



## eLearning in Higher Education and Excellence: When, Where and How It Is Possible

Silvia Dell'Acqua<sup>1</sup>

*Academics and university administrations in the Higher education institutions worldwide are more and more questioning how eLearning could contribute in keeping up the excellence of the didactic in their institutions. What will be lost without the simultaneous presence of professors and students in the same classroom? Which are the most effective methods to assess what has been learnt in the virtual classroom? At which extent the academics should “re-invent” their way of teaching? These are some of the key questions that globally drive the debate on the introduction or on the potentiated use of eLearning as a mean to deliver knowledge at the highest level. The main concern is assuring that the quality of teaching and learning is not undermined, but on the contrary it is sublimated.*

*The paper after a brief overview on the global scenario of meaningful eLearning experiences, will focus on the different conditions that make eLearning the key for the “co-creation and co-delivery” of knowledge and training. The authenticity of the learning experience, the possibility to learn in every place at any time, the opening up of higher education institutions to “lifelong learning” and its implications, the intellectual property question, the role that incentives play if academics are asked to explore new ways of teaching, are all points that will be discussed in the paper. Finally a stress will be put on the importance of “alliances” in order to trigger economies of scales that can benefit the several actors involved at the different levels, always assuring that the quality of the teaching and learning experience is assured.*

*Keywords: excellence; eLearning; ways of learning; student at the centre.*

### 1. A global outlook: alliances are key

University of Stanford and University of Pennsylvania have set up ‘Coursera’; MIT and Harvard University collaborate on ‘EdX’; they are founded by Mellon Foundation, Bill and Melinda Gates Foundation. Khan Academy in India is ‘the’ institution for eLearning in the East and is founded by MOMA and NASA. If you then click on the wider consortium of universities taking part in the eLearning endeavor, you discover that the whole Europe is engaged in strategic partnerships with key academic players, who are forerunners in the eLearning field worldwide.

In order to understand better the implications at stake, it is worthwhile to investigate the nature of eLearning from a two-folded outlook: which learning styles are implied and the question of quality.

In the specific, e-Learning and blended learning are now well integrated into teaching and training. This method of education is being used from preschool through to postgraduate study, not to mention in business and industry. How can we teach students if we do not know how they learn? How can we pretend any longer that we are serious about creating a learning society if we have no satisfactory response to the questions: what model of learning do we operate with and how do we use it to improve our practice and that of our students? When we question the nature of the e-Learning initiative and its specific objectives we should focus on the following aspects:

1. The infrastructure i.e. people, systems, hardware, software etc. required to launch the initiative
2. The challenges that were encountered, how they developed and how they were overcome
3. How the initiative was received by the users or participants
4. The learning outcomes that were achieved and how they were measured and evaluated
5. Plans to further develop the initiative on learning styles: it matters fundamentally which instrument is chosen concern to learners, teachers and trainers, managers, researchers and inspectors.

There is a strong intuitive appeal in the idea that professors and course designers should pay closer attention to students’ learning styles - by diagnosing them, by encouraging students to reflect on them and by designing teaching and learning interventions around them. Further evidence for the idea that we have individual learning styles appears to be offered when teachers notice that students vary enormously in the speed and manner with which they pick up new information and ideas, and the confidence with which they process and use them. The logic of lifelong learning suggests that students will become more motivated to learn by knowing more about their own strengths and weaknesses as

---

<sup>1</sup> European University Institute, Italy



learners. In turn, if academic professors can respond to individuals' strengths and weaknesses, then retention and achievement rates in formal programmes are likely to rise and 'learning to learn' skills may provide a foundation for lifelong learning.

## 2. A potential scenario on competing ideas about learning and eLearning styles on how to co-create and co-deliver new knowledge

Conflicting assumptions about learning underpin mainstream ideas about learning and the best-known models of learning styles proliferation of terms and concepts, many of which are used interchangeably in learning styles research. The focus here are on 'learning styles', 'learning strategies' and 'approaches to learning'.

