

## Article

# The Role of e-Tutor Competencies in Postgraduate e-Learning Courses: Spotlight on Emotion Management

Elisabeth Bustos-Contell <sup>1</sup>, Luis Porcuna-Enguix <sup>2,\*</sup> , José Serrano-Madrid <sup>3</sup> and Gregorio Labatut-Serer <sup>1</sup>

<sup>1</sup> Accounting Department, University of Valencia, 46010 Valencia, Spain; elisabeth.bustos@uv.es (E.B.-C.); gregorio.labatut@uv.es (G.L.-S.)

<sup>2</sup> Economics and Social Sciences Department, Centre for Research in Business Management (CEGEA), Universitat Politècnica de València, 46022 Valencia, Spain

<sup>3</sup> Accounting and Financial Economics Department, University of Murcia, 30100 Murcia, Spain; jose.serrano@bfnfix.com

\* Correspondence: lporeng@esp.upv.es

**Abstract:** The role of e-learning in the existing and challenging educational era is crucial. However, it is necessary to overcome some drawbacks such as feelings of isolation and a lack of emotional contact. In this sense, emotion management is a key driver of student satisfaction in e-learning, which is significantly related to students' motivation, learning, cognitive strategies, self-regulation, and personality antecedents in the classroom. This article examines an online postgraduate course in financial statements auditing, describing the resources used by the e-tutor to conduct affective tutorials, reduce students' feelings of isolation, increase student involvement, and achieve success in e-learning. The results of a survey administered to 125 students over the period 2015 to 2020 indicate that students who receive emotional support have higher levels of satisfaction with the course in terms of all satisfaction indicators. In addition, female e-learning students are more satisfied with intensive e-tutor monitoring overall but are less gratified by non-face-to-face e-tools. Our study responds to the calls in the 2021–2027 *Digital Education Action Plan* to improve and reset education and training for the digital age.

**Keywords:** e-learning; interactive tutorial; emotion management; student satisfaction



**Citation:** Bustos-Contell, E.; Porcuna-Enguix, L.; Serrano-Madrid, J.; Labatut-Serer, G. The Role of e-Tutor Competencies in Postgraduate e-Learning Courses: Spotlight on Emotion Management. *Sustainability* **2021**, *13*, 9716. <https://doi.org/10.3390/su13179716>

Academic Editors: John Carman and Maria del Carmen Pérez López

Received: 27 June 2021

Accepted: 26 August 2021

Published: 30 August 2021

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

Society is now deeply immersed in technology and virtual environments. Despite offering numerous advantages (e.g., freedom, convenience, and flexibility) over classroom learning, the implementation of e-learning methods is often unsuccessful [1]. E-learning broadens learning opportunities [2] and overcomes the inconvenience of traveling to attend courses in person [3]. All these benefits are particularly attractive for postgraduate programs because they allow learners to juggle educational and professional commitments.

In the early days of e-learning, the emphasis was on teaching quality and learning effectiveness as key ingredients for successful courses [4]. Later, the drive to achieve student satisfaction shifted toward technology [5]. Today, success can be defined in terms of six key factors: course design quality, instructor, motivation, student–student dialogue, student–instructor dialogue, and self-regulated learning [6]. However, several issues related to students' emotions are still overlooked. A major cause of e-learning failure is the absence of personal contact [7] and, more specifically, feelings of loneliness and isolation [8]. Interest in these issues is such that e-learning courses even use software to detect emotional signals via webcam and thereby boost academic performance [9].

The aim of this study is to determine whether an e-tutor's emotion management is valid and practical and, if so, whether this effective emotion management improves students' satisfaction. To achieve this aim, we first describe the resources used to achieve student satisfaction, focusing primarily on emotion management. The resources considered

in this study include course materials (written materials and videoconferences), course organization, teacher ratings, and tutor ratings. The study context is the online postgraduate Diploma in Financial Statements Auditing (*Diploma de Auditoría de Cuentas*) at the University of Valencia over five consecutive years. This course is delivered through the ADEIT Foundation online platform. The full sample of 125 students enrolled in this program over 5 years was split into two subsamples. The first group includes 75 students (60%) who received intensive monitoring (IM) through e-tutorials to reduce feelings of isolation and gain emotional contact. The second group includes 50 students (40%) who received non-intensive monitoring (NIM) via e-tutorials.

Statistical analyses were performed using the statistical software Stata 14. The results show that the e-tutor's emotion management is effective and, in turn, that it enhances students' satisfaction. We observe differences between non-intensive monitoring (NIM) and intensive monitoring (IM) groups by e-tutors. In particular, IM students are more grateful than NIM students for teachers' support, attitudes in engaging students with the course and running the course smoothly, forum dynamism, attitudes in tutorials, and attention. Additionally, we observe differences in e-learning students' satisfaction in terms of gender. Overall, female e-learning students are more satisfied than their male counterparts. However, the results are particularly interesting when considering feelings, attitudes, and warm learning by instructors. For instance, female students are less likely to be satisfied with videoconferences but are more likely to reward teachers for their attitudes and support. These results provide evidence of the well-documented nature of female students' communication skills in e-learning environments and their disposition toward face-to-face e-tools [10].

