purpose of delivering automated FB via Moodle, they were asked to indicate their **agreement or disagreement** with each of the eight possible purposes of providing automated FB via Moodle in language courses. Accordingly, Table 7 below displays the frequency distribution of the respondents’ choices for each purpose. The most common purpose **agreed on** by the respondents is to **enhance student engagement** (70.4%), followed by **providing constructive comments on students’ language performance**, such as correcting grammar errors and pronunciation (59.2%), and to **understand how automated FB impacts student motivation and make improvements** (52.1%). These purposes show that the respondents agree that automated FB via Moodle is a valuable and effective way to support, facilitate, and

improve students' language learning process. The least common purpose **agreed** by the respondents is to **evaluate the teachers' performance** (35.2%), followed by to **minimize teacher workload** (36.6%), and to **determine whether students should be rewarded for their performance** (39.4%).

**Table 7: Relationship between positive feedback and student motivation and learning engagement**

	Disagree		Neutral		Agree	
	Count	Row N %	Count	Row N %	Count	Row N %
To evaluate the teachers' performance	27	38.0%	19	26.8%	25	35.2%
To enhance student engagement	11	15.5%	10	14.1%	50	70.4%
To encourage peer collaboration	15	21.1%	29	40.8%	27	38.0%
To provide constructive comments on students' language performance, such as correcting grammar errors and pronunciation.	11	15.5%	18	25.4%	42	59.2%
To minimize teacher workload	25	35.2%	20	28.2%	26	36.6%
To provide immediate assessment results	14	19.7%	19	26.8%	38	53.5%
To understand how automatic feedback impacts student motivation and make improvements	12	16.9%	22	31.0%	37	52.1%
To determine whether students should be rewarded for their performance	18	25.4%	25	35.2%	28	39.4%

#### 1.4.2 Types of personalized positive feedback to motivate students in their language learning journey

To gain deeper insights into teachers' understanding of the various types of personalized positive FB used to motivate students throughout their language learning process, the respondents were asked to indicate their level of agreement or disagreement with each of the eight examples of automated FB online through Moodle to the statement that are more likely to motivate students in their language learning journey. Table 8 below details the frequency distribution of the respondents' choices for each example. The most personalized and motivating examples agreed on by the respondents are **"That's a really great start, but perhaps you could..."** (64.8%), **"I appreciate it, but you have to make more effort"** (53.5%), and **"You've made several errors in this exercise"** and **"Here are some suggestions for improvement: [specific suggestions]"** (45.1%). These examples are motivating because they are personalized, positive and suggestive of individual students' performance or responses. They acknowledge students' efforts, strengths, and potential while providing guidance, direction, and support for improvement. The least motivating examples agreed by the respondents are **"Your response is incorrect."** (22.5%), **"This task is too difficult for you. Consider choosing an easier one."** (28.2%), and **"Your responses are incorrect. Try again."** (32.4%). These examples are demotivating because they are negative, dismissive, and judgmental of students'

performance or responses. They criticize students' errors, weaknesses, and limitations without offering FB help or encouragement.

**Table 8: Types of personalized positive feedback to motivate students in their language learning journey**

	Disagree		Neutral		Agree	
	Count	Row N %	Count	Row N %	Count	Row N %
"Your responses are incorrect. Try again."	24	33.8%	24	33.8%	23	32.4%
"You've made several errors in this exercise. Here are some suggestions for improvement: [specific suggestions]."	18	25.4%	21	29.6%	32	45.1%
"This task is too difficult for you. Consider choosing an easier one."	28	39.4%	23	32.4%	20	28.2%
"Your answer is acceptable. "	6	8.5%	41	57.7%	24	33.8%
"Your response is incorrect. Next time, you will do better."	9	12.7%	33	46.5%	29	40.8%
"Your response is incorrect. "	33	46.5%	22	31.0%	16	22.5%
"That's a really great start, but perhaps you could..."	12	16.9%	13	18.3%	46	64.8%
"I appreciate it, but you have to make more effort".	8	11.3%	25	35.2%	38	53.5%

