Building quality of eLearning in Higher Education: An approach to students' quality literacy

Abstract:
Our aim in this paper is to show an approach to the quality of education (particularly regarding eLearning in Higher Education) that is based on the development of learning processes and skills supporting stakeholders' engagement. We introduce the problem of quality of eLearning in Higher Education and the problem of defining quality as universal concept based on outcomes and standards rather than processes and contextualized practices. Furthermore, on the basis of a socio-constructivism, we present the conceptual approach elaborated of *mediated quality*, where the introduction of *mediating artifacts* as well as *a process of scaffolding* regarding quality (in terms of information, practices, and innovation for quality), could lead to the achievement of *quality literacy*, or the competence to become active participant, *insider* of educational quality. This is applied to a design based research undertaken with students of an University course, taking into account that students' engagement does not only regard the issue of collaboration in the learning process, or the creation of contents, but the participation in the joint building (together with teachers and other stakeholders of the educational process) of a quality culture.

1. Introduction

1.2. Technological change and the learners perspective in eLearning

It is already consolidated that the integrated technological and social shifting is deeply questioning pedagogical traditions, opening to a dialogue where technologies development feed-the pedagogical innovation and reflection, and viceversa (Anderson & Dron, 2012). In fact, this evolution has made possible, more and more, to pass from a "one-to-many" perspective to be the base of participatory processes, as it is the case of Web 2.0, being the educational field particularly sensible to this socio-cultural dynamic (Downes, 2008). Laurillard (2002) pointed out that eLearning in Higher Education plays a crucial role since technologies, supporting interactions, could be also the way to create new learning environments with the potential of (among others) generate interactive diagnostic or adaptive tutorials, use interactive educational games, personalize information and guidance for learning support, facilitate communications tools for collaboration with other students and teachers, provide students and teachers with tools for creativity and design, facilitate data analysis, modelling or organisation tools and applications.
A clear consequency of this new educational scenario, is that the role of the teacher as expert, in front of a student as novice is challenged. The "Y" generation enters to the university with a clear predisposition to seek for active engagement and a skills to display creativity through contents creation (Lee & McLoughlin, 2007); creating content through the adoption of ICTs is clearly motivanting for students, encouraging more engagement (Williams & Jacobs, 2004) and opening to new forms of creativity (Pérez-Mateo, Maina, Guitert, & Romero, 2011). Early in the introduction of computing conference systems and eLearning, the students active collaboration, where teacher performs a role as "guide on the side", supporting students to build the own personalized learning experience, has been also considered a key for learning effectiveness (Jonassen, Peck, & Wilson, 1999)
However, even if the use of ICT shows to be consistent, the pedagogical approach adopted by teachers and the whole university appears to be an important factor, tightly connected to the students' perception of usefulness of ICTs (Garcia & Escofet, 2012). And even if numerous teachers are in search for improving their pedagogical approaches, showing sensibility towards the learners' requests, the students' engagement is more the exception than the rule (Lee & McLoughlin, op.cit). In fact, it has been emphasized that the teachers' change towards the adoption of educational technologies, within the university traditions, is a cultural factor (Stockman, 2012), associated to tensions and contradictions as valuable practice (Bates & Sangrà, 2011) (Ghislandi & Raffaghelli, 2012). According to Stockman (op.cit), the teachers' beliefs regarding teaching methods are changing; yet, real practices are still far from ideals, and questioning the role of the teacher as central actor in the academic

learning culture "*solicits review of the entire system*" (Stockman, 2012:44). The result is the lack of opportunities for students participation in the academic pedagogical models, even if the issue is gaining more and more attention, and it is connected, in the last developments of the debate, to the quality of eLearning (Ehlers, 2004). For example, in U.S. higher education, the term "student engagement" is connected to the quality of education via the annual National Survey of Student Engagement (NSSE); the annual 2012 results indicate, that engagement in high-impact practices, particularly doing research with faculty and service-learning, was positively related to deep approaches to learning. The NSSE survey results indicate a positive trend in the students' engagement , but there is still a long way to go: data was not so encouraging with participants surveyed from 75 institutions and more than 1000 courses, where near the 50% "*frequently ask questions in class or contribute to class discussion*"; and "*about half of nursing faculty discussed grades or assignments with more than half of their students, while 42% of English and only 23% of engineering faculty did so*". In the Italian case, no similar data is collected, and partial analysis of National surveys make hypothesize a rather less students'participation.
In this context, students' engagement does not only regard the issue of collaboration in the learning process, or the creation of contents: the challenge seems to be the engagement of students in the quality culture.
Our aim in this paper is, in fact, to show an approach to the quality of education that is based on the development of learning processes and skills supporting stakeholders' engagement. Moreover, we have worked with students in a process of participatory evaluation of Learners Generated Content as the base for a reflection on the quality of the eLearning experience. As such, the activity conveyed the educational process towards the achievement of *quality literacy*, or the competence to become active participant, *insider* of educational quality.

