# Applying a flexible approach in a professionalizing online course: a case study

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Flexible learning is nowadays widely used to describe a variety of aspects (time, content, approach, delivery, etc.) which are considerably affected by the different teaching/learning scenarios. The paper presents a case study framed in an online specializing course to train online tutors. The aim of the investigation is to highlight the potential of designing a flexible learning path using different online spaces and tools. The design of the course implied the use of aspects of flexibility that showed to have affected both the learning process and students' attitudes towards e-learning.

Besides flexibility is also meant here as a necessary characteristic of the professional profile of the online professional (tutor and teacher) and was a main learning outcome of the course. The diverse support offered to students by the teaching team during the course and the structure itself of the course acted as a model of flexibility.

**KEYWORDS**: E-learning, Tutor, Flexibility.

Both authors designed and performed the research, and wrote the paper. Laura Fedeli is the author of the sections: 3. Data Gathering techniques , 4. Data analysis, Conclusions; Lorella Giannandrea is the author of the paragraphs: Introduction, 1. Theoretical framework, 2. Research design.

## Introduction

The contribution presents a qualitative investigation run on a sample of 14 participants who enrolled in a distance specialized course to train online tutors run by the Department of Education, Cultural Heritage and Tourism of the University of Macerata (Italy) in collaboration with University of Camerino (Italy). The research's aim is to highlight the potential of designing a flexible learning path using different online spaces and tools.

Since 2005 the online tutor course offered a modeling for e-learning instructional design at University of Macerata proposing a plurality of strategies (individual tasks, small group negotiations and collective activities) and plurality of tools (e.g. forum, wiki, e-portfolio) and languages (textual, multimedia).

Such a modeling highlighted the connection among individual and relational modalities of completion of the learning path that was fostered by the use of different spaces (Rossi et al., 2007).

The above mentioned *post-lauream* course has been experiencing some changes in its design in the last decade (the first edition was activated in the academic year 2005-2006) due to:

– the evolution of the online platforms/spaces and tools suitable for the educational field;
– the continuous reflection of the research group in the several studies made on the outcomes of the course and on the students' inputs about their learning experience (Rossi et al. 2007; Fedeli, 2013; Fedeli et al. 2014).

The changes made along the editions of the course consisted in the introduction of different online spaces/tools to develop the activities. Each activity needed, in fact, the proper tools and, consequently, different work and management strategies. The plurality of strategies let learners experiment various aspects of the tutor profile and, at the same time, satisfied the objective to organize learning paths that could meet students' needs. Some learners, for example, showed to prefer more traditional learning modalities based on the study of selected text and/or audio/video materials available in the platform, while others were attracted by experiential or collaborative learning.  The presence of different activities helps meeting the various students' attitudes and preferences.

## 1. Theoretical framework

Recent research stated that under the umbrella term 'flexible education', are grouped different activities incorporating flexible learning, flexible teaching and other related issues. The call for "flexibility", in fact, has emerged in higher education as a response to diverse needs from a range of stakeholders, at different times and in many contexts. The literature suggests a diverse array of drivers for flexibility, but there is no universally agreed definition of what is meant by flexible education (Casey & Wilson, 2005; Ling, et al., 2001; Morrison & Pitfield, 2006; Normand, Littlejohn, & Falconer, 2008; Sappey, 2005).

The literature on flexible education tends to identify aspects of flexibility

(Casey & Wilson, 2005; Mayes, 2006; Normand & Littlejohn, 2006), and provides individual case studies (Lindberg & Olofsson, 2006; Morrison & Pitfield, 2006; Sappey, 2005; Willems, 2005) which add more detail of how aspects of flexibility are implemented.

Flexible learning is characterized by different features regarding aspects of time, aspects of content (program topics, sequence of topics, learning materials, assessment, etc), aspects of access/entry requirements, aspects of instructional design, aspects of delivery.

The last two aspects (instructional design and delivery) are the most important from the teacher's point of view, because in his/her design is possible to choose different strategies regarding social organization of learning (group, individual/independent, face to face), learning styles, language of instruction, modality of learning resources (lecture notes, printed study guides, recorded lectures), methods of assessment. The delivery of the course is also a theme addressed by the teacher as a designer, when he/she provides different study opportunity (on campus, off campus, online, blended), various way for stimulating contact with instructors and/or students, methods of support, forms of help, content delivery channels, access to administrative information and processes, etc.

Historically, some studies have equated distance learning with flexibility (Morrison & Pitfield, 2006; Peters, 2003), but it is not always true that "online" will automatically mean flexible (Holzl, 1999; Normand, et al., 2008).

Aspects of flexibility in a program may affect, in same regard, any teaching and learning, but flexibility actually represents a hard objective to achieve by teachers who mainly adapt their instructional design to the learners' needs and background using also the delivery parameter to reach their goal.