#### 1.4.3 Personalized automated feedback on Moodle

The respondents were also asked to indicate their agreement or disagreement with the seven ways to personalize automated FB in Moodle to enhance motivation and engagement. Table 9 below shows the frequency distribution of the respondents' choices for each option. The most common option agreed on by the respondents was **"by delivering FB in a rapid and constructive manner"** (76.1%), followed by **"by tailoring FB to address individual students' strengths and weaknesses"** (71.8%). The statement **"by ignoring errors and focusing solely on praising effort"** was ranked third (21.1%). These options indicate that the respondents believe that automated FB in Moodle can be personalized to enhance motivation and engagement by making it more relevant, timely, and positive for each student. They think automated FB in Moodle should be customized to suit each student's needs, preferences, and goals while being prompt, clear, and encouraging. The option **"by providing identical FB to all students"** was ranked fourth (18.3%). The least common options agreed on was **"by the respondents were removing FB altogether to allow students to self-assess"** (15.5%), followed by **"providing only negative FB to highlight errors"** (7%). These two options suggest that the respondents do not think that automated FB in Moodle can be personalized to enhance motivation and engagement by making it more absent, negative or uniform for each student. They think automated FB in Moodle should not be eliminated, harsh, or generic, as these would undermine students' motivation and engagement in language learning. The results of the correlation test are shown in Table 9 below:

**Table 9: personalized automated feedback in Moodle**

	Disagree		Neutral		Agree	
	Count	Row N %	Count	Row N %	Count	Row N %
By ignoring errors and focusing solely on praising effort.	56	78.9%	0	0.0%	15	21.1%
By tailoring feedback to address individual students' strengths and weaknesses.	20	28.2%	0	0.0%	51	71.8%
By removing feedback altogether to allow students to self-assess.	60	84.5%	0	0.0%	11	15.5%
By providing identical feedback to all students.	58	81.7%	0	0.0%	13	18.3%
By providing only negative feedback to highlight errors.	66	93.0%	0	0.0%	5	7.0%
By delivering feedback in a rapid and constructive manner.	17	23.9%	0	0.0%	54	76.1%
By focusing exclusively on grading without providing additional comments.	59	83.1%	0	0.0%	12	16.9%

## 2. Pearson Correlation Test between Teachers' Moodle training and Their Ability to Provide Positive Automated FB

To test whether there is a significant relationship between receiving Moodle training and teachers' ability to provide positive automated FB, a Pearson correlation test was conducted between the variable "Have you received any training to use the Moodle platform?" and the mean score of the section. Section four measured the teachers' ability to provide positive automated FB that enhances student motivation and engagement in language courses. The results, as displayed in Table 10 below, show a very weak and insignificant correlation between the two variables ( $r = 0.052$ ,  $p = 0.668$ ), meaning that we cannot reject the null hypothesis that there is no relationship between the two variables. Therefore, we cannot conclude that teachers who have received Moodle training can provide better automated FB that motivates and engages students more in their language learning journey. However, this does not entail that Moodle training is ineffective and an inadequate platform for instruction. It is possible that Moodle training benefits teachers in other areas of online learning, like developing and planning courses and activities and interacting and collaborating with students. The usefulness and quality of automated FB may also be influenced by factors such as teachers' pedagogical skills, personal preferences, and level of language ability. Therefore, more study is required to examine these additional aspects and how they interact with Moodle training to understand better how teachers can transmit automated FB that increases student motivation and participation in language courses.

**Table 10: The ability to provide effective automated feedback positively impacts students' motivation and engagement**

	The ability to provide effective automated feedback positively impacts students' motivation and engagement.
Have you received any	.052

training to use the Moodle platform?	Sig. (2-tailed)	.668
		71

A Pearson correlation test was performed between the mean scores of teachers' Moodle training factor and their ability to provide positive automated FB to test the hypothesis that teachers' familiarity with Moodle's features and their capacity to apply efficient automated FB positively impacts students' motivation and engagement. The teachers investigated positive Facebook characteristics in language courses in section three, and the association between automated feedback and student motivation and learning engagement in language courses was investigated in section four. The correlation test results are displayed in the Table 11 below:

**Table 11: The ability to provide effective automated feedback positively impacts students' motivation and engagement**

The ability to provide effective automated feedback positively impacts students' motivation and engagement.		
Teachers' familiarity with the various characteristics of Moodle	Sig. (2-tailed)	.144
		.230
		71

The findings demonstrated a weak and non-significant relationship between teachers' familiarity with Moodle's characteristics and their ability to provide efficient automated FB that raises students' motivation and engagement levels. The two variables have relatively little linear link, as indicated by the Pearson correlation coefficient of 0.144. The p-value is 0.230, more significant than the standard significance level of 0.05, meaning we cannot reject the null hypothesis that there is no correlation between the two variables. Therefore, based on these results, we cannot conclude that teachers more familiar with Moodle can provide better automated FB that motivates and engages students more in their language learning journey. Other factors may influence the quality and effectiveness of automated FB.

