Chapter 2.

Theoretical bases to define the tutorial teaching accompaniment

Introduction

This chapter offers the theoretical and conceptual foundation that supports the research. It seeks to clarify and specify key concepts related to tutoring, types of tutoring in online education, teacher-tutor responsibilities, online education model, and a brief summary of the standards that are currently available for online education (e-learning).

From this conceptualization, it is possible to understand and build the model of tutorial accompaniment.

This chapter systemically consolidates the functions and roles of teachers in the distance and online education, which are fundamental elements in addressing the objective of research and offering a solution in line with the current dynamics of education.

2.1. Background to the Investigation

2.1.1. Teacher Accompaniment in Online Education

In Colombia, there are few studies on the impact or the way of approaching accompaniment. The Northern Catholic University Foundation in 2010 (whose formation is 100% online) conducted research that sought to define and conceptualize the accompaniment, only that they made it oriented to the

teacher, and from its definition designed a measurement instrument that led to establishing strategies for improvement (see, e.g., Table A: Mesa et al., 2013).

This instrument contemplated three moments of the accompaniment, the first corresponds to the enlistment, and in it are carried out processes of adaptation, configuration, and planning of a course.

It considers the availability of contents, activities, and tools necessary for the opening of the course, communication, and initial contact with the student. It is carried out before and during

the first week of each course. Its development moments are pre and one-week post at the beginning of the courses.

The moment of development is carried out during the whole course and contemplates the processes of communication through the different tools, orientation, feedback, and accompaniment to the students during their learning process.

And the closing moment is done in the final stage of the course during which the teacher must leave all aspects related to it including feedback, grades, and information for students against the end of the scheduled activities, including the assessment that students must make of their teacher.

The instrument developed contemplates eleven items distributed in these three moments, two of which are repeated: the feedback which must be given during the development and closure and the receptivity to the accompaniment, which is also valued in these two moments (Mesa et al., 2013).

On the other hand, the University of Caldas formulated in 2015 some guidelines called "Technological and pedagogical aspects in online or distance training support document for the implementation of virtual classrooms," in which the University states that tutoring in online educational scenarios is a success factor for the development of e-learning (Universidad de Caldas, 2015).

In works of the Universidad Nacional Abierta y a Distancia, some authors made an analysis of the virtual tutorial function —as they call it— and they propose, supported by works of Moreno and Sola (2005), that the teacher in online modality has new university demands that imply modifying his teaching function, which goes from being centered in teaching to orienting and reconsidering the aspect of learning. The student goes from being a passive element to exert a preponderant role in the teaching-learning process, which leads to participative and active teaching, to become the great protagonist of the process (Lasso et al., 2011).

At an international level, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), in its report "Pedagogical Model for Virtual Training Projects," analyzes the importance of teacher support in online educational scenarios. The author states that it is fundamental for the quality of e-learning to improve teacher support methodologies and strategies and that it is through this model that three factors are achieved (Meza, 2012):

- Reduce dropout, due to the effect of isolation and lack of contact of the student with his teacher.
- Develop better learning dynamic.
- To promote spaces of reflection and research through the realization of accompaniment or tutoring.

The author adds that this accompaniment must be "pertinent" and that for this purpose technology offers advances that contribute to a more effective and immediate accompaniment, and that today this is necessary, not optional (Batlle Rois-Méndez, 2010).

Nowadays, e-learning offers tools for tutorial accompaniment, since it has asynchronous (which were the traditional) and synchronous media that are those offered by the web 2.0 and 3.0. Professor González, in a study at the Universidad Colima, tackles the subject of tools for accompaniment, but not only exposes it from the technological point of view, but also adds to it the interpersonal skills that the teacher must-have, and the follow-up and control that this must do to accompaniment and the need to do this follow-up and control at an institutional level. Considering the latter as a strategic factor to make the teacher accompaniment in e-learning programs (González, 2008).