1.3. Students as Insiders of Quality

The debate about educational quality attempts to move from *quality assurance* of a product (the lesson, an educational resource, a learning environment) *delivered* from a producer to a consumer, where the quality strategies *ensure* a certain product that is recognized as of quality for it follows top-down elaborated criteria ; to a *quality strategies*, or a continuing monitoring and negotiation of values and practices supporting a quality culture, where the participation and co-production are important conditions for adaptation to participants complex organizational cultures and biographies (educational processes in context). In the specific case of Higher Education and particularly of eLearning, the debate about quality considers in fact several levels and areas of the educational process, like is the case of the Sloan-C framework from U.S:, which defines quality as a synergy of five elements or "pillars", i.e., *learning effectiveness, cost effectiveness, access, faculty satisfaction and student satisfaction* (Lorenzo & Moore, 2002). Consistently, in the European approach, quality is considered through the different values and perspectives (producers/deliverers/users of education), and the different levels of the educational process (Ehlers , 2004) . Furthermore, the trends of research in this group emphasizes the notion of quality as a participatory process where the learners/users vision are fundamental. The perspective of the user generated content quality framework stresses the idea of quality as part of dialogue and participation within an organizational learning process (EFQUEL, 2007) (Ehlers, Helmstedt, & Bijnens, 2011) that support the generation of a "quality culture" and of "peer reviewed" quality (Auvinen & Ehlers, 2007).
As a result of this debate, Quality cannot be considered as universal fact, but as a *multiperspective, multilevel and contextualized* process (Ehlers, 2009); (Ghislandi, Pedroni, Pellegrini, & Franceschini, 2008).
Taking into account these developments the role of students have been considered crucial to define Quality (Ehlers, 2004, op.cit.). Le Preau -quoted in (Ehlers , 2007)- pointed out that stakeholders are quality experts, and that quality can only be defined through taking into account their point of view.
The question is: are stakeholders *competent* to participate as decisors of a service or system's quality? In another research work, our team contended that teachers need to be *scaffolded* to produce quality designs and teaching (Ghislandi & Raffaghelli, 2012), and called to this a *mediated* process of quality, taking into account the concept of learning design (Conole, 2012), further based on the vygotskjan concept of *tool* and *mediation* as well as its developments on the Activity Theory (Engestrom, Y., 1987, quoted in Conole, *op.cit*) . Our point was, in fact, the need of improving teachers awareness on quality as part of the service they deliver; as well as their understandings on tools and processes to achieve quality in their pedagogical practice. This collocates near the position of Ehlers, who stressed that:
"…*quality strategies, therefore, cannot mechanistically guarantee high quality of learning processes but should aim rather at professionalization of the pedagogical process – for both clients and providers. The quality literacy concept is a step in the direction of professionalizing quality development on this sense*" (Ehlers, 2007:97)

This approach emphasizes hence the learners co-responsibility in the quality approach, for the product of an educational process is collaboratively constructed with the teacher; as said before, the teacher is a "content curator", and bring a perspective to the learning process, which is bundled jointly with the student's perspective on learning and the learning outcomes. In fact, these lasts are the result, most of all, of the student's work. Needless to say, the learner's perspective is just but one, in a complex system that is constituted by the economical and socio-cultural context, the institutional culture, and the legal regulations that give birth to a quality approach and values.

For sure, students are more than respondents to quality questionnaires; and we must search for more than their "satisfaction", as external "consumers" of quality. They are instead *insiders* of quality and help the institution and the teacher to improve continuously the educational service and products, as part of their own learning process and in general of their learning effectiveness.

