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E-learning in an Undergraduate Course in Research Methods for the Social Sciences: Reflections on Teaching

Paolo Diana and Maria Carmela Catone***

Abstract: Starting with an overview of the opportunities provided by e-learning in the educational environment, this paper discusses a blended course in social science methodology offered to around 160 students taking the undergraduate Sociology degree at the University of Salerno (Italy). In particular, it provides a reflection on ten challenges of the discipline (e.g. relationship theory and practice, quantitative vs qualitative methods) which emerged during our teaching experience and discusses how they might be addressed by adopting e-learning. To evaluate the impact of the blended course upon the experience of learner, a web survey involving 114 students is carried out. Principally, the survey focuses on the study method and the relationship between information and communication technologies (ICT) and learning. The process that we followed (reflection on the characteristics of the discipline and the needs of students, implementation of the blended course, evaluation) aims to design a valuable teaching path requiring a renewed commitment on the part of university lecturers. In this paper we argue that a blended course improved the educational process in terms of knowledge construction and reflexivity.

Keywords: e-learning, social science methodology, knowledge construction, Italian university

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Introduction

In recent years the educational system has changed considerably due to the opportunities created by e-learning. The innovations of e-learning are not limited to an automatic conversion of traditional teaching into a technological environment, but they are part of a theoretical choices focused on a collaborative process of knowledge construction (Trentin, 2003). In this context, Universities have started to adopt this pedagogical vision, experimenting with different e-learning strategies (Capogna, 2014).

This paper presents the blended course in social science methodology offered to students on the undergraduate programme of Sociology at the University of Salerno (Southern Italy) and completed by around 160 students in the 2014/2015 academic year. The paper is the result of a ten-year e-learning experience¹, characterized by deep reflection on the opportunities provided by e-learning and the appropriate way to use its tools. This reflection has allowed us to begin a recognition of the characteristics and the needs of students, the internal peculiarities of the discipline and its teaching and learning processes. These aspects are developed in the following five sections of this article.

The section *E-learning as a point of reflection on the educational practice* deals with the use of e-learning, considered as a basis for reflection on teaching and learning practices. In the section *The teaching of social science methodology*, we illustrate the main teaching challenges of the methodology of the social sciences focusing on the characteristics of the students and some common difficulties met in traditional approaches to teaching and learning the discipline. *The e-learning experience* and *Possible solutions to the challenges inherent in teaching social science methodology* respectively describe the design of the e-learning experience and the specific solutions provided by the e-learning platform to the previously identified issues.

In the last part we present the results of a web survey of students of the course which explored their e-learning path in terms of the study method adopted, motivations, tools evaluation and relationship between the new technologies and the learning process.

¹ Since the 2000/2001 academic year, the Sociology and Political Sciences Department of the University of Salerno has offered several e-learning courses. Related to the course of social sciences methodology, during the years it has changed from an online format, adopted until two years ago, to a blended course based on the online platform, used as support of the frontal lessons.

E-learning as a point of reflection on the educational practice

The developments of recent decades in Internet and Web-based technologies have had a large impact upon education (Dabbagh & Bannan-Ritland, 2005; Elhers, 2013), making a decisive contribution to the growth of e-learning, which consists of using ICT tools to support the teaching and learning process by providing electronic content and encouraging active and collaborative learning methods (Trentin, 2001a). However these innovations represent only the starting point in the process of implementation of an e-learning system (Trentin, 2001b) that must be functional to a theoretical model and requires a general rethinking of the design methodologies applied in learning environments (Capogna, 2008). In addition to technological developments, the latter part of the 20th century has been characterized by a deep reflection on pedagogical models, which have seen a shift from cognitive theory, based mainly on a passive didactic learning method towards the constructivist approach focused on active learning, reflection, independent thinking and the sharing of knowledge through collaboration (Ertmer & Newby, 1993; Johnson, 2006). Most of all, however, the fundamental aspect of this educational model is a new conception of knowledge as a product of an active construction of the subject, linked to a concrete context and activated through particular forms of collaboration and social negotiation (Jonassen, 1994). More specifically, the constructivist theory of learning holds that people learn by constructing their own knowledge of the world through common experience and reflecting upon that experience.

This dynamic conception of knowledge also represents the marker of today's society and economy (Castells, 1996), that moves towards forms of innovating and creating 'know-how' rather than 'know to do' (Harasim, 2012). In particular, knowledge vision, characterized by high levels of active learning skills and individual adaptability also depends on the need to confront the changes produced by the uncertainty of contemporary society (Beck, 1992; Bauman, 2006). In such a scenario education is fundamental to dynamically face these societal transformations; more specifically, the learning environments of the constructivist approach "represent the natural complexity of the real world, provide multiple representations of reality, stimulate reflection on experience, enable context and content-dependent knowledge construction and provide real-world, case-based learning environments instead of pre-determined instructional sequences" (Jonassen, 1994, p. 35).

E-learning is increasingly moving towards this approach, providing new situations, contexts and tools which enable students to produce knowledge, promote scientific thought and to boost their own motivation (Corazza, 2006). In other words, e-learning becomes an agent of change in relation to the nature of knowledge itself and how people use and transform it (Colombo, 2008a). In particular, the open environments and tools offered by e-learning emphasize processes of innovation and the construction of knowledge by encouraging authentic activities, supporting role-playing, collaboration and reflective learning (Dabbagh, 2005). So-called authentic activities can be defined as scenarios, cases or issues which engage the learner in realistic tasks, inspiring problem-solving and hypothesis generation. Such tasks allow the learner to observe the direct implications of their actions and apply the knowledge acquired to real-world situations. Role-playing is another educational strategy where learners assume practitioner and professional roles and simulate situations that these actors would face in the real-world; this enables learners to observe first-hand the results of their actions and promotes forms of reflection. E-learning environments also enhance collaboration and social negotiation through discussions that allow groups to share perspectives and debate each other's ideas and lastly to collaborate in order to create new knowledge.

Regarding the role of reflection, it has been explored from different perspectives and disciplines but it generally centres on two key elements: "making sense of experience and importantly, reimagining future experience" (Ryan & Ryan 2015, p. 15). Reflection can therefore be considered as the observation of current and past experiences and practices in order to make decisions regarding the future (Barnett & O'Mahony, 2006). In other words, it is the ability of the human mind to draw consequences from the object of his/her thinking: according to Schön (1983), reflection takes place not only during the action (reflection-in-action) but also after the action has been accomplished (reflection-on-action). In this sense, reflection can be viewed both as a form of meta-cognition, conceived as "thinking about thinking" (Swartzendruber-Putnam, 2000) and as "a form of learner response to his experience" (Boud, Keogh & Walker, 1985, p. 18), linked both to the ability to learn, to modify the action and consequently to generate the change (Giddens, 1991).

In an e-learning environment, if ICTs are integrated into a coherent context, they can become a resource that bring out a higher form of reflection because they encourage the learner to reflect on underlying rules and internal criteria (Calvani, 2000). With respect to the traditional educational system where the student is seen as a passive recipient of the

information, in the e-learning experience the participant is empowered as he/she is involved in the selection, organization and creation of knowledge which is collected in different contexts using various strategies and tools. The result of this process is an increase in the subjectivity of the participants (Capogna, 2008). By fostering the centrality of learners who actively and intentionally search to build their own knowledge and reflect on their actions, information resources and technologies can be considered as 'intellectual partners' which help learners to think (Marconato & Litturi, 2005). Moreover, giving students the opportunity to critically explore and reflect on their activities encourages them to take charge of their learning path as active agents and to become lifelong learners within their professions (Mezirow, 2006).

The reflective practice fostered by e-learning impacts not only the learner but also the teaching activity (Colombo, 2005). Like other changes in education, the stage following the introduction of a new model, tools or devices is extremely delicate and requires a general re-building (Colombo, 2008b) of the whole system in terms of its theoretical basis, content to be delivered, technological choices and human resources to be employed (Trentin, 2003). In our case study, these reflections mainly deal with the choice between different e-teaching models (from distance to blended courses) as well as various underlying pedagogical approaches, the technological issues related to the opportunities given by e-learning to provide an education that is place and time-independent, generally text and multimedia based and favoured by Internet-mediated communication (Harasim, 2012).

As we will show in the following paragraphs, in our experience the selection of the most appropriate teaching strategy depends on a reflexive practice that considers the following aspects: the characteristics of the discipline (in this case social science methodology), its teaching and learning methods and the needs of learners according to their socio-cultural profile. From our point of view, the rethinking of these factors is necessary to design, implement and provide a quality e-learning experience, that is capable of offering a contextualized educational path and therefore responsive to concrete and specific needs.