2.1.2. On the Incursion of ICT in Distance Education: Some Institutional Experiences and their Transition to Online Education

It should be noted that the use of ICTs in the process of distance education is not the key to successful experiences, but when effectively incorporated into the pedagogical model, they can contribute to the discovery of new forms of interaction and individual and collaborative learning, leaving aside the geographical separation that has long characterized distance education and enabling the transition to online education, so that a "distance education without distance" is developed (García-Aretio et al., 2007) taking advantage of communication through the Web, access to countless resources and study materials, and new ways of interacting with the actors in the educational process.

The accelerated progress of ICTs in recent years has generated new forms of social relations, bringing with it substantial changes in the way individuals access information from the Internet (Chiape, 2002). They suggest the transformation of educational models to respond to the needs and demands of this changing world, where the flexibility of time and space is allowed, based on the empowerment of self-regulation, self-management, and self-learning processes, giving rise to the development of new forms of learning supported by virtual platforms.

Thus, as virtual education is a recent experience, but one that has had a vertiginous expansion throughout the world, in Colombia the use of technology to support face-to-face classes began, especially in engineering schools, since studies for the development of software that would facilitate the acquisition of new learning through the computer took great strength; in this sense, (Facundo, y otros, 2004) mentions that computer technologies and telecommunications were used to recreate real and didactic environments that would break the barriers of space and time experienced in traditional classes, making the learning process faster and with greater interaction components. Thus, distance education gives its first beginnings to use the possibilities of speed and exchange of information, with electronic supports, replacing the traditional mailings, maintaining higher levels of communication with students.

2.1.3. Considerations for Distance and Online Education in Colombia

The introduction of online education models has led the Ministry of National Education and the e-learning 2.0 Colombia Association Agreement to propose a methodological guide for Higher Education institutions to successfully adopt virtualization processes. In this association they have worked on this proposal, while at the same time they have made incursions into virtualization, achieving great results. Based on the experience of cases analyzed of online education models and some references consulted, they propose a model for the transformation of distance programs into virtual programs, around three dimensions: organizational dimension, pedagogical dimension, and technological dimension, which should respond to the demands of online education.

The Ministry of National Education in agreement with some Colombian education institutions and the LIDIE group (Laboratory of Research and Development on Informatics and Education) of the Center for Research and Training in Education CIFE belonging to the University of the Andes, through the project called "Design of guidelines for the formulation of strategic plans for the incorporation of Information and Communication Technologies (ICT) in the educational processes of Colombian Higher Education Institutions (IES)," aims to formulate strategies for the relevant use of ICT in academic processes, accompanying the process of incursion and transition of the program offerings of HEIs "as a clear alternative for quality improvement and better use of the opportunities offered by these means" and the development of academia from institutional autonomy, strategic planning and the formulation of key goals that allow the generation of dynamics within the institutions and propose innovative learning possibilities from various educational scenarios.

2.2. Theoretical and Conceptual Basis of the Research

This part presents the synthesis of the bibliographical review, reading, and analysis of some cases at the national and international level, of higher education institutions, which have faced processes of incorporation of ICT to the processes of distance and online training. Similarly, the analysis of

scientific reflections that some authors raise about opportunities and difficulties inherent in the processes of transition to online education was carried out.

2.2.1. Concept of Mentoring

Mentoring, understood generically, implies the accompaniment that every person needs when advancing any of the processes of existential development. The origins of the term and the actions that it implies to go back to antiquity. It refers to the concept of a *curator* or *caregiver*. In this sense the role of the tutor in the master of ancient Greece, specifically in Socratic maieutic. However, its beginnings, its roots, and the tradition that has shaped its current practice in the medieval university have been located (Córdoba, 1998).

The English model of tutoring has served as a model for the application of this strategy in many other universities around the world. The role of academic advisor as a tutor in many of the North American universities is an example of this and leads both the tutor and the student to find the best alternatives to achieve the highest level of training.

The accompaniment of students can take different forms in their practical implementation, its central foundation is preventive and facilitates the development of skills and learning development (Ariza & Ocampo, 2004).

2.2.2. Types of Mentoring

There are several strategies to develop the mentoring program. Argüís (2001) highlights several types namely:

Individual tutoring. In this type of tutoring the teacher-tutor aims to know the situation of each student, helps him/her personally, and guides him/her in the planning and execution of his/her academic activities. One of the positive points of individual tutoring is to work on the student's self-esteem, to make it easier for them to assume their responsibilities and new challenges with enthusiasm, and to allow them to show their emotions. This tutorship implies a deeper commitment on the part of both the tutor and the student since it covers topics of an intellectual, affective, social, academic, professional, and institutional nature.

