

## PAPER

# Contribution of Online Tutoring in Promoting the Quality of Distance Learning for Moroccan Teachers

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## ABSTRACT

This paper aims at highlighting the contribution of online tutoring to the quality of distance learning (DL) and its effect on the progress and success of learners. The aim is, therefore, to judge the role of the tutor and the effect of his or her intervention on satisfying the real needs of Moroccan teachers in terms of learning during continuous training in DL mode. This study is grounded on a literature review regarding the effectiveness of tutoring and the qualitative analysis of data collected from a series of semi-structured interviews with actors (N=20) involved in the DL of Moroccan teachers. This study was achieved by the analysis of the results of a questionnaire returned by teachers (sample n=180) who were beneficiaries of the DL entitled “Communication in the Classroom,” which was provided by the Distance Learning for Students, Teachers and Professionals Association (FADEEP). The results emphasize the importance of factors relating to the effectiveness of tutoring in the quality of the DL and, more particularly, to the relevance of the tutor’s answers and his or her availability on the platform—and consequently, in the success of the learner—in addition to the material and technical, pedagogical, organizational, socio-political, and socio-cultural factors and factors linked to the learner of course.

## KEYWORDS

distance learning, Moroccan teachers, online tutoring, tutor

## 1 INTRODUCTION

This paper is part of a research project that aims to develop a model that can help judge whether the DL is of good quality and effective to meet the needs of learners and to solve the problem of insufficiencies in quantity and quality of face-to-face continuous training to better integrate information and communication technology (ICT). In light of the central role of online tutoring in supporting, assisting, and coaching the learner, such tutoring is considered an essential component of the DL. Our project is committed to emphasise the importance of tutoring in promoting the quality of the DL.

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The concept of *online tutoring* has been defined in different ways. Some authors see online tutoring as both a support relationship and a pedagogical and technical function [1]. For others, the term *tutoring* is seen as a means of supporting [2], coaching [3] and accompanying the learner [4].

In DL, learners are prone to loneliness and isolation. This leads to a feeling of need for others. Therefore, tutoring is seen as a means of filling the socio-emotional and motivational gap in learners' lives to improve learning their experience and prevent them from dropping out. Learners strongly favour the presence of the tutor and see the tutor as the stimulator who enables them to acquire the skills necessary for autonomy [5].

The objective of this research is to highlight the contribution of online tutoring to the progress and success of learners (Moroccan teachers) during continuous education in DL mode. It aims to estimate the importance of the tutor's role and the effect of his intervention on the satisfaction of the real needs of the learners.

In different contexts, many studies have been carried out about online tutoring. Most often these studies have focused on tutoring in a general context and have not addressed (1) the case of continuous training, characterised by its specific qualities, or (2) the particular characteristics of the target audience made up of teachers who, in most cases, experience difficulties in re-entering the teaching environment as learners themselves. In this study, the subject of online tutoring of continuous training in distance mode for Moroccan teachers was chosen as the area of focus. The criteria identified from the study of this aspect of tutoring are specific to the Moroccan experience.

Thus, we present the main results of our research related to online tutoring generated at the end of this study where mixed methods—both qualitative and quantitative—are opted for. We begin with a literature review of online tutoring and the research methodology that we adopted. A discussion of our results and our conclusions follow.

As a first step, the results of previous studies on the quality criteria of a DL approach [6] were considered to be the basis of research. These criteria constitute a basis for designing the items of our questionnaire for teachers (n=180) participating in the DL. In the second step, the dimension related to tutoring was extracted to highlight its implication in the quality of the DL based on a rereading of the chosen criteria in the context of a comprehensive literature review.

## 2 LITERATURE REVIEW

In this section, some measures have to be taken into consideration to ensure effective tutoring that can contribute to the satisfaction of the learner's needs in a DL approach and consequently to the learner's success. The effectiveness of tutoring depends on many factors, including those related to the learner, the tutor, and the conditions of their work. One way of grouping these factors is to categorise them into two classes: *subjective factors*, linked to the actors who are the subjects of the DL (their involvement in management, representations of tutoring, motivations, their skills, etc.) and *objective factors* relating to the context of the DL and, a fortiori, to everything that is not subjective.

### 2.1 Effectiveness of tutoring concerning subjective factors

**Skills and experience required for the tutor.** Helping, supporting, supervising, and accompanying the learner during the process of learning are roles that

require the tutor to mobilise a variety of skills that have been developed during different training courses and those of confirmed experience. Mastery of intrinsic duties enables the tutor to carry out this mission with ease and efficiency, and therefore contributes to strengthening the learner's sense of effectiveness [1]. The multiplicity of roles that fall to the tutor raises some essential questions about how to judge the relevance of the criteria likely to present a quality tutorship. Is tutoring training enough to ensure the role of the tutor? Is the human aspect essential for a training scheme? Does the tutor have to be a content expert? [5]. To what extent is the tutor's intervention considered relevant? [3]. These are all questions that must be answered before identifying the skills required for quality tutoring.