The teaching of social science methodology

In recent years, Italian universities have experienced a variety of changes such as the advent of technology in education (Pedreschi &

Stefani, 2004; Mobilio, 2008; Capogna, 2014), the introduction of reforms (Fasanella & Tanucci, 2006; Decataldo, Benvenuto & Fasanella, 2012) and the growing recognition of students' different needs (educational, working, familiar). All of these changes marked the necessity to begin a process of critical redefinition of the structure, organization and content of higher education courses (Fondazione CRUI, 2015). Regarding the teaching of Social Science Methodology (from this point on referred to as SSM) we have started to reflect on how to achieve quality education in the light of these changes (Catone & Diana, 2015; Arcangeli & Diana, 2009). There are two aspects which form the starting point of this reflection and have been dealt with in depth: the first is the analysis of students' socio-cultural profile while the second regards the nature and internal peculiarities of SSM and some aspects of its teaching (Baldissera, 2009; Garner, Wagner & Kawulich, 2009).

Concerning student profiles, a quality learning process can be achieved by paying attention to the context and to the characteristics of the education target (Ehlers et al., 2005; Mannay & Wilcock, 2014): the careful consideration of the student population's needs can favor customised educational paths, with *ad hoc* modules, schedules, calendars of activities, support and guidance services for students.

Regarding the SSM course discussed in this paper, it is scheduled for the first year of the Sociology bachelor degree at the University of Salerno. It is offered to students who are beginning their academic career and usually meet various socialization problems in the university context. Moreover, they often have a lack of fundamental knowledge skills and inadequate study methods (Arcangeli & Diana, 2009). This scenario is in line with national trends (INVALSI, 2012; OECD, 2012) that confirm that both literacy and numeracy problems are widespread among Italian students, especially in the Southern regions. Relating to literacy, they are unable to appropriately utilize technology and communication tools to manage information, construct new knowledge and communicate with others, which thereby limits them in effectively participating in social life². Regarding numeracy, they lack the capacity to access, use, interpret and communicate information and mathematical ideas, which therefore prevent them from managing problems in different situations in adult life (Priulla, 2011).

² Today the semantic field of reference of literacy has expanded and contemplates the domains linked to digital competence. Recent studies (Ala-Murka, 2011) identify five dimensions: ICT literacy; Internet literacy; Information literacy; Media literacy; digital literacy.

Alongside cultural and illiteracy problems, other issues related to the student profiles of the Sociology bachelor degree of University of Salerno emerge (Arcangeli, 2001b and 2004; Arcangeli & Diana, 2008). First of all, the course is characterized by a high number of working-students and student-workers (Arcangeli, 2001a). The former (working-students) usually have a higher average age, are typically married and have chosen a degree course in relation to their job; the latter (student-workers) possess less homogenous characteristics: they often have a path characterized by uncertainty in their studies, delays in enrolling on the course, previous university applications and lack of conviction in the choice of degree. Compared to full-time students, these types of learners follow different academic paths often with low or irregular attendance.

Moreover, in recent years the number of students enrolled on the course has decreased and there have been consistently high early dropout rates in the transition between the first and second year, reaching an average of 40%. Since the introduction of the 3+2 reform (1999), the drop-out phenomenon constitutes a structural weakness of many Sociology degree courses in Italy (Fasanella, 2007). This critical situation has consolidated itself over the last 15 years and requires to be tackled by appropriate and innovative processes. As discussed recently (Facchini 2015), university educational processes should be capable of responding adequately to the expressed and unexpressed needs of the student population; in the first instance, this means redesigning university teaching methods in relation to the characteristics of learners and implementing intervention strategies that meet their needs, capabilities and cognitive and social limitations by offering a more accessible, flexible and customized educational path.

The course in question is an introduction to the methodology of social sciences and it fosters the acquisition of the basic linguistic, conceptual and technical skills of the discipline. It aims to enhance critical thinking about research methods and to promote the development of methodological expertise, providing students with knowledge, capabilities and vocabulary needed to translate a generic question about a social phenomenon into a specific research question and how to translate it into practicable, empirical research designs. In particular, starting from the exploration of the epistemological and philosophical perspectives underpinning the social sciences, it deals with both the quantitative and qualitative methods used in empirical research (Corbetta, 1999; Meraviglia, 2004; Stefanizzi, 2012).

The first difficulty of SSM teaching is the concept of 'method' itself, that it is often considered by students as a linear sequence of operations aimed at achieving a cognitive objective; this vision reduces the complexity

of methodological reasoning into rigid steps to follow and ignores its creative and open dimension (Kriz, 1988). 'Method' is the set of intellectual operations that allows us to analyze, understand and explain the phenomenon studied. As noted by Marradi (1996), method in social research is more than a simple one-dimensional sequence of steps: it is a form of art that implies the ability to imagine new paths and to take choices from time to time during the research process. Scientific reasoning also follows a creative process, as the researcher always assumes an open perspective by formulating research questions (Stefanizzi, 2012), taking decisions and also exploiting serendipity (Merton & Barber, 2002). In light of these considerations, SSM teaching aims to overcome the tendency of students to consider scientific knowledge as a cage and to convey the idea of science as an 'open spaces' where intellectual strategies for the generation of ideas mature (Abbott, 2007; Becker, 2007). In other words, the course aims to socialize learners into the "culture of research" (Eisenhart & DeHaan, 2005, p. 7) that consists in a cyclical and iterative dialogue (Creswell, 2005) between rigour and imagination (Mills, 1959; Abbott, 2007). The difficulty to understand the concept of method is linked with the achievement of another aim of the SSM course, which is the ability to discern common sense - the knowledge that allows us to live, that considers reality as self-evident - from scientific reasoning - the knowledge characterized by method. Indeed students are often unable to identify the differences between these kinds of reasoning, often adopting the common sense based on prejudices, value judgments and *hic et nunc* experiences.

The next issue of SSM teaching regards the predominantly formal dimension of the discipline. This aspect plays a key role as methodology is the science that studies the method and therefore deals with the rules that help researchers to conduct good research (Ricolfi, 1997). The specific objective of methodology is the analysis of the correctness of the procedures adopted, the consistency between premises and conclusions and the adequacy of method with respect to the object of study (Stefanizzi, 2012). The formal dimension makes SSM more complex and therefore less immediately intelligible and interesting than other substantive subjects (Gobo, 2009); moreover, it also affects the students' ability to make abstractions, i.e. apply known procedures to a new and different context.

Another critical element of SSM teaching concerns the interdisciplinary nature of the subject, incorporating epistemological and philosophical elements. In addition to the rules needed to carry out good research, SSM teaching includes the comprehension of theoretical scenarios and epistemological bases underpinning the social sciences (Corbetta, 1999).

The framework for any research includes “beliefs about the knowledge theory that informs the research (epistemology) and determines how that knowledge may be gained (methodology) and therefore results in differences in the type of research methodologies used in social science research” (Tuli, 2010, pp.105-106). As recalled by Bruschi, methodological choices are conditioned by the epistemological arguments that guide the research process: namely “if the methodology loses the epistemological side, it flattens into a technology or practice that is no longer governed intellectually, if the technical side is abandoned, it turns into a purely philosophical reflection on social science unable to influence the research” (Bruschi, 1991, p. 41). In order to render these concepts clearer, the epistemological and methodological issues that characterize the different sociological paradigms (i.e. positivism, post-positivism, interpretivism etc.), are often explained and taught separately, despite being linked to each other. This means that students often have great difficulty conceiving and creating a whole picture of the different elements (epistemological, methodological and technical) that make up the logical and practical itinerary of social research (Corbetta, 1999).

In the SSM course, students often are not able to internalize, even at the elementary level, the theoretical heritage of the discipline and to translate it into operational decisions related to empirical research. The link between theory and practice represents the next obstacle generally met by students who tend to underestimate the role of theory in social research. In fact it is crucial that learners know that social research is generally driven by theoretical assumptions that address the choice of methods and techniques to be used in the research process.

Another obstacle which students struggle to overcome is the acquisition of linguistic register that represents a fundamental aim of the SSM course. One of the basic requirements of the social sciences is to give ‘precise and clear’ definitions of the terms used: for instance method is different from methodology; type, class and taxonomy must not be confused; theories, paradigms and assumptions each refer to different concepts (Baldisserra, 2009). The acquisition of the correct terminology is necessary to properly support each step of the scientific process: a formally correct exposition of methodological choices provides sustainability to the research and responds to the needs of the context of justification. Moreover SSM, as a science which studies method, is a meta-language discipline, in the sense that it is a language that has another language as the object of study (Bruschi, 1999). In other words, methodology is a reasoning or *discourse* on method (Marradi, 2007) and it deals with the production of scientific language, i.e.

a specialized language with its own vocabulary used in order to reduce the vagueness, ambiguity and redundancy that often characterizes a common language.

The building and the sharing of a common linguistic register is also the basis for the creation and maintenance of a scientific community. This leads to the next critical issue faced by SSM students who usually do not perceive the collective nature of work in the scientific research process. As noted by Bruschi (1999), scientific enterprise is the result of interaction with other members of the community and this cooperation, in the case of SSM more than in other scientific sectors, is needed not only to favour the continuous exchange of analytical and observational techniques, but in order to build a coherent scientific heritage.

