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Higher Education in the new normal: the role of online, blended and distance learning

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Message of Bari

Continuous professional development for digital education

The Corona crisis has radically changed the European higher education landscape.

During this period, all institutions established massive support for organizing digital lectures, tutorials and group sessions with different pedagogical approaches. Emergency decisions were taken at all levels. By doing so, higher education institutions have discovered the potential of digital higher education.

This is a momentum for continuing educational change by new pedagogies, building on this experience. But higher education institutions also feel the need for organizing an intensive professionalization of staff and creating of the necessary technological support structures to achieve high quality education. They want to connect with latest developments in the digitization of on-campus education, enhancing the first emergency pedagogies.

In response to these needs, EADTU partners have joined forces for the professional development of digital education, bringing together excellent expert schools, known for their research and innovation in digital teaching and learning and for developing good practices. They will support key approaches in post-Corona digital higher education: synchronous hybrid education, blended education and online distance learning.

Microcredentials

The coming years we will also see a growing focus on continuing education and professional development, stimulated by European and national policies on micro-credentials.

The European Commission will launch a Recommendation to the Council of Ministers on microcredentials by the end of 2021 and will develop a 2025 micro-credential plan to be integrated into the European Higher Education Area. This means that the recognition of microcredential qualifications will be discussed in all Member States in the broader framework of the European Higher Education Area from 2022 to 2025.

Our members are ready for this discussion. Several institutions and governments are already anticipating this policy, which promising for lifelong learning in all member states and in all institutions.

Microcredentials will have an impact on new qualifications for continuing education and professional development in line with the Bologna commitments and their integration in the European Area of Higher Education. They should be designed in such a way that they are recognized by academia and employers. This requires a closer collaboration between higher education institutions and the labor market. Members of EADTU and the European MOOC Consortium noted a growing need in the economy and society for short learning programmes and microcredentials targeting a specific set of competencies.

The main next question concerns the qualifications to be awarded for microcredentials, understandable to learners, academia and employers to be integrated in national and European qualification frameworks at higher education level. EADTU members are exploring qualification structures for continuing education and will enter in dialogue with the peer groups in the Bologna process.

Microcredentials will be a springboard for universities to develop a full-fledged area of continuing education and professional development. Universities have to prepare strategies and develop business models in conjunction with national funding schemes that make continuing education affordable, both for individual learners and for learners in companies.

Academic collaboration and mobility

EADTU welcomes the new Erasmus+ Programme of the European Commission. By integrating digital education and mobility, it promotes academic collaboration and mobility for ALL. On campus higher education institutions are now given the instruments to organize an international academic experience for all students. Lifelong learners can benefit from an international learning experience combining short physical with virtual mobility.

This makes continuing education and professional development more a reflection of society where people increasingly work in international and virtual networks. Working in these environments requires new competencies.

Openness, Diversity and Inclusion

Because of their mission, open and distance learning universities have always embraced the principle of equity in education. Therefore, they have continuously to re-think their role in national higher education systems. Opening up education means that open and distance education is responding to educational needs in society and in the economy.

The recognition of prior learning and experience is important for learners who wish to valorise what they learned already in the past, in higher education or in the workplace.
Talent should not be lost, but upgraded!

Openness means also that higher education institutions take into account diversity and inclusion, giving all citizens a fair chance for developing talent. Therefore, EADTU members explore challenges and share solutions for a variety of needs related to migrants and ethnicity, digital accessibility, gender, social inclusion, education for athletes, and artists, prisoners, and persons with functional disabilities

They will make an inventory of digital solutions which can support diversity and inclusion policies.

The European Area of Higher Education

EADTU welcomes the steps forward in the Bologna process regarding digital higher education and lifelong learning.

In the European University of the Future, lifelong learning takes on a much more important place as careers lengthen and up-skilling and re-skilling are needed to stimulate innovation and create an inclusive society. Lifelong learning will be organized in interaction with human resources in enterprises and sectors, innovation networks, competence centers and smart regions.

Digital education will provide tools for high-quality, accessible and scalable educational provisions for everyone, in emergency situations and beyond.

It is of great importance that the Commission, together with the Council of Ministers, can continue and strengthen its actions in the field of education. The European programmes enable European universities in many ways to lead the way in higher education policies and practices.

EADTU members will generously share educational expertise from 50 years of research, innovation and practices in the field to universities, governments and the European Union.