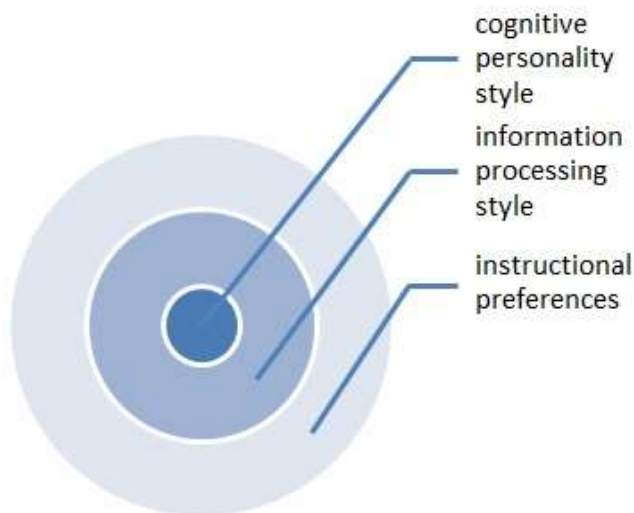


Figure 1: Curry's Onion Model of Learning Styles 1983

In Curry's model (1983; Figure 1), the inner layer of cognitive personality style is both more stable (and therefore less easily modified or changed) and more significant in complex learning, while the outer layer of instructional preferences is easier to modify and influence, but less important in learning. Many researchers in the learning styles field have seen Curry's model as a useful, pragmatic way to present different models within these broad categories (eg. Price and Richardson 2003). Yet, however attractive the onion metaphor may be, it is far from clear what lies at the center. Conceptions of cognitive style relate to particular sets of theoretical assumptions, some of them psychoanalytic in origin. Ideas about stability are influenced more by theoretical concerns than by empirical evidence. There is not a single theory of cognitive or of learning style which is supported by evidence from longitudinal studies of stylistic similarities and differences in twins. As an alternative model, Vermunt (1998; see Figure 2) aimed to integrate different learning processes, some of which are thought to be relatively stable (mental learning models and learning orientations) and some of which are contextually determined (choice between regulating and processing strategies)



Learning styles	Learning components			
	Cognitive processing strategies	Regulation strategies	Learning orientations	Mental models of learning
Meaning-directed	deep processing	self-regulation	personal interest	construction of knowledge
Reproduction-directed	stepwise processing	external regulation	certificate and self-test-directed	intake of knowledge
Application-directed	concrete processing	both self and external regulation	vocation-directed	use of knowledge
Undirected pattern	hardly any	lack of regulation	ambivalent	stimulating education and cooperation

Figure 2: Vermunt's Model (1998)

The question how e-learning can be successful becomes more urgent as we move from an 'early adopter' stage to a more general offering. In the discussion about the best strategy for e-learning it becomes more and more clear that e-learning has to be based on the learner. This includes the necessity to postulate in a clear way that the needs of the learners have to be determined in a concrete manner before starting the project. Important aspects are therefore the awareness of the learning biography, of individual learning preferences and of social needs. It is important to acknowledge that quality of a learning process is not something that is delivered to a learner by an e-learning provider but rather constitutes a process of co-production between the learner and the learning-environment. That means that the product/ outcome of an educational process is not exclusively a result of the production process of an educational institution. Quality therefore has to do with empowering and enabling the learner. It has to be defined at the final position of the provision of the learning-services: the learner.

What makes e-learning successful? This question arises at the beginning of a large number of debates on the subject of quality in e-learning. On the one hand, the increasing importance attached to the topic of quality in general is evident in many publications, discussions and lectures. On the other hand, however, there is also great uncertainty among decision-makers and managers as well as among developers, trainers and learners: instructors find themselves confronted with a new role in which they are tutors and facilitators for learning processes. On the learner's side, the question arises which characteristics are most important for good e-learning-environments and which providers offer the best performance at a reasonable price in a market that is continuously differentiating further. Learning Management System (LMS) providers, for their part, find themselves confronted with the continually progressing didactisation of the technological "delivery structure" of e-learning and are thus faced with an increasing learner orientation. Finding answers to questions regarding quality in e-learning is one of the central challenges for theory and practice if e-learning is to become as important as traditional qualification measures in the future. The question arises how such a complex concept as quality, can be conceptualised systematically. Three different dimensions can be distinguished here (cf. Ehlers 2002a, 2002b, 2003a): different meanings of quality, different quality perspectives and different levels of the educational process to which quality can apply.

### 3. Quality at the center

First of all quality can be distinguished into several different levels. According to quality and evaluation research an educational process can be subdivided into five subsections or sub-processes:

- context-quality
- structure-quality
- process-quality
- output-quality
- impact-quality

Quality applies to each of those sub sections differently. And last but not least it is important to clarify different semantic understandings of what quality actually means: if quality is understood in the way of excellence we can distinguish it from quality in the sense of usability or value for money. Defining quality thus means positioning oneself in this multi-dimensional space. There is no patent remedy and no universally applicable, standard perspective for developing or assuring quality. Quality development always has to take different perspectives and different meanings into account. Apart



from empirical evidence there are also more general/ structural reasons to focus on quality from a learner's perspective: as well as in the area of services in general quality in learning has to be considered as a co-production process between the learning-environment and the learner - and is thus part of his/her own responsibility. A learning process is not something that is delivered to a learner by an e-learning-provider but rather constitutes a process of co-production between the learner and the learning-environment. That means that the product/ outcome of an educational process can not exclusively be influenced by the 'production processes' of an educational institution. This differentiates the field of education and services in general from the trading/market mechanisms between consumer and producer according to the conventional market paradigm: Education cannot be traded or bought by the clients/ learners; learning rather constitutes a process that they have to carry out by themselves.

