University, Teaching & Research

QUALITI PROJECT
Teaching in higher education between process indicators, didactic profile of the university professor and methodological skills
Intellectual Outputs

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Antonella Nuzzaci

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Didactic QUALity Assessment for Innovation of Teaching and Learning Improvement Project

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Antonella Nuzzaci
Inga Milišiūnaitė
Viktorija Kamarza
Daiva Penkauskiene
Virgita Valinuaite
Jurgita Balaisiene
Luminița Mihaela Drăghicescu
Gabriel Gorghiu
Laura Monica Gorghiu
Ana-Maria Aurelia Petrescu
Alina Gabriela Anghel
Ioana Stăncescu
Elena Ancuța Santi
Alessandra Continenza
Liliana Ercole
Lucilla Spetia
Ilaria Bellatti
Joaquím Prats Cuevas
Jose Luis Medina Moya
Teresa Godall
Maria Mercedes Gracenea Zugarramurdi
Francisco Imbérnon Múñoz
Isidora Saez Rosenkranz
Carina Rey Martín
Concepción Fuentes Moreno
Iole Marcozzi
Fabrizio Coccetti
Matteo Paradisi

Coordinator
Antonella Nuzzaci
University of L'Aquila | antonella.nuzzaci@univaq.it

Administrative-managerial area
Marco Calabrese | marco.calabrese@univaq.it

Università degli Studi dell'Aquila
Antonella Nuzzaci
antonella.nuzzaci@univaq.it
Alessandra Continenza
alessandra.continenza@univaq.it
Liliana Ercole
liliana.ercole@univaq.it
Lucilla Spetia
lucilla.spetia@univaq.it

Universidad de Barcelona
Ilaria Bellatti ilaria3bellatti@ub.edu
Joaquím Prats Cuevas jprats@ub.edu
Jose Luis Medina Moya jlmedina@ub.edu
Teresa Godall tgodall@ub.edu
Maria Mercedes Gracenea Zugarramurdi
gracenea@ub.edu
Francisco Imbérnon Múñoz
fimbernon@ub.edu
Isidora Saez Rosenkranz
isidora.saez@ub.edu
Carina Rey Martín carina.rey@ub.edu
Concepción Fuentes Moreno
conchafuentes@ub.edu

Vilnius University
Inga Milišiūnaitė
inga.milisiunaite@cr.vu.lt
Viktorija Kamarza
viktorija.karmaza@cr.vu.lt

Siuolaikiniu Didaktiku Centras
Daiva Penkauskiene
daiva.penkauskiene@sdcentras.lt
Virgita Valinuaite
virgita.valiunaite@sdcentras.lt
Jurgita Balaisiene
jurgita.balaisiene@sdcentras.lt

Universitatea Valahia Targoviste
Luminița Mihaela Drăghicescu
luminița.draghicescu@valahia.ro
Gabriel Gorghiu
gabriel.gorghiu@valahia.ro
Laura Monica Gorghiu
laura.gorghiu@valahia.ro
Ana-Maria Aurelia Petrescu
ana.petrescu@valahia.ro
Alina Gabriela Anghel
alina.anghel@valahia.ro
Ioana Stăncescu
ioana.stancescu@valahia.ro
Elena Ancuța Santi
elena.santi@valahia.ro

Szczecińska Szkoła Wyższa Collegium Balticum
Barbara Popiel
b.popiel@cb.szczecin.pl
Natalia Burdzy
n.burdzy@cb.szczecin.pl

Ilmiolavoro srl
Iole Marcozzi
imarcozzi@ilmiofuturo.it
Fabrizio Coccetti
f.coccetti@il ilmiofuturo.it
Matteo Paradisi
mparadisi@ilmiofuturo.it

Website:
http://qualiti.univaq.it/

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73100 Lecce • Via Arturo Maria Caprioli, 8 • Tel. 0832.230435
www.pensamultimedia.it • info@pensamultimedia.it

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Antonella Nuzzaci
QUALITI Project Coordinator

Innovating teaching to improve learning: the QUALITI Project

1. The background of the QUALITI project

The EU documents stress that for the development of effective policies and strategies for the modernisation of higher education, both at the level of political accountability and at the level of individual higher education institutions (hereinafter HEIs), it is essential to develop a wide range of data analyses covering all aspects of performance (COM(2011)567 of 12) and that, even in well-funded systems, finding indicators to measure performance has proven difficult to employ (SWD(2017)164).

In particular, it is highlighted that there has been an increasing focus on the quality of research results by governments and institutions that have generally paid less attention to measures of the quality of training, although the issue of learning and teaching have always been at the heart of university activities and the emergence of more competitive and international research funding. University rankings based on research performance have progressively accentuated a widespread perception that teaching is a neglected activity in higher education (SWD(2017)164, 35-9).

Numerous international surveys underline the difficulty of evaluating university teaching, and the most famous international rankings rely heavily on research as a parameter of the value of universities while neglecting the quality of teaching (Henard & Leprince-Ringuet, 2008, 5). The most recent studies continue to underline that the relationship between measures of the quality of research of teachers and measures of the quality of their teaching are often lacking or rather incomplete (Gibbs, 2010; Bauer & Bennett, 2003; Hattie & Marsh, 1996).

The idea that the quality of education is at risk when excessive attention in an academic institution is placed on research and only marginally on didactic design and pedagogical and didactic functions (Arum & Roksa, 2011) is a consideration not to be underestimated when it comes to the quality of teaching in higher education. Moreover, the need to place more emphasis on political and institutional

support for teaching staff, recognizing those who allow students to carry out high-level and rewarding study experiences, is no small matter (Cashmore, Cane, & Cane, 2013). There is no doubt that the analyses on the state of implementation of the Bologna Process (EC/EACEA/Eurydice, 2018) and on European documents (Paris Communiqué, 2018; Yerevan Communiqué, 2015) reiterate the priority of encouraging the acquisition of evidence on the quality of teaching in universities and ensuring that teaching has the same «status» as research (UCE, Trends, 2018).

A European Parliament study points out that, in order to strengthen the role and weight of higher education and learning at international level, more in-depth research into suitable initiatives and comparable international indicators for teaching quality (RAC. 13 (Policy Department B Structural and Cohesion Policies, University Quality Indicators: An Evaluation, 2015) is desirable. The High Level Group on the Modernisation of Higher Education (2014) also strongly emphasises that little attention is still paid to the pedagogical and didactic preparation of university teachers compared to primary and secondary school teachers.

The quality of university teaching has, therefore, been put at the center of attention in recent years, and the need to improve the teaching skills of the teacher is now recognized as an essential factor for the development of the university. However, even today many higher education institutions (HEIs) tend to pay inadequate attention to teaching compared to research (European Commission, 2013). The importance of the pedagogical component in the professional development of university lecturers is highlighted by many authors.

The continuous diversification of the characteristics of those entering higher education and the objective of improving the quality of the learning experience within university contexts to adequately correspond to the educational demand of those entering higher education, becomes the central node of the problem and the reason for this professionalization of university teaching in a pedagogical and didactic sense. Expanding access to educational opportunities across the EU is just as important as the fact that European university students must be able to rely on positive conditions and favourable learning environments, guaranteed by high-quality teaching. Indeed, the ambition to significantly increase the number of those entering and completing higher education only makes sense if it is accompanied by action to ensure that the teaching-learning processes in higher education are the best possible.

The absence of pedagogical and didactic training of university teachers often results in the maintenance of old teaching methods, which prove insufficient to meet the acquisition needs of students (Lueddeke, 2003).

2. The QUALITI project

Starting from the European perspective and from documents and research on the quality of teaching and learning processes in higher education, this volume aims to advance the debate on issues concerning how it is possible to contribute to improving the quality evaluation system of university teaching and enhancing the pedagogical training of university teachers, starting from what emerged, in terms of results, within the ERASMUS+ Project – Cooperation for innovation and exchange of good practices KA203 – Strategic partnerships for higher education entitled QUALITI – Didactic QUALity Assessment for Innovation of Teaching and Learning Improvement. This project has, in fact, aimed at improving the quality of teaching in higher education through a systemic action in the logic of integration between teaching evaluation, pedagogical-didactic training of university professors and didactic innovation.

Coordinated by the University of L'Aquila (IT), it counted among its partners the University of Barcelona (SP), University of Vilnius (LT), Valahia University (RO) SSW, the Collegium Balticum (PL), ilmiolavoro (IT) and the Siuolaikiniu Didaktiku Centras (LT).

The aims of the project were part of some needs that concerned the ability to:

– consolidate and improve evidence on quality education;
– advancing HEIs by measuring higher education performance policies, systems and individual institutions;
– build evidence on the skills needs of the economy and society through skills anticipation, graduate monitoring, and foresight studies, including support for the further development of graduate monitoring systems in programme countries in line with the Council Recommendation on graduate monitoring; and
– improve the availability of comparable data in Europe.

The objectives pursued by the project were:

1 increase the ability to provide evidence of teaching quality through the acquisition of integrated data;
2 improve the ability to compare educational performance between higher education institutions;
3 increase the capacity of HEIs to pursue the institutional objectives of continuous improvement of teaching, including through a «proven» recognition sys-

tem of the quality of teaching within each higher education institution;
4 improve the pedagogical training of teachers in order to increase the quality of teaching.

This project also aimed to consider the mechanisms for promoting and rewarding quality in teaching and the development of pedagogical and didactic skills of the teacher through the promotion of effective incentive structures and human resources policies at institutional, national and international level, encouraging the training of academics and the exchange of innovative pedagogical best practices (for example, through collaborative platforms), including those related to multidisciplinary approaches, new methods of design, delivery and evaluation of study programmes, allowing institutions to broaden their gaze on teaching modules for full-time, part-time or lifelong learning students.

The underlying attempt was to support higher education transformation processes by increasing the connections between training, research and innovation, supporting an entrepreneurial, open and innovative university idea and promoting learning and teaching partnerships with partners in the public and private sectors. In this sense, the project adopted a methodology based on precise strategic assets, aimed at developing reliable and valid process indicators for the evaluation of the quality of teaching in higher education in order to:

1) measure the performance of HEIs by focusing on the quality of teaching;
2) acquire evidence-based on data and aimed at starting an innovation process that aims at defining new approaches, methodologies, strategies and teaching tools;
3) support the pedagogical and didactic training (and updating) paths of university professors within higher education based on new approaches / strategies.

The effectiveness of teaching is necessarily related to the improvement of knowledge, skills, preparation for work and professional and personal development of students during their time spent in higher education. QUALITI was, therefore, fully in line with the priority for the development of concrete data and the promotion of excellence in teaching. In line with the recommendations of the European Commission, it adopted a project intervention methodology that acted on:

1. the development of indicators to monitor, evaluate and improve teaching and learning practices, in order to develop and implement a strategy for continuous

quality improvement (Recommendation No. 13; Policy Department B Structural and Cohesion Policies-2015);
2. the systematic and regular collection of data on issues affecting the quality of teaching and learning; professionalisation and development of teachers, trainers and staff; innovative teaching and learning methodologies and pedagogical approaches (Recommendation No 13. High Level Group on the Modernisation of Higher Education, 2014).

The QUALITI project thus concretizes the Recommendations of the Renewed Agenda for Higher Education (COM(2017)247), which highlighted how actions within individual HEIs, which place greater emphasis on measuring and demonstrating the results of teaching quality, have a considerable impact in the direction of «fostering the effectiveness and efficiency of higher education systems», one of the four strategic priorities of the future of Higher Education.

QUALITI reflected the approach to quality assurance promoted by the *Standards and the Guidelines for Quality Assurance in the European Higher Education Area* (2015), where the development of quality assurance indicators and processes for implementation refers to individual HEIs. ESG criteria are not quality standards and do not prescribe how quality assurance processes are to be implemented, but they provide guidance, covering areas that are vital to successful quality delivery and learning environments in higher education (final ESG), thus providing «a framework within which ESG criteria can be used and implemented in different ways by different institutions, agencies and countries» (6-7).

Starting from the institutional objectives, the partner universities of the QUALITI project, with regard to the quality of teaching, carried out a self-assessment activity on specific dimensions related to the following standards for quality assurance (ESG, 2015), in particular, on key performance and process indicators:

1. student-centered learning, teaching and assessment;
2. teaching staff;
3. Information Management.

The dimensions monitored were the type and adequacy of the indicators used for teaching the quality of measurement and promoting the professional development of teaching staff both on methodological-didactic skills and on pedagogical competences with the aim of applying student-centred practices.

Two macro-areas of needs emerged from the initial analysis:

– the need to make the quality of teaching more transparent and to acquire data through didactics-focused evaluation indicators, which could make the performance of higher education institutions comparable;
– the need to strengthen and improve higher education teaching through the definition of benchmarks, linked to specific indicators capable of measuring the quality levels of teaching in higher education institutions.

The problems that emerged were:

1. a persistent use of rules focused on teacher research activities (rankings) as a delegation for teaching evaluation;
2. insufficient or poorly valid and reliable contextual indicators for the evaluation of teaching activities, in the light of new teachings / learning methods that require specific design methods (e-learning environments, MOOCs, etc.), different characteristics of students; separate training provided by specialized or general universities;
3. the predominance, in the national evaluation systems of the project partner HEIs, of indirect input or output indicators (ratio of students/regular professors; % of permanent professors in each degree course; credits acquired on total annual credits, etc.), which:
   – do not allow the acquisition of data focused on teaching;
   – make it difficult to compare HEIs on the basis of teaching evaluation as they are influenced by other factors (e.g. input characteristics of the student population in terms of school background, background, etc.);
   – do not allow to measure the impact of the University on the different categories of student (consistency of progress in the light of the different starting conditions), an aspect that also affects the level of inclusiveness of HEIs compared to students belonging to underrepresented and / or disadvantaged groups (students with special educational needs; students with disabilities; refugees, etc.), in fact, since the quality of teaching is evaluated only on outputs, and certain characteristics of ex-ante students (e.g. school of origin) constitute a good predictor of outputs (for example, low dropout rate/higher graduation grades), less importance will be attached to teaching and programming practices that favor access and success of disadvantaged students;
4. process indicators, linked to the teaching and pedagogical skills of university professors, insufficient;
5. limited knowledge of the level of teaching quality and, consequently, insufficient implementation of structured actions for the enhancement of teachers' teaching and pedagogical skills.

The project adopted a holistic approach (Henard & Roseveare, 2012) that was articulated at three interdependent levels:

– an institutional level: creating a system of measurement and measurement and evaluating the quality of teaching;
– a level of planning: through the development of quality levels to be measured and teaching improved;
– an individual level: increasing methodology and pedagogy
– Teachers' skills for teaching design and implementation
– student-centered learning-oriented practices.

The target of the project was made up of university professors of the Degree Courses (CdS) of the first level, even if the project has also extended to the second level ones. The main beneficiaries were the students of the three-year CdS.

The specific objectives of the project, pursued and achieved, were:

1) increased ability to provide evidence of teaching quality with the acquisition of integrated data;
2) improved ability to compare teaching performance between HEIs;
3) enhanced the ability of HEIs to pursue the institutional objectives of continuous improvement of teaching, also through a «proven» recognition system of the quality of teaching within each HEI;
4) strengthened the pedagogical training of teachers to increase the quality of teaching.

3. Transnational dimension of the project, results and Intellectual Outputs

The transnational dimension of the QUALITI project was the essential prerequisite for strengthening and promoting, in the extended European Higher Education Area (EHEA), the development of viable and effective innovative solutions that were adhering to the European Standards and Guidelines in the HE and in line with the guidelines of the European Association for Quality Assurance in HE.

The project involved the realization of three Intellectual Outputs (IOs), of which an extensive description is given in this volume, alongside international and local training activities aimed at experimenting innovations.

A. Teaching Quality Indicators Framework – TQIF (IO1)
B. University Teacher Profile Learning/Teaching Focused (IO2) (and student-centered)
C. OER - Methodological and experimentation fieldbook (IO3)

These results were tested on a group of universities in order to be validated, in terms of effectiveness and impact regarding the transparency of quality higher education teaching and in support of the continuous improvement of higher education teaching.

The project's innovation is attributable to at least two of its features. First of all, the scope of intervention where it acts on the measurement and recognition of the quality of academic teaching, far by being defined at European level, through valid and relevant metrics. Secondly, three are components that define it:

A. the definition of a system of direct, procedural and referential indicators for the evaluation of innovative quality of academic teaching compared to those commonly used, indirect – either input or output – and which, therefore, strengthen the possibility of making comparisons between HEIs. This is a substantial innovation since it allows construction of indicators for monitoring, evaluating and improving teaching and learning practices (REC. 13; Policy Department B-2015) and the systematic and regular collection of data on issues affecting the quality of teaching and learning (REC. 13; High Level Group on the Modernization of HE2014);
B. the creation of a 'learning-teaching-focused' teacher profile with benchmarks and quality levels of performance; a tool that develops an innovative pathway in the direction of encouraging the acquisition of evidence on the quality of teaching and guaranteeing the teaching the same 'status' as research;
C. the development of Methodological Guidelines with an operational framework in order to provide a guidance to the action of the learning/teaching-focused teacher. This is an important innovation that it helps to overcome the situation in which the preference for research outputs entails a limited attention to the pedagogical and didactic training of the academic professors compared to primary and secondary education teachers.

The logic on which the products were built is clarified below.

A. *Direct indicators Quality Assessment System for Higher Education: Teaching Quality Indicators Framework – TQIF (IO1)*

The first intellectual output of the project consists of two results: 1) multidimensional theoretical model on the interconnections between university teaching and quality; 2) system of direct indicators for the evaluation of teaching quality. Through this output we wanted to achieve three objectives: to improve the measurement system to evaluate the quality of teaching in order to encourage the improvement of teaching practice; – provide a tool to obtain empirical data on the quality of teaching in a shared and prospective framework (in the short-medium-long term); increase the ability to compare data on teaching quality among European HEIs. The system is based, and has developed, on the following questions: how to evaluate the quality of teaching more reliably and consistently? What descriptors, indicators and metrics allow us to examine and evaluate the performance of teaching quality? How can assessment tools be used more effectively? A system has been developed to evaluate the quality of teaching (disciplinary competences, pedagogical competences and curricular competences) and the organization and management of teaching through the following descriptors and indicators: - direct, i.e. linked to teaching practices (didactic design; curriculum development and evaluation); – contextual, or related to teaching activities (didactic organization and learning environment; communication and didactic relationship, management of teaching and learning processes); – procedural, relating to the processes that are activated in the performance of the teaching action (reflection, regulation of the action, formative evaluation; teaching experience of the teachers; learning experience of students in itinere, not only final feedback); – referential and documentary, or as a reference for the implementation and evaluation of the quality of teaching and didactic action in the context.

The indicators will contribute to: 1. build a shared language of the didactic action system and a multilevel approach to the quality of teaching; 2. increase transparency to recognize the quality of teaching in the partner universities of the project; 3. identify concrete opportunities for the renewal of disciplinary and university teaching and in order to define qualitatively appreciable teaching processes. It allows the use of indicators able to measure, in addition to excellence, the so-called 'queues', i.e. the most problematic areas and dimensions that negatively affect the 'average quality' of the teaching of a degree course, and which are never taken into consideration despite representing the critical issues to be addressed through improvement actions.

B. *University Teacher Profile Learning/Teaching Focused (and student-centered) - TPLPF (IO2)*

The University Professor Profile focused on teaching-learning processes and focused on the student has been structured in levels of teaching quality, identified in the system of indicators. We wanted to introduce in the higher education institutions involved in the project the figure of the teacher "focused on teaching and learning", intending to give it its own relevance compared to the teacher focused only on research. For each didactic quality indicator, specific qualitative levels/references have been defined, expressed in quantitative and qualitative values and in evidence attributable to different quality thresholds of the teaching action. The levels were the reference points for teachers to guide the action in compliance with the indicators. Quality levels are not intended as standards but are intended as support devices for higher education institutions to make quality teaching transparent; These are significant rather than typical elements to concretely help university professors to improve the teaching action in the context. At institutional level, they are references that can be integrated with those defined by national evaluation systems and European guidelines (ESG, 2015), characterized by their attention to teaching. In designing the profile of the teacher focused on teaching/learning processes, all those intervening variables that helped to specify the profile precisely with reference to the character or not of an expert in teaching were also taken into account, for example, the different roles that influence the performance of the teaching function (President of the Degree Course; Head of Department, etc.), and the implementation of quality teaching. This output answered the following questions:

- What are the levels/references, for each indicator, that help to identify and evaluate the different levels of quality teaching?
- What are the characteristics of the profile of a teacher focused on learning/teaching compared to the teacher focused only on research?
- (IT) What are the references and evidence of quality teaching based on skills/roles, institutional functions/responsibilities, years of work, etc.?
- How do we ensure that the references identified to define the profile and performance are consistent with our counterparts at local and European level and that a regular review process takes place?
- How do different professors differ according to the different roles or roles assumed? What evidence? The Profile is structured in macro-items that reflect:
  1) quality references of direct indicators of teaching quality: indicator / quality thresholds (eg minimum threshold / excellence / range of variability);
  2) Teacher's profile focused on learning/teaching: skills/roles/functions; needs; proof; descriptive and methodological documentation.

C. *OER - Methodological guidelines for learning-teaching-focused teacher*

The methodological-didactic guide for university professors is aimed at allowing the elaboration of proposals, activities and didactic interventions qualitatively appreciable at the project level and to support and implement quality teaching over time: - in line with the system of indicators for measuring the quality of teaching (IO1); – adequate with respect to the references/quality levels of the teacher's profile focused on learning/teaching (IO2). The objectives of the methodological guide are: to support and improve teaching functions and actions in university training contexts; contribute to strengthening systemic action to improve the quality of teaching by integrating with measures at institutional (IO1) and programmatic-managerial (IO2) level; support the continuous training of university teachers in the pedagogical and didactic fields. It is functional to translate into concrete contexts the dimensions that define the quality of teaching and to propose an operational framework of reference (methods, techniques, strategies and tools) that guides the action of teaching and the development of design and evaluation tools able to implement the quality of the teaching function. It can be used by teachers belonging to the same course of study, helping them to develop and activate a quality didactic action system and a didactic-organizational model (also in terms of programming, planning and proceduralization) such as to guarantee the implementation of flexible teaching in terms of design, evaluation and documentation of the proposed cultural and educational intervention, adopting a strategic approach able to support the decision-making processes. The guide is structured in sections and includes some key aspects: i) self-assessment of incoming resources (skills, attitudes, perceptions, teaching practices) with respect to the profile of the teacher focused on learning / teaching; ii) action structures (didactic actions in relation to a context/problem): methods and tools of the teacher focused on learning/teaching; iii) self-regulatory structures (reflection and change of teaching strategies by virtue of the inputs of the learning context): methods and tools of teacher/teaching-focused learning. For each section, the quality levels concern:

1) the analysis of the prerequisite requirements and the starting levels;
2) teach learning processes;
3) multidimensional design and lesson models related to the most accredited didactic design models;
4) communication and relationship;
5) assessment;
6) results, evidence and documentation. Two transversal dimensions concern:
7) didactic writing;
8) teaching practices. The guide goes in the direction of responding to one of the

benchmarks of the Europe 2020 strategy (40% of young people with a higher education qualification by 2020), for the achievement of which the documents recommend training higher education teachers «as teachers» (EUA, 2018; High Level Group, 2014), i.e. from a methodological-didactic and pedagogical point of view.