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Hybrid mediation and Digital Scholarship in Higher Education

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Abstract

The coronavirus crisis has challenged higher education institutions in many new and unexpected ways, particularly in relation to digitization and digitally enhanced learning and teaching (Perla, Scarinci, Amati 2021; Agrati, Vinci 2021). Mediation (Damiano 2013; Perla 2016; Agrati 2020) at the time of COVID-19 involved a strong accentuation of the dislocation of points of view with respect to interaction in the presence: technologies are 'amplifiers' of learning spaces and opportunities for learner-centered strategies, that can ensure greater accessibility of learning environments and resources (Huang 2020). The COVID-19 pandemic, which suddenly forced teachers to introduce hybrid models and practices in their teaching (Perla, Scarinci, Amati 2021), accelerated the process of raising awareness about the need for high quality professional development, for an advancement in the field of Digital Scholarship, for a support for teacher professionalism and for the development of teaching competences aimed at improving students' learning (Perla et al. 2021). The research specifically investigates the experience of Distance Learning, to bring out the changes in teaching practice, paying particular attention to didactic mediation and evaluation, two areas considered foundational and emblematic in teaching-learning action. Through the administration of an online questionnaire to which 721 teachers responded, we highlight the metamorphoses involved in mediation and evaluation. What emerged allows us to redefine the "teaching charter" as a "mediated action with a high potential for hybridization", bringing to light the criticalities / potentialities of the pedagogical Third (Houssaye 2000) as a space for experimentation of flexibility teaching. The findings highlighted the need to support teachers' digital training to develop a new type of sophisticated knowledge and the ability to transform disciplinary content into digitalized disciplinary content (Perla, Agrati, Vinci 2019).

Keywords: Hybridization, mediation, digital scholarship

1. Introduction

Contemporary communication tools are changing the sphere of research and teaching activities in the university context, leading to an improvement in teaching and learning actions (Dipace, Scarinci, 2021). However, the changes induced by technological innovation, especially from the point of view of educational practice, have often encountered resistance, resulting in a strong contrast between what happens at the administrative and organizational level and the use of digital tools at the didactic level (Tømte et al., 2019). In fact, despite the various government initiatives aimed at strengthening the infrastructures and technological

equipment necessary to be able to cope with the transformations implemented by technological innovation, in terms of digitization of the teaching and learning process, an investment in teacher training is necessary. (Dipace, Scarinci, 2021). The teacher must, in fact, know how to combine professional, pedagogical, relational and technological skills and be able to evaluate the most suitable technological tools to be used in the various fields and in the construction of a virtual space for the provision of content and the management of interaction with students (Barberà Gregori, Badia Garganté, 2005).

The pandemic crisis has caused an acceleration of this internal and external digitization process and represented a strong break with traditional university teaching. The coronavirus crisis has challenged higher education institutions in many new and unexpected ways, particularly in relation to digitization and digitally enhanced learning and teaching (Estermann, 2020). The World Health Organization declared the COVID-19 outbreak as a pandemic on May 11, 2020. As a result, governments had issued directives that imposed the compulsory suspension of the attendance of degree courses, including the Italian government (D.P.C.M. of 9 March). During the emergency, education has been the subject of national and international government initiatives, becoming an emergency itself and distance education has finally been re-looked as the key to resolving or at least facing the crisis (Williamson, Eynon, Potter, 2020). The pandemic has placed university teachers in front of the need to redesign their teaching actions by integrating technologies in mediation no longer as mere 'functions' facilitating the transmission of knowledge. It has also led to the use of educational technologies, already existing but too little considered as a possible added value to teaching, for the provision of courses that, in the absence of a critical situation, would have been given face to face (Eradze, Dipace, Limone, 2020; Hodges et al., 2020).

Unlike the planned online teaching and learning experiences, the experience derived from the pandemic crisis was implemented without an appropriate preliminary design, bringing out the various problems and deficiencies both in the organizational, infrastructural and in the teaching and digital skills of teachers and of the students (Dipace, Scarinci, 2021). It was not a question of making a transition from presence to an online teaching / learning mode because this, in order to be effective and have a positive impact on the quality of education and learning, requires a good planning of experiences and a capacity for planning teaching and learning by the teacher (Hodges et al., 2020; Barberà Gregori, Badia Garganté, 2005; Aguilera-Hermida, 2020). Instead, we speak of emergency remote teaching, as suggested by Hodges et al. (2020), in which planning, planning and above all the possibility of choice are lacking and whose goal is to offer and guarantee all students "temporary access to education and teaching aids" (Hodges et al., 2020).