The contribution to the existing e-learning literature is fourfold. First, we share our experience with the e-tutor community, providing a discussion of the mechanisms used to achieve student satisfaction [11]. Second, we add to the scarce literature on how to build efficient online learning environments for postgraduate programs while describing the e-tutor's experience in a fully virtual environment [12]. Hence, we contribute to designing a knowledge framework that combines theory and practice in e-tutor training. Third, in response to the international call for resetting education and training for the digital age—*Digital Education Action Plan 2021–2027* [13]—we share a useful empirical case of e-learning practices and the value of intensive e-tutor monitoring. Fourth, to our knowledge, no previous empirical study has tackled the role of gender in e-learning assessments either by adopting different perspectives (human vs. technical educational environments) or by distinguishing between intensive and non-intensive monitoring of e-tutorials.

The remainder of the paper is structured as follows. Section 2 reviews the prior literature on e-learning and e-tutorials. Section 3 gives a brief explanation of the e-learning course used in the analyses and presents details of the e-tutor's emotion management during the course. Section 4 describes the statistical analyses. Section 5 discusses the statistical and econometric results. Section 6 provides additional analysis of the role of gender in e-learning students' satisfaction. Finally, Section 7 concludes.

## 2. Literature Review

### 2.1. Toward e-Learning in Higher Education

It has been said that “a great deal of e-learning progress has been made so far, but there is still much more to do” [14]. The potential of e-learning is so great that it can significantly change the way we teach and learn. Many stakeholders are required to contribute to the so-called e-learning revolution, including education providers, employers, local authorities, governments, and the e-learning industry. Consequently, the need for e-actions and e-skills are demanding e-learning educators to be up to the challenge.

In essence, e-learning is about enhancing learning quality using online communications and interactive technologies, thereby improving the learning experience. In doing so, e-learning can re-engage people who are not involved in education because it is interactive by nature.

European international organizations have made great efforts in this area. Most recently, albeit with a long history, the 2018–2020 *Digital Education Action Plan* highlighted three priority areas: (i) making better use of digital technology for teaching and learning, (ii) developing digital skills and competences, and (iii) improving education through better data analysis and foresight. Currently, the 2021–2027 *Digital Education Action Plan* [13], which builds on the previous one, has two clearly defined strategic priorities: (i) fostering the development of a high-performing digital education system and (ii) enhancing digital skills and competencies for the digital transformation. The former alludes to connectivity and digital equipment and effective digital planning and requires competent and confident teachers and user-friendly tools and secure platforms. The latter requires basic digital skills and competencies, so teachers are called upon to develop advanced digital abilities and techniques. All these actions are enforced by the current EU scenario [13] for several reasons. First, many low-income homes have no access to computers and broadband. Second, around 20% of young people fail to achieve basic digital skills. Third, about 60% of educators are supposedly not ready to use digital technologies. Fourth, the COVID-19 crisis has led to an unprecedented shift toward online learning.

Despite these additional factors, we focus primarily on our study aim, centering on the second educational priority of the European Commission, namely the digital training and skills of teachers, especially tutorials.

## 2.2. *The Role of e-Tutors in the e-Learning Process*

### 2.2.1. Training of e-Tutors

The e-tutor is the educational figure who helps students learn online in an effective manner [15,16]. The figures of the e-tutor and the classroom tutor are not comparable. Despite having the same goal of helping their students learn effectively, these two figures have vastly different resources at their disposal. According to Goold et al. [17], e-tutoring is a huge challenge for teachers who are new to the role. Adnan et al. [18] argued that universities should provide specific training for e-tutors so that they can develop the necessary capabilities to perform this role. At the same time, passing on experience is a valuable way of enhancing this training [19]. The e-tutor's technological training is fundamental [12]. It is essential for e-tutors to learn to use the virtual platform so that they can perform their teaching duties and guide students through the course. Other skills are also fundamental, but unfortunately, university e-tutor training programs focus almost exclusively on using the virtual platform [20]. Other key areas are overlooked; these include special skills that the e-tutor needs to ensure that students feel supported, safe, and at ease throughout the e-learning course.

### 2.2.2. The Skills of e-Tutors

According to O'Neil [21], the role of e-tutors requires new perceptions of time, space, and virtual management techniques. They need different skills from those required for traditional tutors. The different skills that e-tutors need are discussed at length in the literature. Poor and Brown [22] focused on interactive learning. Doukakis et al. [23] studied the development of work-related skills. Lin and Yang [24] highlighted language skills. Pitsoane et al. [25] explored experience and e-tutors' active-learning perspectives, focusing on situated learning, chaos, and digital factors.

However, skills acquisition is a complex matter. As Cheung and Hew [26] noted, the contributions of e-tutors to online courses reflect their individual characteristics. The same authors highlighted sensitivity and open-mindedness as two of the principal attributes that e-tutors should have. Similarly, Chien et al. [27] investigated five e-tutor competencies: moral character, problem solving, caring, empathy, and social interaction. They acknowledged the need to enrich studies so that e-tutors' achievements can be enhanced.

The e-tutor's actions are a key differentiator in e-learning. A good e-tutor is experienced, enthusiastic, and committed to the course, flexible yet organized, tolerant, good at communicating, and even better at listening. These are the e-tutor characteristics that are

encouraged for the Diploma in Financial Statements Auditing. It is therefore fundamental for this role to be performed by a teacher who is truly committed to the program.

The goal for the e-tutor is to meet his or her objective of achieving full student satisfaction. When a tutoring system fosters learning satisfaction, it also fosters learning performance and e-learning success [28]. Student satisfaction is a recurring theme in the literature. The last decade has witnessed growing interest in the use of emotion management in affective tutoring as a means of enhancing satisfaction [29]. The emotions that students must cope with are confusion, boredom, and frustration [30]. Thus, e-tutors must be capable of identifying these feelings and must act to neutralize them, thereby reducing the risk of failure.

