E-tutor Profiles in Online Higher Education: Skills and Organizational Models

Paolo Raviolo(✉) , Salvatore Messina , Irene Mauro , and Marco Rondonotti

eCampus University, Novedrate, CO, Italia
`paolo.raviolo@uniecampus.it`

Abstract. This study is focused on the role of e-tutor in Higher Education. The first objective was a systematic literature review, while the second was an analysis of regulations, contracts and other internal University documentation used to define the e-tutor job description. This analysis was developed highlighting the skills required to online tutors and disciplinary tutors. The third step of the research was based on a questionnaire focused on the analysis of the different roles that e-tutors can play in academic contexts. The research sample has been the two e-tutor groups of the eCampus University in the academic year 2020/2021: 220 On Line Tutors (TOL) and 62 Disciplinary Tutors (TD), obtaining 133 complete questionnaires from the TOL group (60.4%) and 42 (67.8%) of the related group of TDs. The e-tutoring model implemented at the university for TOLs clearly focuses on the transversal dimension linked to the use of technological infrastructures and the organizational and administrative processes of the University. On the other hand, the strictly pedagogical dimension remains in the background. The modeling space, intended as a pedagogical practice, could be a space of overlap with the disciplinary tutors but it could become, if well structured, also the space for comparison of the reciprocal practices also articulated on different levels.

Keywords: e-tutoring · Higher education · On-line learning

1 Research Framework

The role of the e-tutor has changed over the years, in light of the changes that digital and social media have introduced in training processes and especially in the e-Learning chain [1, 2].

It is the communicative dimension [3], in particular, which has always been central to the e-tutor's activity, that highlights the need for an update. The skills of online moderation, preparation of group management and animation of online communities, traditionally understandable with reference to the teaching-learning model of Salmon [4], need to be taken up and relocated in a new scenario marked on one side by the spread of Web 2.0 [5], on the other hand by the increasing importance of tutoring

---

roles in higher education in which it becomes essential to identify the fundamental competences with respect to online learning contexts [6], in order to to guarantee an effective teaching-learning process.

The tutorial function plays an essential role in training based on online distance learning (ODL) and in training understood in the broadest sense that also includes adult education. Knowledge in online learning paths is built in a context that has significant similarities with lifelong learning [7] in which the learner-tutor-teacher relationship becomes fundamental. The e-tutor, understood as one who "interacts directly with learners to support their learning process when they are separated from the tutor in time and place for some or all these direct interactions" [8], must therefore possess specific skills to manage a personalized approach to each student and collaboratively build a specific path suited to their needs. Above all, he is an essential figure to support group work [9] and to intervene on the sense of isolation and loneliness that students of universities that only deliver online courses report [10].

In Italian telematic universities [11], the training process is based on a didactic setting that presents some specificities compared to that of the present universities; in particular, precise classifications of educational content are introduced [12], the times and paths are extremely personalized and the average age of students is higher. Teaching is organized on two levels: the first based on transmissive teaching, the second on interactive teaching.

The transmissive teaching (DE) or the complex of contents similar to frontal teaching in the classroom, is focused on the presentation/illustration of the contents by the teacher: audio-video recordings, Web conferences, prestigious courses or similar variants.

Interactive teaching (DI), on the other hand, refers to a spectrum of activities including:

- teaching interventions based generally in the form of demonstrations or additional explanations found in FAQs, mailing lists or Web forums (demonstrations or operational tips on how to solve a problem, exercises and the like);
- short interventions made by the participants (for example through discussion or collaboration environments: web forums, blogs, wikis);
- structured e-tivities (individual or collaborative) in reports, exercises, case studies, problem solving, web research, projects, production of artefacts (or similar variants), created by students, with relative feedback;
- forms of assessment such as questionnaires or tests.

The teaching provided in online mode and the organization of face-to-face activities (workshops and internships) require the student to be suitably supported by specialist figures able to support him continuously, guide him in the course of study and in the use of the IT platform, support him in the content, methodological-didactic aspects and from the point of view of motivation.