As Perla, Scarinci and Amati (2021) underline, the pandemic has confronted teachers with the need to redesign their teaching action, considering technologies no longer simple tools for the transmission of knowledge: teaching is redefined as mediated action to high hybridization potential. Online learning cannot be seen as a mere, extemporaneous transposition of teaching in the presence (EDEN, 2019), as it can change not only the space-time organization, favouring greater flexibility, but also relational dynamics and social interaction, which often require different teaching approaches and skills (Hodges et al., 2020).

Beyond the didactic and organizational difficulties initially encountered, the emergency situation also proved to be a precious opportunity to rethink the forms of mediation in distance learning through technology, in an adaptive and flexible learning perspective (Huang et al., 2020), that is, able to offer wider choices and with a higher level of customization for students.

The network, in this phase, has not only offered a new context for learning without traditional spatial and temporal limits but has also been a "network" in an educational metaphorical sense since it has offered a

space, a constructivist-type learning environment for sharing and building knowledge, safeguarding students' right to study (Calvani, Rotta, 2000). Each student had a "personal" didactic experience: mediation was forcibly re-invented and rewritten through the web within a common space (Cope, Kalantzis, 2008) in which experiences and emotions connected to the imprisonment induced by the prescriptions were also inserted sanitary.

If on the one hand, therefore, this state of emergency has introduced a new and destabilizing element in the academic world, making the planning and intentionality of distance learning disappear, on the other hand it has constituted a push that has accelerated a process of change of the training offer in place for several years but which has often found resistance (Speck, 1996; Mishra, Gupta, Shree, 2020). A change that involves different figures (teachers, students, administrators, technicians ...) and involves a series of adaptations and rethinking from the point of view of teaching and the training environment that becomes digital space. A change that pushes us to reflect on the need for high-quality professional development, for advancement in the field of digital scholarship, for support for teachers' professionalism and for the development of teaching skills aimed at improving learning of students (Perla et al., 2021b).

2. Study objective

The Covid-19 emergency represented a challenge for educational and training institutions and for the parties involved (teachers, students and staff) who had to manage a change in teaching / learning methods: from face-to-face education to an environment of online learning that required a process of adapting and accepting technologies (Aguilera-Hermida, 2020).

This makes it necessary a qualification of the teaching staff' through 'training activities in terms of methodological and technological updating for the production of multimedia content, for the management of distance learning activities and for the use of technologies' (Perla, Agrati, Vinci, 2019).

The document "Standards and guidelines for quality assurance in the European Higher Education Area" (ENQA, 2015) provides information regarding the qualification of teachers and the provision of quality teaching material with particular reference to 'personalization of learning situations and materials.

Therefore, an investment in teacher training becomes fundamental to provide them with the skills necessary to create a qualitatively higher experience for students and facilitate the acquisition of knowledge, skills and abilities. The role of the teacher can be considered as an evolving role both in terms of technological mediation of teaching but, above all, on the "diversification of the student population and greater attention to learning outcomes" (ENQA, 2015, p. 13; Perla, Agrati, Vinci, 2019).

From an analysis of the literature on the roles and tasks of teachers in the use of new technologies in teaching (Alexander et al., 2017; Bates & Sangra, 2011) and in online teaching (Educational Testing Service, 2009), it assumes relevance the role of mediation between contents and students played by the e-teacher which takes concrete form in the tasks of searching, finding, selecting critically and making sense of the information available through digital technologies (Perla, Agrati, Vinci, 2019). Specifically, as Perla, Agrati, Vinci (2019: 5) explain, "it refers to 'integrated' but diversified tasks: from making information available (access), to mediating them on the base of contents' meanings (evaluate and manage) , structure of knowledge (integrate and create) and characteristics of the students (communication) ". By focusing on the last three tasks, it is possible to understand the work of the e-teacher of mediatization (Rezeau, 2004), and of sophisticated mediation (Agrati, 2019; Damiano, 2013). "In the task of integration, the e-teacher represents information and re-elaborates it in a synthetic form by comparing it with other sources, useful for extending the knowledge of e-students and the