### 3. Organization and Structure of the Diploma in Financial Statements Auditing

The Diploma in Financial Statements Auditing is approved by the Spanish Public Oversight Board (*ICAC—Instituto de Contabilidad y Auditoría de Cuentas*). It represents 30 credits within the European Credit Transfer System (ECTS) adopted in the European Higher Education Area (EHEA). The duration of this course is 10 months. Many academics, professionals, and institutions collaborate in these postgraduate students' education, such as PricewaterhouseCoopers, Ernst & Young, Grant Thornton, and Moore Stephens Ibergrup. These characteristics highlight the importance of the course.

This specialization course was entirely online, taking place via Moodle as the official learning management system (LMS), and Teams, Blackboard, and Zoom as the main virtual tools. Even though Moodle was the dominant platform for teaching, virtual tools were also used to support tutorials.

#### 3.1. Organization of the Virtual Platform

Organization is crucial for any entity to achieve its objectives. In the case of e-learning, the virtual platform provides an introduction to the program because it is the first thing that students see when they start the course. Therefore, it must be well organized so that the students perceive it as user friendly. In the case of the present study, the organization of the platform is the tutor's responsibility. Therefore, the organization of the course in general is one of the tasks assigned to the tutor. Table 1 shows the core elements of the virtual platform.

**Table 1.** Platform structure.

Block 1	Block 2	Block 3	Block 4	Block 5
- Welcome video - About us - Teaching guide - Events calendar	- List of job offers - Notice board - Forum	- Tutorials	- Core materials - Supplementary materials - Videoconferences	- Exams - Student satisfaction survey

##### 3.1.1. Teacher Presentations

The first resource that appears on the platform is a video in which the director of the diploma, as a problem solver, offers an introduction and welcomes the students. The rest of the video is identical to the content of the first lecture in the actual classroom. This video introduces the students to the course director and lends a human touch to the virtual course. The platform also contains a section titled *About us*, which provides information, a photo, and a brief resume for each course teacher. Thus, students become familiar with the teacher. The goal of this process is to get close to students so that they feel comfortable from the outset.

##### 3.1.2. Forum and Notice Board

The forum is organized into threads. However, given the huge number of posts and the high level of participation by students, by the end of term, the forum inevitably becomes somewhat chaotic. To encourage student participation, one of the teachers is responsible

for posting content and encouraging student participation in the forum. Periodically, this teacher posts news or interesting content related to the course material.

The recommendation is to encourage student participation and interaction. For example, when a student poses a problem or requests a solution in the forum, instead of responding directly, the moderator can ask the rest of the students to offer their opinions, thereby encouraging dialogue, which brings the students closer together. This student-to-student interaction heightens the sense of belonging [31]. The moderator can then intervene by steering the debate, thanking the students for their input, and providing the solution to the problem that was raised.

The notice board is reserved for teachers. It is essentially used by the tutor to make announcements that may be of interest to the students. These might include the release of new material, details of exam dates, and job offers, which are particularly valuable and offer a source of satisfaction.

### 3.1.3. Materials

According to Stonebraker and Hazeltine [32], online teaching requires extensive preparation of course material, unlike in classroom-based courses, where slides are supplemented with oral presentations by teachers. For Cabrero [33], the content of the course material is a critical variable that depends on three conditions: quality, quantity, and structure. Arguably, clarity is a fourth condition. This diploma seeks to meet these three conditions. To do so, the content of the course material is revised and updated. The presentation of the course material is also carefully prepared, and all topics are presented using the same format.

The desire to offer high-quality course material means that students feel satisfied with this aspect of the program, as reflected by the comments of a loyal student on the welcome forum:

e-tutor: *"It's great to see you again here"!*

e-tutee: *"It's a pleasure to be back. It's because the course contents are so clear and easy to use".*

The written material is complemented by videoconferences delivered by prestigious professionals who take a professional approach to the course topics. The videoconferences are broadcast synchronously, which enables the simultaneous use of a chatroom so that students can participate in real time. However, recordings of the videoconferences remain available on the platform until the end of the course so that students can watch them asynchronously.

Whenever a new subject becomes available, the teacher of that subject presents the content on the notice board, invites students to send any problems related to their understanding of the course materials, and assures students that he or she would be delighted to resolve these problems during the course tutorials. Throughout the course, the students have an events calendar, which shows the deadlines for all assignments and exams. The deadlines on the calendar are strict. The students value this information because it helps them organize their time.

### 3.1.4. Tutorials

The tutorials offer students an opportunity to submit questions to the teachers for each subject. The rule is that these questions must be answered as soon as possible but always on the same day that they are sent so that students do not feel like they are being ignored. The speed with which the teachers respond to each question is important for students, as reflected by the following message:

*"It's a pleasure taking this course with you! I've really enjoyed it. Personally, I value the speed of response of the tutorials, especially since I've asked a lot of questions on a Sunday . . . Honestly, I am really grateful for the personal touch".*

It is also important to explain to students that they can and should participate in as many tutorials as they need. Therefore, ending the tutorial with a sentence like, *"if that*

*doesn't make sense, let me know, and I'll try and explain it again*" is advisable. Or, when a student starts the tutorial by saying, *"sorry for bothering you"*, the response could be, *"it's no bother; it's my job, and I'm lucky to be doing something I love"*. This type of comment reassures the students that they can contact the teacher whenever they need to.