## 2. Research design

The investigation is framed in a qualitative approach under a social constructivist paradigm (Creswell, 1998) and is run through a case-study strategy. The 2013-2014 edition of the "online tutor" course is the case/unit of analysis chosen to define how the use of multi-layered approaches in the same online program can affect the learning path.

The decision to apply a case study strategy of inquiry is due to a criterion of homogeneity (Sorzio, 2005) with the previous studies run by the same group of research in the previous editions of the tutor online course (Rossi et al., 2007; Fedeli, 2013; Fedeli et al., 2014).

The case study represented by the above mentioned specialized online course can be defined an "explanatory" case study, since the researchers "seeks to identify themes or categories of behavior and events rather than prove relationships or test hypotheses" (Hancock and Algozzine, 2006, p. 16); in the exploratory case studies there are no definite outcomes (Yin, 2003).

The 2013-2014 course was followed by 14 students with a different background and professional contexts, this group was the sample used for the research.

As happened for the previous seven editions, the course has been run entirely online during a time span of about 5 months and required the physical presence

of the students at the conclusion of the course to accomplish the final certification through an oral examination. During the same period researchers gathered the data from the students' productions and soon after the course completion an open ended questionnaire was submitted to go deeper in the investigation.

In order to clarify the context in which the students' production (part of the research data source) were created it's useful to specify that the structure of the course is organized around three main modules from an introductory theoretical overview of the subject matter to a more active engagement of the students in collaborative activities and simulations. Such organization lets students familiarize with the online environment starting from simple individual tasks (compile their own profile; introduce themselves in a welcoming forum) to a deeper exploration through collaborative activities (discussing case-studies; role-playing the tutor profile; co-designing online activities and resources) in which the peer support shows to be a relevant resource.

Since the academic year 2008-2009 the course design implied the involvement of the students in the approach of different learning spaces to take advantage of freeware networking services to enrich their learning experience (e.g. bookmarking services, mapping tools and a multi-author blog). Those environments were part of the students' commitments, but they were not integrated in the Learning Management System used to manage the whole course. In the current edition, instead, it was decided to maintain the use of several different environments, as it revealed to be a successful strategy (Fedeli, 2013; Fedeli et al. 2014), but to integrate all tools and spaces in the LMS Moodle (https://moodle.org).

Specifically the course provided a set of tools for individual and collaborative activities (forum, wiki, assignment) and an e-portfolio environment (Mahara) integrated in the platform so that students didn't need to log out the LMS to access their portfolio (a built in single sign on facility called Mahoodle).

Specifically the proposed activities aimed at adapting the objectives to the different students' backgrounds and pre-requisites. Activities satisfied a multi-layered approach embracing the concept of flexibility at the level of time, content, instructional design and delivery.

The following different approaches aimed at supporting the creation of a flexible teaching/learning path:

1. Self-directed learning (reflection papers and e-portfolio to activate a self-monitoring);
2. Teacher-lead learning (documents uploaded by the teachers and guided discussions in fora);
3. Collaborative learning (analysis of existing case-studies in wikis and co-creation of documents);
4. Experiential learning (role-plays, simulations).

The research question is connected to the modalities in which the use of a flexible structure in an online course can affect students' learning. Do activities that span from a simple individual tasks to assignments which require a hands-on approach help students "walking in others' shoes" acquiring the professional perspective of the online tutor?

In training online tutors need to understand that flexibility is a relevant characteristic of this profile. The professional *habitus* of the online tutor is strictly

connected with this competence since the changing landscape of e-learning is very quick and complex. Online learning scenarios become more and more multifaceted, not only thanks to technical developments, but mostly thanks to sociological/educational and research approaches technology itself fosters.

# 3. Data gathering techniques

Data were collected along the course duration from various sources: forum posts, reflection papers created after each module and at the conclusion through the final students' perceptions on the whole path in their e-portfolio.

The online portfolio manager used was Mahara that offers a personal reflection space to each students, the chance to be part of a group and the advantage to select what pages ("view") and resources to share with colleagues.

The e-portfolio gathers students inputs along the course modules and both key documents/resources collected and the artefacts created along the learning path.

The first perceptions collected thanks to the course's activities (discussions in forum, reflections in the e-portfolio) were, thus, the background to build an online questionnaire that was intentionally structured around open questions that could offer students the chance to freely express themselves on issues considered topical by the researchers.

The questionnaire was submitted after the oral examination, two months after the end of the course, and it was used an online service which let the researchers collect the responses, share and download them keeping the anonymity of the respondents.

As underlined by Baxter and Jack (2008) "A hallmark of case study research is the use of multiple data sources, a strategy which also enhances data credibility" (p. 554).