ability to understand its internal connections" (Perla, Agrati, Vinci, 2019: 5). The task of creation sees the e-teacher engaged in the production of new forms of knowledge that differ from the information present in texts or online. Finally, the task of communication engages the teacher in adapting the new forms created to the type of students. What emerges from these studies with respect to the tasks of the e-teacher allows us to reflect on the well-known descriptive model of teachers' techno-pedagogical knowledge (Technological Pedagogical Content Knowledge) as it highlights the adaptation component - typical of the processes of learning and not adequately developed by the TPACK authors (Koehler, Mishra, & Yahya, 2007; Koehler & Mishra, 2009; Koehler, Mishra, Cain, 2013; Perla, Agrati, Vinci, 2019). In fact, the TPACK model does not take into account the space to adapt the disciplinary contents to the specific needs of the students: generic pedagogical strategies are not enough, but the creation of new 'entities of knowledge' is necessary, suitable for being adopted by the students. -students (ETS - creating and communicating) (Perla, Agrati, Vinci, 2019).

A revision of this model should include a greater description of the more complex (Damiano, 2013) and sophisticated (Agrati, 2019) e-teacher's knowledge, which could refer to the choice and delivery of effective digital content from the point of view organizational; in particular, the adaptation and remodeling (Eilam, 2015) of the knowledge to be taught on the basis of the characteristics of the e-students (integrate, create, communicate - Education-al Testing Service, 2009; ENQA, 2015) which are effective since point of view of learning on results (Perla, Agrati, Vinci, 2019).

3. Method

The research specifically investigates the experience of DL, defining the construct, to bring out the changes in teaching practice, paying particular attention to didactic mediation and evaluation, two areas considered foundational and emblematic in teaching-learning action. Through the analysis of the metamorphoses taking place in teaching and evaluation practices, we intend to initiate an initial reflection on the impact that they can induce to deeply rethink university teaching in a 'hybrid' direction (Perla, Scarinci, Amati, 2021) (also in the return to normality of resumption of classroom teaching), on the quality of student learning, on the innovation of university teaching and on the highly specialized skills required of the teacher: the ultimate aim, in fact, is to trace - also following impact assessments and further studies of a longitudinal-comparative nature in programming - of the possible trajectories for the professional development of the university teacher.

Through the administration of an online questionnaire to which 721 teachers responded, we highlight the metamorphoses involved in mediation and evaluation. The research comes within the ASDUNI association and was carried out by an inter-university working group. In particular, the following objects of the 'mediation' and 'evaluation' didactic dimensions were investigated:

- DL procedures implemented in the experience, instruments used (in the past / the present / future), media used, the quality of communication with students, student engagement, differentiated teaching methods for students with Special Educational Needs, the relationship between DL and disciplinary knowledge, positive and negative aspects of DL, redesign mode of operations in the situation;
- online assessment, tests and assessment methods used (in the past / present / in the future), moments of the assessment in DL, function of the assessment, feed-back, difference between assessment in presence and remote online assessment, remote online assessment, concerns and / or difficulty in a remote online assessment, training needs in terms of valuation.

The research was conducted in accordance with the ethical and anonymity rules in compliance with the EU General Data Protection Regulation no. 679/2016 and of Legislative Decree no. 196/2003 "Personal data protection code" (amended by Legislative Decree no. 101 of 10.08.2018).

As regards the data collection tool, a Computer Assisted Web Interviewing (CAWI) questionnaire was proposed, consisting of 29 closed-ended questions and 11 open-ended questions. The questionnaire was sent to all Italian universities. Some partial results of the investigation are returned. The required compilation time was 15 minutes.

For both the investigated dimensions - didactic mediation and evaluation - it was decided to insert some questions structured in such a way as to offer, to the responding teacher, the possibility of providing information on past, present and future practices (ie: Which tools has used in the past / currently uses in the DL / and do you think you will use in the future? You can choose multiple response options using the modalities referring to both the past, the present and the future): this choice was determined by the desire to go further the comparative analysis between the practices implemented in the Covid-19 emergency and those carried out in the past, to also understand the wishes of the teachers, therefore the practices considered effective and to be implemented in the future. These questions are functional above all to understand, in a perspective direction, the training needs of teachers towards which to structure professional development paths.