SSM course also aims at the acquisition of basic methodological competence, which means not only learning how to conduct research but also gaining the ability to evaluate the work of others (Meraviglia, 2004). After all because SSM deals with the logical procedures of scientific activity, it requires learners to study how scientists study (Isernia, 2001). This skill involves the development of critical thinking and unfortunately represents a milestone rarely achieved by students.

SSM also introduces the methods used in empirical research, both quantitative and qualitative. Students often judge quantitative methods negatively, finding them very hard and uninteresting (Payne & Williams, 2011) and fail to understand their role in social science. For this reason, it becomes essential to demonstrate the role of quantitative methods in everyday life and create teaching strategies which can arouse the curiosity and interest of the student. Moreover, learners often worry about the 'numerical' aspects (e.g. statistical analysis) which makes them anxious as they fear they do not possess the statistical-quantitative expertise required by the discipline. This is a typical bias of the students of social sciences degree courses. According to Williams and Sutton "because the social sciences are not usually seen as 'numeric' disciplines and because what numerically-inclined people gravitate towards are science and technology, social science subject intakes in universities are primarily non-numerically inclined students" (Williams & Sutton, 2011, p. 67). Regarding this point, it is essential to recognize that the numerical concepts in an SSM course are basic, while the principal disciplinary aim is to enhance the ability to choose the most appropriate methods and techniques for the research question (Marradi, 2007).

Students often tend to underestimate the role of qualitative methods, considering them weaker or easier than quantitative research (Fontes &

Piercy, 2000). Learners usually believe the research process of qualitative studies is based on improvisation and personal skills and not on defined methodological procedures. Consequently, they generally commit less time and concentration to the study of these methods and therefore during final assessments demonstrate deep gaps in understanding the main principles that govern the qualitative approach. Further difficulties arise in the operationalization of some steps of the research process from the collection of qualitative information to the construction of the empirical basis and data analysis.

The e-learning experience

The course of SSM discussed in this paper is designed for first-year Sociology degree students at the University of Salerno. It had a duration of 60 hours with a total of nine credits and in the 2014/2015 academic year it took place in the first semester, with 176 students participating i.e. 80% of all students enrolled in Sociology. The course used a blended format which integrated traditional face-to-face lectures with online activities, thanks to the support of an e-learning platform (Trincherro, 2006; Andrews & Haythornthwaite, 2007).

The choice of this educational model followed a long process of research and reflection which started in the academic year 2000/2001, when many courses in Sociology at the University of Salerno entered a phase of renewal resulting in the design, implementation and delivery of e-learning courses, both full distance and blended (Vento, D'Esposito & Faiella, 2008). SSM also participated in this process of experimentation, finding new ways to offer and structure the course. In the last few years, e-learning lectures were provided in addition to the traditional frontal format, alternating classroom lectures and online activities. From the experience acquired and reflection on which teaching practice best suited the SSM course, in the 2014/2015 academic year the blended model was adopted. This choice was due to the many advantages provided by the blended approach that have better responded to the needs and characteristics of our students and to the difficulties of the SSM teaching, already explored in the previous paragraph.

The blended learning model is based on the non-linearity of the learning process, on the performance of contextualized tasks and aims at the collaborative knowledge construction, which develops through social negotiation (Jonassen, 2004). In addition, by combining the frontal

dimension of the classroom with online activities provided by the e-learning platform, the blended model allows us to leverage the strengths of online education, such as personalization, flexibility learning and the ability to reach more users, while reducing the typical issues of full distance e-learning such as lack of motivation, a weak sense of common learning (Irizarry, 2002) and difficulty of reaching a large number of students. In the blended model these critical issues are overcome by the presence of the teacher during the frontal lectures, as facilitator in the use of resources on the online platform, a form of 'body' interaction which is not possible in the full distance online course.

Having explored some aspects of the blended approach, we will now describe the SSM course, focusing mainly on the role of the platform within the learning process of the student. The course is the result of a collaborative synergy between the teacher, who carries out the lectures and organizes their integration with online activities on the e-learning platform, and the tutor who follows and supports the students in their use of the platform. Moreover, the course makes use of textbooks³ as a fundamental tool to guide the student and the e-learning platform to support their learning activities. The contents of the course are shown and explained first in the classroom and then the student has the opportunity to deepen and integrate the subject taught through the use of the e-learning platform. This is also used by the teacher throughout the course, and especially during exercises in order to take advantage of the different resources and tools present (e.g. self-assessment and interactive tests, multimedia, forum, etc.). The e-learning platform was built in Moodle, an intuitive, modular open source environment, thought to develop meta-cognitive and problem-solving skills as well as encouraging knowledge building through collaboration among peers (Ghislandi et al., 2008; Messina, Tabone & Tonegato, 2015). The platform is designed to be accessible and friendly, to provide forms of systematic work and to stimulate student's interest and curiosity in the discipline (Mishra & Hershey, 2004). When entering the platform, the student sees three columns, two on the sides and a central one, created to provide a regular and structured study path (figure 1).

The column on the left is made up of two sections, one that facilitates browsing within the online actions such as the 'weeks' area which contains

³ Over the last two years the following textbooks have been used: *La conoscenza sociologica* (Stefanizzi, 2003); *Metodologia delle scienze sociali. Un'introduzione* (Meraviglia, 2004); and *Analizzare le interviste ermeneutiche* (Diana & Montesperelli, 2005).

quick links to the teaching weeks and secondly the ‘activities’ area, which brings together the different types of resources, thereby creating a library of materials. In this section a glossary is included which was created by teachers to give students a reference point for the key methodological concepts. The column on the right features a calendar so students can monitor course events and the ‘contact’ form, which allows them to get in touch with other participants, the teacher or the tutor, by using an internal messaging application. The central column provides access to the educational materials and activities that are divided into units and modules; these are released directly by the teacher according to the topics discussed during the frontal lectures.

Figure 1. Homepage of the e-learning platform



The controlled and timetabled release of the contents, as well as its division into modules and units, assists with the typical difficulties of university students, especially in the first year regarding time management and method of study. On the one hand the e-learning environment promotes the autonomy of the students but, on the other hand, it also ensures they are not left alone, as the student is guided and directed through the learning process. Each unit contains texts enriched with images, audio, video, graphics and diagrams which stimulate student’s curiosity. In particular, the presence of images and videos play a fundamental role as it appeals to the cognitive style of students today who have a strong ability to learn visually

(Cipriani, 2015). Their use also develop the student's skills of analyzing and processing information, of abstraction (Gardner, 2005), and motivation, empathy and participation in the learning community (Reilly, Ring & Duke, 2005).

The learning objects are made up of research, simulations and exercises, that promote forms of situated and contextualized learning and place the student at the center of the process of knowledge production. The platform includes an additional 'insight' or 'go deeper' section with site links, bibliography, definitions and downloads, which encourage the learner to broaden the horizons of his/her knowledge and to develop the ability to autonomously research, select and organize information. At the end of each module summaries and self-assessment tests are provided which allow the students to independently judge their abilities and their level of proficiency in the topics addressed. The majority of the tests are closed questions with three response options; when the task is completed, the student can see the results achieved and possible errors.

A crucial role is played by the asynchronous tools such as emails which promote the exchange of information between students or with the teacher and discussion forums, which seek to activate a process of collaborative learning among peers. Different types of forums are used: some of them deal with topics proposed directly by the teacher or the tutor, according to the themes covered during the frontal lecture, others, such the 'online café', are free and managed by the students themselves who use it to discuss different aspects of the course. In addition, in order to promote the use of the forum, the class has been divided into two teams, led by four student 'team leaders' who had the task of stimulating the discussion both in the classroom before and on the online forum. This organization can be an effective way to foster communication among peers and put the student at the center of his educational process⁴.

The entire platform learning process is followed by a tutor who constantly communicates with the teacher, manages the activities performed by the student, encourages the exploration of materials and stimulates the processes of collaborative learning by launching the topics on the discussion forums. The tutor plays the role of content, metacognition and process facilitator (Denis et al., 2004): he helps learners to better understand the concepts and the content developed in the platform by

⁴ The division of the class into two teams of students called "quantity" and "quality" was introduced in 2014/2015 to enhance discussion in the forums present on the platform. Compared to previous years, the presence of two "team leader" who organized the discussions showed an increase of posts to the forum.

clarifying them; he encourages students to reflect on the way they can acquire and improve their skills; he gives directions and tips useful for learners to better reach the expected aims of the discipline.

Layout, tools of the platform and actions of the teacher and tutor have all been conceived to meet the learning needs of students and to provide appropriate solutions to the difficulties of teaching this discipline, which we will now examine in the following section.