These IOs constituted the tangible results of the project that were disseminated through the main dissemination tools (multiplier events and project platform). In this sense, specific activities have also been planned to ensure the widest sharing of the project already in the start-up phase (workshops with stakeholders), their enhancement through specially dedicated moments (thematic workshops with territorial stakeholders in conjunction in the different countries) and a widespread dissemination at the end of the project. Other productions strictly functional to the progress of the project and for use within the partnership, which were discussed and shared during the meetings.

QUALITI has also achieved further intermediate and final outputs that are particularly significant for the achievement of the project objectives and the increase of the impact potential of the same:

1) developed training material accompanying IO1 and IO2 to facilitate the understanding and use of the System of indicators (IO1), and the reading and management of the References/quality levels that make up the «Learning/teaching-focused» Teacher's Profile;
2) carried out training activities, by the PP staff respectively in their own countries, aimed at teachers attending the bodies responsible for monitoring and quality evaluation in each Partner University in order to prepare them for the IO1 pilot test. Specifically, the recipients were the professors members of the University of L'Aquila Quality Presidium, the Quality Academic Service of the University of Barcelona, the Center for Pedagogical Analysis and Development of the Valahia University of Targoviste, the Quality Management Center of the University of Vilnius, the Quality Office of the SSW Collegium Balticum;
3) guaranteed facilitation activities, by the project staff respectively in their own countries, to support teachers during the IO1 pilot test;
4) carried out training activities, by the staff of the partners respectively in their own countries, aimed at teachers attending the Bodies with planning and management functions of the training offer, and training of teachers in the Partner Universities, in order to prepare them for the IO2 pilot test. The recipients of the training were professors belonging to the Teaching Area Coun-

cils / CAD of the University of L'Aquila, the Institute of Educational Sciences of the University of Barcelona, the Center for Teaching Competencies Development of the University of Vilnius, the Teacher Training Department of the Valahia University of Targoviste and the degree courses of the SSW Collegium Balticum;

5) guaranteed facilitation activities, by the project staff respectively in their own countries, to support teachers during the IO2 pilot test;
6) guaranteed coaching activities to the participating university professors, by Vilnius University and Siuolaikiniu didaktiku centras (SDC), to support them in the IO3 experimentation phase;
7) activated Steering Committees, in each partner country, with the participation of the staff of the partners and internal and external stakeholders in order to share the development of IO1-IO2-IO3 and monitor its experimentation. The involvement of stakeholders in the Steering Committee, during the project start-up phase, also responded to a further specific need of the project: to jointly define ex-ante the «field of analysis» for the study to evaluate the impacts of the project;
8) signed the Cooperation Agreement between the members of the Steering Committee in order to regulate future collaboration in a perspective of continuous revision / updating of the IOs;
9) carried out the counter-factual analysis of the evaluation of the impacts of the project, through the selection of a control group and an experimental group of professors within each partner university;
10) carried out the evaluation report of the communication and dissemination strategy implemented;
11) created project website;
12) the experimentation of IOs has been activated in the five countries of the project partners (IT, SP, LT, PL, RO);
13) collected stakeholder adhesions, during the project and in multiplier events, for the adoption of IO1-IO2- IO3 and the replication of the experimentation;

Some outcomes that met expectations were synthesized:

– expanded knowledge, and ability to manage tools, for the implementation of processes of recognition of the quality of university teaching;
– increased methodological-pedagogical skills of university professors for teaching.

The project represented an evolution in terms of commitment and integration capacity compared to the projects promoted by the partners who have gained significant experience in Europe on interventions within the scope of QUALITI, namely:

– *for UNIVAQ:* the project is in continuity with the actions, promoted in the Strategic Guidelines of the Training Area, aimed at methodological innovation in the educational field, and with the activities of the CADs, intermediate structures not present in other IIS, aimed at a qualitatively appreciable management of the education process with a view to continuous improvement of the quality of the teaching provided. The project represented an opportunity for international comparison and further development of what has already been achieved;
– *for UB:* the project is part of a corpus of national and international projects carried out by the Institute of Educational Sciences (internal) that deals with the quality and innovation of teaching through the development of indicators and descriptors to evaluate quality teaching, support for the continuous professional development of teachers and monitoring and analysis of performance;
– *for VU*: the project has been part of the field of intervention launched with numerous international projects in the field of teaching evaluation and has also represented an opportunity to innovate and, at the same time, bring into the QUALITI project what has been achieved by the Center for Teaching Competencies Development, in particular with respect to pilot courses for the development of teachers' pedagogical skills and the formulation of criteria to evaluate their impact;
– *for UVT*: the project helped to develop (the) and made use of (the) know-how of the Department of Teacher Training and the Centre for Pedagogical Analysis and Development, which operate in the field of teaching evaluation and support for teacher professionalism;
– *for IML*: the project was a further step in its progress on the issues of research and development of innovation within the European Quality Frameworks (example, Erasmus+ projects: LOWE related to the EQAVET+ Quality Approach; PEOPLE in WBL on the ECVET framework) and pedagogical teacher training (e.g. Erasmus+ INAPP. ME on the promotion of the PBL approach in teachers etc.).
– *for SDC*: the project allowed to re-read and innovate what was previously achieved (for example, the Erasmus+ CRITHINKEDU project, the national project University Teaching) and to develop new operational and conceptual frames;

– *for SSW Col. Balt*: the project was integrated with at least two other ERASMUS+ projects (Hei-UP and HEI-UP) and was aimed at increasing the quality of management processes in higher education institutions; VIR-TEACH- which develops a virtual solution for foreign language training in HE.

4. The QUALITI Project and the processes of change and transformation

The concept of teaching quality in relation to pedagogical competencies of teachers in higher education institutions established itself in all its fullness. The fact that university professors still require no qualification regarding educational pedagogy reflects directly into the learning environment of the students. As such, the main aim in this study is to explore the quality teaching-learning processes and practices and the pedagogical and methodological competencies necessary to carry out adequate training (communication, instructional design, assessment, etc.). The increasing demand for universities and the variety of their responsibilities forces some universities to choose to focus on the central role of higher education (HE) that combines research and educational responsibilities. However, the situation in higher education institutions regarding the place of pedagogical expertise is more complicated than at the lower levels of the education system. As such, the learning environment suffers from a lack of quality pedagogical practices capable of favourably influencing learning environments. To account for quality in education, some countries have taken serious steps to train university staff in a pedagogical sense.

Part I
TEACHING QUALITY INDICATORS FRAMEWORK TQIF (IO1)

Introduction

The Teaching Quality Indicators (TQIF) respond to the need for an agreed and shared approach by the project team to recognise and qualify quality teaching-learning processes in higher education. A key aspect of this recognition of quality teaching is the development and implementation of indicators and metrics agreed by international partners.

The QUALITI project aimed to provide an opportunity for partners to engage proactively with the issue of effective teaching-learning processes and to guide the definition and development of indicators and outcomes of quality teaching. The aim was to contribute to improving the quality of university teaching in partner institutions by providing tools and metrics to measure their performance to enable institutions to respond to the problems identified by the tests.

In order to understand the national and international context and the type of indicators used, a major review of the literature, in particular of institutional relationships, national and international research and practices, was undertaken, which included a collection of secondary qualitative and quantitative data, using mixed techniques and content analysis for the construction of a meta-analysis, which provided a meta-analytical model and a multi-level data structure to pool results (Pastor & Lazowski, 2018). This has clarified how this structure has expanded to better capture some generative mechanisms of quality teaching (Cheung 2014; Assink et al., 2016). These reports informed the framework of teaching quality indicators, identifying those most suitable to inform the quality of teaching-learning processes in an institutional context. This Report outlines a set of indicators of the quality of teaching and university learning, also tracing a range of descriptors that operationalize the process of transformation from abstract concepts into measurable observations. In the final section of this report, a proposal is then attached that contains a corpus of process indicators concerning the quality of teaching used internationally and commonly shared.

The construction of the indicator framework was carried out in three phases: the objective of the first phase was to provide a comprehensive overview in terms

of what is currently recognised as quality teaching-learning processes at local, national and international levels.

As a result of this overview, a selection and classification of the framework of quality indicators of teaching at multiple levels within universities, i.e. institutional, planning and individual, has been developed.

The reports were extensively discussed by the research team, which defined a broad mapping of the use that each university partner uses of them and that it documented in detail. From this basis, a draft framework of provisional indicators used in the literature was then elaborated and widely disseminated, These documents and process resources were extensively developed by the partner universities to guide their subsequent activities.

The second phase involved all the partner institutions that examined the studies on teaching processes and research and learning practices, identifying dimensions of teaching quality and elaborating a Framework on which to focus and implementing a strategy to establish the level of belonging of the indicator, also starting from the experiential contexts of the partner universities. Each university established a reference group, conducted an analysis of teaching and learning policy, processes and practices, and developed expected objectives and outcomes in line with its university vision and strategic plans. Partner universities chose different aspects of the framework, agreeing to share evidence, resources and experiences. The combined results of this activity, the experiences and results of each of the universities have been extensively documented and, for a «criterion» selection, have been merged into the *Teaching Quality Indicators Framework* (TQIF).

The Teaching Quality Indicators Framework (TQFI) is not and does not pretend to be an exhaustive list of all relevant indicators, but serves to contribute to a broader discussion on teaching quality in higher education by addressing the need to seek empirical evidence of teaching quality through a rigorous examination of empirical studies in the literature.

It does not, therefore, cover all indicators used internally by higher education institutions (HEIs), as this would require different steps and analyses.

TQIF was independently evaluated by external evaluators and laid a solid foundation for subsequent work, providing a valuable resource in terms of studies, experience and research for adopting a systematic, evidence-based approach to identifying quality teaching at partner universities.

The aim of the project was to develop a system of internationally comparable direct indicators and process descriptors, able to detect teaching quality more accurately (RAC.13 (Policy Department B Structural and Cohesion Policies, University quality Indicators: a critical assessment, 2015). The TQFI explored the

development of direct indicators of teaching quality in higher education, focusing on process indicators, because they help guide decision-making processes in situation.

This reconnaissance was carried out starting from two macro-areas of need:

1. making teaching quality transparent and acquire data through evaluation indicators of teaching-focused processes to make performance comparable between HEIs;
2. strengthening and enhancing academic teaching through the definition of reference parameters, linked to specific indicators, able to measure the quality levels of teaching in higher education institutions, thus making possible targeted actions to support teaching.

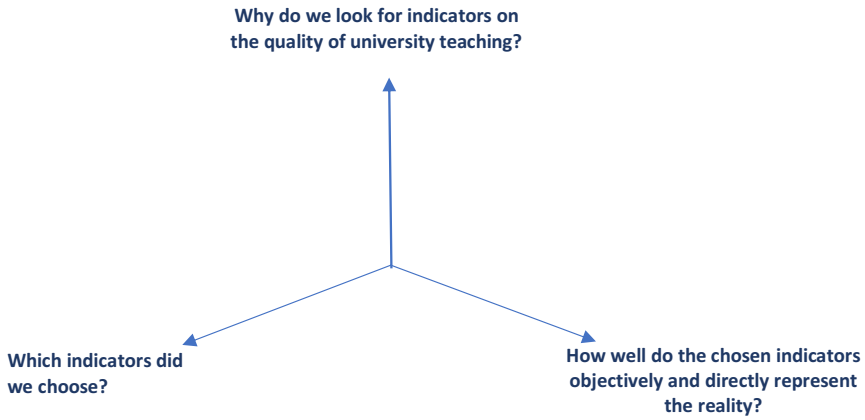
This involved the development of reliable and valid indicators to monitor, evaluate and improve teaching and learning practices and to measure the performance of IIS institutions, focusing on dimensions and factors that value teaching quality, in order to develop a continuous improvement strategy. The choice of appropriate indicators to assess the quality of teaching has not always been simple, but has been theoretically and empirically supported by the literature. Chalmers (2007) states that a high-quality indicator meets several criteria, including validity, reliability, relevance to mission and policy, potential for disaggregation, timeliness, consistency between different sources, clarity, and transparency with respect to known limitations, accessibility and convenience, comparability through adherence to internationally agreed standards.

Indicators are synthetic measures derived from data. The reconstruction of frames of reference plays an important role in structuring indicator sets. The Quality Assurance Framework of the European Statistical System develops ten quality principles related to the institutional environment (commitment to quality), statistical production processes (sound methodology, appropriate procedures, non-excessive burden on respondents, cost-effectiveness) and statistical output (relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clarity) (The European Statistical System, Quality Assurance Framework of the European Statistical System).

Regarding the process of selecting indicators for a set, in existing practice, in the QUALITI Project, the following European criteria were referred to:

– relevance and usefulness for users
– methodological soundness

– measurability
– Criteria for the set of indicators
– indicators should be consistent and complementary to each other (consistency)
– indicators should be limited in number (parsimony)



Starting from the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG, 2015), the QUALITI project; in this first Intellectual Output (IO1) investigated precise types *of process indicators* used to measure the quality of teaching and their adequacy with the aim of identifying some "aggregated" factors at institutional, planning and individual level, selecting the sub-indices for inclusion. The categories of indicators were defined according to the interpretative model.

The context indicators (defined at IIS level), together with the documentation of the partners involved, were described according to the structural characteristics of the partner universities, using different tools, including the *Working Material*, which proved to be a valuable tool in the start-up phase of the project, when internal and external quality assurance in the partner institutions were examined, educational objectives and standards, completion rates, distribution of graduates, structure of institutions, etc.).

The process indicators concerned characteristics of the teaching-learning processes of the Universities based on aggregates of data collected at lower levels, such as curricular priorities, structural investments for the monitoring and evaluation of teaching, for the promotion of training and professional development of university professors, in terms of pedagogical and methodological-didactic skills with

which to carry out practices focused on teaching and centered on the characteristics of the student, attentive to the teaching of the sector (disciplinary) and to the different types of teaching activities provided (teachings, laboratories and internships). This is also by paying attention to the promotion of effective incentive structures and human resources policies at institutional level, which favor the training and exchange of appropriate practices at international level, with particular regard to those focused on the use of active methodologies and innovative strategies, to those that provide interdisciplinary approaches, thus aiming at the definition of new forms of planning and evaluation of the curriculum. In this sense, the project is fully in line with the priorities related to the development of concrete data and the promotion of high-level teaching, as it has sought to encourage and stimulate innovation processes.

The TQIF responds, therefore, to the objective of developing agreed indicators and metrics with the main result of creating, using and implementing a conceptual framework of indicators and descriptors of the quality of teaching and teaching-learning processes that could be descriptive of the university contexts examined, with the advantage of producing robust data that could be compared with other studies, if appropriate. The framework also identified systems and processes that support and enhance the quality of teaching.

Considerable work was done to develop such measures and indicators which were used to achieve the other project results.

I.
Context

QUALITI project partners created an initial robust and effective quality framework that was implemented with subsequent revisions. In the field of higher education, in fact, much has been achieved in terms of the scientific corpus of reference, as well as in terms of the collection of quality indicators developed by external international accreditation agencies, which have always been taken into due consideration as a reference. The process of collecting national and international data through the *Assessment Framework Indicators* (AFI) has evolved in its current form to improve the quality of the data collected.

In the field of higher education, much has been achieved and recognized at national and international level, including in terms of surveys, regarding the first systematic initiatives and data collection processes, which have evolved over time in their current forms to progressively improve the quality of the data collected.

The introduction of the *Teaching Quality Indicators Framework* (TQIF) (IO1) focused the attention of the partners precisely on the quality of the teaching-learning processes and on the measures used to evaluate them. The project group proposed a framework of indicators for higher education in some discussion papers which then saw its final composition in this Report.

II.
Teaching and learning trends and processes: Teaching Quality Indicators Framework

A trend observed in all partner countries is the presence of national accreditation systems, processes and audits and requirements to provide information on a number of indicators on teaching quality, but not always process. Many of the trends noted in reviews of international quality teaching and learning practices are well established in the higher education sector.

The TQIF aims to provide an informed contribution to the debate on the use and validity of the process indicators currently applied to measure the quality and effectiveness of university teaching. It covers education-related indicators, including learning and teaching, but also overall experience and learning environment, providing an overview of indicators related to teaching-learning processes used to reflect on the challenges associated with the various ways in which indicators are currently used, but also with the overall experience of quality teaching and learning environments.

1. Literature and data collection and management

Identifying sound and reliable indicators of teaching and learning quality remains a major challenge for HEIs.

The TQIF was drawn up on the basis of information from different sources. Theoretical research and preliminary analysis were conducted involving the collection of secondary qualitative-quantitative data, using mixed techniques and content analysis. The following were carried out:

1. a literature review, with which a synthesis of themes and problems and analyses by subgroups of factors was obtained;
2. a meta-analysis of the evidence studies that provided a systemic picture of the differences in the results and variation in the characteristics of the study;
3. collection of students' opinions on its effectiveness. a literature review, with which a synthesis of themes and problems and analyses by subgroups of factors was obtained;

4. a meta-analysis of the evidence studies that provided a systemic picture of differences in results and variations in study characteristics;
5. collection of students' opinions on its effectiveness.

Bibliographic searches were conducted to identify significant sources of information relevant to the quality of teaching and learning in terms of evidence on the specific policies and practices of institutions, governments and other organizations, regulatory levels for quality control, accreditation etc. They were also researched by country, institutional, programming and individual level, standards, indicators and evidence identified as relevant to quality teaching and learning that also documented the associated systems.

Data were found for indicators and measures and for the processes by which they were implemented. The methodological and didactic skills related to the teaching-learning processes of the university professor were also investigated, with particular attention to teaching functions.

A number of measures have been adopted concerning:

1. The conceptual framework of the quality of teaching as an opportunity for understanding, development and enhancement;
1. Indicators contributing to the development of effective teaching-learning practices;
1. Processes and direct indicators that can be generalized;
1. An evidence-based approach.

Indicators were examined at local, national and international level, using precise shared quality models, and sets of indicators present in national and international comparative reports, produced as a result of specific studies and evidence research, were analyzed, supplemented by selections of data from centrally collected and publicly available information, sometimes accompanied by additional information from a range of sources. In particular, a series of cross-explorations have been launched on the Reports of the quality assurance agencies to identify the indicators related to the learning and teaching they use and how they use them.

2. Indicators in higher education

The use of indicators in higher education that measure the effectiveness or quality of teaching is increasing precisely because there is a great demand for evidence-

based evaluations and decision-making. Indicators are used to understand the "functioning" of quality teaching as a whole at a specific level of education or program or classroom.

Generally, indicators are used by the IISs for five main reasons:

1. To monitor its performance for comparative purposes;
2. To facilitate the evaluation of institutional work;
3. To promote forms of internal institutional self-assessment;
4. To provide information for external quality assurance audits;
5. To provide information for accountability and reporting purposes at national systemic level.

The reasons for such reasons differ at the national or state level, where they are often designed to:

1. ensure accountability for the use of public funds;
2. improve the quality of higher education provision;
3. stimulate the upward growth of institutions;
4. verify the quality and start-up of new institutions (initial accreditation);
5. assign institutional status;
6. guarantee relations between the State and institutions;
7. facilitate international comparisons.

These different reasons for the use of indicators between governmental and national institutions and organizations can also lead to generating disagreements on the most appropriate indicators that help identify quality teaching and learning. However, they also provide an overview of common and divergent focal points regarding teaching depending on the type of indicator used.

The project team also discussed the challenges associated with the various ways in which indicators are currently used.

3. Definition of process indicators

Considering the difficulty of identifying appropriate indicators to measure teaching and promote quality teaching (Strang et al., 2016), the *Teaching Quality Indicators Framework*, far from being considered an exhaustive tool, can be considered a key resource for measuring the achievement of strategic and operational objectives in process-oriented institutions.

As is known, an indicator can be defined as a tool that helps both to have a

sense of the state of an educational phenomenon and to report on that status to the entire academic community. It is a processed information that helps to clarify the nature of the phenomena studied, whose characteristics are:
1. relevance;
2. the ability to summarize information without distortion;
3. the coordinated and structured character, which allows it to be related to other indicators for an overall analysis of the system;
4. accuracy and comparability;
5. reliability.

With reference to quality education, it should make it possible to measure how far or close one is to a goal, identifying problematic or unacceptable situations. Quality education lacks clear definitions and, in a sense, cannot be disconnected from the debate on quality or quality culture in higher education, which remains a controversial battleground. Some scholars view teaching as a process that depends on what is taught and other situational factors. In this interpretative framework, a system of indicators on teaching and its quality can be understood as a "control panel", which facilitates the identification of problems, allowing comparisons between fields, over time and with commonly accepted standards, providing information on the degree to which the quality objectives of teaching and learning are achieved within the IISs.

4. Types of indicators

There is general agreement in the literature on the different types of indicators, which are:
1. Context indicators;
2. Input indicators;
3. Process indicators;
4. Output indicators (Scheerens, Luyten, & van Ravens, 2011).

These indicators can be more broadly classified as quantitative and qualitative indicators. Chalmers (2008) provides a detailed description of the types of performance indicators and their origins. The tripartite set of indicators - structural, process and result - is not lacking in the literature, especially structural (input) and result (learning assessments).

The problem concerns process indicators (quality measures of education) be-

cause they are more difficult to define and measure. However, while qualitative result and process indicators are more penetrating and accurate in measuring methods and quality of teaching and learning, they are not frequently used, as quantitative input and output indicators are more easily measurable. This has resulted in an inappropriate reliance on less informative, quantitative, input and output performance indicators. In line with the literature and with what has been done by European international organizations, the most frequent use is that of quantitative indicators, especially inputs and outputs. The performance indicators currently used by IISs are generally chosen because they are easily quantifiable and available (Sizer, Spee, & Bormans, 1992). Hence the importance of integrating them, in the QUALITI project, with those of process and context, each of which has different characteristics and objectives, but in fact all are operationally related. The systems of indicators, whether at national, institutional or university level, often incorporate, therefore, those of input and output that serve to inform on decision-making processes and to evaluate quality. The importance of restoring a balance between them, starting from a focus on process and direct indicators, is particularly significant at national level to avoid unintended consequences.

It is clear, however, that, although the indicators can represent trends and reveal important aspects of the IISs, they are not always able to provide exhaustive explanations capable of returning clear representations of quality teaching and its dimensions, since the complexity of the construct and the factors associated with it is such as to make it necessary to use multiple sources of information that can be able to grasp problems, to diagnose critical issues and to advance interventions and solutions.

In fact, the indicators must also be interpreted in the light of contextual information referring to institutional work. In this sense, the measurement of the quality of teaching and learning in the field of IISs involved in the QUALITI project the choice and use of significant indicators to inform individual, programming and institutional performance, allowing to inform the development of strategic decision-making, resulting in measurable improvements. However, while national and international institutions move within this debate, attempts continue to be made to pursue the path of identifying "direct" measures, which reliably inform about the quality of teaching and learning in higher education, so as to obtain relevant information. Process measures and indicators are the most promising, which are found in institutional, programming and teaching practices, which are the core of the QUALITI project and the TQIF.