2. The approach of *mediated quality* in connection with the learners' perspective

In this paper, we will emphasize the learners' perspective taking into account the still little representation of it. Taking into account the growing importance of approaches that make emerge the students' voice in quality processes.
We will particularly consider two important research works, that influenced our own research: the quality of Learners Generated Content and the Quality literacy approach.

From the Learners Generated Content (LGC) strand of research, the work of the UOC (University of Catalonia) emphasizing the need of considering quality of content and versioning from the learners' perspective (Pérez-Mateo, Maina, Guitert, & Romero, 2011). As a result of a study carried out within the "ICT competences" course of the Social Education undergraduate program (UOC), where 6 classrooms of about 60 students , the authors identified and described the criteria supporting the quality of the creation of content by those learners working together in an online environment. Contrasting a literature review as well as learners' perception, the authors proposed a quality criteria framework for LGC organized in three clusters: *content, format and process*. After analizing 19 criteria in the content cluster; 11 in the format cluster; 12 in the process cluster, the authors concluded that "*the emphasis on both process and end product highlights the LGC's twofold intention of being useful as a creative new pedagogical strategy and as a way to share educational resources imbued with the learner's voice and perception*" (Pérez-Mateo et al., op.cit).
However another important finding was that students do not pay attention to some criteria of quality. For example, following the same scheme of authors clustering, the criteria that are not considered by the students are:

- In the Cluster CONTENT, "Rating" (Assessment made by visitors –users-) and "Validation" (Explicit validation and/or evaluation process , explanation of content creation process as well as validation).;
- In the cluster FORMAT , "Reuse" (Ease or degree of reuse of content format.) and"Features" (Features to facilitate searching, printing, republishing content, etc
- In the cluster PROCESS, "Reflection" (Reflecting on the process developed (intra and inter-evaluation).

Taking into account the same authors reflections on these results, their justification for the absence of students' ideas regarding the above mentioned criteria is based on the fact that "*the students' perception has shown the need to be more explicit in aspects that make up an OER and from which students seem to be not fully aware of. In general, those criteria which have not been mentioned by the students are associated with LGC use beyond the context of the course, i.e., dissemination, social appraisal, and reuse*" (Pérez-Mateo et al, op.cit). We would like to build on this issue, considering that the *students' awareness* of the whole process of quality (even the dissemination and re-use of the digital contents they produce) is part of becoming an *insider* of the Quality Culture. Here is where we need further support from another strand of research which we present in the following item.

From a researcher contributing to the EFQUEL (European Framework for Quality of eLearning) model, the concept of *Model of quality Culture and Quality Literacy* (Ehlers, 2007; Elhers, 2009). According to this author's conceptualization, the quality of eLearning has to be considered a strategy oriented to continuing improvement of processes and results, based on the professionalism/competences of the engaged stakeholders, including students. This process is based on 4 elements of the organizational culture (according to the studies in

the field), namely: Structural element (the visible quality system of an organization), enabling factors (the tools/engines that allow the implementation of quality systems), quality culture (the values, symbols, heroes and rituals linked to the idea of quality) and transversal elements (the forms of participation, communication and trust that maintain a certain quality approach). According to Ehlers, the model of Quality Culture cannot be changed/improved if stakeholders are not aware of these elements at least partially. He further emphasizes that quality systems implemented as *exogenous* (mostly based on structural elements) tend to conflict with the organizational culture and hence to be applied superficially; whereas *endogenous* quality systems take into consideration actors participation and awareness of the quality system , governing processes and production. This form of stakeholders information, skills, and ability to transfer into practice the quality values, is called by the author "*quality literacy"*, concept that is further divided into four important dimensions: Quality knowledge (to know what about quality), Quality experience (to have the necessary instruments to implement quality); Quality Analysis (to evaluate –and understand the evaluation- of quality); Quality Innovation (to modify actively what is necessary to promote better quality). We build on this approach, considering that the *quality literacy* must be developed, and that active conduction of processes of reflection on quality values represents a way to achieve better quality literacy. Moreover, we will analyze our own intervention taking into account the dimensions of quality literacy introduced by Ehlers.