Support for these activities is guaranteed by two types of e-tutors: the online tutor (TOL) and the disciplinary tutor (TD). This is a debate - whether the tutor should have disciplinary or system skills - that has interested the literature on e-Learning for years. In the context examined, the organizational solution of creating two separate professional figures was adopted.

The TOLs have the task of supporting the student's motivation along the entire didactic path, adequately modulate the study path to the characteristics of each student and promote his active role, favoring the understanding of the context in which his educational path develops. In particular, their role develops around:

– design an individual and personalized didactic plan together with the student, providing support in the temporal organization of the activity;
– provide information on the examination methods and on the articulation of the individual courses: teaching, interactive teaching and eventual laboratory/practical activities in the presence;
– discuss with the student the methodology and planning of the study, encouraging participation in forms of interactive teaching;
– provide information and guidance on the calendars and contents of the virtual classrooms and any laboratory/practical activities in the presence associated with the various courses;
– periodically monitor the progress of the student's learning path;
– support the student in secretarial activities;
– ensure the necessary motivational support.

The TD, on the other hand, is a qualified expert in the discipline who supports the teacher in charge of the teaching, carrying out supplementary didactic activities coordinated by the teacher. It is a figure close to that of the teacher assistant (TAs), an expert who reduces the distance between teachers and students [13], creating a bridge between the specific accompaniment practices of the TOL, students and teachers.

The number and activity of tutors is naturally also related to the number of students, which is currently substantially increasing. The eCampus University in April 2021 had a total of 47,756 students enrolled in degree courses, with an increase of 51% compared to the prepandemic academic year, 2018/19.

These data speak of a different vision of online education, probably also due to the pandemic period that forced students and teachers to use and implement the services of an online university.

2 Methodology

This study is part of a large research project launched on the figure of the e-tutor precisely because of its centrality. In this context, we intend to return the first phase of this work, which consists of:

(1) analysis of the e-tutor's duties in the current landscape;
(2) identification of the two eCampus e-tutor profiles (TOL and TD), developing a mapping of TOL tasks and duties to be compared with the e-tutor models present in the literature [4, 8, 14].
(3) detect the real practices carried out by the TOL and TD tutors, analyzing them in terms of perception of importance and competence;
(4) identify training needs for the design of interventions useful for enhancing the skills possessed by TOLs.

The first objective was pursued through the analysis of the literature, while the second through the documentary analysis of regulations, contracts and other internal University documentation used to build a tutor's job description. This analysis was developed by highlighting the skills required for online tutors and disciplinary tutors.

To achieve the research objectives "3" and "4", the research group identified, thanks to the literary review in the questionnaire by De Metz and Bezuidenhout [13], the tool that best responded to the University e-tutor model precisely because of the theoretical framework underlying the development of this tool. In fact, to define the different roles that e-tutors can play in academic contexts, a three-level classification is used:

– cognitive, declining the tutoring action as a support and development of the learning process through course materials and learning objects;
– affective, indicating attention to creating a peaceful environment and communicative actions that support the student and his self-esteem;
– systemic, referring to all the administrative procedures necessary to guarantee the management and collection of information.
– It is a questionnaire that investigates the e-tutor's perceptions of competence in higher education contexts. Specifically, it investigates:
– how e-tutors perceive their job roles in terms of time, importance and workload;
– what specific skills are needed to carry out their role within the university and to what extent they perceive they have such skills.

The tool is divided into five areas of investigation:

1. demographic information (section A);
2. perception of the role performed by examining the time spent on each function and personal assessment of the importance of these functions (section B);
3. dimensions of effective tutoring: 40 statements on the activities carried out by the tutor are listed (section C);
4. self-assessment of skills and importance of functions in providing guidance and support to students in the academic field through 15 items (section D);
5. in-depth questions. Three open-ended questions were included to allow for a deeper level of information sharing and analysis. Respondents were asked to discuss what factors influenced their effectiveness as an e-tutor and what were the difficulties that prevented them from being an effective e-tutor, and if they had any other comments on their e-tutoring experience (section E).