Many studies show that many skills are essential for tutoring. In [8], the authors summarise these skills as follows: "relations with the institution, communication with all the actors in the system, technical mastery of the system, mastery of teaching strategies, mastery of content, management of learners' time, management of groups and individual relations, knowledge and use of assessment principles."

The competencies related to the socio-affective function concern the tutor's ability to listen, empathy and interactional capacity to establish a climate of trust, and a friendly environment [9]. Decamps and Depover [10] state that the effect of the socio-affective function significantly affects the learner's performance as well as the quality of his/her relationship with the tutor. Moreover, the fact that the tutor and the learner belong to the same cultural environment is more conducive to the benefit derived from this relationship [1]. The cultural context in which a DL system operates also affects students' expectations and learning styles [7]. On the other hand, the emotional support of the tutor gives a soul and a new breadth to the relationship established with the learners and consequently facilitates the pedagogical progress of the training [11]. In addition, the good atmosphere thus created helps to break the ice and prepare a learning environment conducive to exchange and communication [9].

Educational managers insist to the importance of entrusting the task of tutoring to people who have both face-to-face and distance-tutoring experience as well as experience in the discipline concerned [1]. Mastery of the discipline is considered by some authors as an additional condition. The tutor is also required to provide relevant teaching resources [8]. In addition, the tutor's experience as a learner is strongly solicited so that he/she can better identify possible difficulties that a learner may encounter. Hence the interest in the tutor's involvement in the DL process at an early stage (from the design stage of the DL).

Given the strong correlation of the learner's profile and performance with the success of the tutoring operation, knowledge of the learner's profile is crucial information for the tutor, in that it enables him or her to proceed with the appropriate tutoring mode [10] and to develop transversal competences in the learner relating to his or her needs (information retrieval, decision-making, planning, and the ability to collaborate with peers) [8]. Therefore knowledge of the learners' profiles allows the tutor to reconstruct homogeneous groups whose members share documents and interact with each other with a high frequency and consequently leads to a fruitful collaboration [8].

**Tutor training needs and skills to be developed.** The lack of training for tutors is the obstacle most often put forward in specialised studies on tutoring. As a result, tutor training has become a priority in the face of the lack of skills [9]. It is equally important to take into account, during their training, the diversity of profiles (cultural background, age, level of expertise, etc.) of the tutors who benefit from it [10]. In addition, the training must aim developing the tutor's skills, which would enable

him or her to promote both the learners' learning autonomy and the quality approach in tutoring practices [11]. Learners' autonomy is also seen as a means of promoting lifelong learning and the ability to learn continuously [12].

The tutor must develop skills that enable him/her to carry out, on the one hand, an effective and relevant intervention with the learner and, on the other hand, to foster his/her relationship with the other actors of the DL (DL manager, colleagues, designers, etc.). Furthermore, it is essential in training future tutors to take an interest in the needs and expectations of the learners and to be aware of any difficulties they may encounter. In other words, the tutor must put himself in the shoes of the distance learner [10].

As stated in by Rakotomalala and Zakariasy [9], training must aim globally at the evolution of the tutor's role towards more versatility in terms of the skills to be developed and which are essential to carry out his role successfully. Tutors are aware of the importance of this development process from the moment they experience their desire for more training relating to supervision and educational engineering [10]. Moreover, the tutor should carry out the various functions with the right balance.

In addition to their training, tutors can also learn from the exchange of experiences between them [9], as well as through co-tutoring [10]. Indeed, a super-tutor with expertise in the field of tutoring has the task of supporting, guiding, and equipping novice tutors with skills relating to their function [13].

It follows from the above that the measures taken during tutor training aim to harmonise tutoring practices [5]. However, it is not so easy to talk about the standardisation of tutoring practices because of the undeniable differences between the objective and subjective factors involved.

**Modalities of intervention of the tutor.** The tutor resorts to an intervention when he feels the learner needs help or when he is asked to respond to a request; hence, the need for an intervention mode. Furthermore, it is wise to combine mastery of the tutoring function and the appropriate mode of intervention and realise whether its is proactive and/or reactive.

The proactive modality consists of the tutor taking the initiative to create a need in the learner. It is essentially aimed at stimulating the learner to remain vigilant and to make effective use, at the right time, of all the tools made available to them [14]. This modality is based on collaborative work and therefore limits learners' recourse to the services of the tutor, except in cases of ultimate necessity or pressing need [9]. This situation gives rise to the strengthening of group cohesion (learner/learner interaction) by appealing to the socio-affective function [2].