The definition of quality therefore has to be defined at the final position of the learning-services, as there is the learner. Of course this does not mean that the learner's perspective and preferences alone has to be taken into account: economical, organisational or even legal regulations have to be considered.

#### 4. Comprehensive E-Learning Services for Learners

A learner focused quality concept has to be more comprehensive than just focusing on aspects of instructional or technological interface design.

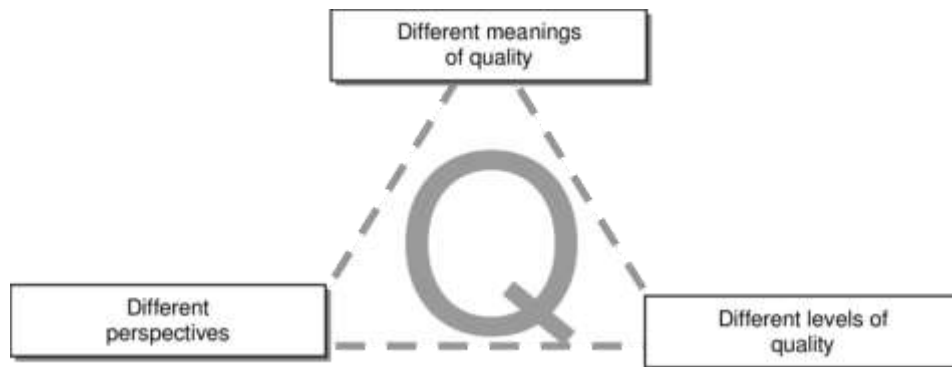


Figure 3: Model of subjective quality requirements (Ehlers 2003)

The so-called subjective model of quality is organized in a three level structure. They are the result of an in-depth oral interview inquiry with learners. This inventory then structured into 30 dimensions of quality in E-learning (Principal Component Analysis). The dimensions represent bundles of factors that - empirically - belong together (correlate). On the top level the resulting 30 dimensions are then structured into seven fields of subjective quality according to thematic resemblance. The dimensions are the result of a principal component analysis (PCA). This method allows reducing the variety of many factors (153) to few powerful bundles of factors - or: dimensions - that can explain the differences in the quality preferences of the learners. It is important to notice that the 30 preference dimensions are not all equally important to learners. They rather form a grid of dimensions that **can** be of relevance to a specific user. For each user the described dimensions therefore are likely to be of different importance for quality in E-Learning. In a way those dimensions are the line along which users can be different in their quality preferences. Each of the 30 dimensions represents a set of criteria of learners preferences that are clustered to a dimension on basis of empirical evidence. In the specific dimensions of subjective quality are presented according to the 7 fields of quality they each belong to.



- *Quality Field 1: Tutor Support*
- *Quality Field 2: Cooperation and Communication in the Course*
- *Quality Field 3: Technology (Adaptivity and personalization; Synchronous communication possibilities; Availability of contents)*
- *Quality Field 4: Costs - Expectations - Value; (Economic Costs and Practical Benefits)*
- *Quality Field 5: Information transparency*
- *Quality Field 6: Course structure (Personal Support of Learning Processes and Introduction to Technical Aspects and to the Content)*
- *Quality Field 7: Didactics*

## 5. Conclusion

Quality matters. Excellence matters. Universities worldwide are extremely careful on their 'reputation', especially when their rank in Times Higher Education is high. A potential answer to the academic institutions' concern is the focus on 'the learner' and an in depth look on competing (e)learning styles.

## References

- [1] Zukas M and Malcolm J (2002). Pedagogies for lifelong learning: building bridges or building walls? In R Harrison, F Reeve, A Hanson and J Clarke (eds) Supporting lifelong learning. London: Routledge/Open University.
- [2] Riding R and Agrell T (1997). The effect of cognitive style and cognitive skill on school subject performance. *Educational Studies*, 23(2), 311–323
- [3] Drummond RJ and Stoddard AH (1992). Learning style and personality type. *Perceptual and Motor Skills*, 75, 99–104.
- [4] Dunn R (2003c). The Dunn and Dunn learning style model: theoretical cornerstone, research and practical applications. In S Armstrong, M Graff, C Lashley, E Peterson, S Raynor, E Sadler-Smith, M Schiering and D Spicer (eds) Bridging theory and practice. Proceedings of the Eighth Annual European Learning Styles Information Network Conference, University of Hull. Hull: University of Hull.
- [5] Ehlers, U. (2004). Quality in E-Learning. The Learners Perspective. In: *European Journal of Vocational Training*. CEDEFOP. Thessaloniki.
- [6] Castells, M (1996): *The rise of the network society*. Blackwell. Oxford.
- [7] Donabedian, A. (1980). *Explorations in Quality Assessment and Monitoring*. Ann Arbor.