Thus, a further study would be conducted to address this gap in our knowledge and understanding of these factors.

### Discussion of Research Findings

In this study, we examined how teachers perceive the influence of positive FB in Moodle on FL students' motivation and engagement. To achieve this objective, we used a quantitative research method by administering a questionnaire to teachers.

Based on the research questions this study aimed to investigate, this section will delve into a detailed discussion of the results, shedding light on crucial findings and comparing them with those obtained in previous research.

***RQ1.** Which characteristics of Moodle automated FB do teachers recognize as significantly enhancing their positive impact on language courses?*

Firstly, research question N°1 addressed the initial research issue concerning teachers' perceptions of characteristics of positive FB in language courses. The findings showed that most participants recognized the significance of positive FB; in other words, FB engages and inspires their learners, not one that lacks specificity and is susceptible to various interpretations. The findings also demonstrate that most participants could identify other instances of positive FB via Moodle that should be precise, quantifiable, and aligned with the course objectives. Reviewing the literature

on the use of digital technology in student FB practices confirms how technology can support effective and positive FB (Dawson et al., 2018).

**RQ2.** *Research question 2: What are teachers' perceptions of the impact of Moodle personalized positive FB in enhancing students' motivation and learning engagement?*

Secondly, to answer research question N° 2, the three sub-sections (1.4.1, 1.4.2 and 1.4.3, respectively) aimed to explore the teachers' perspectives on how Moodle personalized positive FB may affect their students' motivation and engagement in learning. The results show that most respondents agreed on the most common purpose of providing students with personalized positive FB via Moodle in language courses: to enhance student engagement. Therefore, teachers perceive the impact of Moodle personalized positive FB in enhancing students' motivation and learning engagement as positive, especially when engaging, constructive, rapid, suggestive, appreciative, tailored, and praising. Comparing the study results with previous research studies yielded to consistency with existing literature. Besides Maier and Klotz (2022) and Hwang et al. (2020), who advocate that teachers can better meet their students' personal needs and learning styles with the help of personalized digital learning tools, Kourgiantakis et al. (2019) state that for FB to be constructive, it should be specific; that is personalized according to students' preferences.

The findings are also consistent with previous research carried out by Henderson et al. (2019), which confirms that automated FB can provide students with precise and in-depth insights into their own performance and responsiveness to their indicated demands. It also gives students helpful information promptly. Students can improve and, sometimes, even accelerate their learning in both school and university environments. Additionally, another good fit of existing studies implies that the efficiency of automated FB during learning depends significantly on learners' motivational resources that decide how much students engage with FB (Barkela et al., 2023) and, more specifically, via Moodle, be it formative or summative assessment, as has been evidenced by (Gamage et al., 2022).

**RQ3.** *Is there a significant relationship between receiving Moodle training and teachers' ability to provide positive automated FB?*

**a.H0:** There is no relationship between receiving Moodle training and teachers' ability to provide positive automated FB.

**b.H1:** There is a significant relationship between receiving Moodle training and teachers' ability to provide positive automated FB.

Thirdly, the Pearson correlation was used to answer the third research question of this study. The correlation coefficient ( $r$ ) of 0.052 indicates a very weak relationship between Moodle training and the quality of automated FB. This suggests that receiving Moodle training does not significantly correlate with teachers' ability to provide better FB regarding student motivation and engagement. Additionally, the  $p$ -value of 0.668 is more significant than the standard significance level of 0.05, indicating that the results are not statistically significant. As a result, the null hypothesis cannot be rejected, meaning there is no significant relationship between Moodle training and improved automated FB. This may be explained by the fact that in face-to-face education, teachers have been trained on FB and the overemphasis on what constitutes a positive FB practice. Conventionally, positive FB has always been an essential part of face-to-face learning and commonly used in the HE context (Kourgiantakis et al., 2019). The current overemphasis of future research studies would be on how teachers should focus their attention and training toward optimizing FB settings and establishing the most effective timing for displaying it, in terms of time, action and personalized FB.