Group tutoring, in which the teacher-tutor assists students in curriculum orientation and active participation in the university. He collaborates with the teachers involved in the group of students and provides each of the teachers in the group with the necessary information about each student and group.

Technical tutoring is carried out by teachers who have not been appointed as tutors for any group of students. This tutoring is also known as academic advising, in which the student requests the collaboration of a teacher with certain expertise in a certain area.

Diversity tutoring, which means that the tutor considers each student with his or her specific abilities and learning pace. This tutoring is one of the great pedagogical challenges because it requires specific communication devices and pedagogical methods to help students.

Another strategy *is the tutoring of internships in companies*, where the tutors are responsible for the control and monitoring of the work done by the student in the internship or agreement internship.

2.2.3. The Teacher in Online Education

At present, the activity of the teacher within online and distance education has been limited through several terms, independently of how the authors call it, the teacher in this modality fulfills several roles or responsibilities. Next, and taking the most relevant works of several experts, we proceed to characterize and describe their roles; Goold et al. (2010) define the online teacher as the e-tutor, and Larsen et al. (2008) call it e-professor, defining as key functions the mentoring and responsibility of being a facilitator of the learning process in an online education environment.

In the studies carried out by Salmon (2003), the teacher in online education is an e-moderator, who facilitates and guides the student to learn from and within a digital learning environment, under a set of activities designed to achieve learning.

In conclusion, the online teacher is an advisor, a mentor, a facilitator, and a moderator, in short, a tutor of the student's learning processes in online and distance education.

2.2.4. Characteristics of the Teacher-Tutor

The work of Ryan et al. (2010) shows that the online teacher must develop communication skills using information and communication technologies. The teacher must be a facilitator of student participation and must provide accompaniment and mediation so that the student's learning is achieved. Tutorial accompaniment is fundamental in an online and distance education model, and the teacher-tutor must be an agent who essentially promotes it:

- Independent and flexible learning.
- Two-way communication.
- The technological focus of the tutoring action, through the efficient and effective use of ICT to accompany the student.
- Is a facilitator of learning resources (properly selected or designed).
- He is a researcher, in essence, to help learn.

In Table 1, and taken from the work of (Guitert & Romeu, 2019), a summary of the roles and functions of teachers in online education is presented.

Table 1. *Summary of Teacher Roles and Functions in Online and Distance Education*

Roles and functions	Author and year
Process facilitator, consultant, researcher, content creator, technologist, designer, and manager.	(Goodyear, Salmon, Spector, Steeples, & Tickner, 2001)
Educational designer, online speech facilitator, instructor	(Anderson, Rourke, Garrison, & Archer, 2001)
Cognitive, affective, directive	(Coppola, Hiltz, & Rotter, 2002)
Manager, administrative, instructor, facilitator, designer, trainer, leader, change agent, technology expert, graphic designer, media editor, technician, support staff, librarian, evaluator.	(Williams, 2003)

Roles and functions	Author and year
Designer, administrative, technological, instructor, pedagogical evaluation functions, and social skills.	(Varvel, 2007)
Pedagogical, social, managerial, technical.	(Berge, 2008)
Professional, pedagogical, social, evaluator, manager, technologist, advisor, researcher	(Bawane & Spector, 2009)
Design and planning, social, educational, and technological.	(Guasch, Álvarez, & Espasa, 2010)
It encourages critical reflection and integrates technology into teaching.	(Baran, Correia, & Thompson, 2011)
Instruction design, facilitator, advisor, technology integrator, manager, content expert, and researcher	(Chang, Shen, & Liu, 2014)
Social, evaluator, manager, technologist, consultant, staff, and researcher.	(González-Sanmamed, Muñoz-Carril, & Sangrà, 2014)
Communicator and facilitator of different resources.	(Alamri & Tyler-Wood, 2017)

Note. Adapted from *Estrategias para la docencia en línea*, by Guitert, M. & Romeu, T., Universidad Oberta de Cataluña, 2019.