Possible solutions to the challenges inherent in teaching social science methodology

The analysis of the student profile (working-students, student-workers and dropout-rates) has led us to design an educational approach which expands the times and places of study beyond the dimensions of the classroom. From our point of view, blended learning and in particular the use of the platform meets this need and represents an important reference point also for those who cannot attend the course regularly.

Other contextual peculiarities are gaps in cultural knowledge, below par literacy and numeracy skills and a lack of effective study methods. In these situations, the platform is a valuable support tool to accompany the student on their educational path in addition to more classic instruments (e.g. textbook). As well as assisting with the student learning path, the blended format has also successfully responded to some of the critical issues of SSM teaching, which we will look at now more in depth.

The first critical issue identified regards the concept of 'method' itself that, as previously explored, is generally considered by students as a succession of rigid steps, rather than an open system, where different choices during the research path can be taken. The structure of the e-learning platform as a succession of units, additional learning sections, different areas of study and expansions on the topics has been precisely designed to convey and reflect the idea of 'method': the student follows the research process provided by the platform but he also has the autonomy to pursue different paths, feeding the students' need to make choices in order to achieve a cognitive objective. From our point of view, the platform then reproduces the conception of the 'method as art' (Marradi, 1996), because, although structured, it provides the students with the opportunity to create their own path by exploring and deciding between different and new research choices (Becker, 2007). The idea of the method is further corroborated by simulation exercises, specially designed to offer to the

student the opportunity to take decisions in the research phases depending on the achievement of the cognitive objective and to handle the possible unexpected contingencies that usually occur 'in the field'. For example, some simulations places the student in the role of researcher, where he/she faces the main empirical research problems (lack of funds, the difficulty of finding data, time data from the customer).

A correct comprehension of the method helps learners to understand characteristics and differences between common sense and scientific reasoning. This is the second difficulty usually encountered by students. In particular, by the use of various materials on the platform such as newspaper articles, videos of television programs that address relevant sociological issues, the student is asked to identify the main errors of reasoning that characterize common sense and to revise them using the right methodological argument. He is also invited to explore from a methodological point of view a sociological contemporary theme through the comparison of scientific studies, consisting of papers, articles and research reports, and non-scientific materials such as newspaper articles, posts of blogs, letters, mail, etc. From this comparison a discussion is activated: students are firstly involved in a peer to peer communication (Chiari, 2011), which takes place in the classroom and the in the building of a special *wiki*. Then the teacher and the tutor highlight the main errors and the most appropriate solutions.

The third issue of SSM teaching regards the formal nature of the discipline that, as we have previously identified, makes the discipline less immediately intelligible and interesting than other more tangible and substantive disciplines. Considering that a large part of the methodological reflection was born from an abstract reworking of real research practices (Ricolfi, 1977), the use of the platform contributes to fostering the idea of a teaching method that, although formal, is characterized by a concrete validation in its use of empirical research. Indeed in each unit, activities, internal and external web resources (Edwards et al., 2013) are provided such as consultation questionnaires, reading of surveys, reports, datasets and interactive exercises related to real situations of research on sociological contemporary issues. The use of diverse resources allows teachers to make the discipline more intelligible favoring the transition from theoretical concepts into concrete research applications, thereby enhancing the interest and curiosity of the student. In addition, at the end of each unit students are invited to discuss and debate the research situations explored in the platform both on the forum and during the frontal lecture.

Moving to the next issue, related to the link between the epistemological and methodological basis, interactive exercises (e.g. 'drag and drops') have been built where the student is asked firstly to historically contextualize the research question, then to identify the epistemological approach which is conceived mainly as a relationship between 'who' and 'what' (Corbetta, 1999) and then to choose the methodological solution considered most appropriate. The performance of contextualized tasks favored by the blended learning in the case of SSM also allows the student to better understand the relationship between theory and practice that represents the next difficulty. From our point of view, the same blended format, i.e. the integration of the frontal lectures with the online activities, favors the conception of the theory/practice combination. More specifically, in the classroom students acquire models, principles and theories that they can put into practice thanks to the activities carried out in the e-learning platform⁵ (Bruschi & Ercole, 2005); according to the theoretical notions dealt with in the lecture, students learn to formulate the correspondent research design thanks to the actions that the platform allows them to perform. This use of the platform outlines the role of blended learning as a practice place that activates a teaching method centered on 'learning by doing' (De Rossi, 2015). Next difficulty is the acquisition of a correct linguistic register: to overcome this problem, different strategies have been adopted. First of all, each unit has been designed with clear and easy language, without neglecting the scientific rigor of the study area. Secondly a glossary has been created in order to provide a basic methodological reference, which discerns lay expression and scientific language, encouraging and enhancing the acquisition of a common linguistic code. Moreover, an e-learning course is mainly based on written texts (teaching units, forum, chat, communication between students, communication with the tutor, support materials, assignments) and it offers activities in which the student makes use of writing. This aspect plays a crucial role in the acquisition of an appropriate writing, which is not only an aid to memory but also raises awareness and reflexivity (Ong, 1986). For instance, in discussion forums, students pay more attention to the terminology used and the moderation of the tutor is fundamental to support and give directions for the correct use of the SSM language. From our perspective, the forum represents the place where students experiment with the knowledge accumulated and test the adequacy of their linguistic register in the disciplinary field. Another

⁵ Another significant moment of the learning process is the presentation of online activities in the classroom with discussion of their outcomes.

resource used to foster the role and the acquisition of a common language is played by the presence of video-interviews with professors from different universities (figure 2); its use encourages the socialization to the language adopted by our scientific community. The video interviews present on the platform are designed, realized and assembled by the lecturer and his collaborators who first select those topics which students traditionally consider most difficult and then choose the best experts on those issues.

Figure 2. Video interviews with professor from other universities



This point leads to the next issue of SSM teaching, which is the need to convey the collective role of scientific work. In particular, the video-interviews provide students with the opportunity to overcome the explanation of a single teacher, making them aware of the collective process of science. It is not the result of an individual activity, but it is obtained by rules shared by a network of specialists that guarantee the respect of the fundamental requirements of scientific research publicity and controllability (Statera, 1984). Moreover, the opportunity to listen to 'another voice and face' of expert researchers fosters the acquisition of methodological sensitivity (Mills, 1959). The resources in the platform such as research reports, questionnaires, surveys, tables, visualization of graphs and the opportunity to access open data, such as ISTAT, EUROSTAT and OCSE websites/databases also encourage the acquisition of methodological competence that consists not only in the ability 'to do' research but also to evaluate the work of others. The use of materials

produced by others contributes to raising students' critical skills needed to identify the quality of the methodological choices made (Meraviglia, 2004; Stefanizzi, 2012).

The last issues are related to the difficulties that students usually encounter in understanding empirical research methods. Regarding the quantitative method, student often feel a negative perception, considering them hard, boring and uninteresting. To overcome these obstacles, we have tried to show the value of quantitative research in ordinary life as thoughtful and active citizens (Payne & Williams, 2011; Mair, Greiffenhagen & Sharrock, 2016). In this sense, the e-learning platform has played a crucial role by delivering internal and external resources that provide contemporary social research examples. With regard to the technical aspects of quantitative methods, it is important that students realize that they already possess the skills needed to understand the 'numerical' bases required by quantitative research.

Indeed, some easy interactive exercises on the technical notions are offered for this reason. Moreover, the e-learning platform offers links to different external open data resources, which allow students to have direct access to databases. Through their use, students can improve their ability to read a table of data, to distinguish the variables and to understand which kind of analysis is needed for a research question. Certain resources have been designed to promote the knowledge of specific quantitative techniques. We are referring to the use of multimedia materials such as video and film excerpts, that bring the student closer to understanding the effective use of research techniques (Gobo, 2009). For example, in the unit related to the standardized interview, some videos excerpts of the 'Kinsey' film (directed by Codon, 2004) that regard the different research phases of the famous Kinsey report are shown. Moving to the teaching of the qualitative method, it is often considered as weaker or easier than quantitative research.

The use of the platform has helped us to express the idea that this method requires a rigorous *modus operandi* and it is not based on improvisation. The organization of the units which are well-structured in the presentation of the different phases of the qualitative research, assists in achieving this purpose. A deep understanding of qualitative research among students is fostered by the exploration of concrete research experiences. The platform has a wealth of qualitative research examples using different empirical approaches. For example, there are recorded interviews which improve students' listening and transcription capabilities or there are also excerpts of written interviews, which favour the development of

interpretative skills (Diana & Montesperelli, 2005). Furthermore by adopting different images and photographs, the e-learning course provides a breeding ground for the final frontiers of the discipline such as visual sociology.

Now we summarize in table 1 the traditional difficulties met by students and the identified solutions provided by the use of the e-learning platform.