Similarly, all teachers are told to use colloquial, familiar language. During virtual tutorials, students approach teachers who they do not see directly. Therefore, it is advisable to use expressions such as, *"don't worry; between the two of us, we can do this"* or, *"your question shows that you've been studying"*.

Another technique that is used in the tutorials after the teacher explains how to complete the assignment is to tell the student, *"try it, and if it doesn't give you the right answer, let me know; even if you do get the right answer, let me know anyway just so that I can be sure"*. The e-tutee thus perceives that the teacher is personally monitoring his or her progress. When students inform the e-tutor that they have resolved the problem, the response should be along the lines of, *"Well done! See? You can do it!"*

Finally, it is also effective to use humor in some of the comments during the tutorials, provided it is subtle. The use of humor helps lighten the atmosphere and strengthen relations between e-tutor and student. The goal is to remove the barriers created by distance while making students feel comfortable, looked after, and cared for.

### 3.2. The Role of the e-Tutor in the Diploma in Financial Statements Auditing

The tutor's goal is to ensure the complete satisfaction of students. To do so, the tutor's strategy has several goals. First, the tutor aims to reduce the inherent distance in e-learning. Second, the tutor aims to reduce students' feelings of isolation. Finally, the tutor aims to make each student feel like a unique and integral part of the course.

The only tool at the tutor's disposal is written language, but this is a valuable tool when properly used to support the tutor's actions. For example, every time the tutor logs on, he or she can take the opportunity to send a message to the students who are also logged on. An example of such a message is as follows: *"Hi. I've just logged on. Everything OK?"*

It is important to monitor students' activity and send messages to students who go for long periods without logging on. An example of such a message is as follows: *"Hi. I've noticed that you haven't logged on for a while, and I'm a little concerned. Is everything OK? Remember that we're here to help with whatever you need"*. Conversely, students who get excellent grades should be encouraged with messages such as, *"Hi. I've just seen your grades. Well done!"*

Occasionally, students explain that they will not be able to log on for a substantial period because they will be undergoing surgery or will be traveling. In the former case, the tutor should send a message after the operation, expressing an interest in the student's well-being. In the latter case, the tutor's reply should be along the lines of, *"Don't worry. The course will be waiting for you when you get back. Have a good trip!"* In both cases, the students appreciate the support and understanding.

In some extreme cases, students are overwhelmed with work, and they decide to drop out of the course. In these cases, the tutor should speak to them on the telephone to address the problem directly and reassure them. In most cases, the tutor's support is enough to get students to reconsider their decisions.

In short, the goal is for the tutor to use his or her skills and apply them in a friendly, polite, kind, and empathetic manner to ensure that all students are completely satisfied when they complete the course. The reward for the tutor's involvement may take the form of a message that the tutor receives at the end of the course expressing the student's thanks:

*"I wanted to say goodbye and thank you. I personally felt that you were with me every step of the way, and your words reassured me when I needed it. Thank you so much for everything. I only regret not meeting you in person. Warm regards"*.

#### 4. Statistical Analysis

##### Sample and Method

As shown in Table 2, the sample consisted of 125 students enrolled in the Diploma in Financial Statements Auditing for the five academic years spanning 2015/16 to 2019/20. The sample was divided into two groups. The first consisted of the 75 students who struggled the most. This group received close monitoring and emotional support (Intensive Monitoring—IM group). The second group, which was used as the control group, consisted of 50 keen students who participated most actively in the course. For these students, the tutor’s involvement in terms of emotional support was less intensive (Non-Intensive Monitoring—NIM group).

**Table 2.** Sample characteristics.

	Number of Students
Intensive monitoring	75 (60%)
Non-intensive monitoring	50 (40%)
Total	125 (100%)

The aim of the analysis was to evaluate students’ satisfaction with the diploma and, more specifically, the tutor’s ability to ensure students’ complete satisfaction. To achieve this objective, a questionnaire consisting of 33 items arranged into four categories was created. This questionnaire, which students responded to using a five-point Likert scale, was posted on the virtual platform, with 1 indicating the lowest satisfaction and 5 the highest. Table 3 shows the items included in the questionnaire.

Based on the students’ responses from both intensive (75) and non-intensive monitoring (50) groups, a parametric test (t-student), supported by a non-reported ANOVA test, was used to run difference of means. In addition, linear regression models were run to determine the impact of e-tutor actions on student satisfaction. To do so, we employed the following regression model (1):

$$Category_{ij} = \beta_0 + \beta_1 IM_{ij} + \sum_{2015/16}^{2019/20} Years_j \quad (1)$$

where  $Category_{ij}$  is the mean value of the items included in each of the six categories stated in Table 3 for student  $i$  and year  $j$ . For example, the mean value of “Written material” is calculated as (item 1 + item 2 + item 3 + item 4 + item 5)/5. The variable of interest is intensive monitoring ( $IM_{ij}$ ), which takes the value 1 if the monitoring is intensive and 0 otherwise. We also added year fixed effects to control for time-invariant unobservable effects that might influence the degree of satisfaction. We predicted significant and positive coefficients for this variable since we expected more intensive monitoring of e-learning students by e-tutors to affect the students’ satisfaction positively.

**Table 3.** Questionnaire items.

Categories	Items
Materials	Written material 1. Quality 2. Clarity 3. Structure 4. Presentation 5. Material is complete
	Videoconferences 6. Technical quality 7. Quality of the speaker 8. Appeal of the topics 9. Ease of participation 10. Conference development 11. Value added by the course

Table 3. Cont.