4. Data Analysis

The data were analyzed in aggregate form. They analyzed 721 compilations in total, dividing the analysis of item 29 closed questions (via statesmen-ca descriptive techniques) and that of the open-ended questions (by means of qualitative analysis criteria of the data). 721 university teachers took part in the survey, divided almost equally between male teachers (N = 370; 51%) and female teachers (N = 351; 49%). The age of respondents is distributed with a prevalence of people aged between 41-50 years (31%) and between 51 and 60 years (37%).

As regards the CUN areas of the teachers, the most represented is area 11 "Historical, philosophical, pedagogical and psychological sciences" (147 teachers), the least represented area is area 04 "Earth sciences" (14 teachers). 40% of the respondents are Associate Professor, 25% Researcher, 20% Full Professor, 15% on contract. With regard to regional distribution, the area of Northern Italy and the South and Islands are equally represented, each with 43% of teachers out of the total; the area of central Italy is lower (14%). 39% of the respondents belong to a "large university", with a number of students between 20,000 and 40,000. With regard to the context and organizational analysis, it emerged that in the majority of cases (86%) there are support technicians and that almost all of the collective (91%) received useful information to undertake the DL. As many as 64% of the respondents, however, declared that they did not have the opportunity to participate in technological training activities; while 74% of the respondents declared that they had carried out exclusively face-to-face teaching, before the epidemiological emergency phase; only 136 teachers out of 721 declare that they have integrated some moments online. The section of the questionnaire relating to "didactic mediation" was structured in order to: analyze the practices declared by the teacher in the DL experience, more specifically the procedures used, the tools, the multimedia contents and the differentiated methods implemented for students with Special Educational Needs; make explicit the representations of teachers about distance learning, its positive and negative aspects, its role in changing the relationship with knowledge, the perceived quality of communication with students, the possibilities of future redesign of teaching activities in DL.

As regards the analysis of the practices declared by the teacher, it is possible to highlight some findings worthy of interest. The implemented procedures seem to show a tendency towards critical and participatory activities, such as the presentation of content in the form of demonstrations or explanations (57%) and the presentation of content in the form of demonstrations or explanations that involve a response or product from the students

(24%); very low percentages related to lectures accompanied by slides or recorded lessons. 60% of the respondents declared that the multimedia contents used in the DL in the emergency period were mainly taken from pre-existing material and adapted; 37% declare that they have used ad hoc materials. With reference to the specific tools of didactic mediation, a first data worthy of attention concerns the difference between the past (in which many optional teaching tools have never been used by teachers), present (in which a good percentage of teachers declare to use different didactic tools in DL) and future (in which there is the will to use some tools in particular), with a gradual increase of interest in their use. Suffice it to think, in this regard, that more than 60% of responding teachers (445 out of 716, 5 n.r.) believe that they will use distance learning also in the future.

More specifically, as regards the present, the didactic tools most used in DL are audio-video recordings (49%, n = 350); web conference lessons with skype, zoom, webinar (76%, n = 544); discussion and collaboration environments such as web forums, blogs and wikis, which allow brief interventions by the students (32%, n = 232); software for information processing such as PowerPoint, Excel, Word etc. (60%, n = 433). As for the future, there is the will to use some tools, in particular: Social Networks (17%, n = 124), Demonstrations or additional explanations present in the faq (19%, n = 134); Structured and individual activities, such as reports, exercises, case studies, problem solving, web quests, projects, production of artifacts, simulations (29%, n = 208); activity in web forum with demonstration or operational suggestions on how to solve a problem (20%, n = 141). From the analysis of the data it emerges that inclusive practices, together with those of promoting student self-assessment, seem to represent the "weak points" of distance learning mediation, perhaps even those on which a stronger training investment is required. Evaluation is experienced as a problematic moment and largely characterized by traditional practices. Even in the emergency situation, which could push teachers to find alternative and innovative solutions, the evaluation practices remained mainly anchored to a summative and certification vision. However, it should be noted that a small minority of teachers have been induced to explore new evaluation possibilities, which, even in the face of a generalized resistance to change, appear to be considered promising, given that the data show the greater intention to implement them in the future, compared to what has been done in the past and achieved in the present moment (Perla et al., 2021).