On the other hand, the tutorial action has several dimensions, according to Pagan (2007) you have:

The didactic dimension: In which the teacher-tutor must be able to adequately select the contents and activities that will be proposed to the students, who must also encourage autonomous inquiry on their part.

The technical dimension: Where the teacher-tutor must show conviction in the benefits of distance education. This must be supported by theoretical knowledge of the fundamentals of the modality so that it provides confidence to their students. And the teacher-tutor must be able to guide and advise his students in the use of computer tools that will be used in the process of distance education.

The psycho-affective dimension: The teacher-tutor must display empathy to understand and, if possible, anticipate critical situations of the students to reduce the negative consequences that they may have on the distance education process.

2.2.5. Online Education Models

Online education proposes several models (e-learning, b-learning, m-learning, and p-learning), but above all, it must be understood as a cooperative learning environment, in which the acquisition and development of competencies, in general, and those of a technological nature, in particular, are promoted.

Online education models differ basically in terms of technology from the point of view of the means of access and the type of content (e-learning and mobile-learning) and issues of interaction in person or online (e-learning, blended-learning or ubiquitous-learning and personal-learning).

E-learning is the classic model of online education, supported by technologies and whose process is developed entirely on digital media and mediations.

B-learning, or blended learning, combines online training with the possibility of regular face-to-face support sessions.

M-learning or u-learning, or mobile or ubiquitous learning, is developed entirely online, but uses mobile devices (smartphones or tablets) as a means of access, and differs from e-learning in that the design of educational content is adapted to these types of devices.

And p-learning, or personalized learning or self-training through the Internet, which is built and organized by the interested party according to their learning needs, their own time, and dynamics, without a degree in between.

The research conducted by Koory (2003) emphasizes that many students improve their learning outcomes through online training, which is why some authors consider that distance education today called online was born to overcome different gaps, whether social, economic, geographical, etc. (Pino-Juste, 2008).

Table 2 shows the advantages and disadvantages of online training, compiled from a review of the literature (Amador-Muñoz, 2004; Cebrián-de-la-Serna, 2004; Cabero, 2006; Pryor & Bitter, 2008; Revuelta-Domínguez & Pérez-Sánchez, 2011).

Table 2. *Advantages and Disadvantages of Online Training*

Advantages	Disadvantages
• Eliminates physical distances • Time flexibility • Encourages interaction • Instant and unlimited access to resources • Interactivity • Communication control • Empowering cooperative work • Flexibility possibility to adapt the learning process • Personalization of the learning process • Immediate problem solving • Continuous exercise of reflection • Satisfaction building new knowledge immediately • Promotes multiple perspectives on the use of the information obtained • Facilitates interaction between different areas of knowledge • Facilitates the use and consumption of materials • Defocusing knowledge • Different forms of communication (synchronous and asynchronous) • Continuous recording of training progress	• Impersonal communication • Difficulty in solving problems • Initial maintenance cost, connection • Complexity in privacy conditions • Poor cooperation from teachers • No direct contact • Lack of motivation • Psychological barriers (resistance to change) • Lack of user training • Poor quality of courses and content • Few virtual tutors are available • Lack of teaching-learning habits increased teacher dedication • Solitude • Decrease in the quality of training • High teacher-student ratio

A key aspect to understanding this research has to do with the student's perception of training platforms or virtual classrooms as they are known. As Marín et al. (2013) point out. Nowadays, to talk about online training, it is necessary to "start from a constructivist vision of the process itself, looking for the goal of promoting the acquisition and development of competences that enable a correct social and labor insertion," given that the development of technological systems is insistent and fast-growing. Consequently, the design process of this type of training implies that learning should be closer to an open, flexible, independent, and collaborative perspective of teaching.

2.2.6. Quality Criteria and Standards for Online Education

At the level of quality standards for online education, there are several standards, all focused on conditions and criteria for compatibility, interoperability between technologies, content, and access devices. Little progress has been made in terms of criteria or standards for the quality of online training, from an approach of accompaniment, tutoring, teaching as such.