In order to meet the objectives (1) and (2) of the research, the working group conducted an analysis of the job descriptions and documents within the University relating to the institutional role of the TOL and the tasks connected to them starting from the results achieved by De Metz & Bezuidenhout [14] based on research conducted by both Collins & Berge [15]: "Seven roles were identified from the literature, namely: administrative, informative, managerial, pastoral, pedagogical, social, and technical" [14].

This questionnaire was translated and adapted into Italian by the research team. The validation process of this translation followed rigorous steps, using statistical analysis.

In this contribution, starting from the profile data, we limit ourselves to discussing the results regarding area B and D.

3 Results

The framework of the e-tutor's functions that we report in the Fig. 1 is what emerges from the verification of these elements within the institutional documents of eCampus, in particular the University Guidelines for tutoring.

Functions	Descriptive summary
Administrative	Design an educational programming plan together with the student.
Informative	Provide the student with suggestions.
Managerial	Provide support in the temporal organization of the student's activity.
Guidance	Provide students with information and guidance.
Pedagogical	Ensure the necessary motivational support. Adequately modulate the course of study to the characteristics of each one.
Social	Encourage participation.
Technical	Support the student in secretarial activities.

Fig. 1. Functions of the etutor in eCampus

Following this first analysis, the questionnaire was administered to detect the contact points and the main differences between the tasks described in the official job description of the TOLs and TDs, as well as the practices carried out by them [16]. The research was conducted on the group of TOL and TD based within the University in the academic year 2020/2021. Through the QuestionPro online platform, the group of 220 TOLs and 62 TDs of eCampus was reached, obtaining 133 complete questionnaires from the TOL group (corresponding to 60.4% of the collective) and 42 (corresponding to 67.8%) of the related group of TDs. Among the TOLs the substantial majority is female (76.7%, while only 22.3% is male) and the average age corresponds to 39 years, while among the TDs the percentage of female sex drops to 57, 1% (remaining 42.9% male) and the average age is around 37 years. Almost all TOLs access the role with a three-year degree (67.7%) or a master's degree (23.3%), the remaining 10% of the sample also have a first or second level master (respectively about 4.5% and about 2.3%) or a PhD (2.3%). Among the TDs, the totality of the sample enters the role with at least a master's degree (38.1%) or a research doctorate (40.5%), the remainder has a first or second level master (4.7% respectively) and 16.7%. The sample of TOLs is evenly distributed with respect

to the affiliation to the Departments of the University, although there is a slight decrease in the engineering department: 22% holds the role of online tutor for the law department, 21% for psychology, 20% for letters, 18% for economics, while 15% for engineering; the TDs are more present in the cdl belonging to the Psychology department (19 or 45.2% of the TDs), followed by Law and Letters with a total of 8 disciplinary tutors per department (18.6% each), engineering with 5 TDs (11.6%) and Economy with 3 TD (about 7%). As for the practices carried out, TOL and TD show a high degree of attachment to the role and the university institution they represent. In response to the question "How important is the work of e-tutor for you", 68% and 57.1% of the TOL and TD sample assign the maximum value of 5 (on a scale from 1 to 5) and 26, 3% of TOLs Vs 33.3% choose the value of 4, signaling attachment to the role. 65.4% of TDs and 73.8% of TDs state that it is important to represent the University (value 5).

Here are the results obtained regarding the evaluation that roles of TOL and TD require in terms of time. Summing up the results of response modalities 1 and 2 (more time) and 6 and 7 (less time), the results of the TOLs indicate that the highest percentage of respondents (33.8%) classified the administrative and informative role as those which require more time; the technical role (31.6%) and the social role (30.1%) follow. Among the roles that require less time to work at TOLs we find the pedagogical one (36.1%), the social one (30.1%) and the guide (27.1%). Conversely, however, among the TDs it stands out that the role that requires more time is the pedagogical one (40.5%), followed by the leadership role (33.3%). Again for TDs, the roles that require less time are administrative and information (both 33.4%), followed by managerial (33.3%). In particular, the little time dedicated to the social function of the two roles is striking, a function that is one of the main success factors in online learning. In fact, this function is expressed in the creation of a friendly and comfortable social environment in which students feel that learning is possible. Furthermore, e-tutors are the first point of contact for students, especially when students encounter difficulties in their learning process [3]; result that we would have expected more from TOLs.