The intervention method is described as reactive if the intervention responds to a request from the learner. The tutor's availability during wide time slots enables him to react to learners' requests quickly, even during the activity [15]. This greatly enhances the effectiveness of this type of intervention. In addition, the form of reactive, near-instantaneous intervention appears to be like proactive intervention. It helps to consolidate the trust and the relationship maintained with the learner, who is encouraged to constantly seek out the tutor.

In short, the method in which the tutorial intervention modality is practised is preponderant in the learner's progress and success during the DL. The effectiveness of the proactive modality compared with the reactive modality lies in the fact that the simple role of tutor or controller of the system is transcended to a role of stimulating the learner to recognise his needs. In other words, proactivity leaves the learner with a feeling of being in control at all times, encourages a sense of responsibility, and motivates the learner to make the most of the assistance made available to him [13]. However, the tutor's role is often narrowed by a rigid charter from the institution.

In other words, limiting the flexibility granted to the tutor to exercise his autonomy constitutes a real limit for him [13].

On the other hand, as mentioned in [1], the distinction between the two modes of intervention (proactive/reactive) does not necessarily signify a disruption. Often, tutors feel that a combination of the proactive and reactive aspect is an appropriate form to exercise the role of a tutor.

## 2.2 Effectiveness of tutoring concerning objective factors

**Factors related to the learner.** The nature of the relationship between the different actors, such as a reciprocal relationship, significantly affects the degree of evolution of their motivation and autonomy and, consequently, the quality of the tutoring [16]. Indeed, autonomy manifests itself in the learner's ability to manage his or her learning at his or her own pace from home [17] and to deal with difficulties personally and not by resorting to a third party to ask for help. Autonomy is required throughout the training, from the beginning to the evaluation [3], [17]. It requires specific skills on the part of the learner that surpass learning to include mastering other skills such as planning, regulation, independence, organisation, and problem solving [16].

The effectiveness of tutoring is linked to the degree of commitment of the learner and his ability to use his other mastered skills to facilitate his commitment and support his motivation [18] so that he learns with autonomy [19]. This is how a remote presence is created thanks, of course, to the means of communication and, consequently, facilitates learning and alleviates the problem of abandonment.

Motivation is a factor closely linked to autonomy; it allows the learner's commitment to the project to be maintained after joining [19]. Learners' perception of tutoring and perceived usefulness are strong sources of learner motivation and affect their sense of effectiveness [20]. Therefore, synchronous (webinar, video conference, etc.) and asynchronous meetings, especially discussion forums, scheduled during the training are highly appreciated by many learners and are considered crucial in helping them maintain their motivation [21] and grow their enthusiasm [16].

Several factors can intervene to interfere with the quality of tutoring relative to the learner's performance. These include the learner's motivation, academic performance, level of anxiety, and degree of commitment to the training [2]. It is considered useful for the learner to first seek help from peers in a collaborative setting rather than immediately resort to the tutor [9]; hence, the importance of peer tutoring and its role in improving the effectiveness of learner participation [22]. Working in groups improves learners' overall performance and fosters their commitment, which is why it is important to implement this practice in classroom activities [23].

**Institutional means deployed.** Certainly, the institution is responsible for the implementation of quality tutoring. This role is favoured by the advent of new technologies and by the panoply of high-performance interactive media facilitating exchange and communication between learner/learner and learner/tutor [1]. However, the multiplicity of pedagogical and communication tools requires the intervention of the tutor in the choice of an adequate tool to carry out a given task.

In this context, other authors have noted that it is the task to be carried out that determines the tool(s) to be used and that which one(s) to choose must be the tutor's prerogative [24]. The most important teaching tools for the tutor are the scoreboard, the evaluation grid, and the coaching guide [10]. These instruments enable the tutor to measure the performance of the learners and the difficulties they encounter when attempting to make informed decisions [4], [13].

These tools have positive repercussions in terms of saving time, the effort expended by the tutor, and the cost of the tutoring system. To reduce the cost of tutoring, an experiment was carried out in which the tutor was replaced by a system of tutoring using frequently asked questions and their responses, which incorporates artificial intelligence techniques to provide immediate and personalised feedback to learners [14], [25], [26]. Unfortunately, the experiment failed. This underscores the importance of the role that human involvement (i.e., a human tutor) can play in the DL [15].