Finally, we integrate these two approaches with our concept of *mediation of quality*, which is based on the notion of *mediating artifacts* grounded in a sociocultural perspective initiated by Lev Vygotskij (1962, 1978) . According to his approach, the notion that social interactions play a fundamental role in the process of cognitive development, where every interaction bring to the learning relationship the *culture* in form of *signs* and *tools*. These are "offered" during the learning relationship and "used" by the learner, who internalizes the *meaning* according to the *meaning* given by the society (through the person of the teacher/guide/tutor) and the *meaning* given by the same learner, from her own learning and personal autobiography. Vygotskij hence proposes a triangle, where the relationship between the input and the output, the subject and the object of activity is *mediated* by the tool/signs. But Vygotskij goes further, proposing the idea that this *mediation* is not instantaneous: in fact, it is necessary to have time and space to explore a new situation, which is to say, for the tool's adoption by the learner, for her understanding of signs, and for her later appropriation of meaning. Here is where Vygotskij proposes the concept of *zone of proximal development,* which indicates the space and time for supporting the learner in her exploration, and further capacity of transformation/development on the culture . To understand this perspective, we can bring James Wertsch's words:

*Instead of acting in a direct, unmediated way in the social and physical world, our contact with the world is indirect or mediated by signs (…)Vygotskij harnessed a developmental, or "genetic", method when analyzing mediation (…). From this perspective, the inclusion of signs into human action does not simply lead to quantitative improvements in terms of speed or efficiency. Instead the focus is on how the inclusion of tools and signs leads to qualitative transformation…(*Wertsch, 2007:179)

According to this previous formulation, for us quality literacy can be achieved in a sort of *zone of proximal development* where the stakeholders negotiate and learn about the quality culture: they receive information about the quality system; they learn to adopt tools to generate quality; they self/peer evaluate processes and results; they reflect and adjusts processes and results. The tools provided by the teacher/institution to understand quality and implement it are, in fact, the tools that *mediate* the process of construction of quality.

Basing on Vygotskij triangle, we represent our approach to *mediated* quality as follows:

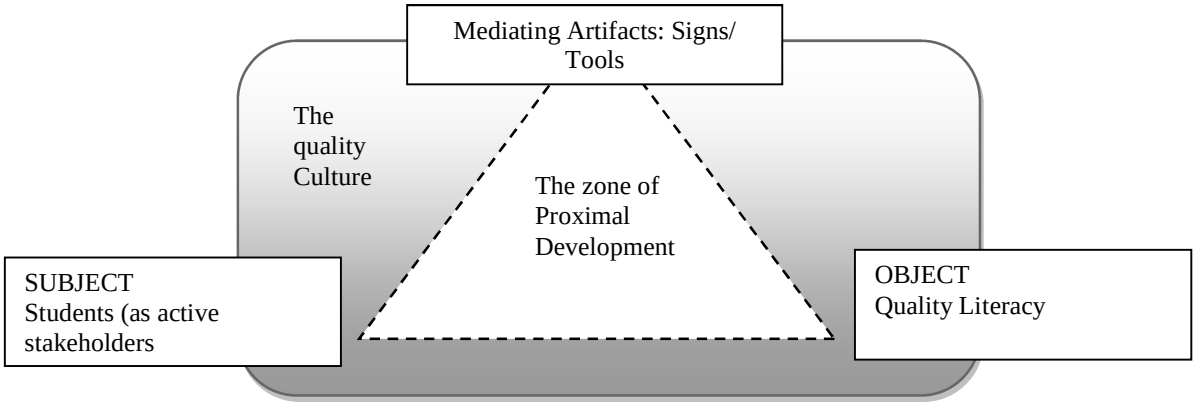

Figure 1 – The *mediated quality* approach (based on Vygotskij concept of mediation)

3. The Study

3.1. The context

Having conceptualized our approach to quality of eLearning, we attempted to intervene from one of the perspectives of analysis of quality: the students. Furthermore, we focused the level of intervention of the *course quality.* Our guiding research question was: How can learners become *insiders*, active *builders of quality*? Can *mediating artifacts* help the students to achieve a *quality literacy?*

The study was conducted in the context of a national research project (PRIN 2009[1]-Italy), denominated "Evaluation for the improvement of educational contexts. A research involving University and local communities in the participatory development of innovative assessment models". The above mentioned project is established with the cooperation of six Italian universities (Verona, Catholic University of Sacred Heart, Trent, Milano-Bicocca, Pavia). The project aims at find the points in commonin evaluation processes that qualify educational processes in new formal and informal learning environments; indeed, it regards the idea of rethinking evaluation to improve quality through socio-constructivist approaches (Mortari, Bondioli Bettinelli, Ghislandi, Riva, & Viganó, 2009). In this context, the University of Trent unit devotes the energies to analyze how quality of eLearning is introduced in the changing institutional context of higher education.