From the point of view of the importance of the functions (using a scale from 1 to 7 where 1 = more important and 7 = less important), identifying the answers given to modalities 1 and 2 (and modalities 6 and 7 as those considered less important), we note that 31.6% of TOLs believe that the technical function is the most central one, followed by the managerial one (31.6%), as shown in Fig. 2. In line with what was declared to the previous question relating to "time spent", the pedagogical role is the least important for TOLs (36.1%), followed by managerial (33.1%) and Guide (33.1%) roles.

TDs, as shown in Fig. 3, declare that they consider the Pedagogical (47.6%) and Guide (30.9%) role as more important (modalities 1 and 2), while less important (answer modalities 6 and 7)) the managerial (40.4%), administrative (38.1%) and technical (38.1%) roles.

Figure 4 illustrates the gap between the perceived importance within the university for each function and the skills that the e-tutors claim to have mobilized (section D of the questionnaire). These are the results of the importance-performance analysis [17].

The factorial analysis conducted confirmed the 4 factors of De Metz & Bezuidenhout [14] and made it possible to detect the difference between the importance of each function
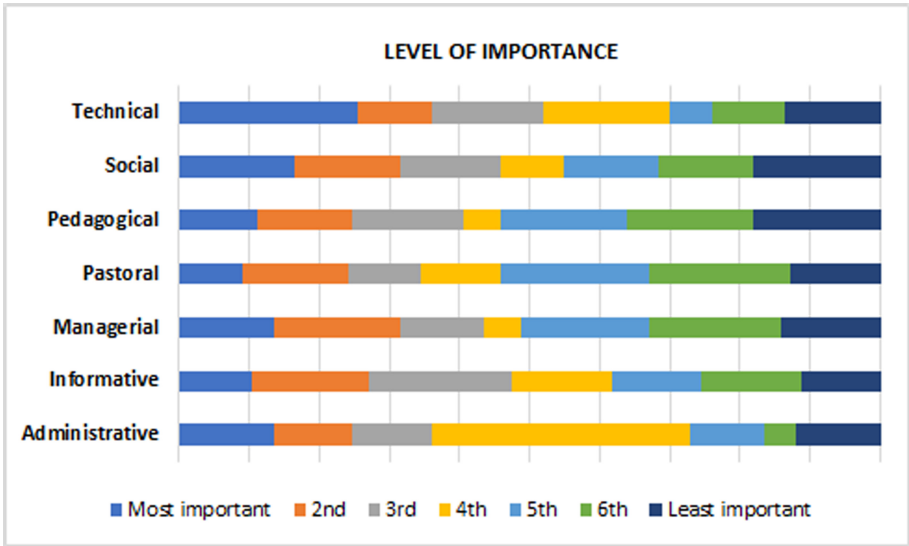
Fig. 2. TOL perceived importance of work roles.
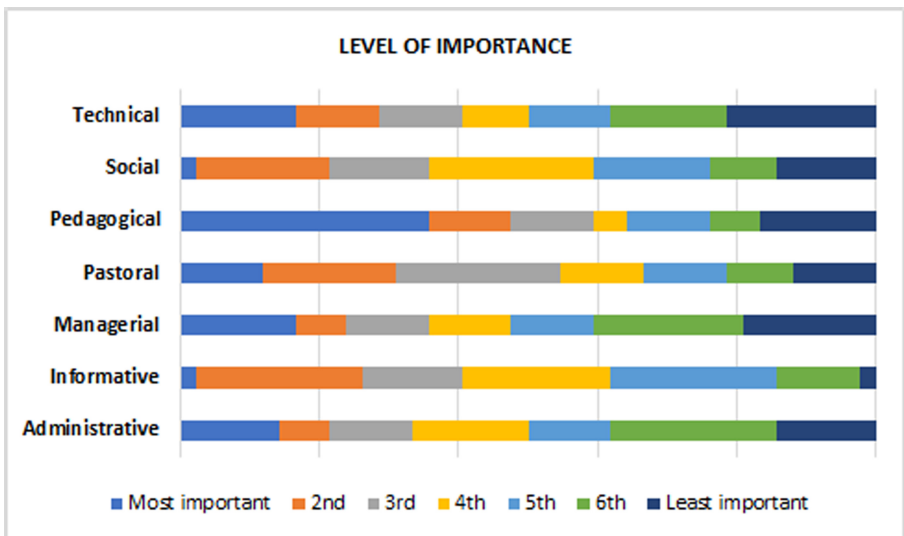