Categories	Items
Organisation	Virtual platform 12. Organisation of material on the virtual platform 13. Access to material 14. Access to exams 15. Access to tutorials 16. Convenience of the platform 17. Platform is well-organised 18. I got a sense of good overall organisation
	Academic 19. It was useful to have an events calendar throughout the course. 20. I liked the fact that explanations were given for any failures to adhere to the events calendar. 21. The syllabus was well organised. 22. I got a sense of good overall organisation.
Teacher ratings	23. Approachability of teachers 24. Support from teachers 25. The teachers' attitude helped me engage with the course. 26. The teachers' attitude helped the course run smoothly. 27. I found the dynamic of the forum interesting.
Tutor rating	28. I found the job offers notice board very useful. 29. The tutor's attitude had few weaknesses. 30. Attention during tutorials (language, mood after tutorials, etc.). 31. The tutor managed to 'reduce the distance' of the course. 32. I liked the tutor's use of personalised messages as a way of monitoring progress. 33. The tutor made me feel welcome.

## 5. Empirical Results

### 5.1. Descriptive Statistics

Table 4 presents the descriptive statistics of students' satisfaction with learning categories by questionnaire item and by intensive monitoring (IM) versus non-intensive monitoring (NIM) by the e-tutor. For all items, e-learning students who received intensive monitoring through e-tutorials were more satisfied than students in the non-intensive monitoring sample. For instance, IM e-learning students were more appreciative (around 21.35%) of uploaded materials, even though the same materials were delivered to both NIM and IM groups. With respect to organization, IM students were about 17.84% more emotionally rewarded than the others. The emotional gap was even greater when we observed the reported results for teacher and tutor ratings (i.e., peer and instructor interaction in the e-learning environment). For instance, IM students' satisfaction was about 36.19% higher than that of the NIM group for the items of teachers' support, teachers' attitudes in engaging students with the course and running the course smoothly, and forum dynamism and 49.32% higher for tutorial attitude and attention.

### 5.2. Regression Model Results

Econometric techniques were used to measure the impact of the e-tutor's actions for each category in the questionnaire.

Table 5 shows the potential impact of the e-tutor's actions regarding monitoring intensity. In all cases, the variable of interest (IM) had positive and significant coefficients at the 1% level. The most significant result was for the tutor rating, followed by the teacher rating, written material, and videoconferences, virtual platform, and academic organization. For instance, e-learning students who received intensive monitoring by the e-tutor were 1.542 times more satisfied with the tutor's attitude, skills, and attention than those who received less intensive monitoring. In this particular case, our model explains 75.5% of this difference.



**Table 4.** Descriptive statistics of students' satisfaction to e-learning categories.

		N	Mean	sd	min	p50	max	Diff. of Means	
MATERIALS	NIM	50	3.806	0.303	3.000	3.908	4.150	−0.813	***
	IM	75	4.619	0.272	4.000	4.667	5.000		
WRITTEN MATERIAL	NIM	50	3.756	0.287	3.000	3.800	4.200	−0.831	***
	IM	75	4.587	0.342	3.800	4.600	5.000		
VIDEOCONFERENCES	NIM	50	3.857	0.414	3.000	4.000	4.500	−0.794	***
	IM	75	4.651	0.322	4.000	4.667	5.000		
ORGANISATION	NIM	50	4.006	0.359	3.214	4.125	4.464	−0.715	***
	IM	75	4.721	0.282	4.125	4.750	5.000		
VIRTUAL PLATFORM	NIM	50	3.943	0.429	3.000	4.000	4.571	−0.730	***
	IM	75	4.672	0.377	4.000	4.857	5.000		
ACADEMIC	NIM	50	4.070	0.446	3.000	4.250	4.500	−0.700	***
	IM	75	4.770	0.461	3.250	5.000	5.000		
TEACHER RATING	NIM	50	3.544	0.694	2.800	3.300	5.000	−1.283	***
	IM	75	4.827	0.268	4.000	5.000	5.000		
TUTOR RATING	NIM	50	3.127	0.464	2.500	3.000	4.167	−1.542	***
	IM	75	4.669	0.414	3.833	4.833	5.000		

Note: NIM: non-intensive monitoring; IM: intensive monitoring. The statistical significance of the difference of means is based on the parametric *t*-test. \*\*\* indicates statistical significance at 1%, 5%, and 10% levels, respectively.

**Table 5.** Impact of e-tutor actions regarding monitoring intensity.

	Written Material		Video-Conference		Virtual Platform		Academic		Teacher Rating		Tutor Rating	
Intercept	3.742	***	3.857	***	3.951	***	4.080	***	3.550	***	3.115	***
	(51.69)		(40.33)		(40.42)		(38.26)		(25.86)		(29.45)	
IM	0.831	***	0.794	***	0.730	***	0.700	***	1.283	***	1.542	***
	(14.59)		(11.30)		(9.62)		(8.36)		(12.28)		(18.72)	
Year-Fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
N	125		125		125		125		125		125	
F-Statistic	43.560	***	25.780	***	18.660	***	14.040	***	30.290	***	70.280	***
R-squared	0.625		0.543		0.451		0.368		0.631		0.755	

Note: Dependent variable: mean value of questionnaire categories, ranging 1 to 5, being 1 the least satisfaction. Independent variable: intensive monitoring (IM), which takes value 1 if intense monitoring, and 0 otherwise. Standard errors are White corrected for heteroskedasticity. \*\*\* indicate statistical significance at 1%, 5%, and 10% levels, respectively.