**Recognition of tutoring.** Valuing tutoring through its recognition as an independent profession makes it possible to encourage and support the practice of tutoring [10]. Furthermore, the recognition of tutoring refers to the need to assign a professional identity to the tutor. However, achieving this objective is complicated by the varying context (training system, environmental constraints, the status of the students and the tutor, etc.), which differs from one training course to another [2]. Indeed, each training course has specificities relating to the target audience of the training course, the organisation mode, the supervision methods, and the institution providing the training [10]. The only way to reward and satisfy the diversity of learners' needs is through good tutoring practices [14].

Given the variable context of training, the standardization of practices and therefore the normalization of the role of the tutor is a task that is not so easy to achieve.

The progress and success of the learner during the DL depend in part on the success of tutorial intervention. Hence the importance of delegating the tutor's mission to a competent and experienced person who must use innovative teaching methods, based on activities inspired by real-life situations that are closely in line with the learners' experience and likely to facilitate and improve learning. This has been helped by the advent of new-generation of technologies that take advantage of technological tools for the design of courses and for synchronous and asynchronous communication. It is therefore recommended to adopt relevant tools that are not only useful but also save time, cost, and effort.

### 3 RESEARCH METHODOLOGY

This study was focused on criteria relating to the tutoring dimension. We followed a deductive approach, considering the criteria related to tutoring from studies and research produced in Morocco and elsewhere.

We identified that the different criteria and indicators are likely to produce judgments on the quality of the DL in this context, based on a qualitative study using semi-structured interviews conducted with many (N=20) actors (tutors, beneficiary teachers, designers, managers, and experts) involved in the DL for Moroccan teachers. The questions addressed to the interviewees generally concerned their perception of DL, their experiences, avenues for improvement of DL, measures to be taken for improving its development, evaluation of this experience, and the skills developed through this new training modality. It is also important to note that these questions were not closed: they changed according to the profile of the interviewee and his/her experience. All the interviews were recorded by a voice recorder and then manually transcribed into a Word document.

The objective of this stage of the research is to extract all the potentially relevant criteria derived from the literature and retain those that prove to be important and meaningful for the actors concerned.

This stage of the research allowed us to match the criteria identified in the literature with the results of the interviews. However with the small number (n=20) of interviewees in the semi-structured interviews, it was not feasible to make useful interpretations of the results. The qualitative part of this empirical research was complemented by a quantitative study, this time through a questionnaire entitled “Communication in the Classroom” provided by FADEEP and sent to the teachers (n=429) participating in the DL. Analysis of the results of the questionnaire enabled measuring the weight and degree of contribution of the factors relating to the different dimensions (pedagogical, organizational, political, cultural, dimension linked to the learners, dimension linked to tutoring) constituting our hypothetical model of the quality approach of the DL.