In the appendix are some synoptic tables of Indicators of the quality of teaching present in the literature (**Appendix 1-4**).

5. Institutional focus on indicators of teaching and learning processes

The QUALITI Project focused its efforts on the possibility of undertaking active strategies to succeed in:

1. improving the quality of teaching (especially in relation to the variability and variety of students' characteristics, particularly those who are weak, socio-economically disadvantaged, etc.);
2. actively involving and stimulating university teachers to undertake an educational commitment in favor of all students, especially those belonging to disadvantaged groups;
3. involving partner IISs in the creation of quality education pathways and teaching-learning processes that meet the needs of students of all categories and ages;
4. taking into account the teaching mission of the University and the institutional values linked to it, taking into account a variety of contexts and approaches.

Focusing on the quality of teaching-learning processes and on the centrality of the target audience of education, i.e. students, the QUALITI Project provides an important point of view to account for the dimensions of quality teaching for the implications it produces on learning. However, it cannot be forgotten that this is a path in progress and that progression must be part of any set of key indicators of quality teaching and a quality learning experience.

A key aspect of the recognition of quality teaching is, in fact, precisely the development and implementation of indicators and metrics agreed at different levels; This also applies to the partners of the QUALITI project, which provided an opportunity to engage proactively with issues relating to the recognition of quality teaching and to guide partner institutions in developing indicators, albeit provisional, which can lead to clarification of the characteristics of quality teaching. This also allowed the research team to put forward specific proposals to improve the quality of teaching and training of university professors in partner universities, providing conceptual tools and metrics to measure their practices and allow institutions to respond to problems identified by the set of evidence collected.

This systematic approach has been supported and accepted by all to ensure the development of a process-based quality culture and the need to exploit a conceptual model capable of enhancing the quality of teaching and learning in partner institutions and its culture while enhancing the quality of students' university learning and experience.

III.
Methodology, results and implementation processes

1. Research and development of switchboards

The research was carried out by an international research team under the direction of the project leader and in consultation with the project team in mixed and online mode and through the tools of the network, including bilateral meetings with partners. The research formed the basis of the reports produced in phase 1, in which the first framework of teaching quality indicators (TQIF) was built. Systematic and detailed tables of indicators were developed to show how dimensions could be used to detect the teaching of quality through multi-level scanning and areas and subsequently guide and disseminate the use of indicators to orient, review and improve practices. These tables were then summarized in tables of indicators for each of the identified dimensions (**Table 1**). The reports also identified potential benchmarks and national indicators. The provisional framework of indicators was then revised in the light of the comments received from the research team and was subsequently used by the partner universities for the realization of subsequent Intellectual Outputs.

2. Results: framework research and development

Development of the teaching quality framework

The procedures, reports and documents mentioned above contributed to the development of a framework, resources and tools that helped partner universities to review ideas and principles regarding their teaching and learning systems, policies and processes and to put themselves on the path of change, where necessary, with the contribution of partners from other project partner organizations who have taken on the role of "vigilant" contributors in the framework of the indicators referring to the quality dimensions identified.

These dimensions and indicators have led, in subsequent Intellectual Outputs

(IO2 and IO3), to be further divided into sub-processes, at different levels, within the institution with respect to:
– politics and institutional didactic logic;
– politics and departmental didactic logic;
– politics and teaching logic at peripheral level (degree course and teachers);
– the didactic profile of the university professor;
– to the student's profile;
– the training and didactic preparation of university professors;
– the methodological and didactic skills of the teachers;
– curricular processes;
– the language of instruction;
– teaching/learning processes;
– didactic design;
– evaluation and evaluation processes;
– didactic communication;
– the didactic report;
– didactic management;
– the didactic organization;
– teaching practices;
– innovative teaching;
– collaboration/sharing;
– tutoring/mentoring;
– quality teaching;
– the role of stakeholders;
– to stakeholders.

3. Context and institutional systems

An institutional context is characterized by a commitment to the enhancement, transformation and innovation of teaching. It is a key dimension of quality teaching and learning, with reference to the assessment of the levels of satisfaction and experience of university institutions, teachers, students and all other staff. Measuring student experience and satisfaction is currently a common indicator of the quality of teaching and learning. However, research shows that it provides a limited amount of information about the institution. Other dimensions, such as climate, community involvement, etc., are all elements on which other clusters of indicators with a strong alignment with teaching and student learning can be built (see **Appendix 2** and **3** for full review and references).

In-depth research on direct indicators and internationally comparable process descriptors, able to detect with greater precision the quality of teaching (RAC.13 (Policy Department B Structural and Cohesion Policies, University quality Indicators: a critical assessment, 2015), has also allowed to derive indications on:
– characteristics of university teaching;
– institutional policies for the enhancement of teaching;
– professional development of university lecturers;
– institutional efforts to improve the professional development of university lecturers.

For each dimension of quality education, a framework of indicative indicators for that dimension at that level is developed. Each table outlines the expanded indicators in more detail in checklists for each level so that the institution can serve to evaluate its processes and practices, identifying specific measurements when necessary. While indicative measurements are indicated with a particular dimension, it may be useful to study the relationships between dimensions and levels. Each university is asked to consider indicators and levels as indicative rather than prescriptive requirements.

4. Indicators of the teaching quality framework

Phase 2 of the project developed the framework of indicators of the quality of teaching-learning processes, on which a detailed review of practical policies and teaching-learning processes was carried out, which were shared throughout the group. In addition, resources and tools were communicated and made available to the entire team.

Process indicators are the most practical, useful and appropriate measures of the quality of teaching and learning within IIs (Chalmers & Thomson, 2008) and provide an understanding of the current dimensions and practices of quality teaching, informing about aspects, elements, initiatives and policy decisions that lead to the improvement of teaching and its quality (Kuh, Pace, & Vesper, 1997).

Based on the literature review, the TQIF contains summary tables of quality indicators for the identified dimensions. Dimensions and indicators have been divided by level: institutional, programmatic and individual. The ways in which quality teaching is recognized at institutional, departmental/faculty and individual planning levels, at local, national and international levels, were also examined.

Table 1
Teaching Quality Indicators Framework – TQIF (IO1)

Table 1: Teaching Quality Indicators Framework – TQIF (IO1)

Level	Input	Process	Output
Institutional	• Access for teachers to training services • Access for teachers to teaching support services, including those for students with special or specific needs Student categories • Presence of resources, supports or pedagogical and didactic materials to support teaching processes • Educational environments based on the use of technologies, IT structures and educational services • Awarding awards for quality teaching • Presence of models for analysing the characteristics and background of teaching staff, including qualifications and experience • Active links with the external academic community to support the quality of teaching and teaching • Recruitment models training, development and evaluation • Presence of recruitment criteria also based on teaching • Presence of criteria for assessing the quality of teaching on the basis of defined indicators • Presence of levels of didactic qualification of the teaching staff, also in terms of experience in the design and management of the evaluation • Existence of facilities or centres for the development of teaching and learning • Forms of recognition of the teaching experience of teaching staff • Institutional funding for the evaluation processes of the quality of teaching and teaching • Institutional funding for the allocation of resources in the identification of strategies related to educational innovation • Funding/resources for learning monitoring and evaluation courses • Funding/resources allocated to courses designed for teaching and to support learning and forms of student involvement • Forms of certification of university teaching • Academic meetings, conferences and seminars on teaching and learning • Presence of consistent leadership	• Adoption of evidence-based approaches to evaluation policies • Alignment between institutional policies to improve teaching practices and activities to promote the latter at Faculty, Department and Study Programme level • Adoption of improvement approaches to design, evaluation and educational planning • Systematic reporting cycles of data and teacher involvement plans in teaching • Collaborations and international projects aimed at improving the quality of teaching • Presence of criteria and processes for teacher training • Presence of criteria and tests required to demonstrate the level and quality of teaching services (e.g. peer review, feedback from colleagues, etc.) • Availability and accessibility to teaching and learning resources (articles, teaching materials, etc.) • Disbursement of ad hoc funds for teachers interested in increasing teaching preparation, also in a disciplinary sense • Provision of grants and funding of targeted initiatives to support teaching for teaching staff • Forms of skills assessments and certification of university teaching • Commitment to the development of a formative assessment by the University/Faculty/Department/Degree Course • Provision of activities for teachers to support the development of the professional learning community on the quality of teaching inside and outside the institution and at local, national and international level • Provision of professional development programmes (didactic communication, inclusiveness etc.) for all teaching staff • Provision of training and teaching qualification programmes • Provision of professional development programs that include understanding what constitutes the instructional commitment and how it can be developed • Provision of services and support of teachers' teaching needs regarding teaching-learning processes and teaching quality • Provision of professional development of teachers in a didactic sense based on the classification and review of evaluation processes • Provision of professional development for teaching staff in different teaching functions (tutor, supervisor etc.) • Academic meetings, conferences and seminars on teaching and learning • Identification of incentives to promote teachers' engagement in teaching • Organization of initiatives for all academic staff to understand how to develop positive learning experiences and create conducive learning conditions for all students • Organization of initiatives for all academic staff aimed at involving students in educational choices • Organization of training courses that help teachers to perform teaching roles and functions • Participation in the construction of policies, processes and practices for evaluation and self-evaluation of teaching quality • Participation in the construction of quality assurance policies, processes and practices established and implemented by the individual bodies within the institution • Plan for the development of pedagogical and didactic competences at university level • Policies and processes linking criteria to review of educational performance, career, access to resources, etc. • Policies on teacher training for incoming and outgoing staff • Development policies to support teaching and learning and presence of counselling centres • Evaluation policies addressing pedagogical and didactic issues • Teaching policies and development strategies related to teaching and learning • Policies and practices of rewards for educational improvement • Curriculum Design and Planning Training Policies	• Number of trained staff • Number/percentage of staff continuing training after initial training • Percentage of funding dedicated to teacher training • Number of staff participating in training and professional development programs at University, Faculty, Department and Programme level • Number/percentage of staff completing teaching quality training programmes • Rates of drop-out, progression and completion of pedagogical and didactic training courses • Requests for financial support for teaching • Percentage of staff participating in training by subject groups and characteristics mapped by academic position levels • Maintenance of training, career progression by characteristics of the staff according to the teaching qualification • Rate of retention of teachers to educational programs by academic position • Teaching qualification levels by academic position • Trend and success data (completion of teachers' paths for relevant characteristics, etc.) • Transition rate from the point of view of the degree and level of methodological-didactic skills • Number and type of incoming and in-service training courses, by type of staff and by academic position • Number and type of appeals related to issues concerning the teacher's methodological competences (design, evaluation, report, etc.) • Number of teachers using teaching support services • Teacher progression rates for further pathways with higher degrees of teaching expertise • Number of teachers participating in organized initiatives on educational issues • Participation in the number and type of teachers' appeals relating to issues of evaluation and monitoring of learning • Number and type of training paths related to assessment and learning monitoring issues • Number of staff attendance at programs and workshops on teaching quality • Degree and level of pedagogical and didactic competences

	• committed to teaching quality and equity • Presence of training methods that define the teaching performance of teachers • Models for the recognition of teaching performance of professors at University, Faculty/Department level • Teaching policies and strategies related to teaching and learning • Policies and reward practices for educational improvement and innovation processes • Presence of harmonization policies between teaching and research • Presence of teaching and learning resources (access to journals, materials, etc.) • Presence of roles, functions, regulations • Presence of support services and teaching consulting centers • Forms of pedagogical and didactic qualification of teaching staff • Resources allocated to teachers committed to quality teaching and learning • Resources for the pedagogical and didactic training of incoming and continuing education staff • Structures that allow you to experiment with innovations • Structures and resources to promote commitment to teaching quality (specialised library, online resources, meeting spaces, information and communication tools for staff and students, etc.)	• Policies, processes and criteria for the periodic review of educational performance • Use of up-to-date teaching practices from a methodological-didactic point of view to motivate student involvement • Use of teaching practices based on active teaching that employ learner-centred approaches • Use of communication methods and information resources to provide specific support on the quality of teaching, teaching regulations, teaching management and organization, etc. • Teaching quality assurance policy processes and practices established and implemented throughout the university • Educational experimentation projects • Promotion of processes of harmonization between teaching and research functions • Systematic review of assessment methods and techniques to assess the achievement of objectives and measure learning outcomes in specific disciplines • Systematic review of teaching and assessment practices against precise learning standards (using internal and external reviewers) • Review, by groups of disciplines, of assessment tools to measure learning outcomes • Awards for virtuous teaching practices • Systems to monitor the progression, completion and educational qualification of teachers by group and academic position in training paths • Active strategies to attract or retain teaching staff with high educational expertise from different contexts • Active strategies to attract teachers towards pedagogical and didactic training • Active strategies for working with groups of teachers aimed at addressing specific educational needs • Development of educational environments based on the use of technologies, IT structures and services • Development of criteria for teaching quality • Development of reliable indicators and evaluation descriptors, developed and validated within the institution and by external experts in teaching the discipline • Development of certification systems for pedagogical and teaching competences • Development of structures or centres for the development of teaching-learning processes and for didactic innovation processes	
Programming	• Educational reward opportunities • Staff with teaching and leadership opportunities • Positions, levels and teaching workloads of teaching staff monitored and managed • Characteristics of teachers by study program • Resources/student reports • Staff workload • Mentoring support programs offered within the department for staff and students • Resources earmarked for evaluation • Resource to student ratio • Staff workload • Staff qualifications/experience • Guidance programs for staff support and available opportunities. • Relationships job opportunities integrated	• Presence of supervisors trained on criteria and development of staff performance, career planning relevant to the discipline and organizational unit, liaison with institutional requirements • Performance management policies and practices related to institutional policies • Evidence of monitored policies and actively supported staff to participate/participate in programmes, further studies, development • Implementation of policies on evidence of teaching quality (peer review, student feedback). • Active monitoring and support for the review and development of teachers' teaching performance • Provision of support and training for session faculty and their supervisors • Provision of educational consultancy services for teaching staff • Development and revision of the curriculum that takes into account the variety of students' learning conditions and the variability of their characteristics for the enhancement of different perspectives and contributions • External review of disciplinary teaching, curricular path • Presence of teaching staff trained on how to carry out the construction of the curriculum and aware of how to build a plan and a course of study and on the use of teaching tools (compilation of the Syllabus, use of the didactic lexicon, etc.) • Consultancy for the drafting of teaching planning documents, work and study plans, etc., study consultancy • Percentage of trends of the diversity characteristics of the teaching qualification of teaching staff over time • Maintenance of the preparation of teaching staff according to the characteristics and academic positioning	• Number/percentage of staff with teaching qualifications • Number of faculty members participating in training per programme/unit. • Number of teachers for academic positioning who are available to hold institutional positions of a didactic type • Teacher participation rates in educational initiatives • Teachers' results in training by areas • Faculty retention rates by discipline taught, by academic grade placement, by area, and by years of teaching • Teacher drop-out rates • Rates of permanence in the institution	

	learning experiences for students.	• Evaluation policies addressing pedagogical issues • Adoption of evidence-based assessment practices • Commitment to formative or learning-oriented assessment • Integrated assessment in didactic planning, departmental review and teaching practices processes • Established services and facilities that recognize different groups of teachers and their educational needs and interests • Consolidated systems to identify "risky" teaching practices • Consolidated systems to identify "at risk" students and to interact profitably with them through forms of early monitoring, counseling, learning support, etc. • Time spent by teachers learning methodologies, techniques, etc. to improve teaching • Curricular programs and practices to support and improve teachers' commitment to teaching quality • Recognition of the contributions made by teaching staff in improving student engagement and increasing learning opportunities • Enhancement of teaching within a course or a Faculty / Department. • Promoting the balance between teaching and learning performance and research performance • Hiring experts to assist teachers at the educational level • Design-aligned evaluation • with course learning outcomes • Research-inspired teaching • Promotion of project-based teaching • Promotion of multidisciplinary research and graduate programs • Organization of open discussion groups with students and the academic community on teaching, the study of techniques and so on. • Organization of graduation seminars, workshops and certification programs • Invitations to expert speakers • Presence of representatives of the professional communities • Peer and group assessment in class, promotion of presentations, brainstorming, group work, and so on. • Processes for many people to provide feedback • Processes for continuous curriculum improvement that include faculty and students	
Individual	• Pedagogical and didactic qualification paths • Participation in initial and in-service training plans • Annual review of didactic planning • Review the teaching experience to actively identify new teaching strategies and new solutions • Development of relevant and appropriate teaching skills • Engagement in learning communities focused on teaching • Career plan development with supervisor and opportunities for experience and professional development activities • Features of students' background • Staff qualifications/experience • Features of students' background • Staff workload • Explicit statements on learning outcomes	• Participation and development of individual plans for comparison with colleagues • Development of research groups in the field of teaching the discipline • Actively monitoring and evaluating the development of teaching qualities • Responses to the evaluation of the students of the course on the characteristics of the teaching provided • I develop the curriculum through the introduction of new resources • Participation in training; didactic contents, teaching strategies, materials, evaluation tasks • Flexible curriculum design, such as presentation methods, pace, level, and type of assessment tasks • Mentoring colleagues • Actively responding to specific needs for diversity and equity • Activate didactic alignment processes in lesson plans with reference to different disciplines and different learning objectives • Clear communication with students about expectations, criteria and standards • Use of a variety of assessment techniques, methods and tools, as well as types and modalities also taking into account the different categories of students • Plan evaluation moments to systematically verify the achievement of learning objectives and evaluate the results on specific disciplines • Providing specific, continuous and timely feedback to encourage student learning • Review of the design, delivery, management and feedback component of teaching and evaluation activities and their integration into the curricular approach • Periodic review of disciplinary descriptors (and course and discipline objectives)	• Number of peer review responses and faculty feedback on training quality relevant to academic position • Attendance of teachers in training programmes • Teacher learning outcomes • Faculty retention rates • Rates of drop-out and attendance at teacher training courses • Progression rates by disciplines and programmes

	linked to assessment requirements • Staff qualifications/experience • Recruitment of didactically competent staff and enhancing teaching in the staff recruitment phase • Allocation of funds for educational innovation	• Commitment to professional development on assessment, its criteria and tools • Review of practices that facilitate student involvement in their learning • Development of teaching strategies and practices to promote and support student engagement that recognizes students from different backgrounds • Information for students about the academic tasks to be fulfilled • Provision of students available and contact details to be heard or received • Integration of teaching work into student experiences • Connection of teaching activity to reality and social needs • Connection of teaching to professional needs • Adequate assessment of student learning outcomes • Illustration of assessment criteria to students • Organization of discussion groups with students of the progress of the course • Promotion of peer review teaching • Promotion and management of initiatives and projects aimed at improving teaching and learning • Promotion of discussions, meetings and meetings on best teaching practices and innovative methodologies • Planning of teaching development activities such as in-service training of teachers • I help teachers balance research and teaching • I help teachers manage teaching loads • Support for innovative pedagogy • Stimulation and motivation of best teaching practices • Granting sabbaticals to those who have demonstrated excellence in teaching and have a development plan • Development of valid assessment tools to measure effective lessons • Involvement of members of the University, Faculty, Department in the accreditation process of their courses • Construction of networks and paths of didactic professionalization • Assumption of commitments and effective management of tasks and responsibilities of didactic coordination or teaching support • Performance of tutor and facilitator functions for newly hired colleagues • Creation and use of tools for sharing good teaching practices • Attention to educational situations in the course of lessons or other activities • Commitment to participation in projects concerning teaching • Participation in the production and documentation of valuable teaching materials • Actively participation in research-action initiatives and methodological and didactic experimentation • Use of ICT and innovative teaching methodologies effectively both in teaching the discipline • Use of evaluation tools especially for training purposes • Management of the educational relationship and its problems • Active participation in the elaboration of the training offer • Innovation of didactic action thanks to study and self-training activities	

Table 2
Indicators of Teacher and Student Profiles

Profiles			
University Teacher Profile	Describe the background Describe characteristics Describe previous experience Describe prerequisites	• Provide a teaching perspective centred on student learning • Possess desirable characteristics of the teacher • Possess and experience, qualifications and development of teaching • Use of teaching practices based on active teaching that employ learner-centred approaches • Use of research results to inform teaching and curricular content • Involvement of the university community • Forms of support for teaching and learning • Financing of initial and continuing training • Valuing and embracing the diversity of students and staff • Provision of appropriate support services • Active recruitment of personnel (teaching skills) • Provision of transition and didactically adequate professional support • Presence of multiple paths for the recognition of staff of teachers' teaching skills	• Institutional commitment to a culture of quality • Commitment to the development of a culture of formative assessment • Adoption of evaluation policies concerning pedagogical and didactic issues of teaching • Adoption of evidence-based assessment policy approaches • Alignment between institutional policy and teaching practices and activities • Institutional commitment to the development of a culture of diagnostic and training assessment and not only summative • Providing specific, continuous and timely feedback • Explanation of learning outcomes • Monitoring and continuous review of standards and evaluation tasks
Student Profile	Describe the background Describe characteristics Describe previous experience Describe prerequisites	• accepts responsibility for his/her own learning • actively participates and is authentically engaged • collaborates/teams with other students • exhibits a sense of accomplishment and confidence • takes educational risks in class • practices and engages in safe, responsible and ethical use of technology • recognizes what proficient work looks like and determines steps necessary for improving his/her work • monitors progress toward reaching learning targets • develops and/or uses scoring guides periodically to assess his/her own work or that of peers • Uses teacher and peer feedback to improve his/her work • reflects on work and makes adjustments as learning occurs • articulates and understands learning intentions/targets and criteria for success.	