## 6. Additional Analysis

Research must not only focus on the benefits of e-learning (and e-tutors) in overcoming limitations at universities but also explore the characteristics of participants who are actively involved in e-learning initiatives. The analysis should also consider how these characteristics may influence e-learning outcomes [34]. Researchers are becoming especially interested in e-learning gender issues. For instance, some studies have shown online environments to be hostile toward female students because it is supposed to be a male-dominated area. It is also argued that women's participation in e-learning processes is usually linked to how easy or difficult it is to use the software [35]. It is traditionally said that e-learning represents a disadvantage for women because they have a weaker background or less determination in using computers [36]. However, this situation may be suggestive of the nature of women's communication patterns in e-learning courses.

Female students' communication skills in e-learning environments tend to be more socially oriented and interactive than those of their male counterparts. Women find peer interaction and a shared learning space more comfortable for effective e-learning. This social predisposition may lead female students to become more involved in or connected with other learners, thanks to a greater sense of peer and instructor presence [34].

Accordingly, we expected to observe gender discrepancies in e-learning education assessment. We also predicted strong gender asymmetries depending on the type of e-learning material. For instance, female e-learning students were expected to appreciate an intensive monitoring style more than their male peers. Furthermore, the effect was expected to be stronger in the presence of social interaction and instructor presence. We reran the regression of equation (1), this time splitting the sample into men and women students.

Table 6 shows the results of the role of gender in e-learning students' satisfaction. Unsurprisingly, the empirical evidence shows that female e-learning students were more satisfied than their male peers. For instance, satisfaction was 0.177 points higher for materials, followed by the virtual platform (0.073), tutor rating (0.059), and academic organization (0.009). A particularly noteworthy result relates to the social, peer, and instructor interaction. Female students were less likely to be satisfied (52.23%) with videoconferences and were more likely (49.09%) to reward teachers for their attitudes and support in running e-learning classes. These results provide strong evidence of the nature of female students' communication skills in e-learning contexts. Women students really appreciate feelings, attitudes, and warm learning by teachers rather than technical and material aspects. Indeed, the use of videoconferences contributed to e-learning students' satisfaction but was penalized by female students (0.425 for women vs. 0.890 for men). Videoconferences may create barriers and may hinder interaction between peers and instructors, preventing an effective online flow experience [34].

**Table 6.** The role of gender on e-learning students' satisfaction.

Panel A. Male-Student Sample												
	Written Material		Video-Conference		Virtual Platform		Academic		Teacher Rating		Tutor Rating	
Intercept	3.736 (43.45)	***	3.766 (35.18)	***	3.886 (34.54)	***	4.015 (30.41)	***	3.616 (21.15)	***	3.057 (24.26)	***
IM	0.783 (11.45)	***	0.890 (11.65)	***	0.691 (8.00)	***	0.678 (6.53)	***	1.154 (9.04)	***	1.508 (15.35)	***
Year-Fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
N	95		95		95		95		95		95	
F-Statistic	27.100	***	28.41	***	12.910	***	8.570	***	16.400	***	47.230	***
R-squared	0.588		0.621		0.426		0.318		0.537		0.730	
Panel B. Female-Student Sample												
	Written Material		Video-Conference		Virtual Platform		Academic		Teacher Rating		Tutor Rating	
Intercept	3.760 (29.20)	***	4.217 (25.03)	***	4.205 (26.61)	***	4.333 (64.39)	***	3.287 (27.05)	***	3.344 (22.61)	***
IM	0.960 (10.32)	***	0.425 (3.09)	***	0.764 (5.47)	***	0.688 (9.51)	***	1.720 (19.41)	***	1.567 (13.22)	***
Year-Fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
N	30		30		30		30		30		30	
F-Statistic	22.090	***	2.560	***	7.670	***	44.220	***	86.350	***	35.700	***
R-squared	0.758		0.283		0.675		0.874		0.969		0.919	

Note: Dependent variable: mean value of questionnaire categories, ranging 1 to 5, being 1 the least satisfaction. Independent variable: intensive monitoring (IM), which takes value 1 if intense monitoring, and 0 otherwise. Standard errors are White corrected for heteroskedasticity. \*\*\* indicate statistical significance at 1%, 5%, and 10% levels, respectively.

## 7. Conclusions

Teaching and learning are moving toward virtual environments. Teachers must manage various online tools and play the role of e-tutor. This evolution creates a challenge because teachers must provide the best possible experience to their students. The goal of e-tutors is twofold. First, e-tutors must be responsible for the logistics of the course and must firmly commit to the teaching of high-quality materials. Second, e-tutors must help students deal with their emotional burdens because of the lack of face-to-face contact, while accompanying them through periods of insecurity, uncertainty, and loneliness.

We report the experience of the e-tutor in the postgraduate Diploma in Financial Statements Auditing, a fully online course taught at the University of Valencia. To assess the effectiveness of the e-tutor, a questionnaire was designed to perform an overall assessment of the course and a specific assessment of the e-tutor's performance. Two groups of students (IM and NIM subgroups) responded to this questionnaire.