# 4. Data analysis

The content analysis of the different documents (forum posts, narrative reflections and open answers in the questionnaire) consisted in a process of progressive coding and triangulation of data.

Triangulation is to be meant in two different values: the triangulation among the different sources and the triangulation among the researchers.

The qualitative data analysis software WebQDA (https://www.webqda.com/) was used to perform the coding process, the triangulation and interpretation of data. Using a software improves the needed balance between the two opposite attitudes of the researcher: "go native" (embracing the perspective of the participants) and "feel strange" (keeping a detached point of view) (Giannandrea et al., 2012).

In fact, the software not only enables the researcher to store, organize and code different data sources, but also to share each researcher's activity and reflective commentary with the colleagues.

The data were coded with both a descriptive classification and interpretative

categorization of each document (forum post, narrative reflection, question-naire).

The descriptive coding embraced the whole "source" document connected with a single student and had three levels of classification: previous experience as online student (Yes/No attribute); previous experience as teacher/tutor in an online course (Yes/No attribute); professional context (selected options: primary school; middle school; higher education; public administration; company).

The interpretative coding was applied to single portions of documents such as single open answers in the questionnaire or single paragraphs in the reflection papers. Those portions of text were the unit of analysis (Bardin, 1977, tr. port., 2000) with a global approach which is not related to the quantitative content analysis (Losito, 2002). The units were coded into the following categories: e-tutor profile; learning strategies; learning path.
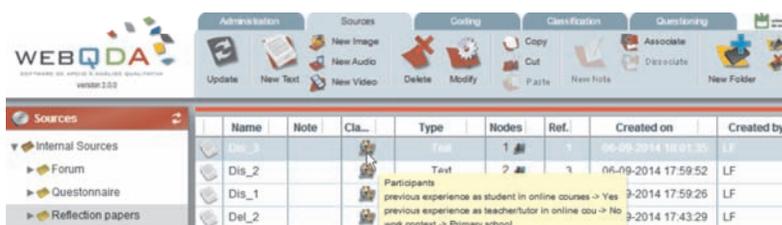
**Fig. 1 the screenshot shows the structure of sources and their coding (descriptive classification and interpretative nodes)**

While the category (called "Node" in the software) "e-tutor profile" appears to be relevant to understand how students modified, along their path, their con-ception of the what being a professional online tutor means, the two categories "learning strategies" and "learning path" help the researchers connect the de-velopment of a professional identity with the use of different strategies and tools adopted during the course.

As highlighted in the image below (Fig. 2) the software lets easily identify the unit of analysis selected in each node and their context (source).
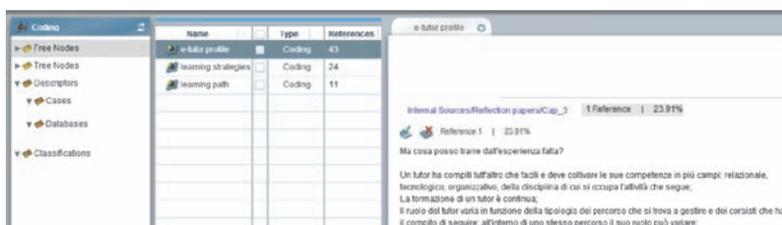


**Fig. 2 The screenshot shows the structure of the coding section**

The interpretation of available coded data was supported by two "question-ing tools", the "text search" option which lets you search a variety of strings, from a single word to a phrase running the search using different properties (e.g. Boolean operators) and restrictions (inclusion, exclusion). A second inter-

esting tool is the "matrix" which lets the researcher cross different variables (e.g. the nodes and the classification attributes) to identify the value of specific aspects.

As described in the previous paragraph "flexible learning" is here meant as a multi-layered approach. The strategy to use different inputs (in terms of content, spaces and activities) didn't have the goal to adapt the course to the students' different backgrounds or specific learning preferences, that is, the course didn't offer students the chance to choose among a variety of tasks and perform the ones they felt more comfortable with (a sort of personalized teaching/learning path), but the course's aim was to bring students familiarize with different online spaces and fulfill all activities in a gradual process supported by the constant presence of two tutors.

Flexibility is here intended as a both a specificity of a course designed using different approaches and an objective to achieve for students who will need to acquire a flexible attitude in their future professional settings as online tutors.

As reported anonymously by one of the student in the final questionnaire:

> At the beginning I used to think that e-learning was a modality of delivery of courses. I connected "e-learning" with "online". My concept was the result of previous experience I had as student in online courses: the activities were focused on reading available resources and on discussions run in forums. Now I have an improved idea of e-learning both on a theoretical and practical level. Approaching the profile of the online tutor I could learn competences in different aspects such as the organizational one, the design and creation of a course. My concept of what e-learning is has changed since the experience made in this course made me reflect on different kind of languages and on learning strategies. I could, thus, catch the huge potentialities that e-learning offers.