		• reads with understanding a variety of texts. • applies and refines inquiry skills • applies and refines higher order skills • poses and responds to meaningful questions • uses appropriate tools and techniques to gather, analyze and interpret information from quantitative and qualitative evidence • develops descriptions, explanation, predictions, and models using evidence • works collaboratively to address complex, authentic problems which require innovative approaches to solve. • communicates knowledge and understanding in a variety of real-world forms. • communicates knowledge and understanding for a variety of purposes. • demonstrates growth in content knowledge and abilities • uses and seeks to expand appropriate content vocabulary • connects ideas across content areas • uses ideas in realistic problem solving situations	
		•	

Table 3
Indicators for description quality teaching of process

DIMENSION		QUALITY ASPECT			
Indicator	**Descriptor**	**Operational definition**	**Importance of the indicator Score (in %)**	**Source of evidence**	**Sectors that need improvement**
Curriculum Processes	**Design**	• Use accurate and scientific curricular design • Employ precise theoretical approaches • Use precise design patterns • Use design practices focused on the characteristics of the student • Identify student-centered forms of design • Identify solutions to specific learning problems • Analyze, evaluate and present information, ideas and concepts from relevant data • Aligning design with curricular and disciplinary goals • Use forms of curricular co-design • Use the support of expert figures, where necessary • Define goals clearly • Analyze what needs to be taught/learned • Determine how it should be taught/learned • Conduct tests and reviews • Assess whether students learn			
	Contents	• Select key content • Provide well-structured content • Effectively present content • Vary content • Ensure the contribution of appropriate theoretical and practical approaches to the discipline • Provide a complete understanding of the contents proposed in the entire program • Ensure the flexibility of content to include and reflect effectively on aspects and problems concerning the relationship between curricular content and reality • Consider students' emerging concerns, expectations, and needs in content treatment within a curriculum and lesson designs • Continuously update content			

	• Connect content to professional needs and knowledge • Connect content to the needs of reality • Connect content at an interdisciplinary level				
Development	• Structure a Syllabus • Identify Learning Outcomes in relation to curriculum • Identify precise teaching and learning techniques and methodologies • Preparing and planning teaching and learning • Include cross-cutting areas in your curriculum • Take into account the characteristics of students and their progress • Take into account the characteristics of students with special needs or minority categories • Promote change in one's own discipline taking into account its evolution within classroom contexts • Ensure a certain temporal flexibility in the scanning and progression of teaching • Connect the topics covered in the classroom with what is present outside the university, or with what happens in society • Implement formative assessment • Promote the relationship between one discipline and other disciplines • Promoting technological, social or cultural advancement • Participate independently in research networks on teaching and teaching of their discipline				
Flexibility	• Making the curricular path flexible • Adapt and modify your communication style when necessary • Adapt your classroom behavior to new situations based on experiences • Adapt your classroom behavior to different needs and different contexts • Adapt teaching to different cultural target groups when interacting in the classroom • Adapt planning in response to changing circumstances and needs in the context • Adapt to new situations by applying skills in different contexts • Adapt to new situations by applying knowledge differently • Adapt to new situations based on the information obtained • Adapt to different cultural styles and behaviors • Adapt effectively to change • Easily adapt to different needs • Easily adapt to different classroom environments • Easily adapt to different or new student targets • Easily adapt to new situations • Easily adapt to new cultural environments • Easily adapt to new situations by gathering more information				

		• Change the way you explain an idea, a concept, a topic if the situation requires it • Control emotions in situations • Be flexible when managing discussion groups in the classroom • Being able to adapt one's usual way of thinking to scientific perspectives • Changing the way we teach in light of new information received • Change the way you teach when you realize that a problem exists • Modify the language register so that it is understood by all students • Modify actions to try to achieve the intended goal • Change actions if something doesn't work or hinders the achievement of goals • Change teaching strategies when needed • Show flexibility to adapt to new people, places, situations and contexts • Show flexibility when tackling obstacles • Show flexibility when interacting with people who have cultural affiliations other than your own • Show the ability to overcome anxieties, worries, and insecurities about teaching • Ask questions in the classroom to understand students' point of view • Try to fix a problem when it arises • Adjust lesson planning in response to changing circumstances or student needs • Adjust the style of interaction with students to interact more effectively when needed • Adjust the way you work when you need it • Revert your decisions if the consequences of those decisions show that this is necessary • Review the way you communicate when necessary • Review the time scan of learning activities when necessary • Take into account previous teaching experience to make effective teaching choices • Being comfortable in the classroom • Use available resources • Use appropriate strategies to adapt to students' prerequisites • Use active student-centric methodologies				
	Inclusive learning processes	• Identify stereotypes and prejudices • Recognize bias and discriminatory behaviour • Use inclusive behaviors and attitudes • Reflect critically with students on issues related to prejudice and discrimination • Use effective strategies to create inclusion • Create learning environments for all students • Use inclusive design patterns with a tiered teaching system • Use personalization and individualization strategies when needed • Use active, participatory and constructive methodologies • Treat all students equally without discriminating against anyone				

		• Respect all students • Respect differences • Respect student preferences • Respect student learning times • Pay attention to students' learning needs • Provide more support to students who need more attention • Apply new knowledge in self-contained classroom contexts and in real life • Teach using student-focused strategies • Pay attention to the characteristics of all students • Adopt an inclusive and supportive teaching style • Provide ongoing support to students in need • Maintain a high level of student attention			
	Profile updates and development	• Be willing to change the way you teach • Be collaborative with small and large groups of teachers • Be available to periodically update their skills and knowledge • Be available to periodically update pedagogical and didactic knowledge • Take the initiative to update yourself on disciplinary content • Take the initiative to update yourself on new methodologies • Take the initiative to update yourself on disciplinary teaching • Take the initiative to update yourself on disciplinary evaluation tools			
	Innovation	• Identify/implement precise aspects of the curricular pathway • Better curriculum approaches • Review the curricular path • Striving to Take New Paths in Teaching • Adopt new methodologies, techniques and tools • Strive to find new solutions and new ways to solve problems • Strive to provide precise supports for the application of new ideas • Have an open mind to welcome new approaches to teaching • Be available to teach in different ways • Collaborate with colleagues on the development of new ideas			
Teaching/ learning processes	**Design**	• Define the objectives in terms of learning outcomes • Identify and structure content • Choose activities • Select appropriate methodologies and strategies • Ensure that the strategies employed are relevant to the objectives to be achieved and to the			

		characteristics of the students • Select tools • Define the times • Define methods, techniques and evaluation tools • Measure learning outcomes • Perform alignment processes between design elements			
	Lesson design	• Identify the components of a lesson • Structure lesson plans appropriate to target students • Respect student preferences • Structure the lesson clearly • Present the contents of the lesson in various formats • Attract students' attention to get them to listen • Use clear communication • Be clear in your explanations • Use examples • Explain to students what they are expected to learn • Define and communicate learning objectives and declare them at the beginning of the education process • Invoke prerequisites • Including the topics covered above and those which are being progressively introduced • Linking the objectives and contents of teaching to reality • Present a summary of the contents and topics covered and learned previously • Refer to problems of daily life or work to demonstrate why new knowledge is useful • Stimulate student interest • Keep students' attention high • Focus the attention of students • Allow students to practice similar assignments until they understand the topic			
	Oorganization	• Pay attention to the organization of the curriculum • Pay attention to the organization of teaching-learning processes • Organize appropriate learning environments and contexts • Define educational settings • Organize classroom space and materials • Develop efficient organizational rules and procedures • Develop routines • Efficiently manage student time • Use group management approaches effectively			

	• Maximizing teaching time • Calibrate the time of education according to the needs of students • Communicate to students the organizational and management rules of the activities • Prepare a classroom calendar spreading the load of activities throughout the teaching/learning process • Build of organizational plans • Review organizational plans • Organize the evaluation plan • Monitor organizational processes				
Management	• Manage teaching/learning processes • Structure activity plans • Use methodologies appropriate to students • Organize the learning environment • Use appropriate resources • Prepare individual activities for small and large groups and				
Communication	• Interact effectively in classroom contexts • Communicate with students in a clear and direct way, appropriately with respect to their cultural and linguistic needs • Provide opportunities for dialogue • Avoid a directive communication • Provide students with guidance and suggestions at different levels and according to needs • Reinforce correct answers or correct errors when necessary • Involve all students in the interaction • Adopt a positive and constructive communication style • Make instructive/positive comments and corrective comments • Create opportunities for the spontaneous use of communication skills, also with reference to the use of specialized content and vocabulary • Foster communication through a variety of teaching approaches • Use effective information and communication aids (tools, devices, etc.) in the classroom • Encourage classroom interactions between students and encourage the shy to express themselves • Provide visual and media to increase the reception of cultural and scientific messages • Plan moments of interaction within classroom contexts adequately supporting social interaction skills (student-student, student-professor) • Stimulate students in the classroom to express their opinion verbally and in writing • Talking while trying to maintain eye contact with students • Mediate exchanges between students during the lesson when conflicts emerge				

		• Translate, interpret and explain when necessary • Manage communication exchange • Provide additional explanations when needed • Use examples • Review your communication when it proves to be unclear to • Rephrase explanations to make sure students understand • Make sure you understand what students say or ask before answering • Ensure that the contents of a lesson are understood by all students • Ensure that the skills of a lesson are learned by all students • Use students' statements to clarify concepts, provide explanations, or gain insights • Encourage people to ask questions and participate in discussions • Really listening to what I have to say • Use a participatory communicative approach				
	Relation	• Adjust the sequence of interactions and shifts • Involve students in personal/extra-academic matters • Have high expectations regarding students' possibilities (skills, competencies, etc.) • Understand, control and manage emotions • Motivate feedback • Manage conflicts between students, between teachers and students				
	Supporting materials	• Choose appropriate and relevant learning material • Check the type of material and technology and how it is used • Allow students to choose and explore technological tools • Guide, inform and contextualize students' choices on technological tools and is flexible and open to students' ideas • Guidance, mentor and model in the use of technology. The teacher encourages and supports the active engagement of students with technological resources. • Guide the use of materials, tools and technologies • Encourage and support students' active engagement with technology resources • Use teaching materials built on effective and scientifically oriented communication • Calibrate and implement materials are implemented to meet the needs of various students • Prepare teaching materials for individual learning • Facilitate students' choices and the independent use of materials in carrying out tasks • Create conducive learning environments in which students regularly use materials, tools and technology to pursue objectives, plan, monitor, evaluate and reflect on learning activities				
	Task	• Assign assignments that require students to think critically • Ask students to work in small groups to find a common solution to a problem or task • Ask students to decide on their own procedures for solving complex tasks				

		• Use real-life situations as a basis for learning activities • Develop skills from forms of situated learning, especially in the development of professional competences			
	Experience	• Promote and encourage individual learning • Facilitate group learning • Facilitate learning through experience • Vary learning experiences (individual, collaborative, etc.) • Use ICT in a relevant way in teaching-learning processes, also in disciplinary function • Effectively use moments of confrontation and reflection with students • Provide comprehensive and varied learning experiences • Adopt student-centered learning using interactive approaches and active methodologies • Encourage the student to express their ideas even if "outside the box" • Provide opportunities for students to ask questions during classroom interaction (critical thinking and creative life skills development) • Collect feedback from students about analysis and uses for further improvement • Employ teaching to develop to deal with emerging issues in society (community, gender inequalities, social inequality and problems, etc.)			
	Context	• Create a team atmosphere • Creating favorable conditions for learning • Improve teaching conditions • Structure and organize the course and its contents for a coherent and "complete" student experience • Encourage students to take a positive attitude towards learning • Adapt the learning environment to optimize learning			
	Tutoring/ Mentoring	*Curricular support* • Organize and assign tasks • Ensure the proper functioning of teaching-learning processes • Organize supplementary activities • Organize activities that involve direct experience • Take follow-up measures • Promote students' active participation in integrative activities			
		Teaching support • Provide explanations about the course (objectives, content, etc.) • Provide references related to the course and the material studied (textbooks, teaching materials, e-learning resources and websites, etc.) • Involve students in the preparation of material and projects			

		• Motivate students to use in-depth tools (the library) • Organize the course and small moments of deepening according to the need for activities / learning technique • Regularly correct assigned deliveries			
		Personal Support • Reinforce desirable behavior through recognition, rewards, praise and motivation etc. • Show concern and care for each student (even emotionally) • Identify any disaffections or thoughts of abandonment (failure, difficulty, etc.) • Create an environment in which students are encouraged to lead and reflect on their own learning • Create a learning environment where students consciously pursue, plan, monitor, evaluate, and reflect on learning activities • Facilitate students' choices and the independent use of the methods of carrying out the tasks • Support through the emotional involvement of each student in teamwork and learning process			
		Support Services • Carry out individual and group tutoring activities • Establish links between disciplines and contexts outside the university to increase the incidence of support • Provide guidance and counselling services • Undertake initiatives to raise awareness of university well-being • Collaborate with internal and external institutions to better support students • Define forms of incentive to study			
	Cooperation/ Sharing	• Promote collaborative and participatory activities • Promote the sharing of experiences • Promote the sharing of ideas • Share and materials and tools • Share knowledge • Share experiences • Organize among students in various activities in small and large groups			

IV.
Promoting the culture and quality of teaching culture

1. Indicators in progress

The indicators obtained can also be interpreted as the mirror of an institutional culture of teaching quality, which is characterized by a commitment to the enhancement, transformation and innovation of teaching-learning processes aimed at:
– monitoring their performance in the comparison;
– facilitating valuation operations;
– producing self-assessment models;
– ensuring the continuous improvement of the institution (Chalmers, 2008; Kember, 1997; Rowe, 2004);
– providing information and reports for external quality assurance audits and accreditation.

To understand the complex nature of educational quality and develop strategies to achieve it, it is necessary to identify precise models of teaching quality that are adopted by the institutions concerned. Research on teaching effectiveness has yielded fruitful results and has guided many of the improvement efforts. Both teaching effectiveness and quality are concepts used to understand a University institution's performance in providing educational services. Underlying these models there are several concepts that can be used to deepen understanding of teaching.

2. The process indicators model

The process indicator model assumes that a teaching is of high quality if its internal functioning is smooth, functioning and integral, and implies an internal institutional transformation that enables teaching staff to effectively perform the task of teaching and students to easily have fruitful learning experiences. The na-

ture and quality of teaching-learning processes often determine the quality of output and the degree to which planned goals are achieved. In particular, process experience is often considered as a form of goals and outcomes, where important activities or practices within the institution are often considered as important indicators of instructional quality: communication, participation, coordination, adaptability, planning, decision-making, social interactions, social climate, teaching methods, classroom management, individualization and learning strategies, experiences, and so on. The process generally includes the management process, the teaching process and the learning process. Therefore, the selection of indicators can be based on these processes, classified as management quality (e.g., leadership, decision-making process), teaching quality (e.g., teaching effectiveness, decision-making process). learning quality (e.g., learning attitudes, attendance rate). If there is a clear relationship between institutional process and educational outcomes, this model is useful because it guides the choice of criteria for evaluating teaching quality. However, the process model, although it has its limitations, such as the difficulty of monitoring processes and collecting and collating related data, pays attention to what happens in the institution.

The following are some direct institutional indicators in use relating to quality teaching culture:

– presence of clearly identified degree profiles and internal processes to ensure that graduate characteristics are incorporated into curricula and evaluated;
– retention rates;
– presence of clear policies and procedures that address course design, teaching methods and assessment.
– presence of assessment systems, where regular, planned and systematic evaluation of teaching, documents and graduate achievement is undertaken;
– establishment of transparency systems and processes;
– active participation of all actors, faculty, students, administrative and stakeholders in the development of teaching quality (atmosphere is positive, purposeful, encouraging, supportive, forward-looking; actions are planned and implemented in response to needs; students are appropriately involved and are regularly informed of processes and results, etc.);
– presence of university groups and committees that help promote quality teaching and learning that oversee curriculum development and quality;
– promotion of strong links between teaching, disciplinary teaching and disciplinary research.
– presence of a set of stated and demonstrated elements that connect teaching to research.

- promotion of evidence-based teaching;
- appropriate recognition of quality teaching;
- support and rewards for innovative pedagogy;
- availability of funds for teaching innovation and quality teaching development activities;
- promotion of continuing education of faculty from a teaching perspective;
- benchmarking three other institutions;
- benchmarking with other courses and institution that have similar characters locally, nationally and internationally;
- involvement of all stakeholders (faculty, students, technical staff, administrative staff and external stakeholders) in the accreditation or reaccreditation of locations, institutions, departments/faculties and degree programs.

Appendices

Appendix 1: Input Indicators

Input teaching and learning indicators and sub indicators: Objectives, Method, Counties and data source, and Outcomes and Uses.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
Admission standards	Student entrance score	Student entrance scores and admission standards are baseline levels of academic quality that a student must achieve to be able to attend a higher education institution. There is an assumption that achieving admission standards represent an indication of future success in higher education. Some countries do not set minimum admission standards, e.g. the Netherlands allows access to HE for all school leavers after completing a matriculation exam, and some Canadian provinces allow access to HE for all school leavers.	The standardised system measurement of student entrance scores as a PI involves categorising students as a percentile in their reference group. This accounts for diversity within the student body. Accumulating individual entrance scores allows a collective average of student quality for a given nation or institution. This can be compared to other countries and institutions in a benchmarking practice, accounting for contextual differences.	Australia (ENTER), mature age entrance exams, special admissions for indigenous students New Zealand (NCEA) United States (SAT, ACAT) Canada (SAT) Netherlands (VWO) matriculation exam from secondary school. All successfully competed VWO are guaranteed a place at a Dutch university. TOEFL (test of English as a foreign language) is required for HE admission for international students in some countries such as Australia. United Kingdom—General Certificate of Education (GCSE), (VCE) (similar to HSC) Hong Kong (GCE; HKALE; HKCEE)	The measurement of admission standards allows standardisation for entry into higher education institutions. These standards are to ensure that the quality of students has an average baseline (i.e. all students are academically prepared). The result is a reductionin academic costs. There is an implication in access and equity in higher education in this indicator
	Recruitment and admissions practices	Recruitment and admissions practices are the practices adopted by higher education institutions in selecting future students. These vary between (and within) individual HEI's, as well as nationally.	Data is collated from a range of sources to produce a ranking of students by quality. A predetermined quality cut-off eliminates students who may need more academic support or higher quality teaching to proceed in specific higher education programs. High achieving students are selected for interviews to determine their suitability for the program. Students are then selected for the limited number of places available.	Australia (UAI), entrance exams, sometimes interviews of prospective students United States (SAT, ACAT) Canada (SAT) Hong Kong (HKALE; HKCEE) United Kingdom (VCE)	This indicator allows the determination of the pre-existing academic skills of students in a given program, institution or nation. It also represents a view of the desirability of educational offerings at each of these levels via consideration of demand on the program (i.e. number of applicants versus the number of places available).
	Provision of student places	The provision of student places refers to the number and type of places a program, an institution or nation as a whole allocates to students in higher education institutions. This data can used to determine the opportunity of students to study higher education at the national level.	The number and type of student places offered can be sourced by individual institution data. This data can be collected at a unit or program level and collated to produce findings at an institution level.	Australia DEEWR OECD statistics University admissions and enrolment data	The data source of this information is readily available, making it easy and straightforward to measure and interpret. However, additional resources are needed to collate the data. The discrepancy between the number of applicants and the provision of student places is a good indicator of demand. Assumptions about the quality of teaching and learning or the HE in general are sometimes made through this indicator.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Distribution of places between courses and disciplines	This indicator assesses the specific number of places allocated for student admission into courses and disciplines within HEI's. The objective is to guide the quality of educational delivery in these areas and nations which can be directed toward enhancement strategies.	The data for the measurement of this indicator can be predominantly sourced from university admissions and enrolment information and collated as above.	Australia DEEWR All OECD countries University admissions and enrolment data	The resulting data can be compared within and between nations to determine the level of demand for higher education between disciplines within higher education in different locations nationally and internationally. This indicator also provides insight into workforce demands for increasing skill and qualifications, as well as areas of increasing employment opportunities.
Enrolment Rates and Student Composition Variables	Percentage of full-time students	This indicator represents the amount of students studying in a full-time mode (as opposed to a part-time study mode). Part-time students have a qualitatively different experience than those enrolled full time, so distinguishing between these types of students in PIs can be useful for informing program administration.	This indicator is measured by ascertaining the ratio of students enrolled in a full time study mode to those enrolled in a part time study mode, represented as a percentage.	Australia OECD statistics University data United States Canada New Zealand United Kingdom Sri Lanka	Students enrolled in a part-time study mode generally have significantly higher levels of attrition, particularly during their first year of higher education study (Ewell and Jones, 1996).
	Percentage of international students	This indicator represents the number of international students enrolled in either a full or part time study program. This numberis a percentage of all students enrolled either full or part-time within the HEI (local + international students). International students are defined as those students on study Visa's from countries other than where the HEI is located. Local students are defined as those attending students who are citizens of the country in which the HEI is located.	The percentage of international students is determined by analysing HEI enrolment data. It is then calculated by the following formula: # of Full + Part-Time International Students / # of all Attending Students	Australia OECD Statistics University data New Zealand Canada Europe	This indicator is a gauge of an institutions attractiveness and perceived quality internationally (Tavenas, 2003).