3.2. The method: Design Based Research

We adopted in our study the method of *design based research.*
Early in the 90s a movement of educational researchers started to discuss a new methodological approach that could support educational research in the live context where educational problems are raised. The pioneer voice in this movement was Ann L. Brown, who in 1992 explained the need to pass from laboratory experiments to "design research", to experiments in the broader context of classrooms and school (Collins, Joseph, & Bielaczyc, 2004). She build directly on her experience as "lab" researcher, and showed consistently the differences of performances of participants between the laboratory and the real context: the results showed, indeed the lack of spontaneity and the great influence, in general, of the controlled experimental situation on the results. From this conclusion the necessity to build a Research methodology that, conducted directly in the real teaching/learning process and classroom, nonetheless preserve the possibility to be rigorously evaluated.
DBR (Design Based Research), consists of experimental educational situations designed by researchers, in tight collaboration with educators, in order to:

[1] Progetti di Ricerca di Rilevante Interesse Nazionale, Ministero dell'Universitá, l'Istruzione e la Ricerca, Projects of National Relevance, Ministry of University, Education and Research of Italian Republic.

- Address theoretical questions about the nature of learning in context. In our case, the theoretical question regarded the development of quality literacy and the adoption of mediating artifacts.
- Studying learning phenomena in the real world rather than in the laboratory, in order to go beyond the narrow measures of learning and to derive research findings from formative evaluation. In our case, a participatory approach to improve the quality of eLearning couldn't be implemented in a laboratory; therefore, a trasformative intervention was designed in order to implement experimental situations and activities, and the students process of participation and results was monitored/analyzed.
  However, the selection of DBR in today's context of educational research goes, according to our vision, far beyond. In fact, if Brown's approach could be considered revolutionary in the context of study of educational psychology, and more specifically, the study of learning process; the educational research has widen its scope, including other new sciences supporting the study of "real" educational situations. The sense of adopting DBR shifts from the "real context" where it is applied to the "design" of a pedagogical practices and the understanding of its educational impacts: for the focus of educational research is not only learning processes, but the more complex and articulated reality of the educational process. In our case, in fact, our focus of attention is eLearning Quality as a key component of an educational experience, based on the pedagogical practices, the students' identity and expression, and the institutional/socio-cultural context.

Specifically, the design experiment consisted on the implementation of a participatory evaluation for learning generated content at the course IATI13 (Artificial Intelligence and Information Technologies 2013), an undergraduate course within the first Bologna cycle degree of "Psychology". The course, which workload is (8 ECTS)[2] implemented as "blended" learning. The course is divided into 3 main modules, as follows:

Table 1 – The Course "IATI13" where the experimental activity designed took place

Module	**Description / Learning Goals**	**Mode of Delivery**	**Students' Activities and Outputs**
M0	Course Presentation Understanding the Course structure, rationale, and activities	Face-to-Face (FTF)	Attending the lesson and starting the study of the topic
M1	Networked Learning Achieving the basic skills to participate in networked learning activities (collaborative distance learning and digital content production)	FTF 2 CFU	Organization of a working group Denomination of the group First navigation on the eLearning platform (moodle) Initial elaboration of a wiki Videopresentation
M2	"Talking Brains" Discussing and understanding 6 fundamental thinkers in the field of Artificial Intelligence	ONLINE 3 CFU	The students must discuss, in collaborative groupsone author per week through a collaborative approach where every student has an assigned role. The discussion must lead to the collaborative elaboration of an assignment, that is to be integrated to the wiki (final collaborative LGC) Finally, the students must select one author and make a presentation followed by discussion.

[2] The credits are counted as "University credits" that correspond with National regulations; however, due to the Bologna process, the credits can be considered as ECTS (European Credits Transfer System), that refer to the following division of students' activity: 1 ECTS is composed by 7-10 hours of "guided" learning, with the presence of the teacher; and 18-15 hours of personal study).