Fig. 3. TD perceived importance of work roles.

for the university and the level of competence perceived by the tutor, as summarized in Fig. 4, distinguishing between the two roles.

Analyzing this figure, it is noted that the TOLs have expressed significant discrepancies between the perceived skills and the functions actually performed. These differences relate in particular to supporting students' reflection on learning activities and outcomes
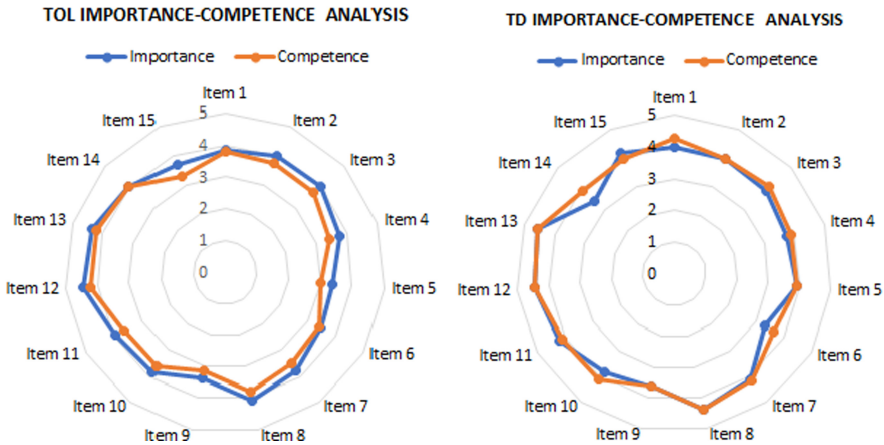
Fig. 4. Roles and skills perceived by e-tutors (TOL and TD).

(item 2), assisting learners in the development of study skills (metacognition) (item 3), making technological choices to improve learning online environment (item 4), the design of useful learning activities (item 5), the preparation of a welcoming online environment (process facilitation) (item 7), the management of communication and the creation of online communities in discussions (item 9), just-in-time identification, localization, development and production as in learning support (item 11) and, finally, the creation of new and relevant knowledge (item 15). TDs, on the other hand, perceive themselves to be more competent than TOLs in all 15 areas, believing that their skills are spent less in the role of accompanying students (item 14, with an average difference of −0.54) and in the facilitation of content (item 1, with an average difference of −0.34).

4   Conclusion

Higher education e-tutors play a key role in facilitating the learning process for students. They provide crucial support to the interaction between students and academic organizations essential to achieve educational success. The main role of the e-tutor is focused on ensuring that the student does not feel isolated and that the distance between students, student and teacher, student and university is bridged. Ideally the e-tutoring system should provide a community space, where students can meet and feel part of the wider academic community. This aspect is essential to minimize the feeling of detachment that is common among students who attend online universities.

In the case examined, the eCampus University, the e-tutors perceive their role as central to the University and see it above all as a role of orientation and facilitation for the students. The key competences of the e-tutors in this context are mainly on the technical infrastructure, on the organization of the university and on the social dimension, important aspects for effectively managing the relationship with students. The role of tutors in this university is not aimed so much at providing specific disciplinary support

to students, even if each tutor works mainly on a faculty, in fact they do not necessarily have an academic background in areas relevant to the degree courses they refer to.