Table 1. SSM challenges and potential solutions associated with e-learning

<i>SSM teaching issues</i>	<i>Adopted solutions</i>
1. Vision of method	Structure of the platform in units, additional sections, areas of study and expansions on the topics that provides students with the opportunity to create their own research path; simulation exercises
2. Differences between common sense and scientific reasoning	Scientific (reports, articles, etc.) and non-scientific materials (newspapers, letters, etc.)
3. Formal nature of the discipline	Internal and external resources: questionnaires, reading of surveys, reports, use of datasets and interactive exercises related to real situations of research on sociological contemporary issues. discussion and debate of the research situations explored in the platform both on the forum and during the frontal lecture
4. Comprehension of the link between epistemology and methodology	Interactive exercises to underline the relationship between epistemological and methodological choices
5. Comprehension of the link between theory and practice	Integration of the frontal lectures (which deal with theory) with the online activities (which deal with practice)
6. Acquisition of linguistic register	Clear and easy language of each unit, without neglecting the rigor of the study area; creation of a glossary; presence of written texts; discussion forum; video-interviews
7. Presence of scientific community	Video-interviews with professors from different universities
8. Development of methodological competence	Use of research reports, questionnaires, surveys, tables, visualization of graphs, open data, such as the ISTAT and OCSE
9. Comprehension of the quantitative methods: over-estimation of topic's difficulty	Materials (publications, newspaper articles, reports and opinion surveys results) to bring the student closer to the use of quantitative methods in everyday life; interactive exercises; links to different external open data resources which allow students to have direct access to databases; multimedia materials such as video and film excerpts
10. Comprehension of the qualitative methods: under-estimation of topic's difficulty	Creation of well-structured units in the presentation of the phases of qualitative research; recorded oral interviews; transcription of written text and excerpts of written interviews; images and photographs

The majority of the solutions consist of authentic activities (Dabbagh, 2005), based on the use of resources and materials that favour the learning by doing process. These tasks allow learners to immerse themselves in specific aspects of the discipline and to utilize the 'toolkit' when working on the research process (Becker, 2007); the performance of such activities encourages reflective skills, as they have the opportunity to review what they have done, to analyze their performance, and share their acquired knowledge with peers and teacher.

Furthermore, the completion of real and practical tasks also meets the needs of Italian students in Sociology degree course who, according to the results of the survey conducted by Facchini and Ricotta (2015), have expressed the wish to have more space for social research methods practice during their study.

In our opinion, it is an important aspect that highlights the necessity to answer the requests of the learner and to place him at the centre of the learning path.

Moreover, the development of sociological knowledge through the practice of research methods could in the coming years contribute to tackling the new challenges posed by the labour market and promote innovation in the training process for the sociologist profession (Decataldo & Facchini, 2015).

The student evaluation of the e-learning course

We now present an evaluation of the course using both data analytics of the platform accesses and activities carried out by the students and the results of a web survey completed by students enrolled in the e-learning SSM course.

The secondary data processed indicated 15364 total materials' consultations in the period from October 15, 2014 (beginning of the course) to February 15 (date of last appeal for the second semester)⁶. On average 128 consultations were recorded a day. Besides this data, we created a standardized questionnaire in order to gain an insight and deeper understanding into student's judgments and opinions about the blended course. It was comprised of 21 closed-ended questions and was issued anonymously via the online platform Survey Monkey.

⁶ The platform for our choice was left open until September, without the presence of synchronous activities with the teacher or tutor moderation.

The questionnaire was distributed at the end of the course and was completed by 114 students, 68.5% of the total students enrolled in the SSM course.

Principally the survey aimed to explore the following dimensions: reasons for using the platform, mode of use, evaluation of specific tools, relationship between ICT and learning processes and acquisition of methodological competence. This section presents the main results we have obtained.

The group of respondents was mainly women (81.6%) with men making up a significantly smaller proportion of those surveyed (18.4%)⁷.

One important aspect of tracing the profile of our students and thereby interpreting their actions was understanding how students defined themselves; it helps to understand how the student will behave within the university, in terms of time and place of study, attendance, relationship with the teacher and more generally regarding the role that university plays in their lives: 41% of respondents consider themselves full-time students, 40% student-workers and 19% working-students.

This first result, which shows a high proportion of student-workers, confirms the importance of customizing the educational offer. The high proportion of working students is also reflected in the results regarding the use of the platform, as one-third of respondents claimed they utilize it mainly in the evening or in the night.

Another section of the questionnaire explores the students main reasons for using the platform (figure 3) by giving a score from 0 (minimum use) to 10 (maximum usage).

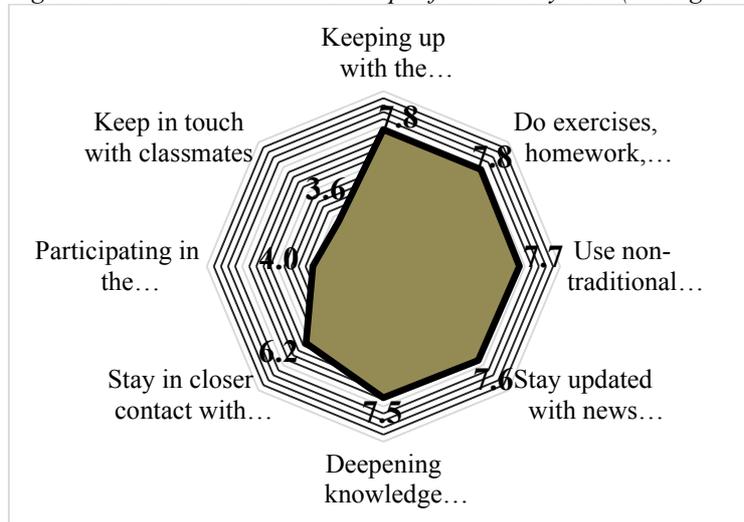
The prevailing reasons were the presence of exercises, homework and quizzes, the ability to keep up with the content of the course and deepen knowledge of the topics discussed during the lectures.

Lower scores were attributed to socialization practices, such as participation in discussion forums and the opportunity to get in touch with classmates.

The tools most commonly used by students on the learning platform (table 2) were the quizzes, exercises and homework tasks. This use of the platform outlines the role of blended learning in activating teaching methods centered on 'doing' and providing practice activities.

⁷ This data is in line with the strong presence of women on the graduate and undergraduate Italian sociology courses (Fasanella, 2007).

Figure 3. You have used the online platform mainly to... (average score)



Lower values were recorded for the discussion forum, sitography and FAQ. The limited use of these instruments is probably due in part to the lack of digital literacy.

Table 2. How often did you use the tools in the platform? (%)

	Never	Rarely	Sometimes	Regularly	Total
Glossary	10.5	36.8	39.5	13.2	100.0
Selfevaluation quiz	4.4	30.7	43.0	21.9	100.0
Discussion forum	39.5	41.2	15.8	3.5	100.0
Activity calendar	14.0	28.1	43.0	14.9	100.0
Exercises, homework	0.9	17.5	50.0	31.6	100.0
Sitography	21.1	43.9	28.9	6.1	100.0
Video interviews	9.6	32.5	44.7	13.2	100.0
Audio interviews	13.2	35.1	36.8	14.9	100.0
FAQ	27.2	43.9	25.4	3.5	100.0

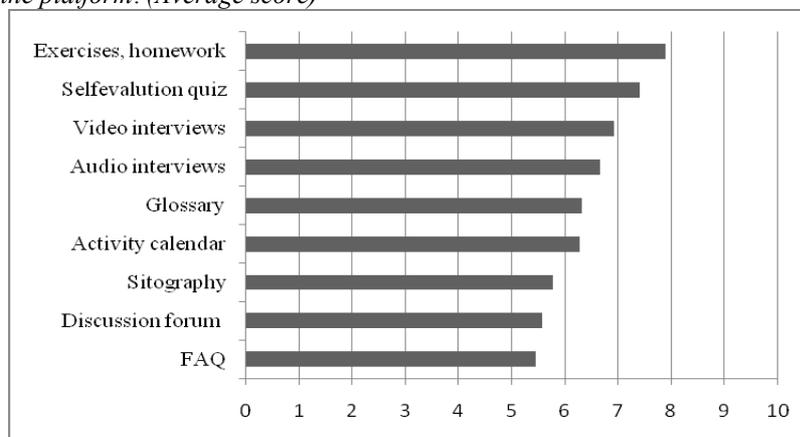
The results mentioned in figure 3 and table 2 are coherent with the critical issues about SSM teaching and therefore support the practical activities adopted as solutions.

The most used tools are also the ones which gained the most positive evaluation from students. In fact the exercises, the quiz and video-recorded interviews registered a score of 7.8, 7.4 and 7, respectively (figure 4).

In contrast tools which were used less often received lower ratings, namely sitography, discussion forums and FAQs which were given ratings of 5.8, 5.6 and 5.5.

Some indicators, which allow us to judge the impact of e-learning on the overall student learning process, are the ratings for content structure and the clarity and richness of the resources provided in the platform.