The answers to the following questions allow to explain the representations that the teachers have of the DL. As regards its functions, many teachers recognize the merit of helping to improve the professionalism of teachers (33%, n = 237); a lower percentage (22%, n = 159) believe that DL increases communication interactions between students and between students and teachers; only about 1/7 of the respondents (101 out of 716, 5 n.r.) instead consider the DL as a tool that makes students' learning more effective. As for the quality of communication with students, the answers show a positive picture: for 43% of the respondents it is good / fair; for 16% effective; for 10% excellent / excellent; for 8% it is difficult and for 5% it is not very interactive. 51% of respondents stated that their relationship with the knowledge they teach has been modified by the use of DL (24% do not see a change). The declared change concerns the communication modality with a tendency to a greater clarity of presentation, a care in the preparation of the didactic material and a simplification of the contents.

Another interesting result recorded concerns the activities - in addition to the use of the lesson - towards which the teachers direct the students' commitment: most of the respondents indicate activities of use / analysis of the teaching material (78%, n = 560), followed by from home exercises, problem solving (40%, n = 288) and individual or group product development activities by students (34%, n = 243); a very small number of teachers (12%, n = 90) indicate self-assessment activities, showing a certain criticality regarding the assessment activities in DL, also confirmed by the questions in the next section.

5. Uniba case-study: a curriculum model in higher education

The health emergency has pushed, as already highlighted, the university to a spatial, instrumental and methodological reorganization, as well as to a redefinition of the roles of teachers who have had to redesign their own distance teaching quickly and in many cases without adequate technical and methodological support (Dipace, Scarinci, 2021; Hodges et al., 2020; Scarinci, Dipace, 2019). The results obtained from the survey conducted on didactic mediation and on the timely evaluation of COVID-19, is not limited to providing a simple photograph of the existing, but aims further, to understand the possible implications of development and the implications for the future hybrid mediation and therefore also on digital scholarship processes. It is necessary that the technological achievements no longer "demonized" become part of a didactic action on the part of the teacher.

University management must focus on the system for improving the digital and methodological skills of teachers as they are the driving force that can lead to full innovation. Technologies, in fact, "alone cannot transform educational paradigms, the way of teaching and learning" (Dipace, Scarinci, 2021).

It is therefore necessary to involve the teacher in faculty development processes that enhance community approaches, experiential dimensions, active involvement and reflective learning, in order to support a constant review of professional representations and practices. This is made possible by the active involvement of teachers in planned faculty development actions activated by training institutions aimed at acquiring the necessary methodological and digital skills and having effective tools for quality teaching and improving student learning outcomes (Dipace, Scarinci, 2021; Scarinci, Dipace, 2019).

The University of Bari has started, on the basis of the needs analysis emerging from the PRODID research project (Perla, Vinci, 2018a, 2018b), the structuring of pilot training paths - personalized according to different target groups (see tab. 1) - for the professional development of university teachers in UNIBA Teaching Learning Laboratory (TLL) , located at the Department of Education Sciences, Psychology, Communication.

Table 1: Structure of the training activities of the first edition of FD

Target group				
New recruits, CSD coordinators, heads of teaching units, accreditation group, department directors, first-year teachers 167 people, of which 47 Researchers; 108 1st or 2nd level teachers newly recruited through transfer or qualification; 12 Coordinators of the Schools undergoing an ANVUR accreditation visit.				
Training modules				
Disciplinary syllabi and constructive alignment (teaching methods and evaluation practices with the learning objectives and learning outcomes as expected)	Didactic mediation (Knowledge bases, skills and tools for the implementation of learner-centred teaching interventions for small and large groups)	Effective communication and public speaking (basic knowledge and skills for effective content communication aimed at student participation/involvement)	Design and assessment (knowledge bases, skills and tools for a 'competence-based' approach to the discipline)	Interdisciplinary knowledge (shared reflection on the pedagogical and technological components of disciplinary knowledge content. Inter/transdisciplinary connection)

TLL is a multidisciplinary center primarily utilizes pedagogical knowledge, but it also integrates different disciplines to create a broad understanding of teaching-learning processes and their dimensions: the content pedagogical knowledge, the sources that generate it, the methods of its transmission (Shulman, 1987).

The first broader course in university pedagogy was developed in 2018; this was a one-year course targeted for university teachers, which concentrated on Syllabus design, university teaching and on assessing students' learning outcomes.

The main practices of this TLL Centre are:

1. to coordinate and organize courses on university pedagogy for teachers, researchers and doctoral students within all discipline at the University of Bari,
2. to carry out research on faculty development programs for the quality enhancement of teaching and learning and University's strategic development, above all, disciplinary didactic research in which devices, toolkits and joint co-designs with the area of pedagogical disciplines can be tried out;
3. to coordinate the research and the use of digital tools for enhancing teaching and learning at the university
4. to improve teachers' skills and understand the factors of high-quality teaching through assessing the outcomes and impacts of academic development.