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Social origins of students	This indicator determines the profile of students and cultural diversity within HEI's and/or national student populations. The objective of collecting this data is in some countries (South Africa and New Zealand) to determine the elitism or democratic access and use of HE nationally.	Demographic information is obtained from students via surveys and/or administration forms upon first-year (or first-time) enrolment. This information is then aggregated within socio-economic, ethnic/racial/ cultural, gender, historical origin and current living origin categories to determine the social profile of the student body.	United States (CSEQ, SDQ, CSXQ, CIRP) New Zealand South Africa Australia A scale in the SDQ, CSEQ and CSXQ (student survey) collects background information including student demographics and family Locally administered admissions questionnaires Enrolment/admissions data collected by the university	Research shows that under some conditions race, gender, SES etc can influence what and how students learn (Oakes, 1990). The collection and analysis of this data allows accommodation and adjustment for the diversity characteristics within educational offerings and support programs. This in turn leads to increases in student learning and graduation rates (Cabrera, Colbeck & Terenzini, 2001; Lundeberg& Moch, 1995; Martinez, & Munday, 1998).
	Educational attainment of the adult population	This indicator represents trends in adult involvement in higher education over time. This indicator assesses and compares trends over time to determine whether or not the education and training provided meets the needs of these individuals.	It is measured by calculating the median age of students by type of enrolment. This information comes from university data on enrolment rates and demographic admissions data. This can then be compared to population census or workforce data to determine which areas require additional resources to cope with increasing enrolment of mature aged students, and the context for this learning.	Australia Population census, Economic/ Workforce data, OECD Statistics, as well as data collected by individual institutions United States Department of Education, also used in Measuring Up Reports Canada Spain	An increase in the number of adults enrolling in higher education within a particular section of the market may reflect an increasing desire and/or pressure on existing employees to be increasingly skilled/qualified. Trends in attainment rates reflect changes in access to education, and the equity of education systems (CESC, 2006).
	Percentage of postgraduate students	This indicator is a measure of students in postgraduate study compared to all students currently undertaking study in higher education.	The measurement of this indicator predominantly comes from collecting university data.	Australia Census data University enrolment data Fiji All OECD countries	This measure can serve as an indicator of the quality of higher education in any country or institution. It is suggested that students who are satisfied tend to stay longer in higher education. However, continuation may not be entirely due to the quality of the education delivered, but rather, a result of external requirements for licensure etc.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Student gender	This indicator refers to the percentage of female students studying in a given unit, program, institution or nation. The indicator is designed to assess whether gender equity is being achieved in HE on a national and discipline level.	Higher education study application forms require prospective students to fill in their gender. This is collected and analysed to provide a student gender profile data set.	Australia OECD statistics University admission enrolment data	This indicator can be used to determine whether or not gender equity in HE is being achieved
	Student Load	Student load refers to the number of credit points (or units) a student is completing on average. In essence, it refers to a students' workload and whether or not students are predominantly part time or full time in study mode.	Enrolment data is collected by the university for each student. This is aggregated to provide an average overall result for student load at national, institutional, program and department levels.	Australia DEST University enrolment data, qualitative surveys to determine the reasons behind the study load of students. Italy	This indicator is easy to measure. Student study loads point to student commitment to, and value of higher education (the higher the student load, the more valuable the education). It also provides insight into student needs when accompanied by qualitative surveys (i.e. the reason behind part-time study status maybe the result of a need to work part-time).
Staff Composition Variables	Number of academic and non-academic staff	This indicator refers to the definition of what constitutes a staff member.	This information can be sourced from university administration data regarding job titles, statements of duty and responsibilities regarding staff members' roles within the higher education institution. Staff can then be classified as an academic or non-academic staff member to determine the ratio of currently active teachers versus administration or research only staff.	Australia University administration data Sri Lanka	There are a number of issues related to student and staff ratios, and these largely involve inconsistencies in the definition of what constitutes a staff/student member (Tavenas, 2003). These inconsistencies make teaching and learning quality comparisons across departments, institutions and countries meaningless. By breaking down staff members into academic and non-academic classifications, information can be provided on true student/staff ratios which has a direct impact on the quality of education provided (smaller classes generally have higher student learning outcomes; Hattie, 2003; Markham, 1997; Tavenas, 2003). Although this indicator is not a direct measure of quality teaching and learning, it has an impact on the accurate measurement of related indicators, particularly those involving student/staff ratios.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Academic staff diversity	This indicator measures an institutions accommodation for staff diversity in employment/ promotion criteria. Measuring academic staff diversity in the context of student demographics can be indicative of whether or not diverse student learning needs are being met.	The measurement of this indicator includes gathering data on the percentage of female academic staff by classification level, the percentage of minority staff employed in academic and non-academic roles, and a distribution of academic staff by age in relation to their status as full-time or part-time members.	Australia Faculty survey University staff employment data, staff survey for demographic variables. United States (Faculty Survey)	Research has shown that the increasingly diverse student body in higher education is supported in their academic studies by relating to staff members of a similar diversity background (Cabrera, Colbeck & Terenzini, 2001; Ewell & Jones, 1996). Moreover, researchhas shown that the instructional approaches taken by individual teachers is largely a functionof their gender and culture (Fung & Carr, 2000), in turn influences student approaches to studying and their learning outcomes (Gibbs & Coffey, 2004; Prebble et al, 2004).
	Staff salary	Staff salary is the average amount of money a staff member is paid to fulfil their role's duties and responsibilities.Difference in staff salary between HE institutions can imply differences in the perceived quality of the staff	Data is collected from the university and averaged across all staff members and disciplines/departments. This can be further broken down into full-time/part-time, senior staff, academic/non-academic staff etc. to obtain a more accurate picture.	Australia OECD Statistics, Faculty Survey, University financial statements data OECD countries	The measurement of this indicator is superficially simplistic. Its results points to the amount of resources in a given institution or nation. Given the controversy in current research concerning the value of research versus teaching (Feldman, 1989; Hattie & Marsh,1996; Marsh, 1984) this indicator also points to an institutions/nations values concerning the importance of teaching (i.e. whether research staff are rewarded higher financially than teaching staff).
Effectiveness, Management and Organisation of Higher Education Systems		This indicator relates to variables such as the strategic focus, risk management, financial viability activities of the institution and sector as a whole.		Australia DEEWR Individual states in the United States	
	Number of credits required by the degree	The number of total credit points students are required to pass in a major discipline to complete a selected higher education study program. The primary purpose of this indicator is one of comparison. It is useful for appropriate benchmarking of peer institutions across different programs and requirements (Ewell et al, 1996).	This information is readily sourced from university handbooks which are available to all students on enrolment. No interpretation of this data is required. However, comparisons across institutions require that this information is collected and analysed to determine equality.	Italy Australia University student handbooks Colorado	This measure is used as an overall indicator of disciplinary concentration within curriculum design, intended to reflect how broad or narrow a program is in terms of coverage. By converging the number of credits required for the completion of a degree, the opportunity for student mobility between institutions is heightened. This in turn leads to an increase in teaching and learning internationally, as institutions compete for students.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Staff/Faculty workload	This indicator refers to the amount of work required of staff members to fulfil their role's duties/ responsibilities. The balance between research and teaching time can be assessed using this indicator.	The measurement of this indicator not only involves ascertaining the overall workload of faculty members, it also involves determining educators balance between teaching and research duties.	United States (Faculty Survey), Staff duty statements, staff teaching timetables	One outcome of monitoring staff workloads is that if workloads are too high, student access is limited, resulting in decreased student learning outcomes (Chickering and Gamson, 1987; Ewell, & Jones, 1996; Kuh, Pcae & Vesper, 1997; McClenney & Marti, 2006).
Resources/ Infrastructure	Student/staff ratio	This indicator compares the number of full-time staff to the number of enrolled full-time students at the program and institution levels. Measuring student/staff ratios provide a general view of class size. This is important as research shows that large class sizes inhibit student learning (Hattie, 2003; TEDI, 2001; UTA, 2006).	The number of enrolled full time students is compared to the number of full-time staff members to produce a ratio. Student/staff ratios are typically institutional averages across a range of subjects. This leads to a wide variation in average student/staff ratios for each subject. These can be compared in an intra-institutional benchmarking process to determine those units, departments and programs which require more staff resources. These ratios can also be compared between institutions in a benchmarking process to determine quality standards and whether or not these are being met.	Australia OECD statistics, University enrolment data, administration data New Zealand United Kingdom United States Canada Europe Hong Kong Spain Mexico Sri Lanka	This indicator is a general measure of the overall potential for meaningful student/staff contact as a result of availability of staff time. It is also a valid and reliable indicator of the level of resources in a given institution (Tavenas, 2003). The implication of these findings is that this indicator is not a direct measure of the quality of teaching and learning. Instead measurement provides information on variables that affect the quality of teaching and learning.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Resource/ student ratio	This indicator is designed to measure the amount of resources available to each student in a ratio. It includes library resources, study areas, books and computers per student, at an institutional or national level. The objective is to assess the amount of student learning resources.	The quality of these resources should be the main priority of these assessments. Student enrolment data can be combined with administration and financial data to determine the level of resources per student. The quality of these resources can be ascertained by collecting student satisfaction data via student surveys. These ratios can be summarised into a national average for global comparisons in a benchmarking exercise. Standards for quality can be compared for quality assurance/ enhancement purposes.	El Salvador Mexico Spain Europe United States University enrolment, administration and financial data, student surveys.	It is necessary to measure both the ratio and the quality of resources in the ratio. This is because while an institution may have an exceptional student to resource ratio (i.e. lots of books, computers, study areas etc per student), the quality of those resources may be extremely low (Tavenas, 2003). The measurement of this indicator should not only include the ratio, but the quality of these resources, for example, the datedness and coverage of the library holdings (Yorke, 2000).
	Provision of adequate space allocation	This indicator is deigned to evaluate the adequacy of space provided for student classes, study groups and individual study. Ideally, this indicator should also assess the level of resources provided in this space (adequacy of chairs and tables, computer terminals etc.) and the appropriateness of the space for the intended activities (i.e. is a room with fixed chairs and tables assigned to a practical work group?).	Typically, student enrolment data is sourced to determine the number of students in a particular class. This figure is used to determine room allocations to ensure that all students are provided with a chair and table to work at. Less commonly this is combined with student satisfaction and evaluation surveys to determine the quality of these resources, and whether they were fit for the purposes of the class/individual.	United States Canada Mexico United Kingdom Student satisfaction and evaluation surveys, student enrolment data	The learning environment has been shown to profoundly impact on the student learning that takes place (Pike, Kuh & Gonyea, 2003). This includes whether students have access to a space and resources which are suitable for their learning needs. Providing adequate space and resources has been shown to increase student learning outcomes (Meier & O'Toole, 2002; Schacter & Thum, 2004; Young & Shaw, 1999).

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Links to the community/ collaboration with business and industry	This indicator assesses the extent to which HEI's engage in promoting connections between itself and business, industry and the community. This includes the extent to which students are encouraged/ required to make use of these links to further enhance their skills.	Research suggests that self-report measures obtained via graduate or exit surveys are most useful in measuring the amount of student engagement in community, business and industry. Baseline measures of networking and specialised skills need to be sourced at the time of enrolment. Pre and post study comparisons can then determine the extent (including progression or decline) of an individual's involvement in relevant academic and professional communities during their time in higher education (Coates, 2007a).	Australia DEEWR, Graduate exit surveys, ethnographic approaches United States Italy Hong Kong Europe Fiji	Research has shown that these links result in benefit for not only students, but for their collaborative partners as well. Collaborating with business and industry creates opportunities and valuable practical experience for students completing higher education degrees. This experience develops and reinforces specialised skills in students, preparing them for success in the workplace. Moreover, community involvement gives students the opportunity to develop social and citizenship values and skills (Hertz, 2006). Links to the community also enhance students' social awareness and networking skills which are important skills for graduate employment (Coates, 2007). Although this is not a direct measure of the quality of teaching and learning in HE, links to business and industry enhance student learning outcomes (Coates, 2007).
	Efficient use of resources	This indicator refers to the use of human, financial, technical, physical facilities and other resources which influence the achievement of an institution's mission and goal.	The resources on which HEI's rely are typically generated and monitored at the system level in countries around the world. At the institutional level, the collection of this data also relates to the percentage of funding allocated to specific areas (to determine institutional priorities), the allocation of resources among programs, and the decision-making process for allocating these resources. The amount of resources consumed is contrasted by the number of students needing those resources. Institutions can compare their current use with previous use (accounting for the number of students) to determine increasing or decreasing efficiency. Normative figures can be compared at a national level to determine whether standards are above or below quality expectations and targets.	Australia OECD statistics, HE Administration and financial university data United States United Kingdom	The efficient use of both internal and external resources is advocated by various researchers to be critical to institutional and national performance quality (MSCHE, 2004). While this is not a direct measure of quality teaching and learning, its effects on institutional performance trickle down to lower levels, potentially impacting on teachers and students (MSCHE, 2004). Institutional management of resource acquisition and use has been demonstrated in the literature to contribute to the effectiveness of planning, goal achievement, mission success and institutional support (MSCHE, 2004).

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
Income/ financial resources	University revenue	This indicator is designed to measure, in a summary, the amount of income a higher education institution receives in revenue. This includes various financial sources such as research and non-research council revenue, research grants/funding, research income per member of staff, licensing revenue as well as private and alumni donations. University revenue can be interpreted as a judgement on the perceived quality of the university.	Measurement of this indicator involves collating all income and revenue data to produce a single number for financial input at the institutional level. This can be compared with peer institutions, or aggregated to produce an average at the national level for comparisons between countries internationally.	Australia OECD Statistics, University financial data United States Canada Europe Mexico New Zealand Fiji United Kingdom	This indicator is simple and straightforward in measurement making it easy to use. The diversity of sources in which an institution receives revenue is seen to indicative of the performance of a university, its staff and its students as well as its autonomy (Tavenas, 2003). The level of research activities engaged in by staff in particular are suggested by the research to be a reliable measure of the commitment to supporting social and economic development (Tavenas, 2003). However, resources such as government revenue are not in an institution's control. Some countries also have strict legislative requirements regarding potential sources such of HE income, or student fees.
Expenditure	Expenditure per full time student	This indicator is a proxy measure of resource investment at the program and institution levels. It measures the amount of money which is spent on providing services, per student. This indicator also includes the measurement of support expenditure per full-time student (i.e. the amount of money which is allocated to adequately fund support services of students). (This can also be considered an Output indicator when expenditure has taken place)	Financial information is collected at the institution level by calculating the amount of money spent on student services. This is then divided by the number of enrolled students to provide an average at the program or institutional level. This can be aggregated up to the national level for benchmarking purposes between HEI's internationally.	Australia OECD statistics, University financial and enrolment data United States Canada Europe Fiji	This indicator's primary use is accountancy concerning the cost of education. In many systems of public-sector higher education, this indicator is used as the basis for financing institutions (Tavenas, 2003). Research has shown that this cluster of indicators are straightforward, highly credible measures of institutional/ program commitment at the institutional 'within university' level (Ewell, & Jones, 1996). There are dangers involved in the use of this indicator for comparisons between universities given that flexibility in student attendance and inconsistent definitions concerning the modality of students included in this measurement is likely to induce error (Yorke, 2000).

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Expenditure on library and computer resources	This indicator is defined as the average amount of money (averaged across departments and programs) spent on library and computer resources. These resources include books, journals, video's, cassettes, monographs, computers, study spaces, chairs, tables, information desks, viewing equipment, library programs and tours etc.	The measurement of this indicator is extremely straightforward. University financial data can be sourced to determine the amount spent by a department, program or institution as a whole on library and computer resources. This can be aggregated up to the national level for benchmarking/comparative purposes.	Australia OECD statistics United States, University financial data Canada Hong Kong United Kingdom	The amount of resources provided to students may influence student achievement (Meier & O'Toole, 2002). This research suggests that those institutions with more resources generally have better student learning outcomes (Meier & O'Toole, 2002). However, this is not a direct influence.
	Research expenditure	Research expenditure refers to the amount of money spent at the department, institution or national level on the facilitation of research production.	Research expenditure is measured by sourcing university financial data. Statistics can be computed by finding information at the department, program or institutional level. This can be aggregated at the national level for benchmarking comparisons. Comparisons can also be made between teaching expenditure for example, to uncover the values of the department, institution or country in general (i.e. the higher the funding for one variable indicates its value over the other). This can also be compared over time to determine trends and shifts in funding allocations.	Australia OECD statistics, University financial data United States Canada Mexico	This indicator is extremely easy to measure. Little interpretation is required to make sense of the data. These are the strengths of its use. Research may have an indirect effect on teaching and learning through increasing grants and money which increases the amount and quality of resources available for student use (Hattie & Marsh, 1996). The National Survey of Student Engagement in the United States suggests that students who are involved in the research activities of academics are more likely to be highly engaged,and to have better learning outcomes.
	Administrative expenses	Administrative expenses refer to the amount of money an institution spends on administration.	The level of administrative expenses is measured by analysing university financial data at the institutional level. These can be aggregated up to the national level to provide a general indication of resource efficiency through benchmarking practices. Institutions can also make intra-institutional comparisons to track changes and trends over time.	United States University financial data Canada	This indicator is relatively straightforward to measure. This is likely to be its appeal. Research suggests that those indicators which are easy to measure are used because of this reasons than because they adequately reflect or offer insight into the quality of teaching and learning in higher education (Bruwer, 1998; Coates, 2006a; Romainville, 1999; Stella & Woodhouse, 2006; Yoke, 1991). While this indicator is not directly linked to the quality of T&L, it may be important information for evaluating the efficiency of resource use and institutional performance.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
Support Services	Adequacy of student access and support	This indicator refers to HEI's provision of and access to student support. The student support services provided should adequately cover the needs of the student populations, and be easily accessible by students who require them.	Student satisfaction surveys are administered to students at the institutional level to determine the adequacy of scope and quality of the support services provided. At the national level, the IAF gathers this data to inform the provision of support services in individual HEI's. This data can also be aggregated at the nation level for international benchmarking for quality assurance and enhancement purposes. Where staff are also consumers of support services, staff satisfaction is also sourced through surveys. This however, is a less common approach (generally, staff satisfaction is not the focus). Internal audits of institutional practice are also indicative of the resources provided to support these services. This data can be compared to demand for and satisfaction with the quality of support services to indicate further needs in the area. This approach once again, is not a common practice. Typically, HEI's simply compare the quantity rather than the quality of these services. This is potentially the result of quantitative indicators being easier to measure and interpret (Bruwer, 1998; Coates, 2006a; Romainville, 1999; Stella & Woodhouse, 2006; Yorke, 1991).	Australia DEEWR (CEQ) Local student satisfaction surveys. Europe	The provision of quality student support services increases student learning outcomes. Institutions are able to influence the assimilation, retention and course completion rates of their students by providing readily accessible, comprehensive and contextually relevant support services (McClenney & Marti, 2006; Prebble et al, 2004).
	Provision of IT services	The provision of IT services for both students and staff involves not only whether or not these are provided in an institution, but whether or not these services are readily and easily accessible, including how helpful they are.		United States Student and staff satisfaction surveys Europe Fiji	
	Student social support services	Institutions should provide adequate quality and resources for the development and maintenance of contextually relevant student social support services. These support services include housing, counselling services, induction programs, sport centres, canteens and security among other things. These services are evaluated for their provision, quality and access.		Australia DEEWR (CEQ) Local student satisfaction surveys. United States Europe Hong Kong Fiji	
	Minority student support	This indicator assesses whether institutions provide support specifically for minority students. This may be in the form of student organisations, minority counselling services, financial support, additional resource provision or housing services.		Australia (DEEWR), Student satisfaction surveys, Institutional audits of practice United States Europe Hong Kong Fiji	

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Financial Scholarships for underrepresented/ disadvantages groups of students	This indicator assesses whether institutions, programs and departments financially support disadvantaged students. In addition, it assesses the coverage of this provision (i.e. whether these resources adequately address the needs of the large majority of disadvantaged students).	University strategic plans can be sourced to obtain a general view of the commitment of a HEI to supporting and encouraging participation of students from disadvantaged backgrounds. To measure this indicator, university financial data is typically sourced to determine the total amount of funding provided for scholarships for disadvantaged students. This number is divided by the number of successful applicants for HE study eligible for these scholarships to determine the adequacy of this provision in financially supporting the education of students from disadvantaged backgrounds.	Australia (DEEWR), University strategic plans, University financial and enrolment/ admissions data United States	
	Guidance/ counselling services	Guidance and counselling services provide academic, social, emotional and psychological support for staff and students alike. These services should be adequately resourced (both financially and physically) to address the needs of students and staff.	Satisfaction surveys are administered to the student and staff population. The results of these surveys provide an indication of areas which require further services and resources. They also indicate satisfaction with the quality of services provided. These surveys are typically conducted at the institutional level, although they may be administered appropriately at the department level. The results can be aggregated up to the national level for benchmarking between countries, although this seems to be rare.	Australia (CEQ) Local student and staff satisfaction surveys United States Europe Hong Kong Fiji	
	Special access provision	This indicator represents the provision of access for mature age, distance education and disability-status students in higher education institutions, programs and units.	Satisfaction surveys evaluating the quality and scope of student services are administered to the student population (or a representative sample of the student population) at the institutional level. Once again, this data can be aggregated up to the	Italy Student satisfaction surveys	

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Operational student organisations	This indicator refers to the provision of student organisations within the higher education institution. This is usually organised at the institution level. The measurement of this variable includes not only the provision, but the quality and availability of resources to operate these organisations to meet the needs of students.	national level for benchmarking purposes, but this is not often the case. More often, benchmarking between peer institutions occurs. This allows HEI's to compare the extent of provision and quality of services delivered to students, and promotes competition between individual institutions.	United States Italy Switzerland Student satisfaction surveys	
	Social and physical extra-curricular activities	This indicator assesses the provision of resources to allow social and physical extra-curricular activities for students. These activities include university events such as music festivals, art exhibitions, drama nights, movie nights, sports associations/clubs/teams, gyms and the like.		Italy Student satisfaction surveys	

Appendix 2: Output indicators

Output teaching and learning indicators and sub indicators: Objectives, Method, Counties and data source, and Outcomes and Uses

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
Access rate		This indicator compares the number of commencing students in the socio-demographic group of interest, with the number of commencing domestic students in any one year.	It is measured by the number of commencing students in the socio-demographic group of interest, divided by the number of domestic commencing students, expressed as a percentage.	All OECD countries University data: Enrolment and admissions data	Collecting information on access rate allows universities to monitor how well they are performing in facilitating the accessibility and diversity of higher education. It also provides institutions with student demographic information which can be used in the planning and preparation of student support systems.
Participation rate		This indicator compares the total number of students from the socio-demographic group of interest, with the total number of domestic students in any one year.	It is measured by the total number of students from the socio-demographic group of interest, divided by the total number of domestic students, expressed as a percentage.	Australia United Kingdom United States University data	This indicator assists institutions in gathering information on how well they are retaining students from different socio-demographic groups and how well students from different demographic groups are participating and performing in higher education. Such information can inform institutional and governmental efforts to improve the accessibilityof higher education to different socio- demographic groups, and to improve the overall experience of such students.
Retention rate		Retention rate indicates the percentage of students who are enrolled in one year, and continue to be enrolled in the subsequent year. Students completing a course and not continuing on to another course are not included in the calculation of the retention rate.	Retention rates are calculated by comparing current and previous years' enrolment records. It is possible to adjust for factors which may affect retention, such as gender, non-English speaking background, Indigenous status, field of study, level of study, mode of study, residency, disability status, socio-economic status, and student ability as measured by university entrance score. However student expectations and personal circumstances are difficult to control and can influence retention. This may make institutional comparisons problematic and may favour some	Australia DEEWR New Zealand United States (NCES)	Retention rate is a good indicator of an institution's facilitation of student needs as students with characteristics and desires that are compatible with their university's mission and programs are less likely to drop out or transfer (MSCHE, 2004). It is particularly important to measure retention from first to second year as research shows that around halfof all students who withdraw, do so in their first year (Pitkethly & Prosser, 2001). Using retention as an indicator avoids the problem of lagging data as retention rates can be calculated for current cohorts. It is also a good proxy measure for completion when interpreted with progress rates (DEST, 2004).