Figure 4. For the study of the discipline how do you evaluate the tools provided by the platform?(Average score)



These indicators received an average rating of more than 7.5 points on the 0-10 scale. In particular, in our opinion, the rating for the clarity of the content (7.5) highlights the opportunity for students to use and study teaching materials with complete autonomy.

In addition, respondents expressed appreciation for the extensive use of images, which recorded an average score of 8. Therefore, the choice to create a learning path in which images accompany the textual content has been effective in the transmission of knowledge.

With regards to the dimension that investigates the relationship between ICT and learning process, the results suggested that the platform supports and transforms the method of study.

Nearly 80% (a lot + enough) of students believed that the platform was useful for organizing study time, improving the comprehension of textbooks and learning to use web resources within the social sciences (table 3).

Table 3. You think that the use of the platform has been useful for... (%)

	<i>Not at all</i>	<i>Little</i>	<i>Enough</i>	<i>A lot</i>	<i>Total</i>
Better organize your study time	2.6	22.8	49.1	25.4	100.0
Improve understanding of books content	1.8	14.0	47.4	36.8	100.0
Learn how to use web resources within social sciences	7.0	19.3	48.2	25.4	100.0

Table 4 demonstrates the active role of e-learning in the redefinition of processes and ways of learning (Sandrini & Colombo, 2008): in fact the table shows that over 80% of respondents believe that the platform works well in conjunction with the lessons in the classroom.

In particular, students indicated that it developed their autonomy in dealing with the content and helped them evaluate their own abilities.

Regarding the student's evaluation of the tools and resources on the platform, the results indicate general approval.

More specifically, 84.2% of students said they had a better understanding of the methodology of the social sciences thanks to the activities in the platform. This data confirms the benefits of located learning provided by e-learning.

Moreover, the importance of designing the platform as a laboratory for practical activities meets the needs of learners. In fact about 62.3% of respondents said they would welcome a greater number of exercises.

Furthermore about 87% of respondents answered that the platform offered an easier way to understand their difficulties and to judge the level of knowledge they have already achieved.

Creating a user-friendly platform is one of the objectives of our educational project and our success in achieving this is demonstrated by the positive evaluation of 79.8% of respondents who answered that the platform does not require advanced computer skills.

The last two items in the table are related to the organization of the time and place of study, to investigate whether e-learning promoted study flexibility.

Regarding the use of the platform to support the SSM course, the results confirm the validity of the educational model developed (table 5). Indeed, the majority of course participants consider the use of the platform able to achieve the discipline's main objectives. More specifically according to 92.1% (enough + a lot) of respondents, studying online allowed the acquisition of methodological expertise; 86.9% believed that using the platform assisted in the acquisition of the correct linguistic register for the discipline. Further data (86.8%) shows the positive impact of the platform in the acquisition of practical skills related to empirical research.

Table 4. How much do you agree with the following statements regarding the online platform?(%)

	<i>Not at all</i>	<i>Little</i>	<i>Enough</i>	<i>A lot</i>	<i>I do not know</i>	<i>Total</i>
The platform has worked well in conjunction with lectures in the classroom	1.8	7.0	42.1	45.6	3.5	100.0
The platform developed my autonomy in dealing with course content	2.6	13.2	50.0	31.6	2.6	100.0
The platform has given me greater awareness of my abilities	2.6	16.7	56.1	21.9	2.6	100.0
The resources in the platform helped me to better understand the activities of social research	1.8	11.4	48.2	36.0	2.6	100.0
I would have preferred more exercises (quizzes, self-evaluation, tasks)	11.4	21.9	40.4	21.9	4.4	100.0
The exercises helped me to understand my difficulties	2.6	8.8	47.4	39.5	1.8	100.0
Video interviews with other teachers have enriched my knowledge	3.5	19.3	43.0	28.1	6.1	100.0
The forum gives me more time to reflect on the topics	9.6	31.6	39.5	12.3	7.0	100.0
The use of the platform requires advanced computer skills	52.6	27.2	12.3	6.1	1.8	100.0
The platform makes the organization of my study time more flexible	2.6	27.2	41.2	24.6	4.4	100.0
The platform allowed me to feel like part of the social science methodology course despite not having the opportunity to follow the lectures in the classroom	21.9	17.5	24.6	28.1	7.9	100.0

Table 5. You think that the use of the platform has been effective in order to... (%)

	<i>Not at all</i>	<i>Little</i>	<i>Enough</i>	<i>A lot</i>	<i>Total</i>
Acquire methodological competence	1.8	6.1	64.9	27.2	100.0
Acquire the correct linguistic register	0.9	12.3	58.8	28.1	100.0
Gain theoretical knowledge related philosophical and epistemological issues	1.8	14.9	53.5	29.8	100.0
Develop practical skills related to empirical research	2.6	10.5	57.9	28.9	100.0
Feel part of the scientific community	4.4	36.8	43.9	14.9	100.0

These results largely satisfy our expectations as on the one hand they fill key gaps that historically are in learning pathways of students and, on the other hand, it encourages to continue the process of reflection regarding the teaching of the discipline. Another result of the survey is that one in two students responded that the platform reinforced their sense of belonging to the scientific community. Considering the status of the student learner who encounters sociological analysis for the first time, this result seems to be a good basis on which to continue working to encourage greater socialization in the sociological community.

The use of e-learning platforms also received widespread praise with 96.5% of respondents expressing that they would like the support of the platform in other courses of the Sociology degree. Finally, due to the latest developments in education models with e-learning being used in tandem with social media, it seemed appropriate to investigate the possibility of introducing this. When queried about the introduction of social media (twitter, facebook, etc.) in to the learning platform, respondents were very much in favour (78.6%). This clear indication from our target audience forms the starting point from which to begin new reflection and experimentation activities that must incorporate numerous factors (pedagogical, technological context, disciplinary etc.), involved in the successful provision of an educational quality.

The experience, evaluated positively by the blended learning course students, had an equally positive impact upon exam performance and grades. During the final assessment which takes the form of an oral exam, most of the participating students demonstrated a strong ability to discuss important themes and concepts with a critical awareness, thereby obtaining higher grades compared to students who did not follow the course.

Conclusions

E-learning allows students to set meta-cognitive goals which consist in reflection on tools for the construction of knowledge, but also goals that lean towards insight, creativity, motivation and incentives to participate actively within the learning process (Guerra, 2006).

In this paper, we identified some of the main difficulties which arise in teaching a university blended course on social science methodology and discussed some possible ways of overcoming them through high-quality e-learning. The construction of quality e-learning paths must be supported by constant reflexive practice led by teachers in order to incorporate this into

teaching, research and evaluation activities. It is necessary to consider the specificities of each discipline and to carry out a thorough analysis of those who attend a given learning environment.

Specifically, starting from an analysis of the characteristics and needs of the students, we identified ten issues mainly involving the methodological (e.g. quantity vs quality), linguistic (e.g. common sense, scientific language), metacognitive (e.g. the ability to do research and to evaluate the work of others) and technical (e.g. collection and analysis of data) aspects of the teaching and learning of SSM and specific solutions designed to address them.

The process that we conducted in our opinion could be a good practice to follow in order to deliver a valuable educational path. To do so, a renewed and significant commitment on the part of university lecturers is needed. In this sense they should adopt the continuous reinvention of teaching methods by updating content, materials, tools and media practices and develop their ability to link these elements in a stimulating and active learning environment.

These ‘open-ended’ conclusions are also an invitation to structure flexible learning trajectories (Galliani, 2009) which can enrich students’ experiences and motivate them to assume greater responsibilities and enable them to make meaningful decisions regarding their education.

References

- Abbott, A. (2007). *I metodi della scoperta. Come trovare delle buone idee nelle scienze sociali*. Milano: Bruno Mondadori.
- Ala-Mutka, K. (2011). Mapping Digital Competence: Towards a Conceptual Understanding. Technical notes. European Commission Joint Research Centre Institute for Research Centre: *Institute for Prospective Technological Studies*. Luxembourg: Publications Office of the European Union. Retrieved from http://ftp.jrc.es/EURdoc/JRC67075_TN.pdf
- AlmaLaurea - Consorzio Interuniversitario (2015). *XVII Indagine Condizione occupazionale dei laureati*. Bologna.
- Andrews, R., & Haythornthwaite, C. (Eds.) (2007). *Handbook of E-learning Research*. London, UK: Sage.
- Arcangeli, B. (2001a). Gli studenti di Sociologia ed il lavoro. Qualche riflessione per la costruzione di tipologie, a partire da ricerche recenti. In B. Arcangeli (Ed.), *Profilo degli studenti di Sociologia. Primi contributi* (pp. 74-84), Quaderni del Dipartimento di