**RQ 4.** *Is there a significant correlation between teachers' familiarity with the various characteristics of Moodle and their ability to provide effective automated FB, which positively impacts students' motivation and engagement?*

Regarding the last research question, the results indicated a weak correlation between Moodle familiarity and the quality of automated FB in terms of student motivation and engagement; they also stressed the need for a more comprehensive understanding of the multifaceted aspects of FB. To enhance the creation and distribution of language learning experiences, factors other than technological competence, like the content and delivery of FB, should be thoroughly investigated. This finding aligns with Guo and Zhou's study (2021), which revealed that automated FB showed no significant correlation with motivation in male students and a negative association with extrinsic motivation in female students. This study adds to the current conversation by highlighting the complex interplay between teachers' technological proficiency and efficient FB implications. However, Wang and Han's (2022) research suggests that while automated FB may be more beneficial for the long-term development of foreign language (FL) writing proficiency, teacher FB generally has a more positive effect on the psychological aspect of FL writing.

### **Conclusion**

In conclusion, drawing from the data analysis of the results of the present study, insightful information about how teachers perceive Moodle personalized positive FB in language courses may affect their students' motivation and engagement. Teachers understand the value of unambiguous FB and the particular traits of Moodle personalized positive FB that increase its efficacy. The main objective of personalized positive FB posts in language classes is to increase student participation; the most inspiring posts are constructive and supportive. Nonetheless, the study reveals a poor relationship between Moodle training and the calibre of automated FB, highlighting the necessity for a more profound comprehension beyond technological expertise.

Moreover, this study also reveals that the training received by teachers needs to be increased to enable them to exploit the full pedagogical potential of the Moodle platform in terms of FB. Therefore, institutions and universities should take steps to improve teachers' preparation for this aspect, which is essential for student motivation and engagement.

### **Limitations of the Study**

While this study provides valuable insights into teachers' perceptions of automated positive FB via Moodle, it is essential to acknowledge certain limitations that warrant attention. The sample size of the study, consisting of 71 teachers, is relatively small and lacks representation of the diversity found in HE contexts. To ensure the validity and generalizability of the findings, future research should involve more extensive and more diverse samples encompassing various educational settings.

While informative, the reliance on self-reported data from teachers through an online questionnaire presents a limitation. Subjective perceptions, while valuable, must be complemented with more objective data on actual FB practices and their measurable impact on student engagement and motivation.

This study did not fully consider contextual factors that could influence student motivation and engagement. Variables such as students' levels of foreign language proficiency or the specific characteristics of courses and assessment tasks may play a decisive role in the effectiveness of automated positive FB.

It is essential to acknowledge that this study was correlational, and as such, it cannot establish a causal relationship between automated positive FB and increased learner motivation and engagement. To explore causality, future research should involve experimental studies manipulating this variable to understand its direct effects better.



## Recommendations

Despite these limitations, this study represents a significant step forward in exploring Moodle FB functions in the context of language education. It prompts further inquiry into how Moodle personalized positive FB can be optimized to enhance student motivation and engagement while highlighting the need for more comprehensive and diverse research methodologies to fully understand its impact. This opens up promising avenues for future investigations and raises pertinent questions that can guide the development of more effective e-learning environments, as far as the explicit mechanisms through which Moodle personalized positive FB enhances students' motivation and engagement, as proposed by Guo and Zhou (2021). Experimental research studies can also be conducted to help educators examine the presence and characteristics of positive automated FB to enhance learners' motivation and engagement.

The results show that more in-depth and targeted training on the pedagogical use of the Moodle platform would be necessary to prepare teachers to optimize FB settings to determine the best timing for FB displays. In addition, scant attention to practical workshops on writing constructive and personalized FB is necessary. Pedagogical advisors could also coach teachers to optimize the FB given via Moodle. Finally, as optimal use of Moodle's FB functions requires specific skills, this study shows an opportunity for further research that considers this issue to be conducted in computer-based learning environments.

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