### 3.1 Method of data collection

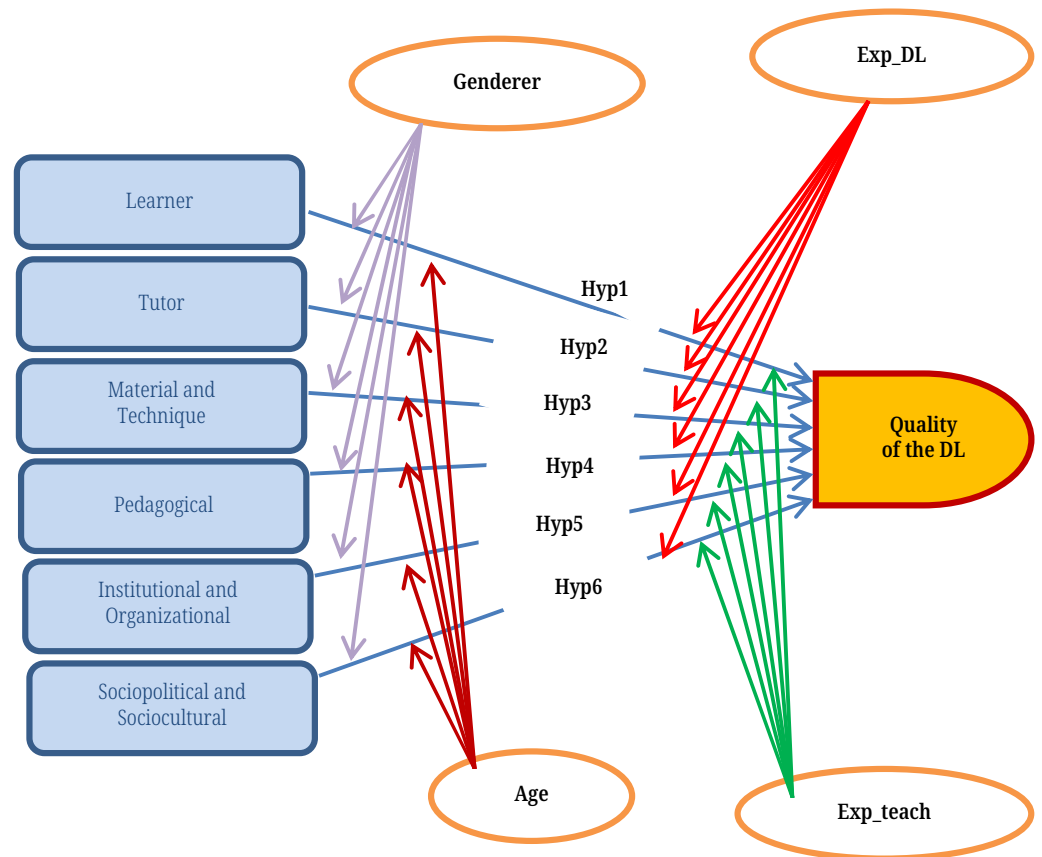


Fig. 1. Initial hypothetical model

Of the 429 questionnaires sent by email to the teachers in question, 180 questionnaire responses were returned. After reviewing all these responses, it was found that 21 were not valid. Therefore, the final sample consists of 159 completed and valid questionnaire responses for processing, resulting in a return rate of 37.06%.

The results of the qualitative study related to the identification of the DL quality criteria, as well as those of the quantitative study related to the measurement of the weights of each dimension of our hypothetical model, are presented in the results analysis section (Section 4).

### 3.2 Method of data analysis

The data collected was analyzed using the method of thematic content analysis, but without the use of software<sup>1</sup> to assist in qualitative analysis. We used the Smart-PLS<sup>2</sup> software version 3.8.2, for its flexible and smooth data analysis, to analyse the results of the questionnaire.

Two submodels are used when applying the PLS-SEM method using SmartPLS:

- Construction and testing of the Outer Model by examining the relationship between manifest variables (items) and latent variables.
- Construction and testing of the structural model (Inner Model), formed by the latent variables themselves, by examining the relationships between these latent variables.

In addition, the data analysis was carried out through the evaluation of the measurement model and the structural model. The main results obtained by Smart PLS were:

- The correlations of each item with its corresponding variable
- The regression coefficients between the independent variables and the dependent variable
- The coefficients of determination  $R^2$

## 4 ANALYSIS OF THE MAIN RESULTS

### 4.1 Use of semi-structured interviews

From the analysis of the semi-structured interviews, it was identified that the factors most cited by the interviewees are similar to criteria and indicators that could help in judging whether the DL is of good quality. The different quality criteria of the DL were divided into six dimensions: Material and Technical, Socio-political and socio-cultural, Institutional and organizational, Learner-related, Tutor-related, and Pedagogical.

Given the objective of the present study, which is to evaluate the contribution of online tutoring to the quality enhancement of the DL, the criteria related to tutoring were focused on. The correspondence between the criteria identified in the literature on online tutoring and those expressed by the interviewees yielded the following criteria:

1. Tutor's skills, experience, and knowledge
2. Learners' expectations of the tutor
3. Relevance of the tutor's answers
4. Availability of the tutor on the platform
5. Flexibility granted to the tutor
6. Recognition of mentoring
7. Modalities of intervention by the tutor

<sup>1</sup> Nvivo8, Reinert, Max; Alceste.

<sup>2</sup> Ringle, C. M., Wende, S. and Becker, J.-M. 2015. "SmartPLS 3." Boenningstedt: SmartPLS GmbH, <http://www.smartpls.com>.



These criteria were set out in the form of items in a questionnaire that were sent to teachers to confirm or refute. Accurate interpretation of these results was made through the analysis of the resulting data from the questionnaire. This analysis informed us about the weight of each dimension of our hypothetical model and its contribution to the quality approach of the DL, including the dimension related to tutoring.

## 4.2 Use of the results of the questionnaire

Data analysis using SmartPLS is divided into two main parts:

- Evaluation of the measurement model
- Evaluation of the structural model

We first need to test the validity of the measurement construction model before evaluating the structural model. As we go through the different steps, we will focus our analysis on the tutoring dimension.

**Evaluation of the measurement model.** Compiling the data using SmartPLS, Table 1 displays the values of the elements of the measurement model that can be used to assess its convergent validity, i.e., the degree of consistency of the items in common within a variable.

**Table 1.** Results of measurements model—convergent validity

Constructs	Items	Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
Learner	Learner_1	.846	.888	.664
	Learner_2	.838		
	Learner_3	.803		
	Learner_4	.771		
Organizational	Organ_12	.805	.930	.728
	Organ_5	.798		
	Organ_7	.876		
	Organ_8	.883		
	Organ_9	.898		
Political & institutional	Pol & Inst_1	.751	.897	.686
	Pol & Inst_4	.775		
	Pol & Inst_5	.888		
	Pol & Inst_6	.888		
Pedagogical	pedagog_1	.802	.908	.663
	pedagog_5	.882		
	pedagog_6	.802		
	pedagog_7	.823		
	pedagog_8	.759		
Tutor	Tutor_4	.930	.931	.870
	Tutor_5	.936		

The values of factor loadings, composite reliability, and average variance extracted (AVE) satisfied the conditions for convergent validity.