M3	**Advances on AI** **Understanding the developments of AI in terms of technological innovation and research**	**FTF** **3CFU**	**The students attend to the lessons** **There is a final examination on the topic (multiple choice).** **The students can participate in the elaboration of questions that will be adopted in the exam.**

The most complex process regards M2, where the students elaborate on the basis of the authors' ideas and generate presentations followed by discussion. In this phase, there is complete emphasis on students' collaboration and engagement. In fact, while M0 and M1 are preparatory activities for the socio-constructivistic approach as learning communities; and M3 is the corollary of the whole learning process, with traditional lectures and a final exam; M2 is the center of the course collaboraty activity. As such, it was selected for the implementation of the participatory evaluation of LGC (the final assignment of the last M2's week).

Students are in the middle phase of their careers in this course, then their maturity to participate as independent learners is being developed, but not at the highest level . Therefore, the course results innovative in the way it is delivered.
Among the documented goals, expressed also by the academic in charge of the course in the online forum, there are not only achieving knowledge on the topic, but also, to develop transversal competences crucial both for their future professional profile as well as for lifelong learning.

The students (n:183) were invited to participate to the experimental situation, but not obliged to follow the activities. The experimental activity was presented during the first classroom lesson , explaining to the students in a short and simplified way the policy context, the research background, the goals and characteristics of the activity. Informed consent was distributed and signed by all students.

With regard to the research team, it was composed by the same teacher and main researcher, committed with the changes applied to the own class and the whole process of re-design; and the assistant researcher, who operated in the creative process discussing and generating mediating artifacts, and tightly following the students concerns and requests during the process of implementation of the participatory evaluation.

The direct experiment was integrated with the following field research activities:

1. 2 Preliminary design sessions with the academic teacher.
2. 1 Preliminary informing and discussion session with the eTutors (responsible for M1 and for an online forum)
3. 3 Observations in class
4. Continuing monitoring of the online forum and direct interactions with students to address the experimental activity as well as to clarify questions regarding the procedures and strategies.

4. The *mediated quality* in the context of the Design Based Research

In this context, the participatory evaluation was considered a process of learning itself, aimed to generate a *zone of proximal development* to achieve *quality literacy.* There were *mediating artifacts* for this learning process that we pass to describe in the following paragraphs. To better understand the approach, we introduce the figure 2, that represents the dimensions of *quality literacy.* The table 2 instead, introduces the process of participatory evaluation, identifying the mediating artifacts and the dimensions of quality literacy supported by the activities.

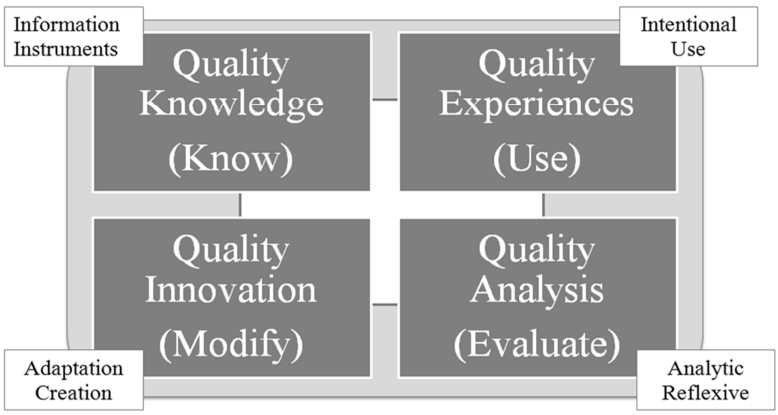

Figure 2: Dimensions of Quality Literacy in IATI13, reproduced from Elhers, 2007: 102

Process of participatory Evaluation	**Mediating Artifacts**	**Dimensions of Quality Literacy**	**Expected Impact**
In each group:discussion and partecipatory definition of quality criteria for the group assignment. The quality criteria had been previously suggested by the teacher, but none definitions had been given; the teacher selected the criteria on the basis of previous literature for the quality of LGC (Pérez-Mateo et al., op.cit)	Delivered by the teacher: Slides about the problem of Quality in Higher Education Set of Basic Quality Criteria for the evaluation of Assignments	Quality Knowledge	Improving the students' knowledge about the framework of evaluation and the issues requiring intervention in the educational policy /research context connected to their own experience at the University
Implementation of a peer evaluation, where students applied the achieved definitions to the evaluation of other students' assignments	eForms addressing the students evaluation	Quality Experiences Quality Evaluation	Intentional, analytic and reflective use of instruments to implement a process of evaluation of quality (peer-evaluation of LGC)
Follow up of the 3 best assignments (peer evaluated) as LGC of high quality to be integrated as content for the next year course, IATI14	Teachers' presentation of the selection	Quality Evaluation	Possibility of modifying/contesting selection.
Analysis of motivations for the participation and educational impact	none	Quality Innovation	Responsibility in the selection of LGC that will be integrated as material for future learners *In progress*