The results show that students in the intensive monitoring (IM) group not only evaluated the e-tutor activity more favorably but also overrated the other elements (materials,

organization, and teacher rating) of the diploma. Regression analyses confirm that personalized monitoring increased students' satisfaction in all course areas. Furthermore, it had the greatest impact on the e-tutor rating, followed by the teacher's rating. This result implies that closer attention is fundamental for students' involvement because awareness improves students' perceptions of teachers, course materials, and technical and academic logistics. Consequently, satisfied students are more likely to be willing to take subsequent e-learning courses. In short, the e-tutor must understand that the e-student is a complex individual with his or her own problems, concerns, and personal and professional commitments. Managing emotions and being empathetic can reduce feelings of isolation frequently associated with e-learning.

Additional analysis provides evidence of gender differences. We tested whether women appreciate intensive tutor monitoring more than men. Our results indicate that female e-learning students are more satisfied with intensive e-tutor monitoring overall but less in relation to e-tools that entail a less social or peer- and instructor-oriented interaction, such as videoconferences. Female students are assumed to have better communication and social skills than male students, and videoconferences seem to be interpreted as impersonal.

The results can offer a valuable way to encourage teachers to adopt a more affective or social role when teaching in an e-environment. Although the limitations of our study mean that the results for only 125 accounting students cannot be extrapolated to all types of students and other fields of study, this paper contributes to the literature from a practical perspective, in the sense that emotions play a significant role in e-learning practices. This finding is relevant because videoconference meetings are exhausting for users and deplete their attention [37]. Therefore, it would be of interest to explore the idea of pandemic fatigue, given that the COVID-19 pandemic has increased the offer and demand for e-learning practices. This situation has obvious advantages but also drawbacks.

The evidence provided by this study indirectly shows that grades are not the only goal of students. They also care about the value found in activities, outcomes, and e-tutor behavior in e-learning [38]. Unpleasant emotions (isolation, stress, anxiety, hopelessness, etc.) lead to poor results or make positive results seem unattainable. Conversely, pleasant emotions (participation, pride, attention, etc.) relax students' minds, making them perceive exams as controllable, informative, and helpful. In short, the role of e-tutors in online courses is to provide intrinsic and extrinsic motivation, which facilitates the cognitive flexibility and confidence of e-students. When students experience academic success (not only good grades but also pleasant emotions), their confidence and concentration increases because they do not feel isolated anymore.

**Author Contributions:** Conceptualization, resources, writing—original draft preparation, and supervision (E.B.-C. and G.L.-S.); software, validation, data curation, writing—review and editing (L.P.-E.); writing—review and editing and supervision (J.S.-M.). All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** Not applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Ali, S.; Uppal, M.A.; Gulliver, S.R. A conceptual framework highlighting e-learning implementation barriers. *Inf. Technol. People* **2018**, *31*, 156–180. [[CrossRef](#)]
2. Tavukcu, T.; Arapa, I.; Özcan, D. General overview on distance education concept. *Procedia-Soc. Behav. Sci.* **2011**, *15*, 3999–4004. [[CrossRef](#)]
3. Roblyer, M.D.; Doering, A.H. *Integrating Educational Technology into Teaching*, 5th ed.; Allyn & Bacon: Boston, MA, USA, 2010.
4. Sloan Consortium. *Quick Guide: Pillar Reference Manual*; Sloan Consortium: Needham, MA, USA, 2002; Retrieved 28 August 2008.