**Table 2.** Latent variable correlations

	Learner	Organizational	Pedagogical	Political & Institutional	Tutor
Learner	<b>.815</b>				
Organizational	.709	<b>.853</b>			
Pedagogical	.814	.781	<b>.820</b>		
Political & institutional	.725	.667	.768	<b>.828</b>	
Tutor	.637	.778	.725	.556	<b>.933</b>

Table 2 shows that the upper values (in bold) occupy the diagonal for each of the variables. In other words, the intersection of the variable with itself takes the upper value. This result reflects the absence of interference between the variables.

**Table 3.** Discriminant validity—cross loading

	Learner	Organizational	Political & Institutional	Tutor	Pedagogical	Quality of Distance Learning
Learner_1	<b>.846</b>	.576	.672	.507	.759	.454
Learner_2	<b>.838</b>	.698	.491	.679	.676	.571
Learner_3	<b>.803</b>	.494	.583	.394	.632	.378
Learner_4	<b>.771</b>	.485	.679	.421	.595	.336
Organ_12	.634	<b>.805</b>	.561	.639	.651	.648
Organ_5	.602	<b>.798</b>	.532	.609	.639	.555
Organ_7	.592	<b>.876</b>	.550	.670	.631	.623
Organ_8	.611	<b>.883</b>	.620	.692	.717	.643
Organ_9	.590	<b>.898</b>	.579	.703	.691	.713
Pol & Inst_1	.527	.521	<b>.751</b>	.435	.552	.442
Pol & Inst_4	.584	.441	<b>.775</b>	.306	.549	.376
Pol & Inst_5	.693	.588	<b>.888</b>	.516	.720	.540
Pol & Inst_6	.599	.629	<b>.888</b>	.541	.696	.590
Tutor_4	.601	.713	.500	<b>.930</b>	.673	.654
Tutor_5	.589	.739	.537	<b>.936</b>	.680	.687
pedagog_1	.759	.753	.623	.600	<b>.802</b>	.558
pedagog_5	.705	.662	.700	.682	<b>.882</b>	.645
pedagog_6	.535	.704	.529	.697	<b>.802</b>	.717
pedagog_7	.684	.498	.684	.446	<b>.823</b>	.485
pedagog_8	.710	.506	.624	.442	<b>.759</b>	.448
Quality DL	.553	.750	.600	.719	.720	<b>1.000</b>

Table 3 shows that each item takes the highest value (in bold) for the variable that corresponds to it. This means that the items are stronger on the ones connected with them.

Both conditions were verified for all variables, and therefore discriminant validity was achieved.

After having carried out the necessary elimination of the items that could distort the measurement of the variable and harm the performance of our model, we were able to verify the convergent and discriminant validities. The measurement model is therefore of very good quality. It is presented in Figure 2.