Table 2 – The approach of *mediated quality* in action: participatory process of evaluation, mediating artifacts adopted, quality literacy dimensions targeted and expected impact

Data analysis, based on a qualitative approach to research in online learning environments, is now ongoing. The focus of data analysis is:

1. Level of participation, based on Number of students having participated voluntarily on the total number of students.
2. Collaboration for the definition of criteria of evaluation, based on intertextuality and discursive interactions in the online forum.
3. Consistency of responses during the evaluation phase with the original criteria of evaluation, based on the discourse analysis of evaluation forms. Students' impressions about their meta-learning through the participatory evaluation, based on answers to direct questions (interview/questionnaires)

The preliminary results allow to confirm high levels of engagement and collaboration between students, as well as consistent patterns of participation. This form of participation is supporting the high motivation and engagement of students into the *quality culture* beyond the specific contents they should learn.
Deepening on these preliminary results through thick descriptions of the students' interactions and comments during the participatory evaluation should shed new light on the process of cultivating *quality literacy*.

5. Conclusions

After several decades of search for the "Holy Grail" of a quality model that could explain every educational context and intervention, it is time now for the implementation of practices that aim to improve the stakeholders knowledge, skills, reflection and creativity regarding the continuing optimization of the educational systems in which they operate. To this regard, we have adopted the concept of quality literacy , developed by Ehlers, as key to generate th
Taking into account the set of dimensions regarding the quality literacy, we have tried to show how the quality of education can be based on the development of learning processes and skills supporting students' engagement, beyond their sole engagement as peripheral respondents to "customer care" surveys. The process of participatory evaluation of Learners Generated Content has been transformed into the occasion for reflection on the quality of the eLearning experience. Furthermore, we have conceptually divided the activity into phases correspondent with the dimension of *quality literacy*, as an expression of being *insider* of a quality culture.
Of course our approach works mostly in what Ehlers have denominated the *potential quality* which is to say, ground for a final outcome of quality. As this author claims, *a comprehensive empirical validation of the the described concepts has so far not been undertaken. Therefore we suggest empirical research questions …"* (Ehlers, 2007:106-107) Our effort has been in fact put on the implementation of a conceptual model (*mediated quality)*, from one perspective: the one of students .
Further research should d encompass other perspectives (faculty administration, technical and teaching staff, instructional designers, and so on), supporting the envisioned multiperspective quality approach. Only through validation, the concept of quality literacy and the connected concept of mediated quality will become a key piece of quality approaches in the broader policy context, concretely impacting on the eLearning quality in Higher Education.

References

Anderson, T., & Dron, J. (2012). Learning technology through three generations of technology enhanced distance education pedagogy. *European Journal of Open, Distance and e-Learning* , http://www.eurodl.org/?p=current&article=523 accessed on September 2012.

Auvinen, A., & Ehlers, U. (2007). *Handbook of Quality Management of Peer Production QMPP.* EFQUEL - http://cdn.efquel.org/wp-content/uploads/2012/03/QMPP-Handbook_ver099.pdf?a6409c retrieved on July 2012.

Bates, T., & Sangrà, A. (2011). *Managing Technology in Higher Education:Strategies for Transforming Teaching and Learning.* San Francisco; CA: John Wiley and Sons.

Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges in creating complex

interventions. *Journal of the Learning Sciences* , 2, 141–178.

Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design Research: Theoretical and Methodological Issues. *Journal of the Learning Sciences* , 13:1, 15-42.

Conole, G. (2009). Capturing Practice and Scaffolding Learning Design. In U. Bernath, A. Szucs, A. Tait, & M. Vidal, *Distance and E-Learning in Transition. Learning Innovation, Technology and Social Challenges.* London-NY: ISTE&John Wiley.

Conole, G. (2012). *Designing for Learning in an Open World.* London-NY: Springer.

Downes, S. (2008). The Future of Online Learning: Ten Years On. *Personal Blog "Half an Hour"* , http://halfanhour.blogspot.it/2008/11/future-of-online-learning-ten-years-on_16.html, access on September 2012.