- Sociologia e Scienza della Politica, Università di Salerno, Volume I, Salerno: Edizioni CUES.
- Arcangeli, B. (Ed.). (2001b). *Profilo degli studenti di Sociologia*. Primi contributi, Quaderni del Dipartimento di Sociologia e Scienza della Politica, Università di Salerno, Volume I, Salerno: Edizioni CUES.
- Arcangeli, B. (Ed.). (2004). *Profilo degli studenti di Sociologia*. Primi contributi, Quaderni del Dipartimento di Sociologia e Scienza della Politica, Università di Salerno, Volume II, Salerno: Edizioni CUES.
- Arcangeli, B., & Diana, P. (2008). Cultural capital, learning and ICT in a southern Italian university. In M. C. Matteucci, A. Omicini, E. Nardini & P. Gaffuri (Eds), *Proceedings: Knowledge Construction in E-learning Context: CSCL, ODL, ICT and SNA in education 2008* (pp.176-180). CEUR Workshop Proceedings, 398, Aachen University. Retrieved from http://ceur-ws.org/Vol-398/S6_ArcangeliEtAl.pdf
- Arcangeli, B., & Diana, P. (2009). Insegnare metodologia delle scienze sociali in modalità e-learning. In A. Baldissera (Ed.), *Insegnare metodologia delle Scienze Sociali* (pp. 55-71). Acireale-Roma: Bonanno.
- Baldissera, A. (Ed.) (2009). Insegnare metodologia delle scienze sociali: il linguaggio della disciplina e quello degli studenti. In A. Baldissera (Ed.), *Insegnare metodologia delle Scienze Sociali* (pp. 9-23). Acireale-Roma: Bonanno.
- Barnett, R. (1992). *Improving higher education*. Buckingham: SRHE/Open University Press.
- Bauman, Z. (2006). *Liquid Times: Living in an Age of Uncertainty*. Cambridge: Polity Press.
- Beck, U. (1992). *Risk Society: Towards a New Modernity*. London: Sage.
- Becker, H. S. (2007). *I trucchi del mestiere*. Bologna: il Mulino.
- Boud, D., Keogh, R., & Walker, D. (1985). *Reflection: turning experience into learning*. London: Kogan Page.
- Barnett, B. G., & O'Mahony, G. R. (2006). Developing a culture of reflection: implications for school improvement. *Reflective Practice: International and Multidisciplinary Perspectives*, 7(4), 499-523. doi: 10.1080/14623940600987130
- Bruschi, A. (1991). Logica e metodologia. *Sociologia e ricerca sociale*, 35, 30-55.
- Bruschi, A. (1999). *Metodologia delle Scienze Sociali*. Milano: Bruno Mondadori.
- Bruschi, B., & Ercole, M. L. (2005). *Strategie per l'e-learning. Progettare e valutare la formazione on-line*. Roma: Carocci.
- Calvani, A. (2000). *L'impatto dei nuovi media nella scuola; verso una saggezza tecnologica. Presentation to Convegno Nazionale FIDAE*, Roma. Retrieved from <http://www.navediclo.it/wp-content/uploads/calvani.pdf>
- Cipriani, E. (2015). Il linguaggio universale delle immagini: il Visual Thinking nell'e-learning. In S. Ravazzani, S. Mormino & C. Morni (Eds.), *Valorizzare la diversità nella formazione e nell'apprendimento. Teorie ed esperienze* (pp. 71-86). Milano: FrancoAngeli.
- Capogna, S. (2008). Il Processo di incorporazione dell'e-learning nell'università: offerta capillare e socializzazione nella/alla rete. In M. Colombo (Ed.), *E-learning e cambiamenti sociali. Dal competere al comprendere* (pp. 36-64). Napoli: Liguori.
- Capogna, S. (2014). *Scuola, Università, E-learning: un'analisi sociologica*. Roma: Armando.
- Castells, M. (1996). *The Rise of the Network Society. The Information Age: Economy, Society and Culture*. Vol. I. Oxford, UK: Blackwell.
- Catone, M. C., & Diana, P. (2015). E-learning to overcome the problems with the teaching of social sciences methodology. In F. Falcinelli, T. Minerva and P. C. Rivoltella (Eds.),

- Apertura e flessibilità nell'istruzione superiore oltre l'e-learning?* (pp. 142-144), Atti del Convegno SiremSiel2014, Reggio Emilia: Sie-L Editore.
- Chiari, G. (2011). Educazione interculturale e apprendimento cooperativo: teoria e pratica della educazione tra pari. *Quaderno del Dipartimento di Sociologia e Ricerca Sociale*, Università di Trento, 57, 1-104. Retrieved from <http://web.unitn.it/files/download/8701/quad57.pdf>
- Cipriani, E. (2015). Il linguaggio universale delle immagini: il Visual Thinking nell'e-learning. In S. Ravazzani, S. Mormino & C. Moroni (Eds.), *Valorizzare la diversità nella formazione e nell'apprendimento. Teorie ed esperienze* (pp. 71-85). Milano: FrancoAngeli.
- Colombo, M. (Ed.) (2005). *Riflessività e creatività nelle professioni educative. Una prospettiva internazionale*. Vita e Pensiero: Milano.
- Colombo, M. (2008a). Introduzione. In M. Colombo (Ed.), *E-learning e cambiamenti sociali. Dal competere al comprendere* (pp. 1-17). Napoli: Liguori.
- Colombo, M. (2008b). Conflitti generati dall'e-learning: umanesimo e approccio comprendente. In M. Colombo (Ed.), *E-learning e cambiamenti sociali. Dal competere al comprendere* (pp. 147-171). Napoli: Liguori.
- Corazza, L. (2006). E-learning e Università. Riflessioni tratte dalle interviste a quattro esperti italiani: Antonio Calvani, Luigi Guerra, Roberto Maragliano, Pier Cesare Rivoltella. *Ricerche di Pedagogia e Didattica*, 1, 111-125. doi: 10.1400/172537
- Corbetta, P. (1999). *Metodologia e tecniche della ricerca sociale*. Bologna: il Mulino.
- Creswell, J. W. (2005) *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Upper Saddle River, NJ: Merrill-Prentice Hall.
- Dabbagh, N., & Bannan-Ritland, B. (2005). *Online learning: Concepts, strategies, and application*. Upper Saddle River, NJ: Pearson, Merrill Prentice Hall.
- Dabbagh, N. (2005). Pedagogical models for E-Learning: A theory-based design framework. *International Journal of Technology in Teaching and Learning*, 1(1), 25-44. Retrieved from <http://www.sicet.org/journals/ijttl/issue0501/DabbaghVol1.Iss1.pp25-44.pdf>
- Decataldo, A., Benvenuto, G., & Fasanella, A. (2012). Introduzione. La grande riforma: l'università italiana e il decreto 509/1999. In A. Decataldo, G. Benvenuto, & A. Fasanella (Eds), *C'era una volta l'Università? Analisi longitudinale delle carriere degli studenti prima e dopo la "grande riforma"* (pp. 7-12). Acireale-Roma: Bonanno.
- Decataldo, A., & Facchini, C. (2015). L'assetto delle discipline sociologiche alla luce delle trasformazioni del sistema universitario. In C. Facchini (Ed.), *Fare i sociologi. Una professione plurale tra ricerca e operatività* (pp. 23-45). Bologna: il Mulino.
- Denis, B., Watland, P., Pirotte, S., & Verday, N. (2004). *Roles and competencies of the e-tutor. Proceedings of Networked Learning Conference 2004*. Lancaster University, UK. Retrieved from http://www.networkedlearningconference.org.uk/past/nlc2004/proceedings/symposia/symposium6/denis_et_al.htm
- De Rossi, M. (2015). Saperi pedagogico-metodologico-didattici. In L. Messina L. e M. De Rossi (Eds.), *Tecnologie, formazione e didattica* (pp.117-148). Roma: Carocci.
- Diana, P., & Montesperelli, P. (2005). *Analizzare le interviste ermeneutiche*. Roma: Carocci.
- Edwards, A., Housley, W., Williams, M., Sloan, L., & Williams, M. (2013). Digital social research, social media and the sociological imagination: surrogacy, augmentation and re-orientation. *International Journal of Social Research Methodology*, 16(3), 245-260. doi: 10.1080/13645579.2013.774185