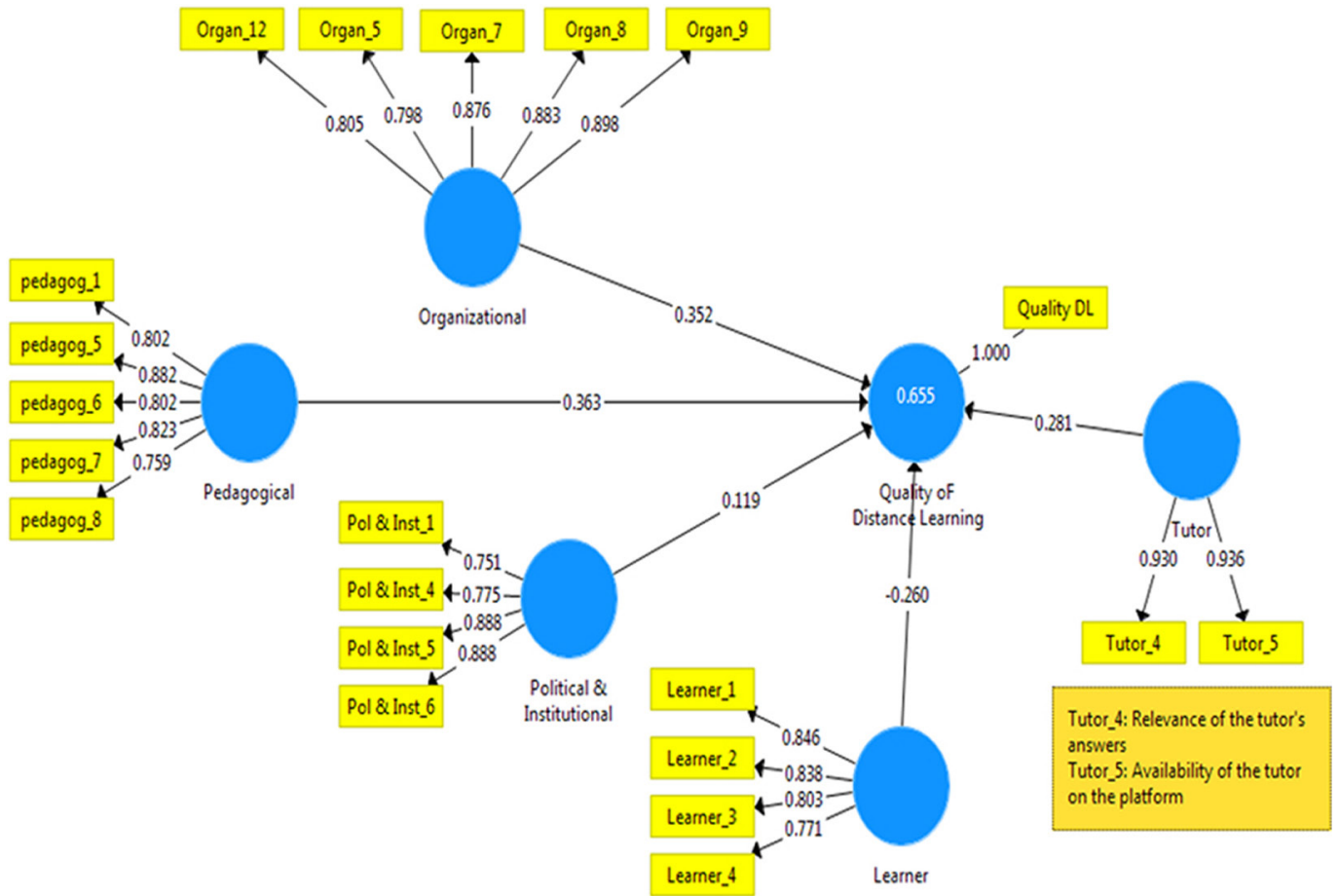


Fig. 2. Validated measurement model

Figure 2 shows that only two out of the five items of the initial model were kept for the measurement of the tutor dimension as contributing to the quality of the DL; namely, the relevance of the tutor’s answers (Tutor\_4) and the tutor’s availability on the platform (Tutor\_5).

**Evaluation of the structural model.** The evaluation of the structural model consists of testing the hypotheses and examining the relationship between the variables. This evaluation is based on five tests:

- H coefficient—hypotheses test
- Coefficient of determination  $R^2$
- Effect size  $f^2$
- Predictive relevance  $Q^2$
- Goodness of fit (GoF)

### – H Coefficient—Hypotheses Test

**Table 4.** Path coefficient of the research hypotheses

Hyp	Relationship	Std. Beta	Std. Error	T- value	P-value	Decision
H1	Learner → QDL	.260	.087	3.001	.003	Supported**
H2	Organizational → QDL	.352	.109	3.218	.001	Supported**
H3	Pedagogical → QDL	.363	.122	2.970	.003	Supported**
H4	Polit & Instit → QDL	.119	.086	1.384	.167	Not supported
H5	Tutor → QDL	.281	.095	2.955	.003	Supported**

Notes: QDL: Quality of distance learning; Significant at P\*\* <.01; Significant at P\* <.05.

Table 4 shows that the P-value for the influence of tutoring is around .003. This means that the hypothesis of the influence of tutoring on the quality of the DL is verified and demonstrates the existence of a very significant relationship between them.

### – Coefficient of determination R<sup>2</sup>

**Table 5.** Coefficient of determination R<sup>2</sup> (R-square of the endogenous latent variables)

Constructs	R <sup>2</sup>	Result
Learner	-.260	Unacceptable
Organizational	.352	Substantial
Pedagogical	.363	Substantial
Political & Institutional	.119	Weak
Tutor	.281	Substantial

The value of R<sup>2</sup>=.281 obtained for the tutoring variable (Table 5) is qualified as substantial. This value means that the tutoring dimension can explain 28.1% of the information contained in the dependent-variable quality of the DL, which is on the order of 65.5% (Figure 2).