EFQUEL. (2007). *From quality of eLearning to eQuality of Learning. EFQUEL Green Paper Series.* EFQUEL, http://cdn.efquel.org/wp-content/uploads/2012/03/GP3.pdf?a6409c, retrieved on July 2012 .

Ehlers, D., Helmstedt, C., & Bijnens, M. (2011). *Shared Evaluation of Quality in Technology Enhanced Learning - WHITE PAPER.* SEVAQ+ project - EFQUEL.

Ehlers, U. (2009). Higher Education Quality as an Organizational Culture. In *Distance and E-Learning in Transition. Learning Innovation, Technology and Social Challenges.* London: ISTE&Wiley.

Ehlers, U. (2004). *Quality in E-Learning. The Learners Perspective.* Thessaloniki: European Journal of Vocational Training, CEDEFOP.

Ehlers, U.-D. (2004). Quality in e-Learning from a Learner's Perspective. *European Journal of Open, Distance E-Learning* , Retrieved online at http://www.eurodl.org/index.php?article=101 .

Ehlers, U.-D. (2007). Quality Literacy - Competences for Quality Development in Educaiton and eLearning. *Educational Technologies & Society* , 10 (2), 96-108.

Garcia, I., & Escofet, A. (2012). Students' Attitudes towards ICT Learning Uses: A Comparison between Digital Learners in Blended and Virtual Universities. *Learners in the Driving Seat: Users? Partners? Consumers? Peers? Where are we heading to?* (pp. 27-38). Leuven-Belgium: European Distance and eLearning Network.

Ghislandi, P., & Raffaghelli, J. (2012). Implementing quality eLearning in Higher Education: change efforts, tensions and contradictions. *Proceedings of the Fifth Annual Edition of ICERI2012: 5th International Conference of Education, Research and Innovation.* Madrid: ICERI.

Ghislandi, P., & Raffaghelli, J. (2012). La mediación del proceso de Learning Design como aporte a la calidad del aprendizaje en red - The Learning Design process mediation as a support of networked learning quality . *Congreso Iberoamericano de Aprendizaje Mediado por la Red.* Distrito Federal de México: Universidad Autònoma de México.

Ghislandi, P., Pedroni, A., Pellegrini, A., & Franceschini, D. (2008). eLearning e qualità. *Il giornale dell'eLearning* , 2 (3) Web access at http://www.wbt.it/index.php?pagina=580 on June 2012.

Jonassen, D. H., Peck, K. L., & Wilson, B. G. (1999). *Learning with technology: a constructivist perspective.* New Jersey: Merrill.

Laurillard, D. (2002). *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies, 2nd Edition.* London: Routledge Falmer.

Lee, M. J., & McLoughlin, C. (2007). Teaching and Learning in the Web 2.0 Era: Empowering Students

through Learner-Generated Content. *International Journal of Instructional Technology & Distance Learning* , (4) 10, retrieved online at http://www.itdl.org/Journal/Oct_07/index.htm.

Lorenzo, G., & Moore, J. (2002). *The Sloan Consortium Report to the Nation. Five Pillars of Quality Online Education.* New York: The Sloan Consortium, SLOAN-C.

Mortari, L., Bondioli Bettinelli, A., Ghislandi, P., Riva, M., & Viganó, M. (2009). *Proyecto PRIN "La valutazione per il miglioramento dei servizi formativi. Una ricerca Università-territorio per la costruzione partecipata di modelli innovativi di assessment".* Roma: MIUR.

Pérez-Mateo, M., Maina, M. F., Guitert, M., & Romero, M. (2011). Learner Generated Content: Quality Criteria in online Collaborative Learning. *European Journal of Open, Distance and eLearning* , retrieved online at http://www.eurodl.org/index.php?article=459 .

Stockman, C. (2012). Hybridization of Agency: a paradox. *Students at the Driving Seat* (pp. 39-44). Leuven, Belgium: European Distance and eLearning Network.

Vygotskij, L. (1978). *Mind in Society. the development of higher psychological processes.* Oxford: Harvard Unievrsity Press.

Vygotskij, L. (1962). *Thought and Language.* Cambridge: MIT press.

Williams, J., & Jacobs, J. (2004). Exploring the use of blogs as learning spaces in the higher education sector. *Australian Journal of Educational Technology* , 20, 232–247.