The curricular model of TLL is based on the recursiveness between theory and practice and on the representation of the teacher's knowledge as 'professional', practical (Damiano, 2013): it is necessary to understand how this 'sophisticated' knowledge (Perla, Agrati, Vinci 2019) is actually carried out in concrete reality, analyzing the variables, the processes that take place, the procedures, the techniques used.

The model underlying these activities - already tested by the Faculty of Engineering (LTH) of Lund University in Sweden - considers pedagogical competence in teaching (Tågerud 2010, 61) as a spiral process (according to the model inspired by Kolb's Learning Cycle: Kolb, 1984) in which theoretical knowledge (Theory: knowledge of teaching and learning), pedagogical practice (Student learning-Teaching) and teaching skills (Teaching skills: planning of teaching; observation of teaching and learning) interact. TLL includes interdisciplinary teams (Newell, 1994) composed of teachers from different epistemological perspectives who can cooperate in course design and peer learning practices (Perla, Vinci 2021).

The Uniba curricular model has several cascading target levels:

- at an institutional level (macro), the University Quality Presidium;
- at the level of training for trainers (meso), the departmental managers;
- at the level of groups of teachers (micro), the communities of practice constituted from below.

The three main axes of the model concern:

- active learning and alignment between design and evaluation;
- hybrid mediation;
- co-construction and epistemological dialectics.

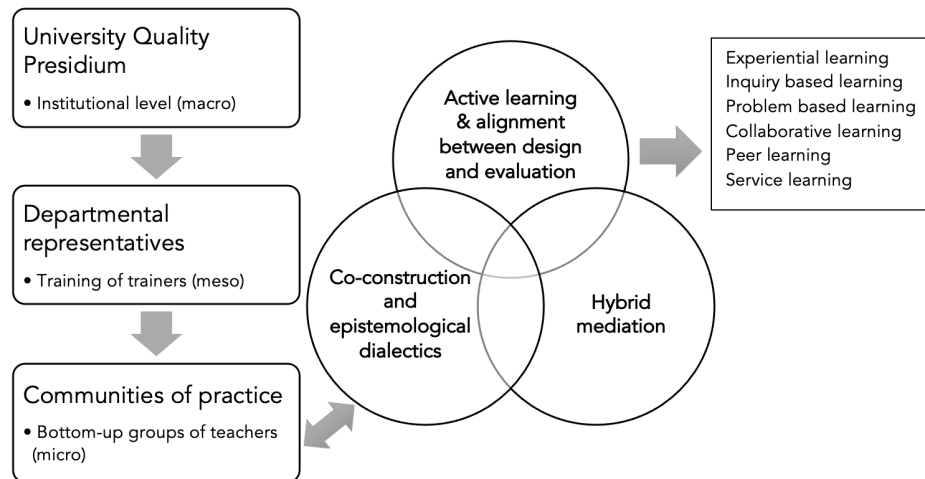


Figure 1: UNIBA curricular model

The model also provides:

- evaluation actions, such as monitoring the path and customer satisfaction actions;
- documentation actions, such as the drafting of an annual training report to be returned to the departmental communities;
- communication actions, such as short video spots and podcasts to be advertised on the University website.