5. Sun, P.C.; Tsai, R.J.; Finger, G.; Chen, Y.Y.; Yeh, D. What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. *Comput. Educ.* **2008**, *50*, 1183–1202. [CrossRef]
6. Eom, S.B.; Ashill, N.J. A system's view of e-learning success model. *Decis. Sci.-J. Innov. Educ.* **2018**, *16*, 42–76. [CrossRef]
7. Jones, N.; Peachey, P. The development of socialization in an on-line learning environment. *J. Interact. Online Learn.* **2005**, *3*, 1–20.
8. Blázquez Entonado, F.; Alonso Díaz, L. Funciones del profesor de e-learning [The functions of e-learning teachers]. *Pixel-Bit. Rev. De Medios Y Educ.* **2009**, *34*, 205–215. Available online: <http://hdl.handle.net/11441/22586> (accessed on 31 January 2021).
9. Akputu, O.K.; Seng, K.P.; Lee, Y.; Ang, L. Emotion recognition using multiple kernel learning toward e-learning applications. *ACM Trans. Multimed. Comput. Commun. Appl.* **2018**, *14*, 1–20. [CrossRef]
10. Cuadrado-García, M.; Ruiz-Molina, M.E.; Montoro-Pons, J.D. Are there gender differences in e-learning use and assessment? Evidence from an interuniversity online project in Europe. *Procedia-Soc. Behav. Sci.* **2010**, *2*, 367–371. [CrossRef]
11. Raspopovic, M.; Jankulovic, A. Performance measurement of e-learning using student satisfaction analysis. *Inf. Syst. Front.* **2017**, *19*, 869–880. [CrossRef]
12. Copaci, I.A.; Rusu, A.S. A profile outline of higher education e-tutoring programs for the digital-native student—Literature Review. *Procedia—Soc. Behav. Sci.* **2015**, *209*, 145–153. [CrossRef]
13. EC. European Commission. Digital Education Action Plan 2021–2027. *Resetting Education and Training for the Digital Age. Ref. Ares(2020)5471597-14/10/2020*. Available online: [https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan\\_en](https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en) (accessed on 31 January 2021).
14. Department for International Development. Consultation. Towards a Unified E-learning Strategy. In *Consultation Document*; Department for International Development: London, UK, 2003.
15. Liu, R.L.; Li, Y.C. Action Research to Enrich Learning in e-Tutoring for Remote Schools. *Syst. Pract. Action Res.* **2020**, *33*, 95–110. [CrossRef]
16. de Jong, N.; Versteegen, D.; Koenings, K.D. The role of the e-tutor in synchronous online problem-based learning: A study in a Master Public Health Programme. *Br. J. Educ. Technol.* **2018**, *49*, 385–397. [CrossRef]
17. Goold, A.; Coldwell, J.; Craig, A. An examination of the role of the e-tutor. *Australas. J. Educ. Technol.* **2010**, *26*, 704–716. [CrossRef]
18. Adnan, M.; Kalelioglu, F.; Gulbahar, Y. Assessment of a multinational online faculty development program on online teaching: Reflections of candidate e-tutors. *Turk. Online J. Distance Educ.* **2014**, *18*, 22–38. [CrossRef]
19. Van Manen, M. *Investigación Educativa y Experiencia Vivida [Educational Research and Life Experience]*; Idea Books: Barcelona, Spain, 2003.
20. Chuang, H.H. A case study of e-tutors' teaching practice: Does technology drive pedagogy? *Int. J. Educ. Math. Sci. Technol.* **2013**, *1*, 75–82.
21. O'Neil, T.D. How distance education has changed teaching and the role of the instructor. *Inf. Syst. Educ. J.* **2006**, *7*, 1–11. Available online: <http://isedj.org/7/48/> (accessed on 28 February 2021).
22. Poor, C.; Brown, S. Increasing retention of women in engineering at WSU: A model for a women's mentoring program. *Coll. Stud. J.* **2013**, *47*, 421–428.
23. Doukakis, S.; Koutroumpa, C.; Despi, O.; Raffa, E.; Chira, T.; Michalopoulou, G. A case study of e-tutors' training program. In *Proceedings of the Information Technology Based Higher Education and Training Conference, Antalya, Turkey, 10–12 October 2013*. [CrossRef]
24. Lin, W.C.; Yang, S.C. Exploring the roles of Google.doc and peer e-tutors in English writing. *Engl. Teach. Pract. Crit.* **2013**, *12*, 79–90.
25. Pitsoane, E.; Mahlo, D.; Lethole, P. UNISA E-Tutors' perceptions, experiences and views of active learning. *Int. J. Educ. Sci.* **2015**, *9*, 29–36. [CrossRef]
26. Cheung, W.S.; Hew, K.F. Examining facilitators' habits of mind in an asynchronous online discussion environment: A two cases study. *Australas. J. Educ. Technol.* **2010**, *26*, 123–132. Available online: <http://www.ascilite.org.au/ajet/ajet26/cheung.html> (accessed on 25 August 2020). [CrossRef]
27. Chien, C.-F.; Liao, C.-J.; Walters, B.; Lee, C.-Y. Measuring the moral reasoning competencies of service-learning e-tutors. *J. Educ. Technol. Soc.* **2016**, *19*, 269–281. Available online: <http://www.jstor.org/stable/jeductechsoci.19.3.269> (accessed on 31 December 2020).
28. Knörzner, L.; Brünken, R.; Park, B. Emotions and multimedia learning: The moderating role of learner characteristics. *J. Comput. Assist. Learn.* **2016**, *32*, 618–631. [CrossRef]
29. D'Errico, F.; Paciello, M.; Cerniglia, L. When emotions enhance students' engagement in e-learning processes. *J. E-Learn. Knowl. Soc.* **2016**, *12*.
30. Mao, X.; Li, Z. Agent based affective tutoring systems: A pilot study. *Comput. Educ.* **2010**, *55*, 202–208. [CrossRef]
31. Luo, N.; Zhang, M.; Qi, D. Effects of different interactions on students' sense of community in e-learning environment. *Comput. Educ.* **2017**, *115*, 153–160. [CrossRef]
32. Stonebraker, P.W.; Hazeltine, J.E. Virtual learning effectiveness. An examination of the process. *Learn. Organ.* **2004**, *11*, 209–225. [CrossRef]
33. Cabero-Almenara, J. La calidad educativa en el e. Learning: Sus bases pedagógicas. *Educ. Méd.* **2006**, *9*, 7–12.
34. Rodríguez-Ardura, I.; Meseguer-Artola, A. Flow experiences in personalised e-learning environments and the role of gender and academic performance. *Interact. Learn. Environ.* **2021**, *29*, 59–82. [CrossRef]

35. Ong, C.S.; Lai, J.Y. Gender differences in perceptions and relationships among dominants of e-learning acceptance. *Comput. Hum. Behav.* **2006**, *22*, 816–829. [[CrossRef](#)]
36. Thompson, L.F.; Lynch, B.J. Web-based instruction: Who is inclined to resist and why? *J. Educ. Comput. Res.* **2003**, *293*, 375–385. [[CrossRef](#)]
37. Bailenson, J.N. Nonverbal overload: A theoretical argument for the causes of Zoom fatigue. *Technol. Mind Behav.* **2021**, *2*. [[CrossRef](#)]
38. Pekrun, R.; Frenzel, A.; Goetz TPerry, R. The control-value theory of achievement emotions: An integrative approach to emotions in education. In *Emotions in Education*; Schutz, P., Pekrun, R., Eds.; Academic Press: San Diego, CA, USA, 2007; pp. 13–36.