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
			institutions above others. Retention rates can be calculated at the institutional and program level (DEST, 2004).		
Progress rate/ Success rate		Progress rate measures the percentage of student load passed for each student.	Student progress rate is a measure of student load passed as a proportion of load attempted each year. It tends to be calculated separately for commencing bachelor, non-commencing bachelor and post-graduate coursework students and for all students, non-overseas and overseas. Progress rates can be adjusted to take account of individual student characteristics such as age, gender, non-English speaking background, Indigenous status, field of education, level of study, mode of study, residency, disability status, socio-economic status, rural and isolated status, and student ability as measured by tertiary entrance ranking (DEST, 2004).	United Kingdom (UniStats) European Higher Education Area [EHEA] (Standards and guidelines for quality assurance in the EHEA) University data	Progress rate is a proxy measure for the quality of teaching and student achievement. While research suggests that the admission score is the most important predictor of progress, healthy progress rates among students with the lowest admission scores can be attributed to thequality of teaching they have received at the institution (DEST, 2004). However, progress rates are vulnerable to manipulation as an increase in progress rates may indicate a lowering of academic standards rather than an improvement in teaching. It is advisable to consider progress rates in conjunction with other indicators.
Transition rate		This indicator tracks the number of students who transfer from a college; diploma course; or bridging course, into undergraduate bachelor degree level studies.	This is calculated by the percentage of students transferring from a college; diploma course; or bridging course into university level studies, divided by the number of potential transfer students.	Australia United States (NCES) University data: Enrolment and admissions data	It is important to collect information on transition rates to assess the effectiveness of colleges, diplomas courses and bridging courses that are designed to prepare students for university level studies. Universities can also use this information to be knowledgeable about their student population and to prepare necessary support systems (e.g., orientation programs). Collecting data on transition rates assists institutions in understanding how well they are facilitating the diversity and accessibility of higher education.
Success rate		This indicator measures the proportion of student load that is successfully completed out of the total student load that was undertaken in a year.	Information for this indicator is sourced from the university's student records information system. Success rate is measured by calculating the percentage of units that the student has passed in a year, compared with the total number of units the student was enrolled in.	National Level OECD statistics University data: Student records information system	Student success and persistence are associated with course quality, access to and quality of teaching staff and availability of other institutionally provided support (Powell, Conway & Ross, 1990), making student success rate a good indicator of the efficiency and effectiveness of a course and/or institution. However, students' chances of success are also influenced by their

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
					predisposing characteristics (e.g., educational preparation, socio-economic and demographic status and self-motivation), and unexpected life changes which reduces the validity of the indicator as these factors are beyond the control of the higher education provider.
Attrition rate		Attrition rate measures the percentage of students enrolled in one year and who are not enrolled in the subsequent year. In other words, attrition rate refers to the "drop out" rate of students from institutions.	The attrition rate is measured by the number of non-continuing students (i.e., those who neither graduate nor continue to study in the following year), as a proportion of the total number of students enrolled in the previous year.	Australia All OECD countries University data	Research suggests that high attrition rates typically indicate that students have failed to master the minimum knowledge required of their education level for a number of possible reasons (e.g., student characteristics, personal circumstances, poor quality of educational instruction received, lack of student support, lack of resources, etc.). Ascertaining the reasons behind early student exits provides insight into the quality and market position of an institution or program, the characteristics of early leavers and how best to retain them (Coates, 2007). It is valuable to use an appropriate higher education survey that captures the reasons behind early departure from higher education programs, as well as the destinations of such students. However, attrition is a complex concept. High attrition rates combined with low progress rates may reflect constructive student mobility or stagnation and a lack of student persistence (Coates, 2006b; c).
Completion rate		Completion rate refers to the proportion of commencing students who successfully complete all academic requirements of a course, including any required attendance, assignments, examinations, assessments, dissertations, practical experience and work experience in industry (DEST, 2002).	There are methodological difficulties associated with tracking completion rates for individual students as students may not complete a course in the minimum expected time; it is difficult to assign a "completion" status to students in post-graduate and double degrees as an individual may have more than one "completion"; the minimum expected time to completion varies between similar awards in different institutions; and course IDs and student IDs change over time, making it difficult to track individual	Australia DEEWR University data All OECD countries Australia New Zealand United States (National Centre for Education Statistics)	This indicator has face validity. However, it is associated with a number of methodological difficulties, and can be influenced by some factors that cannot be controlled due to limited data collection. As a result, calculation of this indicator is both costly and labour intensive. Furthermore, completion rates have very long lag times and may reflect conditions prevailing many years earlier. Therefore, it may not be equitable to reward institutions for good performance many years ago.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
			students (DEST, 2004). Comparing the number of students commencing a course with the number of students emerging after a number of years to gauge completion rates was also considered problematic as decisions would have to be made about the 'average' course length, or calculations of apparent completions undertaken for each course (e.g., three-year bachelor degrees, four- year honours degrees, four or five-year double degrees), which would result in a significant level of additional workload on universities.	Canada United Kingdom European Higher Education Area [EHEA] (Standards and guidelines for quality assurance in the EHEA)	
	Module completion rate	This indicator looks at completion rates of part-time students by considering the number of modules which have been passed (HESA, 2007).		External higher education statistics agency, University data United Kingdom (HESA)	Progression rates of part-time students are not as straightforward to define as those of full-time students. Although we can tell when a part-time student has completed a course if they obtain a qualification, it is difficult to tell when such a student has not completed a course and does not intend to finish it.
Graduation rate		Proportion of students who have completed their qualification requirements.	The graduation rate of an institution is calculated by the number of graduating students expressed as a ratio or percentage of the total number of initially enrolled students in a given program. Graduation rates may be measured in raw numbers or contextualised by the overall number of enrolments. Raw numbers are particularly useful in determining the overall contribution of an institution to the economy. Conversely, a ratio or rate provides information concerning the productivity of an institution.	University data Australia All OECD countries United States Canada European Higher Education Area	Graduation rate is considered symptomatic of an institution or program's productivity. Data for the measurement of this indicator is relatively easy to collect. However, use of this indicator requires due consideration of factors such as the social composition and living conditions of the student body and the employment market relevant to particular programmes (Tavenas, 2003). A modest graduation rate suggests a mismatch between programme requirements and student expectations; a misuse of public resources and human capital (Tavenas, 2003). The demand for high graduation rates may inadvertently lead departments and institutions to lower their qualification standards, especially if graduation rates are associated with funding (Ramsden, 1991). Graduation rates are not transparent indicators of an institution's quality. For example, a relatively modest graduation rate in an institution in which admission is

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
					considerably easy may deceptively reflect equivalent performance to an institution which has a slightly higher rate of graduation, but is considerably more selective at the admissions stage.
Graduate full-time employment		This indicator measures the percentage of graduates available for full-time employment, who are in full-time employment.	Employment rate is measured by calculating the proportion of graduates in full-time employment, as a percentage of graduates available for full-time work. Developing an accurate picture of employment outcomes requires the measurement of employment status before, after, and possibly during academic study. For many graduates, higher education does not generate new working opportunities but enhances the work already being done. As a result, it is more important to consider whether and how higher education has generated new or improved conditions of working. Information on previous or current employment can be ascertained at the time of course enrolment. Relevant employment history may include information about tenure, employers, tasks and duties, work hours, industry, sector, salary, and whether their work was permanent or temporary (Coates, 2007). National or institutional surveys may be sent to graduates each year to determine job placement.	Survey data (GDS) United States Canada Australia (GDS) Kingdom (DLHE)	This indicator should be used in realisation that there are factors that may influence employment rates, but are beyond the control of universities. These factors include the vitality of the economy, the position of the field of studies or economic sector concerned and local practice regarding the mobility of the labour force amongothers. The rate of transfer to employment also reflects the relevance of the particular course, the quality of its graduates and the reputation of the institution or national culture (Tavenas, 2003).
	Graduate starting salaries	This indicator measures the mean starting salaries of graduates.	In Australia, this indicator is restricted to salary outcomes of Australian graduates who were previously engaged in full-time study and are currently in their first full-time job, in order to avoid any biases that may arise as a result of part-time and external students being more likely to be in full-time employment (DEST, 2005).	Information for this indicator is derived from the Graduate Destination Survey (GDS) that is mailed to graduates four months after the completion of their programme of study.	In addition to this indicator, it is important to understand whether and how university study has generated or improved working conditions. It is necessary to consider the value added by a higher education experience or qualification to an individual's work (Coates, 2007).
Graduate		This indicator is a measure of	The measurement of graduate	All OECD countries	At the institution level this data is used for course

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
participation in further education		graduate study activities post-undergraduate education. The purpose of this measurement is to determine the percentage of students proceeding to further levels of education in a full-time study mode.	participation in further higher education is carried out by surveying graduate activities via the GDS approximately 3 months after the completion of their bachelor (including honours) study program. Data collected includes information on the quality of the course completed, their labour market status, details of any employment they are in, and information about any further study being undertaken. Data is typically collected and analysed at the national level, however, individual institutions receive this data for their own enhancement purposes prior to national reporting.	Australia LTPF Australia (IAF, GDS, LTPF) New Zealand Fiji United States (SOIS) Canada (SOIS) National Level Student Surveys GDS SOIS	and careers advice, institutional planning and quality assessment, which have been shown to affect student learning outcomes (Kuh et al, 1997; McClenney & Marti, 2006; Schacter & Thum, 2004). The original aim of the GDS was to gather data to inform students about graduate labour market conditions and employment options. Informing current and prospective students of the quality of graduates remains a key focus of the survey.
Graduates ready for advanced practice	License Exam Pass Rate	Taking and passing a national examination required to enter a licensed vocation/profession such as nursing or physical therapy (Miller & Ewell, 2005). Licensure exams must satisfy three criteria to validate its use as an indicator: 9. National and state-level performance data are available 10. The tests are required in orderto practice a profession or entergraduate school 11. Possession of a two- or four-year college degree is requiredto take the tests.	In licensure examinations with established national standards, the level of performance that was deemed to indicate a particular test-taker's "readiness for advanced practice" was passing the examination and being licensed. Data are initially adjusted to ensure that they are comparable. Scores on all available professional licensure examinations for the three most recent years for which data are available are aggregated to create a single index score. The basic method of creating a single index involves determining the number of eligible students in the state who pass their licensure tests. The resulting number of "graduates ready for advanced practice" is then divided by the total number of applicable degrees associated with the credential.	National Level External testing companies United States (NCES, Measuring Up) Canada	The following group of indicators assess the extent to which higher education institutions educate students to be capable of contributing to the workforce by examining the pass rate on graduate licensure exams and competitive admission exams. These indicators can be used as external benchmarking instruments. The information collected assists policy makers in the advancement of economic, civic and social welfare (Miller & Ewell, 2005)
	Competitive Admissions Exam Pass Rate	Taking a nationally recognised graduate-admission exam such as the Graduate Record Examination (GRE) or the	In graduate-admission examinations, a criterion score is set at a level generally accepted as "competitive" with respect to gaining admission to a graduate program.	External testing companies United States (Measuring Up)	

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
		Medical College Admissions Test (MCAT) in the United States, and earning a nationally competitive score (Miller & Ewell, 2005). Graduate-admission tests must satisfy three criteria to validate its use as an indicator: • National and state-level performance data are available • The tests are required in order to practice a profession or entergraduate school • Possession of a two- or four-year college degree is required to take the tests.	The number of individuals achieving this level or higher is then counted. This number is divided by the total number of applicable degrees (baccalaureate or associate) associated with the credential.		

Appendix 3: Outcome indicators

Outcome teaching and learning indicators and sub indicators: Objectives, Method, Counties and datasource, and Outcomes and Uses

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
Graduate Satisfaction	Overall Satisfaction	This indicator reflects graduates overall satisfaction with the quality of their course	Information for the following three satisfaction indicators is obtained on the experience of all graduates (not just local students), as the indicators refer to satisfaction with the delivery of educational services (DEST, 2005). This information is collected approximately 3 months after student completion of their course. In Australia, the predominant measure for assessing student satisfaction with the quality of education delivery in HEI's is the CEQ. The results of this evaluation are reported course by course for every university and are widely used to support internal quality assurance audits. The IAF is used as a national level measure in Australia to extract this information.	Australia (LTPF, CEQ, GSF) United States (Academic Profile, CAAP, SSI) Canada (SOIS) United Kingdom (CEQ, NSS) HK (The Exit Questionnaire, The Experience Questionnaire)	Evidence suggests that student satisfaction is directly related to student learning outcomes (i.e. the higher the satisfaction, the higher the student learning outcomes; McInnis & Hartley, 2006; Pascarella & Terenzini, 1991; Ramsden, 1991). In addition, research suggests that as a group of indicators the satisfaction measures in general add to practical knowledge of what academics must do to ensure that their students achieve excellent learning outcomes (Ramsden & Martin, 1996). This indicator also provides insight to the quality of teaching within a course, higher education institution and/or nation, which allows for both quality assurance as well as quality enhancement in the benchmarking process.
	Good Teaching Satisfaction	This indicator reflects graduates satisfaction with their course in terms of feedback, assistance, and interest demonstrated by teaching staff			

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	Generic Skills Satisfaction	The term 'generic skills' refers to the general (holistic), transferable skills that are essential for the employability and academic work of graduates (Hambur, Rowe & Luc, 2002). This indicator reflects graduates satisfaction with the analytical, communication, problem solving and team work skills developed throughout their studies in higher education.	Student satisfaction with the skills acquired during a study program can be sourced using the CEQ in Australia, the CSS, CAAP, PSAS and SOIS in US and Canada, and the CEQ in the United Kingdom. These assessments are national level assessments, but the data can also be used at the institutional level for quality enhancement purposes. Regardless of the importance and accuracy of student self-report, assessments based on actual graduate performance are advocated by various researchers to be the best means of assessing generic skills such as interpersonal, communication and technological dexterity, which are more social and behavioural in nature (Coates, 2007c). As the actual application of generic skills is tacit, this has implications for how they are assessed in terms of measuring student learning outcomes (Coates, 2007c). For example, an individuals' capacity to work and communicate with others could be measured by observing their participation in group tasks and class presentation. Alternatively, a measure of graduate skills obtained from a survey of graduate employers would provide an independent measure of higher education student learning outcomes. In Australia, this indicator measures the percentage of graduates reporting broad satisfaction with the generic skills items in the CEQ. That is, responding 3, 4 or 5 on a five-point satisfaction scale to these items.		
Employer Satisfaction	Employer Satisfaction	This indicator refers to the satisfaction of employers with	Typically, these surveys are conducted using telephone recruitments (of	Graduate Outlook Survey, Employer Satisfaction Survey,	This indicator shows the quality of graduates (as demonstrated by the skill demands of the

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
		recently graduated employees in terms of skills, knowledge and attitudes. It purpose is to gain employers perception of the competence of graduates in relation to graduates recruited from other universities.	employers who recruit large numbers of graduate students) followed by a locally developed self-completion mail-return (or web-based) questionnaire. Employer satisfaction can also be indirectly derived from student surveys regarding graduate income, employment rates and job satisfaction (see output table).	Hong Kong (Employer Opinion Survey) Australia (Graduate Outlook Survey) Locally developed and conducted employer satisfaction surveys, Employer Evaluation Survey; United States, Australia	workforce/employers) produced by HEI's and nations. This involves the satisfaction of employers in graduates' acquisition of subject-specific knowledge/skills and transferable knowledge, skills and attitudes (Harvey et al, 1993). These two types of skills are balanced equally in a graduate of high quality. Essentially, this indicator provides information on the quality of graduates from higher education institutions. While this is a useful measure, it is not widely used.
Stakeholder Satisfaction	Stakeholder Satisfaction	This indicator refers to the satisfaction of all individuals which have a stake in the education of students. Predominantly this includes alumni and current students' satisfaction with the degree to which quality and useful resources are provided to contribute to student achievement. Parents and employers satisfaction with the quality of educational delivery are also sourced, however less commonly.	The measurement of the student satisfaction component of this variable is typically at the program and unit levels. Evaluations are distributed to current students to source the perceived areas of quality as well as areas which are currently below standards in the delivery of education (this includes the provision of student learning communities, learning resources, curriculum coherence, intellectual stimulation, choice and flexibility in course design and delivery andsupport). Gaining a picture of community, parent, employer and other industry stakeholders concerning student learning outcomes is beneficial, but unfortunately rarely done. This could be measured by obtaining government census data to determine trends in higher education study combined with graduate income trends.	Government census data National Level Student Surveys AGS – CEQ, GDS United States (CAAS, Baccalaureate and Beyond) Hong Kong (SES) United Kingdom (NSS)	This indicator is a direct measure of the quality of a HEI at the institutional level, or the HE system at the national level, as perceived by those to which educational delivery impacts upon. This direct measurement is one of the strengths of its use, and potentially why it has been so often adopted as a reliable measure of teaching quality in the sector. The measures developed todate are particularly reliable and valid, making data collection and interpretation easier and more accurate than the majority of other more complex qualitative outcome measures.
Learning outcomes	Motivation for lifelong learning	This indicator evaluates the extent to which graduates are motivated toward lifelong learning as a result of their time spent in higher education. Lifelong learning is defined as a continual engagement in all types of learning throughout life. Specifically, lifelong learning	Measurement of this indicator is via student (current and alumni) self-report surveys. This survey is typically distributed and undertaken by alumni 4-10 years following degree attainment. The information can be used at the institution level for institution-based analysis and peer comparison. However, the data is typically used at the national	Australia United States (CRS, First Destination) OECD Statistics	Research has shown that lifelong learning is related to increased career success (decreased unemployment rate, increased salary). Using alumni and current student responses establishes a unique institutional and national profile of the quality of teaching and learning.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
		consists of formal and informal learning within any type of institution, company, or outside in the field. Formal learning occurs within the context of education and training institutions, leading to recognised and documented qualifications such as diplomas. Informal learning is a natural consequence of everyday life and occurs externally to mainstream education and training. These learning activities have the objective of improving knowledge, skills and competence, within a person, civic, social and/or employment related perspective (EEAA, 2006).	level to determine the quality of education provided to students by analysing their interest and motivation for further education and learning.		
	Student Achievement Scores	Student achievement scores evaluate the degree/quality of student learning at the end of a unit or course. This reflects how much students have learned as a result of the education program. This indicator is used as a proxy measure for the quality of teaching within a higher education institution.	This variable is measured at the unit level by final course grades of graduate students. This data is combined to produce an average for all students at the program level, or aggregated to provide a mean score for the quality of teaching and learning at the program or institutional level to allow for benchmarking between peer HEI's. This data can be further aggregated to produce an average achievement ratio at the national level, to compare the quality of students internationally at a given point in time. Current data can also be compared with prior data from an individual institution to depict trends over time in the quality of graduates produced.	University transcripts Australia New Zealand United Kingdom Canada (SOIS) Hong Kong	This data is collected to reflect graduate skills and knowledge in addition to their preparation for successful employment (Hertz, 2006).
	Student Involvement/	This indicator assesses how much students are personally	Surveys are distributed to enrolled students. Information is gathered and	National Level Student Surveys U.S.	Research shows a consistent pattern of significant association between engagement and

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
	engagement	involved/identify with the content presented in education. In essence, how much students are engaged in the learning process. This is directly influenced by the design of course materials. These should be developmentally appropriate and relevant to real-life situations, practically-oriented and presenting via multiple resources to improve students' understanding of the course (Hoyt & Lee, 2002).	analysed at the institutional level for inter-institutional benchmarking comparisons.	Australia (CEQ, AUSSE) United States (CLA, CSS, CSEQ, NSSE) Canada (NSSE)	academic outcomes such as SPA, degree completion, and attainment of important academic milestones (McClenney & Marti, 2006; Hechinger Institute on Education and the Media, 2006). This research suggests that the more a student is engaged with course material and learning activities (the result of being contextually and personally relevant), the highertheir learning outcomes tend to be. The measurement of this indicator is thus important for monitoring and enhancement purposes.
	Student Participation	This indicator assesses the degree to which students are participants in policy-making bodies and the life of the university in general.	Surveys are distributed to enrolled students. Information is gathered and analysed at the institutional level. In implementation and encouragement of student participation, universities may decide to award student credits for participation (Tavenas, 2003). This is likely to increase participation and further enhance student learning outcomes.	National Level Student Surveys CAAS CSS United States (CSS, CAAS)	Research has shown that student learning occurs as a function of a students' level of academic and social involvement in the institutional environment (McClenney & Marti, 2006). The measurement and monitoring of student participation data is therefore important as higher involvement in all facets of university functioning by students is related to an increase in student learning outcomes (Berger, 2002; McClenney & Marti, 2006). Furthermore, this indicator has been suggested to be a useful measure as student participation is suggested to influence the extent that graduating students are fully-educated citizens and subject-specialists (Tavenas, 2003). This is the result of all-round involvement in the education process by students (Tavenas, 2003).
Student literacy level		This indicator assesses the English literacy levels of graduates. Three types of literacy are generally assessed (prose, document and quantitative) to capture the different types of printed and written materials adults use in their daily lives.	Surveys are administered to graduates, and results are analysed by external literacy assessment centres.	United States (CAAP, CLA, Academic Profile, NAAL, SAAL)	The administration of literacy assessments provides another opportunity for institutions to assess the results of student learning and how that learning is transferable to work settings. Such information assists institutions in their accountability activities. Data on student literacy can also be used to monitor the nation's progress in adult literacy.
Graduate		This indicator refers to the	These descriptors can be found in	Australia	Assists institutions in the structure of their higher

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
competencies		competencies that are expected of students when they complete their higher education degree. Commonly expected competencies include knowledge and understanding; application of knowledge and understanding; ability to make informed judgments; communication skills; and learning skills for further study.	qualification frameworks, institutional handbooks, and course descriptions.	New Zealand United States Canada Hong Kong, European Higher Education Area	education degree programmes and assessments. Complements institutional efforts to demonstrate the value higher education has added to students.

* The OECD countries include Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. A number of countries not in the OECD have elected to provide data in the OECD educational data collection process and subsequent reporting.

Appendix 4: Process indicators

Process teaching and learning indicators and sub indicators: Objectives, Method, Counties and data source, and Outcomes and Uses.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
Mission Statement		An institution's mission statement is a formal, public declaration of the institution's purpose and vision of excellence. In many audits in many countries, institutions are held accountable against their mission statements and their performance and progress towards their mission is periodically reviewed	Mission statements should include an institution's educational vision, particularly what it expects its students to learn and how such learning may be used to benefit society. The mission should unambiguously define the work fields of its graduates (EEAA, 2006).	Institutional Level The mission statement may be found in an institution's annual report, website, publicity documents and policy statements. In addition, quality audits against mission statements are performed in many countries (see section 1 above). Examples: Australia (National Protocols, IAF) United States Canada United Kingdom France	The mission statement is the most public, enduring and respected of many documents describing and supporting an institution's vision of educational excellence (Meacham & Gaff, 2006).
Visionary leadership, academic innovation and creativity		This indicator refers to the presence of visionary leadership, academic innovation and creativity in higher education institutions. The measurement of visionary leadership is the assessment of senior leaders within HEI's and their role as role models. The objective of measuring innovation (which is defined by the creation of meaningful change and improvement to all	University mission statements, strategic plans and policies can be sourced to determine the extent to which vision and innovation are a prominent value. This includes whether or not the institution has adequately defined the value and measurement of innovation and vision within its institutional context. While this shows the values of the institution, it does not necessarily mean that they are being employed. In order to measure the actual presence of these values in the system, one must measure	Institutional mission statements, policies and strategic plans, sometimes assessed through quality audits. Australia (National Protocols, IAF, AUQA) United States Canada Fiji	This indicator measures the extent to which institutions have direction and create a student-focused learning environment with clear and visible values and expectations. This indicator also defines an institution's values for the present and the future (Hertz, 2006). This is an important contextual variable in the delivery of education. The institution's desired state of affairs for the future should be balanced by the needs of all stakeholders.