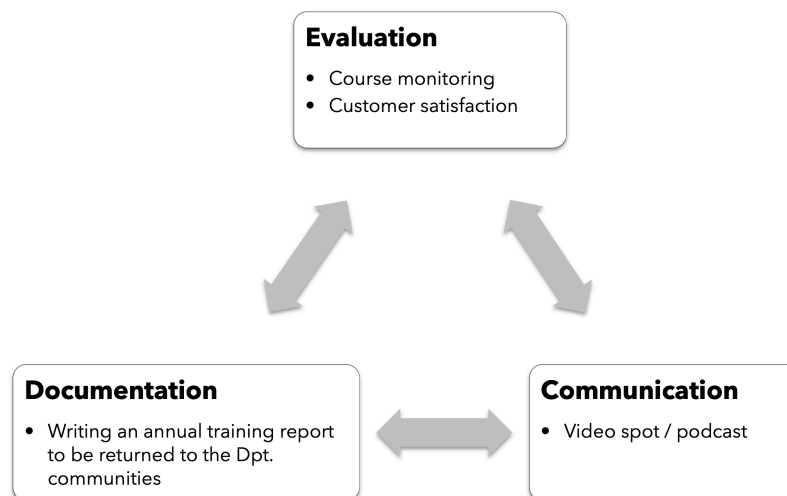


Figure 2: UNIBA curricular model: evaluation, communication, documentation

The training model underlying this knowledge requires knowledge of all the tools - mediators (active, iconic, symbolic), didactic formats, devices for assessing disciplinary and transversal learning - which do not directly produce learning, but create the conditions for learning to take place through processes of translation, transposition, metaphorisation, substitution of experience (Damiano, 2013; Agrati 2020). This wealth of knowledge is not easily transferable into the competences of a "pure" disciplinary researcher also because the disciplinary communities do not encourage research in disciplinary didactics. For this reason, a serious co-research work is needed, to be started in all possible places, because only by scientifically nourishing the

epistemological dialectic between knowledge will it be possible to overcome the obstacle of curricular compartmentalization.

The curricular model is based on adult learning (Knowles, 1980) and methodologies for professional learning, in particular the so-called 'artefacts', which Orland-Barak and Maskit (2017) classify at three levels:

- communication artefacts such as stories, images, cases, videos, simulations, portfolios, lesson-studies, action-research;
- devices that facilitate the generation of practices, for example storytelling or video-recording, analysis of practice, observation or documentation of experience or, again, such as mediated communication devices (educational technologies);
- artefacts and devices that deal with how to facilitate the dynamics of relationships in order to operate negotiations of experience).

The training model for the university teacher requires a research posture of co-construction and ample space dedicated to the epistemological dialectic between disciplinary teacher and didactic. The training modules designed in the TLL have therefore been constructed on the basis of a constant dialectic (and subject of video research) between the group of researchers of general didactics and the disciplinary target groups.

6. Conclusions

The COVID-19 emergency has placed teachers in front of the need to redefine, redesign their teaching action, considering technologies no longer as simple tools for the transmission of knowledge. They had to rethink and reflect on established practices of their own work and then initiate a substantial review in the direction of improving student learning outcomes. What we experienced constituted a period of breaking, learning through practice and reflecting practices on our forms of teaching and learning that had to break with the traditional transmission model and exploit the technological potential so that the new technology could "do something different from what learning technology has always done: imparting academic knowledge to the student", as Diana Laurillard (2020) argues.

Teachers and students found themselves living together in an educational space to be reimagined in a short time: the digital one. This re-imagination is not at all simple because, unfortunately, space is not a category that has been placed at the center of the interest of pedagogical research (Damiano, 2013) even if some have experimented with new languages, new practices, new methods. time also in the university environment (and not only remotely) in a learning-centered perspective (Deschamps, 2018; Scarinci, Dipace, 2019).

The survey made it possible to redesign the "didactic paper" (Damiano, 2013) as a "mediated action with a high potential for hybridization", bringing to light the criticalities / potentialities of the pedagogical Third (...) as a space for experimentation of flexibility in 'teaching. Among the most relevant theoretical problems of contemporary teaching we find that of the search for tools and devices through which to induce effective, meaningful and stable learning and, in the investigation, the context of "entirely remote" made it possible to obtain very interesting inferences for the study of mediation (Perla, Scarinci, Amati, 2021).

The study also demonstrated the urgency of a reconfiguration of teaching in higher education systems and of the role of the teacher. necessary rethinking of the university teacher who must start from his didactic training. A training that must lead to the integration of professional, pedagogical, relational and technological skills (according to the framework of TPCK) and make teachers able to evaluate the most suitable technological tools

to be used in the various fields and able to adapt the disciplinary contents to the different needs of students in terms of customization (according to the framework of the “sophisticated knowledge”).

The research results also make it possible to critically problematize didactic mediation in the context of higher university education in a direction of revision of the ways in which the teacher chooses, uses and transforms disciplinary contents into digitalized disciplinary contents (Perla, Agrati, Vinci, 2019).

In summary, the research offers interesting opportunities for understanding and deepening the distance teaching action, both in didactic mediation and in evaluation. At present, it seems very urgent to channel the result of the lived experience towards a profound renewal of teaching which, fully welcoming the perspective of the active centrality of the student, prepares a new professionalism of the teacher capable of guiding teaching 'with' it is beyond the same DL.

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