Compared to the work of De Metz and Bezuidenhout [14] the technical and information functions are perceived as the more relevant, the pedagogical function appears to be relatively less central in the case examined in this work while in the research cited it occupies the second place for perceived importance. Comparing times, the administrative activities appear to be those to which a greater amount of time is dedicated; in this case the results are in line with the research by De Metz and Bezuidenhout [14] which highlights how tutors devote on average 25% of their time to administrative activities even if they consider them relatively less important than the others.

Overall, the e-tutoring model promoted by the university for TOLs clearly focuses on the transversal dimension linked to the use of technological infrastructures and the organizational and administrative processes of the University. On the other hand, the strictly pedagogical dimension remains in the background, which is the one on which the modeling dimension would find an opportunity for reflection and awareness for the tutors themselves. In fact, it is the TOLs that contribute substantially to the unfolding of the student's training experience in practice, supporting students in structuring the time and learning path. It seems likely that the modeling space could be a space of overlap with the disciplinary tutors but it could become, if well structured, also the space for comparison of the reciprocal practices also articulated on different levels.

References

1. Ferrari, S.: Mediamorfosi dell'e-learning. In Rivoltella P.C., Rossi P.G. (eds.) Tecnologie per l'educazione. Pearson, Milano (2019)
2. Goold, A., Coldwell, J., Craig, A.: An examination of the role of the e-tutor. Australas. J. Educ. Technol. **26**(5), 704–716 (2010)
3. Rivoltella, P.C.:. E-tutor. Profilo, Metodi, Strumenti. Carocci, Roma (2006)
4. Salmon, G.: E-moderating: The Key to Teaching and Learning Online. Psychology Press (2003)
5. Bonaiuti, G. (ed.): E-Learning 2.0. Il futuro dell'apprendimento in rete, tra formale e informale. Erickson, Trento (2006)
6. McPherson, M., Nunes, M.B.: The role of tutors as a integral part of online learning support. Eur. J. Open Dist. E-learn. **7**(1) (2004)
7. Greco, G.: L'apprendimento nell'era della connettività: una riflessione sociologica al confine tra comunicazione ed educazione. In: Scarcelli, C.M., Stella, R. (eds.), Digital literacy e giovani. Strumenti per comprendere, misurare e intervenire (21–31). Franco Angeli, Milano (2017)
8. Denis, B., Watland, P., Pirotte, S., Verday, N.: Roles and competencies of the e-tutor. In: Networked Learning 2004: A Research Based Conference on Networked Learning and Lifelong Learning: Proceedings of the Fourth International Conference, Lancaster, pp. 150–157 (2004)
9. Montero-Fleta, B., Pérez-Sabater, C.: Guiding in tertiary education: a case study on social networking and e-learning platforms. Procedia—Soc. Behav. Sci. **159**, 410–414 (2014)
10. Kim, J.Y.: A study on learners' perceptional typology and relationships among the learner's types, characteristics, and academic achievement in a blended e-Education environment. Comput. Educ. **59**, 304–315 (2012)
11. Ardizzone, P., Rivoltella, P.C.: Didattiche per l'e-Learning. Carocci, Roma (2003)

12. Raviolo, P.: Online higher education teaching practices. In: Proceedings of the 10th International Conference on E-Education, E-Business, E-Management and E-Learning. Association for Computing Machinery, New York, NY, USA, pp. 79–84 (2019)

13. Mirzadeh, S.I., Farajtabar, M., Li, A., Ghasemzadeh, H.: Improved knowledge distillation via teacher assistant: Bridging the gap between student and teacher. arXiv preprint arXiv:1902.03393 (2019)

14. De Metz, N., Bezuidenhout, A.: An importance–competence analysis of the roles and competencies of e-tutors at an open distance learning institution. Australas. J. Educ. Technol. **34**(5) (2018)

15. Collins, M.P., Berge, Z.L.: Moderating online electronic discussion groups. Paper Presented at the American Educational Research Association Conference, Chicago (1997). http://emo derators.com/wp-content/uploads/aera97c.html

16. Creswell, J., Plano Clark, V.: Designing and Conducting Mixed Methods Research, SAGE Publications Inc. (2017)

17. Lovelock, Patterson & Walker: Service marketing. Prentice-Hall, Sydney (1998)