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
		aspects of an institution's programs, services, processes and operations) (Hertz, 2006) is to highlight or benchmark excellence in leadership.	the development and dissemination of knowledge, and the implementation and evaluation of new ideas, processes and technology.		
Student Engagement		Student engagement assesses the nature and extent to which students participate in educational practices that are proven to contribute to successful educational outcomes. The five benchmarks of effective educational practice proposed in the NSSE and AUSSE are: 1.level of academic challenge 2.active and collaborative learning • enriching educational experiences • student interactions with faculty members • supportive campus environme nt.	Student engagement can be identified in a range of process indicators and measures. These can in part be identified through the use of survey instruments – the results of which can also be considered as outcome indicators. Student engagement may be assessed using the National Survey for Student Engagement (NSSE) in the United States and Canada. The NSSE is sent out to a random sample of first year and final year students in participating institutions at the beginning of each year. The survey can be administered in paper format or via the internet. Institutions may choose to publicise an institutional report containing the survey results. The report contains a description of respondent characteristics, frequency distributions of responses, and mean and benchmark comparisons with peer institutions. The data is collected for institutional use, but can be generalised for benchmarking purposes. The AUSSE is an Australian derivative of the NSSE that will attempt to take into account the contextual differences of Australian higher education institutions. It is currently under development.	Australia (CEQ Learning community Scale, AUSSE) United States (NSSE) Canada (NSSE) Sweden (A Mirror for Students)	Studies show that undergraduates who are engaged by instruction, experiences, and activities achieve higher results, show longer persistence, and are generally more satisfied than students who feel alienated within their institution (Hechinger Institute on Education and the Media, 2006). Research also shows that student engagement empowers students, facilitates self-determination, engender ownership, and generate enthusiasm, which leads to increased academic achievement. However, it is important to acknowledge that measures of student engagement provide information about the learning process, but do not measure what students have actually learnt. Student engagement data are also useful in indicating areas in need of improvement, and assisting institutions in making decisions about how they may support student learning and development, manage resources, monitor standards and outcomes, and monitor curriculum and services. Such information is also useful for prospective students, parents, college counsellors, academic advisors and researchers.
Faculty Engagement		There is currently no robust definition of faculty engagement. It has been described in terms of how much time an academic spends teaching, their teaching style, and their hours of	Limited data on faculty engagement means that it is not possible to specify a quantitative indicator. As a result, evidence for this indicator could include, but not be limited to, membership of a discipline journal editorial board; acting as an	National Level Australia United States (FSSE)	Unlike the numerous student surveys that exist, information on the engagement and experience of academic staff is not widely collected. Given that the experience, engagement, and satisfaction of staff is influential upon teaching behaviours, which in turn leads to effective

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
		availability for students. It has also been defined in terms of the influence academic staff are having in the academic world, and not so much on classroom activities. A common description is required if faculty engagement is to be an effective indicator. For the purposes of this summary, the following definition is provided. Faculty engagement refers to the active engagement of academic staff in the development and practice of teaching, scholarship and/or professional work relevant to thefields in which they teach (Joint Committee on Higher Education Steering Committee on NationalProtocols Performance Indicators, 2007). The extent of faculty engagement depends on the nature and amount of support in teaching that faculty experience within their institution.	anonymous peer reviewer; membership of academic societies; peer recognition (e.g., fellowship of an academy, awards); presentation of conference papers; membership of professional societies; consultancy work; and creative endeavour. An instrument that attempts to measure aspects of faculty engagement is the FSSE which is complementary to the NSSE. It measures the amount of time academic staff allocates for teaching- related, research and scholarly activities, how class time is structured in terms of lecturing, group work, student presentations, experiential activities and field work; and faculty participation in professional development activities. Once again, the type of evidence required depends on the type of academic staff of interest (e.g., teaching or research staff), and the conceptualisation of faculty engagement.	Canada (FSSE) Sweden (A Teacher Survey) United Kingdom	student learning outcomes, it is important to collect, use, and disseminate information on teaching practices and systems that teachers value for quality assurance and improvement. Currently, the majority of faculty engagement initiatives are limited to providing technological support for staff.
Student-centred teaching and learning		The student-centred approach to teaching and learning encourages students to take a more active role in their education by asking questions, sharing ideas, and giving feedback on their learning experience. Teachers who are student-centred empower student input, address each student's learning needs, actively search for new ways to stimulate learning, and evaluate their own teaching performance.	Information for this indicator is usually obtained through the submission of a teaching portfolio that includes an analysis of methods, materials, assessments, evaluations, and relevant teaching materials prepared and used in class. It is also evident in institutional policies and practices regarding enrolment, assessment, progression, and provision of services, resources and support for students and academic staff.	Teaching portfolio, institutional policies and practices and descriptors for professional development programmes Australia (National Protocols) New Zealand (Tertiary Teaching Excellence Awards) United Kingdom (Professional Standards Framework	Student-centred teaching and learning is strongly associated with teaching and learning quality. This approach sets high but achievable goals for students, encourages a deep or mastery student learning approach and student experimentation in the learning process, and accounts for student needs rather than adopt a teacher-focused, passive learning approach. It is perhaps the most strongly supported indicator of teaching and learning quality (Gibbs & Coffey, 2004; Hoyt & Lee, 2002; Kuh, 1993b, 1995; McDaniel, Felder, Gordon, Hrutka & Quinn, 2000; Pascarella & Terenzini, 1991; Smart, Feldman & Ethington, 2000; Tinto, 1997,

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
					1998)
Professional development		Professional development involves the ongoing support of university staff in their various roles to maintain and improve the quality of the universities' services. It provides staff with the opportunity to reflect on and develop their roles, practices, and profession.	Professional development may take the form of formal qualifications, teacher training and skills development programs, conferences, seminars, workshops and mentoring. It should be a part of a university's quality assurance system.	Teaching and learning plan Australia (LTPF, AUQA) United Kingdom New Zealand	Professional development initiatives prepare academic staff with changed student demographics; new technologies and new theories of effective teaching and learning practices. There is evidence that participation and engagement in professional development activities is related to increased student learning outcomes (Chalmers, Cunningham & Thomson, forthcoming). The provision of opportunities for professional development and obtaining relevant teaching qualifications also recognise the importance of teaching and the need for professionalism.
Assessment of student learning		The results of student learning are assessed as a means of informing students of their achievements, driving what is learnt, and fostering the skill of self-assessment within students.	Assessment can be summative (i.e., quantitatively measuring student learning with grades and prescribed marking criteria), and/or formative (i.e., providing qualitative feedback for the enhancement of learning). Students receive an aggregated score, indicating their achievement.	Assessment policies and procedures, grading criteria, collecting longitudinal assessment data. Australia New Zealand Hong Kong India European Higher Education Area United States	It is useful to have multiple methods of assessment to obtain a comprehensive understanding of student learning, and to accommodate different learning styles. The more contextual and realistic assessment tasks are, the more helpful they are in preparing students to become active assessors of their own learning. The provision of specific and timely feedback on student performance is empirically associated with better learning outcomes. Student assessments currently focus on the end result, such as the achievement of learning outcomes. However, equivalent attention should be paid to the design, delivery, administration and feedback components of assessment tasks. The grading procedure must be standardised and passed through a robust production, scoringor moderation process to ensure comparability and transparency. The implementation of scoring rubrics, peer review, or staff training in assessment methods, will make initial progress in this area (Coates, 2007). The reform of assessment practices is difficult as it traverses different levels of operation within an institution, but is a vital aspect of student learning.
Class Size		This indicator refers to the number of students in a course,		University data	Research shows that large class sizes may inhibit the quality of education provided, effecting

INDICATOR	SUB-INDICATOR	OBJECTIVE	METHOD	DATA SOURCE AND COUNTRY	OUTCOMES AND USES
		lecture, and/or tutorial. This indicator has been challenged in recent times with the increasing use of technology in teaching and learning and increasing variety of study modes and options.		United States	students' ability to learn (Westerlund, 2007). Accordingly, programs, departments and classes must be small enough to allow staff and students to experience a sense of community, to experience the value of their contributions, and to confront the consequences of their failures (Chickering & Gamson, 1987; UBC, 2007).
Remedial activities and their effectiveness		Remedial programs (also known as bridging programs) provide additional academic support for students in need.	The success of remedial activities can be monitored by completion and transition rates as well as student satisfaction surveys.	United States	It is important to monitor the efficiency and effectiveness of remedial activities in order to assess the utility of such programs, to make necessary changes and improvements, and to justify the high costs in initiating and maintaining them.

Part II
UNIVERSITY TEACHER PROFILE LEARNING/TEACHING FOCUSED TPLTF (IO2)

I
Corpus of study

Quality education has now become an emergency due to the continuous transformations that the higher education landscape has had to face in recent years both from the point of view of the student body, which has greatly expanded and diversified, socially, culturally, geographically, etc., and on that of the new professional needs determined as a result of the change in the labor market. The latter has led European higher education institutions to adapt to external demands, for example by developing ad hoc services for students (Locke & Guglielmino, 2006) and by harmonising teaching also in line with other higher education institutions and on the basis of benchmarking (Levi & Ronco, 2012). Alongside of course the pressing development of information and communication technologies, which massively entering the classrooms – especially in the Covid-19 emergency period – have shown the urgent need for new skills, the nature of interactions and relationships between students and professors is also changing today. This requires a careful reconsideration of teaching-learning processes, approaches, environments, uses, methodologies, forms and innovative evaluation tools. Alongside governments, students and their families, external stakeholders demand from universities ever greater efficiency, high standards of qualification of professional profiles through teaching and greater alignment with the labor market.

The problem appears, therefore, no longer only that of a lack of agreement with the definition of teaching quality, so well known in the literature, but above all that of interpreting it from the point of view of processes and revisiting it in the light of the contribution of the various actors and active listening to the various stakeholders.

Promoting quality education has therefore become a priority for the types of change that higher education has faced. The new categories of students entering higher education soon required the adoption of new teaching methods. Governments, students and their families, employers, funders etc. are increasingly demanding greater efficiency from teaching for quality learning.

Alongside this, teaching research has continued to provide robust evidence re-

garding the role played by teaching and personal attitudes and behaviors of the university lecturer and their effects and outcomes on student learning (Seidel & Shavelson, 2007; Hattie, 2009). Behaviors and attitudes related to teaching are a complex and multidimensional set of elements (Shuell, 1996). Numerous definitions have been given and many interpretative frameworks that can be considered summarizing the didactic behaviors (Ko & Sammons, 2013) productive, which must help to reconstruct the frameworks of pedagogical and didactic skills on which to focus.

The behaviors and attitudes of the teacher in the classroom have been described by several parties, proving to play an important role in terms of impact on student outcomes, i.e. in terms of motivation, commitment, achievement of learning objectives and so on (van de Grift, 2007). Equally significant is that research that is based on the relationships between basic teaching characteristics and students' academic achievements, which are expressed in different observable components of teaching behavior closely linked to the effectiveness of teaching and which include the creation of a safe, supportive and stimulating learning climate, a way of organizing teaching and managing the classroom effectively, in terms of correctness, the ability to provide clear instructions, the ability to design teaching-learning processes, the use of individualization and personalization strategies and so on.

Teachers "are the single most important learning resource available to most students. It is important that those who teach have a full knowledge and understanding of the subject they are teaching, have the necessary skills and experience to transmit their knowledge and understanding effectively to students in a range of teaching contexts, and can access feedback on their own performance. Institutions should ensure that their staff recruitment and appointment procedures include a means of making certain that all new staff have at least the minimum necessary level of competence. Teaching staff should be given opportunities to develop and extend their teaching capacity and should be encouraged to value their skills. Institutions should provide poor teachers with opportunities to improve their skills to an acceptable level and should have the means to remove them from their teaching duties if they continue to be demonstrably ineffective" (ESG, 2009, p. 18).

It is important that those who teach have adequate training. In the 2015 ESG, the Institutions "should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff. Guidelines: The teacher's role is essential in creating a high-quality student experience and enabling the acquisition of knowledge,

competences and skills. The diversifying student population and stronger focus on learning outcomes require student-centred learning and teaching and the role of the teacher is, therefore, also changing (cf. Standard 1.3)" (ESG, 2015, p. 13).

ESG also reminds that ensuring the quality of teaching staff should be a high priority for higher education institutions because students expect to receive a high-quality education. According to the ESG, the teacher should have the opportunity to develop and extend his teaching capacity (ENQA, 2009, p.18) and be a qualified professional who governs the teaching-learning processes within his discipline, designing contests and teaching procedures in such a way as to allow students to pursue and achieve the established educational objectives, thus creating optimal conditions for their moral development and self-development (Valica & Rohn, 2013, p. 866). Teaching means, therefore, imparting knowledge or instructing (someone) how to do something; or inducing (someone) to learn or understand something by example or experience; or encouraging (someone) to accept an experience; or encouraging someone to accept (something) as a fact or principle (Soanes & Stevenson, 2003, p. 1809).

Insights into how university teachers develop their teaching can strengthen the effectiveness of professional learning activities. Professional learning initiatives aim to support teachers in developing a teaching profile that is focused on student learning. Teachers and university students play a significant role in education processes and classroom teaching (Orhon, 2012) and have a major impact on the development of knowledge and cognition. However, this development requires high professional skills, in terms of teaching and the ability to develop or the ability to carry out scientific research, also linked to the ability to transfer results, including students so that they understand them and inspire their future development (Kravþáková, Lukáþová, & Búgelová, 2011). In this sense, the teaching programmes aim to transform the University into an entity in which discussion and reflection on the quality of teaching are institutionalized, including the constant training of staff.

In recent years, the question of the characteristics of an effective lecturer has been raised in a wide range of studies (Lee et al., 2015; Morrison & Evans, 2018; Alzeebaree & Zebari, 2021; Singh et al., 2021) just to name a few. These studies have identified a number of key qualities that build the profile of an effective teacher, including expert pedagogical skills, strong communication skills, passion for one's profession (Murray, 2021), effective classroom management strategies, and a solid understanding of the subject or field. These qualities have been studied from the point of view of teachers (Mohammaditabar et al., 2019; Lisa et al., 2021) or students (Inan, 2014), also through comparisons between these two

perspectives (Murphy et al., 2004) in order to provide a better representation of these qualities.

The question of what makes a teacher effective is of fundamental importance because of the implications it has on the quality of teaching and learning (Bell, 2005), on the relationship between students and teachers (Frisby et al., 2014), on institutional quality (Catano & Harvey, 2011; Harrington, 2018), on student motivation (Liando, 2015) and on the professional development of teachers (Mohammaditabar et al., 2019). It should be noted, however, that the characteristics of an effective teacher are socially constructed and context-specific (Borg, 2006; Hughes et al., 2022), which means that some features that are appreciated in one context may not be appreciated as much in another.

Considering the fact that the quality of teaching and its perception are influenced by both the values of teachers and students (Sotto, 2011), the question of what are the characteristics of an ideal and effective teacher has been approached from different perspectives. There are now numerous studies that emphasize that the primary attention of students is mainly focused on teachers' pedagogical skills and their ability to promote their learning by encouraging critical thinking (Morrison & Evans, 2018), as well as on the factors of combination of the knowledge and disciplinary of the teachers and their willingness to help students by identifying stimulating teaching methods (Su & Wood, 2012).

Such perceptions play a significant role in shaping students' perspectives towards teaching; and being fun and able to provide rapid feedback, are also important characteristics that a teacher should possess according to the opinion of the students. Also the studies of Arnon and Reichel (2007; 2009) show that a good teacher is an individual with high teaching knowledge, with high values, with an ability to maintain good teacher-student relations, but above all ethically correct. Interpersonal skills, effective communication, willingness to learn and motivation to teach seem to foster learning (Murray, 2021), which asks questions, draws on a repertoire of previously used strategies, exploits errors and failures to enhance the learning experience.

The results of the studies by Beran and Violato (2005) then showed that students who attend classes often and expect high grades to provide high marks of their teachers. Student ratings were strongly correlated with instruction and teacher behavior rather than other factors. Similarly, Richmond et al. (2015) conducted a study to evaluate the effectiveness of teaching through student evaluation of the professor-student relationship, which appears central to many researches (Delucchi, 2000), as well as student involvement and the use of humor by the teacher, which appear predict the student's perception of the effectiveness of teach-

ing. Moreover, the results revealed by the student knowledge factor was the most important in professors' teaching practice (Benson et al., 2005; Wilson et al., 2010). The results show how they carry out their teaching practice in the context Gruber et al. (2010) conducted a study to explore the factors that influence student satisfaction with teaching. The results of the questionnaire confirmed the results of other studies according to which the personality of professors (Clayson & Sheffet, 2006; Babai Shishavan, & Sadeghi, 2009; Khojastehmehr & Takrimi, 2008; Maria & Jari, 2013; Rasool et al., 2017) e.g. in general and their ability to establish good relationships with students in particular had a significant impact on student satisfaction with teaching. All those studies concerning the initial training of teachers in relation to that of university teachers (Singh et al., 2021). Arnon and Reichel (2007) explored similarities and differences in students' perceptions of education about the qualities of a good teacher and their own qualities as teachers by attaching great importance to the personal qualities of the ideal teacher.

The definition of desirable competences of university professors (Boyer, 1990; Laurillard, 1994; Vašutová, 2005; Lueddeke, 2008; Spilková, 2011; Hartley et al., 2011; Slavík et al., 2012; Kucharþíková, 2013; Hoidn & Kärkkäinen, 2014) becomes central as well as their categorization. Different lists have been produced in this sense (Blašková & Blaško, 2012, p. 41) to return a profile of the teacher's competence as technical/expert, moral and ethical, psycho-psychological, didactic-methodological, responsibility and self-development skills, etc. (Valica & Rohn, 2013, p. 867) or even communicative. The continuous improvement of the quality of teaching and the skills acquired by students must be precisely planned, prepared and implemented in daily university practice (Kacha áková, Stachová & Stacho, 2012).

The literature shows how an ideal teacher should have certain attributes, including a strong knowledge of the discipline, adequate pedagogical and didactic skills related to the teaching of specific contents.

However, these results suggest that training and professional development programmes could greatly benefit from educational studies, including and above all from recognition and encouragement to achieve desired and desirable characteristics of students. Examining students' descriptions of the profile characteristics of an ideal or effective university professor can be a useful way to identify critical issues and optimize the education they receive in higher education institutions. Although there is a plethora of studies that have focused on identifying these characteristics, many of them are rather limited both in the number of students selected and in the extent linked to the disciplinary origin. The main problem

with many of these studies is that they investigated the characteristics of an effective teacher from the students' point of view, a flaw that limits the generalization of their results.

Studies conducted to determine how and to what extent students' and teachers' views on an effective teacher converge or diverge (Al-Mahrooqi et al., 2015) is one of the central issues. The distinctive feature of this study is its completeness in considering the characteristics of a teacher focused on teaching-learning processes from a wider population, i.e. students and university professors from different fields of study and stakeholders from different professional fields. Therefore, the results of this study may enjoy greater generalizability and may have interdisciplinary implications and contributions. It should be emphasized that there are likely to be some discrepancies between student and faculty assessments of a teacher focused on teaching-learning processes. These divergences have been considered and have stemmed from different beliefs that students and teachers have towards learning and teaching.

II
The institutional framework: for a culture of teaching quality

European HEIs aim to promote a positive, supportive, engaging and successful learning environment for their students, especially at a time when education processes have a responsibility to prepare aware and qualified citizens and professionals.

This common objective, however, expresses different teaching cultures, which are influenced by visions, policies, funding, contexts, strategic documents, quality of the teaching staff, staff and resources, which are available and help to support and improve the overall work of the different actors in carrying out the institutional functions of the individual institutions. As new social and cultural needs emerge, changes move from society within the institution, requiring the latter to review the culture of teaching, its policies and actions, which evolves hand in hand with the institutional one and which makes it not always easy to make an overall assessment of the various intervening factors that characterize it.

Quality-related changes have consistently influenced higher education organizational models (Milliken & Colohan, 2004) and teaching-learning processes (Beach, 2013; Rowlands, 2012), as well as quality measurement requirements (Buckley & Hurley, 2001) and the use of appropriate indicators (Hoffman, 2013), which have influenced and continue to influence the management and work of higher education institutions.

The idea of a culture of teaching quality and its different forms within an institution therefore changes with changing social needs and higher education itself, which also sees its functions changing. However, if a specific teaching culture is considered successful for a given institution, it is important to understand its characteristics and nature, as it has been shown to influence the educational behaviour of students, teachers and staff (Astin, 1993; Holland, 2001).

The definition of «quality teaching» depends, however, on the meaning that one chooses to give to the concept of «quality» itself, which, as Biggs (2001) points out, can alternatively define a result, a property or a process.

Inconsideration of the specific European realities and the dictates of different

countries, the perception of institutional support for teaching may be different in individual institutions, which from time to time have relationships, tensions and reactions with direct impacts on their culture (Stensaker, 2018) of quality. And this means that the institutional culture of teaching quality passes through different principles, models, behaviors, values, beliefs and ideologies embedded within an institution (Kezar & Eckel, 2002), outlining the contextual coordinates of the experience of the different actors involved (teachers, students, administrators, etc.) and providing the interpretative framework through which one can read the work of an institution and its efforts towards improvement. It is therefore likely that a better culture of teaching quality will also correspond to a better quality of teaching processes and student learning (Cox et al., 2011), but for all this to be better understood there is a need for specific measurable indicators.

An institutional culture of teaching quality can provide insight into individuals' motivations, strengthen development plans, and act as a powerful tool for renewing and transforming higher education institutions and teaching-learning processes from centre to periphery in terms of opportunity (Roxå & Mårtensson, 2009; 2012; Roxå, Mårtensson, & Alveteg, 2011), decision-making processes and microcultures (Miller-Young et al., 2017).

The key elements that contribute to strengthening the culture of quality of a university institution are numerous and range from mission to vision, from objectives to governance structure, from strategic lines to leadership style, etc. Within this context, it is a question of understanding how teaching is and can be concretely supported, evaluated, implemented, enhanced, recognized and rewarded, especially for the impact it produces on students (Cox et al., 2011), on their success, on their motivation and on their commitment (Grayson & Grayson, 2003; Berger & Braxton, 2011) and what it produces on teachers (Feldman & Paulsen, 1999), productivity and overall staff well-being (Harter, 2001).

Studying and documenting the institutional culture with respect to teaching and its forms of support can help to establish benchmarks for institutions and help to improve teaching-learning processes in context. However, for this to happen, institutions must take an integrated, multidimensional and multi-perspective perspective in the reading of phenomena, in order to accurately assess where they are, from the point of view of quality, where they are headed (Kezar & Eckel, 2002; Stein, 1997) and what their prospects are.

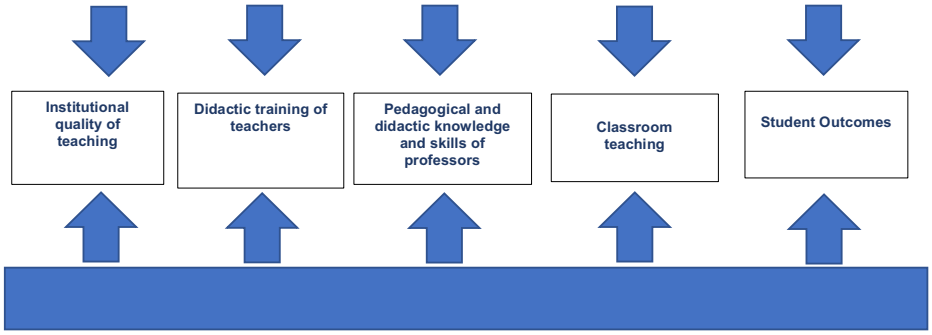
The institutional culture can provide information on the motivations of the different actors and thus strengthen policies, strategic development plans and catalyze action towards change, which also affects the level of meso, macro and microsystem. Below are some indicators of the culture of quality teaching that

represent its scope and that offer the central points of attention for an institution that wants to put itself on the path of quality teaching that relies on a teacher focused on teaching-learning processes and centered on the characteristics of the student.

First of all, it is necessary to think in a systemic perspective, which goes from the center to the periphery, to consider the development of quality teaching and which provides a University Teacher Profile Learning/Teaching Focused and centered on the characteristics of the student (TPLTF) (IO2).