### – Effect size f<sup>2</sup>

**Table 6.** Effect size f<sup>2</sup>

Constructs	f <sup>2</sup>	Result
Learner	.058	Small
Organizational	.101	Small
Pedagogical	.078	Small
Political & Institutional	.015	No
Tutor	.082	Small

As the value of f<sup>2</sup> for the variable Tutor is around .082 and referring to Cohen (1998), this value corresponds to the existence of a degree of influence of tutoring on the quality of the DL independent of the presence of the other independent variables (Learner, Organizational, Pedagogical, and Political & Institutional).

### – Predictive Relevance $Q^2$

$Q^2$  is the ability of the independent variables to predict the dependent variable, where SSE represents the predictive errors and SSO represents the number of observations.

**Table 7.** Predictive relevance ( $Q^2$ ) (construct cross-validated redundancy)

Total	SSO	SSE	1 – SSE/SSO
Quality of distance learning	159.000	61.503	.613

Based on [27],  $Q^2$  ( $1 - SSE/SSO = 0.613$ ) is greater than zero for our study model. This confirms the predictive relevance of our model.

### – Goodness of fit (GoF)

GoF indicates the goodness of fit of the model. In other words, the probability of relying on this model becomes effective after merging the measurement model and the structural model. The calculation of the GoF value can be done through the relation:

$$GoF = \sqrt{\bar{R}^2 * AVE}$$

$$GoF = \sqrt{0.171 * 0.722}$$

$$GoF = 0.351$$

- $\overline{AVE}$ : average variance extracted
- $\bar{R}^2$ : average of the coefficient of determination

According to [28], the calculation gives the value of  $GoF = 0.351$  which corresponds to an average model fit. It can be concluded that the GoF of our study is largely sufficient to confirm the overall validity of the PLS model.

## 5 DISCUSSION

The main results obtained show that online tutoring is one dimension among others (Learner, Organizational, Pedagogical, and Political & Institutional) that contribute strongly to the quality of DL. It was also found that the factors related to tutoring that saliently influence the quality of DL are the availability of the tutor on the platform and the relevance of the tutor's answers, i.e., that learners expect the tutor to be concise in his/her answers. On the other hand, some factors contribute only weakly to this quality approach to DL: skills, experience, and knowledge of the tutor; expectations of the learners from the tutor; flexibility given to the tutor; recognition of the tutoring; and modalities of intervention of the tutor.

The results of the study [29], which focused on the critical role of the online tutor in supporting learners, highlighted the tutors' computer skills and subject expertise as the most important factors. Furthermore, the main roles of tutors can be

summarized as pedagogical, social, managerial, and technical. This is in contrast to the study carried out by Campbell et al. in the UK [30], which used semi-structured interviews with a set of tutors on the perception of their role and identified the role as: facilitating learning and academic skills and supporting the development of confidence, motivation, social interaction, and group work skills. It also identified discrepancies between tutors' perceptions and students' expectations of the course and their own preferred approaches. Another study, conducted in the open university (UK), used a questionnaire sent to 457 students and 602 tutors to explore their perceptions of a "good tutor". It showed that both tutors and students had a greater appreciation of the importance of support to facilitate learning [31]. On the other hand, the results of another study [32], conducted among 200 tutors in Brazil, showed that students tutored by tutors who had previous experience and believed in student learning obtained higher scores than those belonging to the groups of less experienced tutors who did not believe in student distance learning.

The particular benefit of online tutoring for in-service teacher training is associated with the importance given by the tutor to tutoring in general and by the relevance of the tutor's answers and his availability on the platform. This result can be explained by the feelings of isolation and loneliness among learners who are not used to this new mode of training and by the absence of a DL culture. Learners' perception of the quality of follow-up and facilitation are factors in ensuring the success of DL [13] as are the relevance of the tutor's role, especially on a socio-affective level, in bridging this distance.

## 6 CONCLUSION

During all the stages of the validation of this model, the tutorial dimension shows the importance of its contribution to the quality approach and proves its significance as a key dimension either by a synergy with the other dimensions to improve the quality of the DL. This favorable context for the development of our study does not prevent certain limitations linked to the absence of Moroccan norms and reference systems for tutors' skills and the small size of the sample of interviewees. In addition, completion of the questionnaire was not compulsory, and its online administration mode was imposed by the geographical dispersion of the respondents across remote areas.

Research should be pursued to improve the present work. It is important to broaden the sample to involve in future studies all those engaged in DL, whether participating explicitly or implicitly, to build up an overall view of the various pitfalls and limitations of the implementation of tutoring. It would be advisable to initiate extensive, longitudinal, and in-depth research to identify the quality criteria of online tutoring specific to the Moroccan experience.

The learner who undergoes permanent tutorial support during his training has a high chance of success, and a learner who has benefited from quality tutoring can maintain motivation and succeed in training.

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