Some standards that can support the process of formation, accompaniment, and tutoring are described in Table 3, let us see:

Table 3. *International Overview of Standards for E-Learning*

ISO/IEC Standard	Title	Status	Description
ISO/IEC 19796-1	Information technology – Learning, education, and training – Quality management, assurance, and metrics – Part 1: General approach	Published (2005)	It acts as a framework to describe, compare, analyze, and implement quality management and quality assurance approaches
ISO/IEC 2382-36	Information technology – Vocabulary – Part 36: Learning, education, and training	Published (2008)	It presents the terms and definitions of concepts relevant to learning, education and training
ISO/IEC 24725-1	ITLET supportive technology and specification integration – Part 1: Framework	Published (2011)	It provides a framework and objective to assist in profiling and the platform and multimedia packages for ITLET
ISO/IEC 24751-1 free	Information technology – Individualized adaptability and accessibility in e-learning, education, and training – Part 1: Framework and reference model	Published (2008)	It provides a common framework for describing and specifying learner needs and preferences, as well as the corresponding description of the digital learning resources

Highlight some works like those of Rodríguez-Hernández (2016) who has put forward some elements of analysis to improve the quality of teaching and tutoring in online education. It establishes aspects about the competencies of teachers in online education and the pedagogical processes that should be developed to improve the quality of education. See Table 4.

Table 4. *Axes and their Criteria and Indicators of Quality in Education*

Axis	Criteria	Indicators
Teaching skills	▪ Impact ▪ Sense of belonging ▪ Identification with the institution's mission ▪ Commitment to your academic and professional development ▪ Effectiveness in communication ▪ Assessment of the teaching profession ▪ Leadership skills ▪ Commitment to the exercise of university functions ▪ Pedagogical skills ▪ Management skills ▪ Relevance of specific competences ▪ Academic level of teachers ▪ Pedagogical training ▪ Research production ▪ Production of articles ▪ Book production ▪ Expertise in the extension process ▪ Fulfilment of the promotion to the corresponding rank	▪ Perseverance ▪ Persistence ▪ Emotional intelligence ▪ Honesty ▪ Practical wisdom ▪ Sensitivity ▪ Teaching knowledge ▪ Humanistic training ▪ Ability to develop person-centered learning ▪ Reflection ▪ Inquirer ▪ Capacity to implement action research ▪ Vocational awareness ▪ Love for pedagogy ▪ Pedagogical discretion ▪ Sense of justice ▪ Fluidity and creativity in learning ▪ Professional identity and personal identity
Pedagogical Processes	▪ Interaction ▪ Relevance ▪ Relevance ▪ Availability of resources ▪ Adequacy ▪ Technology support ▪ Continuous improvement ▪ Monitoring ▪ Congruence ▪ Internal consistency of the training plan ▪ Efficiency of teacher training programs ▪ Pupil-teacher ratio ▪ Teacher's hourly load ▪ Satisfaction of the institution's staff ▪ Student satisfaction	▪ Objectives of the training program ▪ Continuous Improvement Program ▪ Self-management of learning ▪ Types of communication ▪ Strategies to promote learning ▪ Innovation ▪ Planning for learning ▪ Learning modalities ▪ Thinking processes ▪ Planning the evaluation ▪ Development of evaluation instruments ▪ Diagnostic evaluation ▪ Use of evaluation results ▪ Student skill development

Axis	Criteria	Indicators
	▪ Impact of education ▪ Availability of personal and material means ▪ Planning organization ▪ Educational product assessment ▪ Resource management ▪ Pedagogical leadership ▪ Efficiency in educational methodology	▪ Use of relevant instructional materials ▪ Commitment to student development ▪ Effective communication ▪ Promotion of group work ▪ Motivating the student to learn ▪ Student counseling ▪ Encouragement of thinking skills ▪ Development of autonomy ▪ Production of teaching materials and resources ▪ Promotion of research ▪ Teacher-student interaction

Note. Adapted from *Criterios e indicadores para evaluar la calidad de la educación en instituciones de educación superior*, by Velásquez, C., Universidad Central de Caracas, 2012.