The analysis of students' feedback about the different approaches used shows that "Teacher-lead learning" approach was felt, by the most of the students, as the simplest section of the course activities, while approaches based on "collaborative and experiential learning" were embraced as the most useful to get higher competences in the field:

> Dis[1]: "I appreciate the way the course was structured. Most of all I believe that simulation is a very useful strategy. Since I wish to potentiate my competencies as online tutor I hope that also the following activities in the course will be practical since they revealed to be quite effective".

The experiential learning approach run in the course thanks to simulations activities was recognized by almost all the students as the most professionalizing tasks, the means through which they "put themselves in the tutor's shoes role-playing teaching/learning situations" and they could, thus learn "how to change

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1   Students are coded in the software using an acronym to ensure the privacy of the sample. It's also necessary to specify that the participants' words reported in the article have been translated into English by the authors from their original version in Italian.

point of view" reporting students' words. For some students the course was a sort of revolution where previous conceptions were put into discussion:

> Alb: "when I started following this course I had to face a personal Copernican revolution; since the very beginning I was exposed with a different methodology from the one I was used to in e-learning in my professional context. My encyclopedia enriched with new concepts tied to cooperative learning and I understood that e-learning could be used to generate and share knowledge in a community of learners".

Being motivated to be part of an online discussion group, starting looking for strategies to negotiate solutions among group members and find a successful solution shared by the whole group were recognized added values of the learning path:

> Mel: "I felt a little hero when I succeeded helping colleagues during the activities (taking into account that at the beginning I had several problems from a technical point of view). Maybe, just when I realized to be able to interact and support a peer I had the demonstration I had learnt something"

It's interesting to notice that the same simulation activities, that were organized through a set of tools (forum, wikis, chat) were recognized by students (80 %) also as the most compelling.

Moreover, from a detailed analysis, run with the search option, there appears to be a strong co-occurrence of the presence of references to "learning" with the presence of different "tools" used in the course. Among the tools some show to be more relevant: the wiki and the e-portfolio which are respectively associated with collaborative learning and self-directed learning.

Specifically among the competences acquired through the use of wiki and the team work in small groups the following opinions appear to be shared by a number of students: "I learnt how to listen to/work with others"; "I got flexibility";"I improved decision making".

The expressions used to describe those activities and the result they had on learning such as "responsibility", "enthusiasm", "useful", "professional", "motivating", "satisfying", "complex" demonstrate the deep involvement students experienced during the tasks.

The variety of online spaces and tools could be a tricky issue since students could feel overwhelmed by too many inputs, but the open question in the final questionnaire "How did you feel using many different tools during the course?" highlighted that all students replied positively and the ones who stated to have experienced initial difficulties also clarified that they successfully overcame the problem along their learning path thanks to a practical and situated use of the tools themselves.

Those data were triangulated through a matrix crossing the node "e-tutor profile" and the attributes related to a previous experience in e-learning, but not significant results were identified. The perceptions of students about the efficacy of using different tools and approaches is not related to their experience in the field of e-learning neither as student nor as teachers/tutors.

An interesting aspect related to the previous experience of the students in

the e-learning field is the change of perspective the same students acquired after the course. The idea of e-learning as a complex system rather than just a modality of delivery was enriched by the acquired concept of online tutoring. As one of the students reported "my idea of e-learning has changed because the experience in the course made me reflect on different kind of languages and learning strategies".

Reflections were narrated by students along the course duration and the e-portfolio was identified as the tool to gather and testify the learning process and the preferred one to show teachers such a process:

> Mel: "the e-portfolio final page which shows my whole learning path was not created just to reply to a course's task, but it was born from the need to reflect on myself and narrate my story. For this reason I chose to give the page a narrative form. What I have been experiencing inside (and outside) the Internet from January 2014 till today is, actually, a story."

## Conclusion

The design of the course implied the use of aspects of flexibility that showed to have affected the learning process:

1) flexibility of materials and strategies adopted along the course let students acquire a new perspective of what e-learning is and, in some cases, this vision results to be very different from the one they had before starting the course;
2) flexibility of the course design to be find in the different activities and modality of work let each learner (with his/her specific background and prerequisites) find an answer consistent with their learning needs;
3) flexibility is also a necessary characteristic of the professional profile of the online tutor and teacher. The structure of the course and the continuous support of the teachers and tutors acted as modeling to show processes of flexibility to be adopted.

The present article presents a case study whose results cannot be generalized, but should be interpreted within the frame of the specific contextual experience. As highlighted in literature this single experiences can contribute in building a vision of the concept of flexibility. Researches in this field show two broad lines of investigation: meta-analyses aimed at identifying core aspects of flexibility and case studies which can describe how aspects of flexibility are meant in different contexts and experiences.

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