- Ehlers, U. D., Goetz, L., Hildebrandt, B., & Pawlowski, J. M. (2005). *Quality in e-learning. Use and dissemination of quality approaches in European e-learning. A study by the European Quality Observatory*. Luxembourg: Office for Official Publications of the European Communities.
- Ehlers, U. D. (2013). *Open Learning Cultures. A Guide to Quality, Evaluation, and Assessment for Future Learning*. New York, NY: Springer.
- Eisenhart, M., & DeHaan, R. L. (2005). Doctoral Preparation of Scientifically Based Education Researchers. *Educational Researcher*, 34(4), 3-13.
- Ertmer, P. A., & Newby, T. J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 6(4), 50-72.
- Facchini, C. (Ed.) (2015). *Fare i sociologi. Una professione plurale tra ricerca e operatività*. Bologna: il Mulino.
- Facchini, C., & Ricotta, G. (2015). Offerta formativa, pregi e difetti: il punto di vista dei laureati in sociologia. In C. Facchini (Ed.), *Fare i sociologi. Una professione plurale tra ricerca e operatività* (pp. 203-222). Bologna: il Mulino.
- Fasanella, A., & Tanucci, G. (Eds.). (2006). *Orientamento e carriera universitaria*. Milano: FrancoAngeli.
- Fasanella, A. (Ed.). (2007). *L'impatto della riforma universitaria del "3+2" sulla formazione sociologica*. Milano: FrancoAngeli.
- Fondazione CRUI (2015). *Report osservatorio università-impres*.
- Fontes, L. A., & Piercy, F. P. (2000). Engaging students in qualitative research through experiential class activities. *Teaching of Psychology*, 27(3), 174-179. doi: 10.1207/S15328023TOP2703_03
- Galliani, L. (1999). Open distance learning: innovazioni pedagogiche e didattiche. In M. Matteuzzi, M. Banzato & L. Galliani (Eds.), *Reti telematiche e Open Learning* (pp. 129-164). Lecce: Pensa Multimedia.
- Gardner, H. (2005). *Educazione e sviluppo della mente. Intelligenze multiple e apprendimento*. Trento: Edizioni Erickson.
- Garner, M., Wagner, C., & Kawulich, B. (Eds.). (2009). *Teaching Research Methods in the Social Sciences*. Burlington, VT: Ashgate Publishing.
- Ghislandi, P., Mattei, A., Paolino, D., Pellegrini, A., & Pisanu, F. (2008). Designing Online Learning Communities for Higher Education: Possibilities and Limits of Moodle. In J. Luca & E. Weippl (Eds.), *Proceedings of EdMedia: World Conference on Educational Media and Technology 2008* (pp. 670-678). Association for the Advancement of Computing in Education (AACE).
- Giddens, A. (1991). *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford, CA: Stanford University Press.
- Gobo, G. (2009). La didattica multimediale: ipotesi, esperienze, suggerimenti. In A. Baldissera (Ed.), *Insegnare metodologia delle Scienze Sociali* (pp. 87-102). Acireale-Roma: Bonanno.
- Guerra, L. (2006). Elaborazione didattica di Learning Objects. *Ricerche di Pedagogia e Didattica*, 1.
- Harasim, L. (2012). *Learning Theory and Online Technologies*. New York: Routledge Press.
- Honebein, P. C. (1996). Seven goals for the design of constructivist learning environments. In B. G. Wilson (Ed.), *Constructivist Learning Environments: Case Studies in Instructional Design* (pp. 11-24). Englewood Cliffs, NJ: Educational Technology Publications.

- INVALSI (Ed.). (2012). *Ocse Pisa 2012 Rapporto Nazionale*. Retrieved from http://www.invalsi.it/invalsi/ri/pisa2012/rappnaz/Rapporto_NAZIONALE_OCSE_PISA_2012.pdf
- Isernia, P. (2001). *Introduzione alla ricerca politica e sociale*. Bologna: il Mulino.
- Irizarry, R. (2002). Self-efficacy and motivation effects on online psychology student retention. *USDLA Journal*, 16(12), 55-64.
- Johnson, J. (2006). User-defined content in a constructivist learning environment. *eLearning Papers*, 1 (novembre), 1-5.
- Jonassen, D. H. (1994). Thinking Technology: Toward a constructivist design model. *Educational Technology*, 34(3), 34-37.
- Mair, M., Greiffenhagen, C., & Sharrock, W. W. (2016). Statistical practice: Putting society on display. *Theory, Culture & Society*, 33(3) 51–77.
- Mannay, D., & Wilcock, C. (2014). What students want? Exploring the role of the institution in supporting successful learning journeys in online distance education. *Widening Participation and Lifelong Learning*, 17(1), 49-63.
- Marconato G. & Litturi P. (2005). Conversazione con David Jonassen. *Sistemi & Impresa*, 9, 15-20.
- Marradi, A. (1996). Metodo come Arte. *Quaderni di Sociologia*, XL(10), 71-92.
- Marradi, A. (2007). *Metodologia delle scienze sociali*. Bologna: il Mulino.
- Meraviglia, C. (2004). *Metodologia delle scienze sociali. Un'introduzione*. Roma: Carocci.
- Messina, L., Tabone, S., & Tonegato, P. (2015). Conoscenza sulle tecnologie. In L. Messina & M. De Rossi (Eds.), *Tecnologie, formazione e didattica* (pp.149-186). Roma: Carocci.
- Mills, C. W. (1959). *The sociological imagination*. New York, NY: Oxford University Press.
- Mishra, P., & Hershey, K. (2004). Framework for designing etiquette for educational technology. *Communications of the ACM*, 47(4), 45-49.
- Mobilio, V. (2008). Learning to play: gioco e tecnologie di rete al servizio della didattica universitaria. *Journal of e-Learning and Knowledge Society*, 4(3), 41-49.
- OECD (2012). *Education at a Glance 2012: OECD Indicators*. OECD Publishing
- Ong, W. J. (1986). *Oralità e scrittura. Le tecnologie della parola*. Bologna: il Mulino.
- Kriz, J. (1988). *Facts and Artefacts in Social Science*. New York: McGraw- Hill.
- Reilly J. M., Ring, J., & Duke, L. (2005): Visual thinking strategies: A new role for art in medical education. *Family Medicine*, 37(4), 250-252.
- Ricolfi, L. (Ed.) (1997). *La ricerca qualitativa*. Roma: NIS.
- Merton, R. K., & Barber, E. G. (2002). *Viaggi e avventure della Serendipity. Saggio di semantica sociologica e sociologia della scienza*. Bologna: il Mulino.
- Mezirow, J. (2006). An overview of transformative learning. In P. Sutherland & J. Crowther (Eds.), *Lifelong learning: concepts and contexts* (pp. 24-38). New York: Routledge.
- Payne, G., & Williams, M. (2011). *Teaching Quantitative Methods. Getting the Basics Right*. London: Sage.
- Pedreschi, D., & Stefani E. (2004). Quale e-learning per quale università? Spunti di riflessione. In C. R. Alfonsi, M. Carfagna & D. Pedreschi (Eds.), *E-Università: facciamo il punto* (pp. 321-330). Roma: Fondazione Crui. Retrieved from <http://www.fondazionecrui.it/pubblicazioni/Documents/ICT.pdf>
- Priulla, G. (2011). *L'Italia dell'ignoranza. Crisi della scuola e declino del paese*. Milano: FrancoAngeli.
- Ryan, M. E., & Ryan, M. (2015). A model for reflection in the pedagogic field of higher education. In M. E. Ryan, M. Elizabeth (Eds.), *Teaching Reflective Learning in Higher*

- Education: A Systematic Approach Using Pedagogic Patterns* (pp. 15-27). Cham, SW: Springer.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Statera, G. (1984). *Metodologia e tecniche della ricerca sociale: una introduzione sistematica*. Palermo: Palumbo.
- Stefanizzi, S. (2012). *Il ragionamento sociologico. Questioni metodologiche ed esempi di ricerca*. Milano: McGraw-Hill.
- Swartzendruber-Putnam, D. (2000). Creating better thinkers, better writers. *The English Journal*, 90(1), 88-93.
- Trentin, G. (2001a). *Dalla Formazione a Distanza all'Apprendimento in Rete*. Milano: FrancoAngeli.
- Trentin, G. (2001b). Designing online courses. In C. D. Maddux and J. LaMont (Eds.), *The web in higher education: Assessing the impact and fulfilling the potential* (pp. 47-66). New York, London, Oxford: The Haworth Press Inc.
- Trentin, G. (2003). Gestire la complessità dei sistemi di e-learning. *For. Rivista AIF per la formazione*, 57, 78-84.
- Trincherò, R. (2006). *Valutare l'apprendimento nell'e-learning*. Trento: Erikson.
- Tuli, F. (2010). The Basis of Distinction Between Qualitative and Quantitative Research in Social Science: Reflection on Ontological, Epistemological and Methodological Perspectives. *Ethiopian Journal of Education and Sciences*, 6(1), 97-108. Retrieved from <http://ju.edu.et/ejes/sites/default/files/The%20Basis%20of%20Distinction%20between%20Qualitative%20and%20Quantitativ.pdf>
- Vento, M., D'Esposito, M. R., & Faiella, F. (2008). *Progetto Percorsi di formazione a distanza, e-learning (POR Campania 2000-2006, Misura 3.22): l'esperienza dell'ateneo salernitano*. Cavallino: Pensa.
- Williams, M., & Sutton, C. (2011). Challenges and Opportunities for Developing Teaching in Quantitative Methods. In G. Payne & M. Williams (Eds.), *Teaching Quantitative Methods: getting the basics right* (pp. 66-84). London, UK: Sage.