University Teacher Profile Learning/Teaching Focused Institutional level				
Points of attention	**Criteriaor**	**Measurement/ Instrument**	**Levels**	**Evidence**
Presence of quality policies adopted by the institution				
Internal quality assurance system				
Presence of teaching quality policies adopted by the institution				
Presence of policies of teaching quality training of university teachers				
Presence of structures related to teaching quality development strategies (such as Teaching Learning Center with essential levels of performance)				
Presence of a form of certification of teaching skills (accompaniment, recognition and evaluation of skills); university institution that				
Presence of technical-training devices (repertoires and training standards)				

It is well known that the development of teaching quality depends on the quality of university faculty training (Blömeke, Olsen, & Suhl, 2016), which can help guide you build a TPLTF. Such training must focus on strong pedagogical and didactic training, because student achievement and the quality of the learning experience depend on it (Richter, 1994).


Institutional quality of teaching
Didactic training of teachers
Pedagogical and didactic knowledge and skills of professors
Classroom teaching
Student Outcomes

III
Promoting quality management of teaching at institutional level

The essential role played by the University and its administration in creating a culture of teaching quality has been covered extensively in the literature. It should be supported by an organizational culture of the University based on the need for continuous improvement through teamwork, as well as defining a mission statement to be implemented (Madu & Kuei, 1993) over time. For universities to embark on the path of change towards a real culture of teaching quality that aims to build University TPLTF and centered on the characteristics of the student) it is necessary

- develop a vision and strategy on quality teaching;
- identify training needs and explain why a culture of teaching quality is needed;
- create and train teams capable of driving development and participatory culture in teaching;
- adopt clear and constructive institutional communication;
- prepare staff to listen and be receptive to quality teaching and didactic innovation;
- develop a shared commitment to quality teaching;
- highlight and disseminate the successes achieved;
- iencourage effective teaching;
- recognising effective teaching;
- involve members of the institution and the wider community in initiatives that promote quality education;
- evaluate the effectiveness of teaching.

Alignment between policy and management directives, department/faculty strategic initiatives, and teaching and learning practices is key to effective improvement in teaching quality (Barrie & Prosser, 2002). In particular, the didactic model of the university must be incorporated into the global model of the universities themselves (Barrie, Ginns, & Prosser, 2005*)* and in their strategic lines, capable of pervading both institutional and programmatic and peripheral culture.

We need to be careful about the efficiency-effectiveness gap in higher education institutions as pointed out by Osseo-Asare, Longbottom and Chourides (1997), who state that if effectiveness means deciding to do the right thing, efficiency refers to the appropriate use of resources to achieve the set goals. Scholars conclude that managerial leadership and quality teaching in higher education can only be achieved if universities:

– communicate a clear mission statement;
– successfully implement key processes with the help of ad hoc staff, enhancing their data, resources, information and knowledge of best practices;
– They take into account the educational environment and its transformations.

IV
What is a University Teacher Profile Learning/Teaching Focused on student characteristics?

A teaching is of quality when there are some characteristics recognized in the literature as significant and the teacher is centered on the quality of his teaching and on the characteristics of the student (TPLTF). The teacher centered on teaching-learning processes shifts the focus from what he does to what students learn.

The portfolio The teacher has a profile that can take the form of a document or a formal process, including

1. information on the skills, strengths and characteristics of the teacher;
2. Potential barriers to learning
3. make recommendations on what is needed to support the teaching.

This information is accompanied by the self-assessment data of the teaching.

The TPLTF teacher profile can help build relationships with students and understand things from their point of view. This approach can be useful for planning, classroom layout, organization and supports to enable student collaboration and participation, and supports to enable them to participate and contribute to the progression of their own and class learning.

What is the purpose of afocused teacher profile*?*

The teacher profile can be created for different purposes, but above all to inform the debate inside and outside the University. It is useful to develop a profile of the teacher and use it as a basis to characterize the quality of teaching. It offers a set of elements that implies a paradigm shift in how teaching is given (Barr & Tagg, 1995). It is, however, an approach to teaching that aims to clarify approaches, improved teaching techniques, learning strategies that enable students to be more actively engaged in their education, responsible and aware of their path and in the assessment of their abilities, including through self-employment. Evaluative. Learning-centred teaching is well supported by research (Alexander & Murphy 1998; Lambert & McCombs, 1998). The teacher centered on teach-

ing-learning processes is, in part, characterized by precise behaviors, among which we find:

– the centrality of responsibility towards student learning;
– the active involvement of students;
– the use of strategies to ensure students' contribution to teaching development
– strengthening formative evaluation.

V
University Teacher Profile Learning/Teaching Focused (TPLTF) (IO2)

University Teacher Profile Learning/Teaching Focused and centred on student characteristics (**TPLTF**) (IO2) can be considered a synthetic framework of descriptors and behaviors of the teacher referring to the teaching-learning processes and to the performance of the various teaching functions. Starting also from the characteristics indicated by the students as ideal, it was possible to derive a series of essential traits that characterize the profile of the teacher centered on high quality teaching-learning processes. An interesting structure of non-replaceable roles had been specified by Fisher (1998) and by a large literature - lecturer as a professional who guides students to higher levels of understanding, as a mediator who allows students to explore ideas and work together, as one who participates in discussion, contributing to discussion in various ways etc. -, which can be integrated. and other equally necessary roles, namely facilitator, consultant, guide, director, model, motivator etc. (Homolová, 2003) and which should profile the prototype of the effective university professor.

The structuring of a teaching-learning and learning-centred (**TPLTF**) profile of university lecturer offers the opportunity to clarify what characteristics an ideal didactically qualified teacher possesses and what skills, expectations and training he needs to operate effectively in university contexts. .

The profile has been createdto support, in fact, those who work in university contexts and who need to develop a deeper understanding of the teaching role of the teacher, to reflect on how to allow students to learn better, to motivate them and to lead them towards educational success.

The design of a desirable profile of university lecturer responds, therefore, to the effortor to identify ambitious requirements, characteristics, attributes and elements of the «didactic personality» of a teacher who aims to achieve key educational objectives and is ready to perform demanding tasks with intentionality, awareness and professional responsibility, contributing to the development of students' skills and knowledge, expanding their university experience and making it

enjoyable and positive. It is, therefore, a model, an inspiration to strive for, becoming a reference for academic communities and groups of teachers, who wish to carry out their work (Blašková & Blaško, 2012) with ethics, professionalism, awareness and responsibility, creating favorable environments based on the promotion of pedagogical practices and high quality teaching. This leads us to look at quality teaching-learning processes as real «engines» of cultural construction that help students to generate, develop, revisit and implement knowledge, skills, attitudes, values based on training and experiences. This is in order to induce students to understand and use skills and knowledge to solve real-life and professional problems, to give sense of learning, to adopt personal attitudes and points of view and to reinforce responsibility for their own learning (Spilková, 2011, p. 118).

The teacher's profile can help
- build teaching focused on teaching-learning processes and student learning;
- design environments, spaces, settings, contexts and learning opportunities based on students' interests, characteristics and needs;
- create in students a willingness to learn and positive teacher-student and student-student relationships;
- recognize and remove potential barriers to learning maximise student engagement and participation;
- plan, plan, regulate and evaluate interventions and actions that meet training and professional needs;
- develop teaching materials and curricular content that studentscan access to increase learning;
- offer a range of interventions to demonstrate how learning can provide important cognitive benefits;
- support positive transitions to new environments and contexts.

The **TPLTF** profile can also help teachers to focus attention on the student's learning by providing useful information to define it.

Creating a profile therefore means operationalizing the functions necessary to qualify teaching to help share them, make them more incisive, more effective and implement them over time. The profile can be linked both to the system of training of university teachers, and to the design, management and evaluation of teaching-learning processes for the educational success of students and can be employed at institutional, programmatic or individual level.

– The profile includes:
– the body of studies (debate);
– summaries of theresults of the empirical work;
– evidence;
– the indicators and descriptors selected with the quality levels.

VI
The research and triangulation of data for the construction of the TPLTF

1. Objectives and methodology

The aim of the research that led to the definition of the University Teacher Profile Learning/Teaching Focused and Student-Centered (**TPLTF**) (IO2) was to explore quality teaching, starting from the indicators outlined in **IO1** and from the recognition of the opinions and perceptions of students, teachers and stakeholders interested in European contexts of which include the Partners of the QUALITI Project. On the basis of the indicators present in the Teaching Quality Indicators Framework (TQIF) (IO1), for the purposes of this study, a multi-perspective and multidimensional exploratory research with triangulation of the data was structured, where guiding hypotheses were formulated on the possible causal factors, on possible factors proper to the TPLTF profile and on the possible factors extraneous to the quality of teaching. In this sense, in the countries of the partners of the QUALITI project, namely Italy, Spain, Romania, Lithuania and Poland, a series of field explorations were carried out concerning:

- survey of students in the five European countries with which the profile of the ideal professor has been reconstructed;
- survey of university professors to understand their perception of teaching-learning processes and methodological-didactic skills;
- interviews with experienced teachers or who perform precise functions of responsibility regarding teaching or the quality of teaching to understand what types of expertise
- interviews with students to answer some emerging questions in the investigation phase;
- focus groups with external stakeholders to understand their point of view on teaching-learning processes and on which elements of university teaching.

In this direction, by collecting and analysing data with different methods within the same paradigm, the research drew on the potential strengths of both qualitative

and quantitative methods, allowing partners to explore the different perspectives assumed in the Partner Countries, to discover the relationships between the different layers of the system and to answer the varied research questions, striving to guarantee quality, ethics and fairness in carrying out activities and attention tostakeholders, internal and external, interested, with the aim of reaching the definition of a profile (**TPLTF**) as complete and articulated as possible.

The present phase of the QUALITI project involved a methodological triangulation which used, within the same study, a combination of «methods» (mix-method) on the basis of which they are collected and analysed. quantitative and qualitative data to respond to the growing complexity at international level concerning the provision of university teaching and the interpretation of its characteristics.

The surveys were designed not only to capture the quality traits of teaching-learning processes, but also to capture a snapshot of an institution's teaching culture ranging from the perceptions of teaching staff and those of students and stakeholders, in a given time, using an integrated approach.

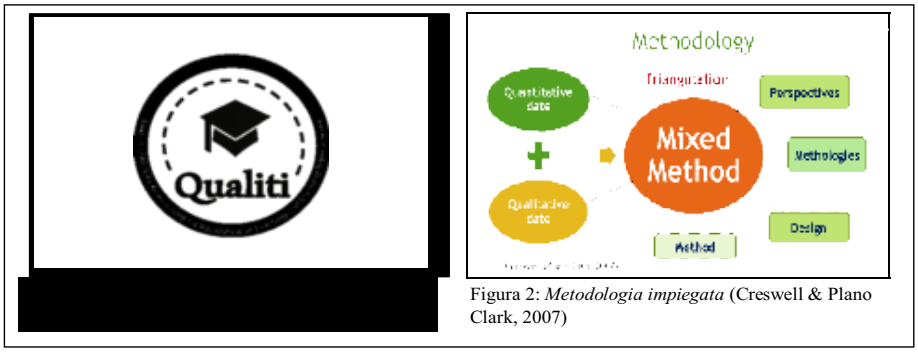


Figura 2: *Metodologia impiegata* (Creswell & Plano Clark, 2007)

Opinions and perceptions of all participants (students, teachers and stakeholders) were triangulated and combined within a research method with mixed technique, to obtain a spectrum of ideas on teaching, which could respond to the attempt to describe the profile of the teacher focused on teaching-learning processes and centered on the characteristics of the student. These cross-exploratory searches aimed to obtain useful information of the didactic profile of the university professor, in terms of skills, professional characteristics and personal teaching practices, useful for designing the **TPLTF.** Creating a successful teacher profile as perceived by internal and external stakeholders: this was the goal!

Through the study of the perceptions of the different actors (students, teachers

and stakeholders), their divergences and concordances, as well as their evaluations, the explorations conducted by the team had, therefore, the intent to help to decline specific traits of the teacher's didactic profile concerning specific characteristics and skills such as design skills and classroom management, methodological and didactic skills, communication and relationship skills, choice of teaching materials, choice of assessment tools, etc.

It should not be forgotten that equally important are teachers' perceptions and personal opinions on teaching-learning processes, which help to clarify what ideas they have of education and of a university lecturer who can create a stimulating and satisfying learning environment. for students (Martin & Balla, 1990; Samuelowicz & Bain, 1992; Kember, 1997; Ho, Watkins, & Kelly, 2001). Previous research has shown that these views or conceptions are partly aware and partly unconscious in teachers (Pajares, 1992) and can be described as specific meanings attributed to phenomena that act as filters through which new information passes as it is processed. However, there is a difference between the beliefs or conceptions that teachers possess and the teaching strategies or approaches that they then use in practice. Beliefs and conceptions describe how teachers think about learning and teaching, while teaching strategies or approaches describe how they teach teaching-learning processes to initiate more effective teaching strategies, which need to be varied. depending on the needs of the different teaching environments (lectures or in small groups, first or third year students) (Samuelowicz & Bain, 1992). However, the fact remains that the way in which higher education teachers conceptualize teaching affects the way in which they assume this role (Ramsden, 2003; Hativa, 2002; Ho et al., 2001). Academics' conceptions of the subject may be the first variable responsible for how academics develop their teaching approach preferences. Moreover, these relationships are stable between different contextual variables (e.g., academic disciplines, class size, gender, and teaching experience) (Trigwell & Prosser, 2004). Accordingly, further studies are needed in this direction.

Several authors have argued that teachers' conceptions influence their teaching approaches (Jacobs et al., 2014; Postareff, Lindblom-Ylänne, & Nevgi, 2008; Trigwell, Prosser, & Waterhouse, 1999; Kember, 1997) and some have shown how their conceptions of learning and teaching influence student learning outcomes (Gibbs & Coffey, 2004). Furthermore, it is argued that changes in teaching behaviour can only be achieved if attention is paid to teachers' conceptions of learning and teaching (Kember & Kwan, 2000; Trigwell & Prosser, 1996). This often implies that course, department, or faculty development activities should

seek to influence faculty conceptions to align them with desired teaching behavior (Calkins, Johnson, & Light, 2012).

To fill thesegaps, a questionnaire was constructed and validated to measure teachers' conceptions of learning and teaching in student-centred training. In this study, we have explored more closely teachers' conceptions of learning and teaching. The information obtained is interesting for several reasons. First, it might be useful for teachers to know their conceptions about teaching-learning processes to stimulate reflection on the teaching function and help to support a change in conceptions themselves. Secondly, they could offer an organizational overview, providing useful information to initiate a curricular shift towards student-centred education, even influencing teachers' own perceptions in the educational context.

Unlike studies on the categorizations of different teacher profiles, the present study focused specifically on defining the teaching profile of the university lecturer on the basis of the Quality Teaching and Teaching Quality Indicators Framework - TQIF (IO1) and the surveys conducted by the team of the conceptions of university professors, students and stakeholders measured with validated questionnaires, semi-structured interviews and focus groups, choosing a large-scale qualitative-quantitative approach.

2. Stages of the research

Phase I
Quality Teaching and Teaching Quality Indicators Framework - TQIF (IO1)

1. Selections of Indicators of a Quality Teaching-Learning Processes
2. Selections Indicators Suggesting Teaching-Learning Processes Quality
3. Use of the Teaching Quality Indicators Framework (TQIF) to construct the exploratory studies

Phase II
II Teaching-Learning Processes: opinions and perceptions of university professors, students, and stakeholders

1. Research
2. Methods
3. Survey of University Professors
   - 3.1 Survey Participant Recruitment
   - 3.2 Survey Participants

   3.3 Survey Design
   3.4 Quantitative Survey Analysis
4. Survey of University Students
   4.1 Survey Participant Recruitment
   4.2 Survey Participants
   4.3 Survey Design
   4.4 Quantitative Survey Analysis
5. Stakeholder Focus Groups
   5.1 Focus Group Participant Recruitment
   5.2 Focus Group Participants
   5.3 Focus Group Materials and Apparatus
   5.4 Focus Group Procedure
   5.5 Qualitative Analysis Plan
6. Interviews expert university professor and students

Phase III
III Results
1. Quantitative Findings
2. Qualitative Results
3. Open-Ended Responses to Online Survey
4. Focus Groups
5. Interview Results
6. Discussion
7. Selection of Indicators for the Construction of the University Teacher Profile Learning/Teaching Focused and centred on student characteristics (TPLTF) (IO2)
8. Recommendations and Future Steps
9. References

Please refer to the individual research reports, which are indexed below.

3. Summary of survey results

The analysis of the answers of the student questionnaire in the international arena (8000 + 250 per try out tool) in the countries considered in the QUALITI project, accompanied by the analysis of the four open answers out of 31, shows how the profile of the ideal teacher as perceived by the students is a well-defined pro-

file, of which some traits are reported in Figure 1

The student survey on the ideal professor brings out some main characteristics of the TPLTF	
Accessible	available by phone, email, etc.at reception, tutoring, etc.
Available	initiates conversations, invites questions, respectfully responds to student comments
Authoritative	establishes clear course rules, speaks in an understandable manner, etc.
Confident	speaks clearly, makes eye contact and answers questions correctly
Interesting/stimulating/ motivating	uses active methodologies, direct forms, experiments, attractive forms of exposition, uses technological devices in a relevant way to support and enhance lectures, uses interesting examples, personal examples, is not monotonous in lectures, etc.
Effective communicator	expresses himself clearly, uses vehicular language accurately, uses precise disciplinary vocabulary, gives clear and convincing examples, etc.
Inclusivo	does not discriminate against students, does not resort to stereotypes, is not prejudiced, etc.
Encouraging/Enhancing/ Solicitor	praises students' good work, provides feedback, etc.
Supportive towards students	helps students who need it, offering support materials, additional explanations, knows students, uses individualization and personalization strategies, etc.
Enthusiastic about teaching and discipline	smiles during class, prepares interesting classroom activities, uses specific gestures and expressions to emphasize important points in the lesson, arrives on time for class, etc.
Progettualmente competente/lavora per obiettivi	prepares lessons, has clear objectives and communicates them accurately to students, etc.
Flexible/open	changes course lesson plans when necessary, meets with students outside of class time, pays attention to students when they express their opinions, accepts criticism, etc.)
Good listener	does not interrupt students while they are talking, maintains eye contact with students, etc.)
Felice/positivo/ umoristico	tells anecdotes and funny stories etc.
Humble	admits mistakes, never brags, takes credit for others' successes, etc.
Connoisseur of their discipline/topics	(easily answers students' questions, does not read directly from the book or notes, and uses clear words and understandable examples)
Scientifically prepared	provides materials necessary for students to best follow the lecture, provides outlines for discussion by drawing on up-to-date content, etc.
Didactically prepared	knows planning, assessment, best techniques for teaching, etc.
Looks good	inappropriate expressions, is neat in dress, etc.)

Promotes discussion and dialogue	asks questions during class, gives points for class participation, engages students in group activities during class, etc.)
Promotes critical thinking/stimulates intellectually	Asks thoughtful questions during class, uses stimulus questions for r9iflection, solicits comparisons and group discussions/activities, etc.
Provides constructive feedback	Makes comments on students' work, answers students' questions, gives advice on how to achieve learning objectives and how to use assessment to improve, etc.
Punctual and adequately manages time	Allows time for students to complete an assignment, leaves space for students to ask questions, returns corrected student work in a timely manner, etc.
Establishes positive relationships	Interacts with students before and after class, uses informality, etc.
Has realistic expectations of students	does not overload students with readings, teaches at an appropriate level for all students in the course while respecting course objectives, etc.
Evaluates in a fair manner	uses reliable and valid evidence, uses relevant evidence, uses correct criteria and assigns grades appropriately, etc.
Respectful and ethical	does not humiliate or embarrass students, interrupts students while they are speaking, etc.
Sensitive	is close to his students and attentive to their personal needs, etc.
Comprehensive	accepts legitimate excuses for missing a delivery, is available before and after class to answer students' questions, does not lose patience with students if asked for more time to discuss complex concepts, etc.
Respectful of students' needs	ensures that students understand topics and concepts before moving on to explain the next material, holds compensatory study sessions, repeats information when necessary, asks questions to check students' understanding, etc.
Strives to be a better teacher	solicits feedback from students on his or her ability to teach, continues learning [attends workshops, etc. on teaching], uses new teaching strategies and tools, etc.
Keeps up to date	attends refresher courses, etc.
Technologically competent	routinely uses computers for teaching purposes, makes use of innovative teaching applications, uses devices to improve teaching effectiveness, etc.
Integrates instruction with instruction from other subject areas	connects disciplinary knowledge and relates it, etc.
Connects teaching to real life	relates topics or issues addressed in the classroom to current, real-life situations, uses recent videos, magazines and newspapers to demonstrate what is being said, talks about current topics, uses new or recent texts, etc.
Connects teaching to the profession	prepares students to transfer knowledge and skills from higher education to the world of work by placing learning in the professional context and linking academic experiences with those outside the university and contextualizing learning to make it enhance the learning experience and outcomes, thus making it relevant and reducing the difficulty when applying new concepts to unfamiliar situations

Examination of student comments seems to indicate that they prefer above all authoritative teachers rather than authoritarian, helpful and welcoming, scientifically and didactically sound and believing in them and their abilities, sharing ideas and problems with students, having high expectations and about them, encouraging them, caring for them. of them and have a sense of humor. The study also highlighted an important role that plays in the profile the ethical character of the teacher, who occupies an important place in teaching and is the basis of the profession. This reveals that the traits and characters of the teacher are the most important aspects for them compared to any other aspect and determining performance. With the operational definition of the profile, the present study also reveals that the characters that matter more for student success than other aspects.

In line with literature (Canrinus, 2011; Eikermann, 2014; Rinivasan, & Kavipriya, 2014; Ackerman, 2014), teaching ability, kindness, impartiality, moral character, humor, friendliness, patience, knowledge of the subject, clarify doubts, common sense, flexibility, care, tendency to help, driving, motivation, sports knowledge, use of educational technology, sharing, encouragement, language skills, visionary, learning expert, simplicity, smiling face, hard work, self-confidence, open-mindedness, great expectations for students, fun and classroom management. It also emerges that the ideal teacher is the one who:

- employs strategies that engage students to become more active learners (e.g., reference interviews, counselling survey, engaging lectures, class discussions, case studies, scenarios, role plays, problem-based learning, inquiry-based learning, manipulations, etc.);
- encourages students to challenge ideas and sources (e.g., debates, research critiques, reaction reports, etc.);
- uses cooperative/collaborative learning strategies (e.g. peer review, group projects, thinking/pairing/sharing, etc.);
- incorporates real-life, concrete situations into learning activities;
- Invite students to contribute to their educational experience (e.g., choosing between assignment topics, classroom assessment techniques, etc.);
- employs methods that develop the student's understanding of the thinking, practice and procedures of the discipline;
- employs methods that increase students' academic literacy within the discipline or field (e.g., reading, writing, math, technology skills, computer literacy, etc.).

The teachers' survey

Student-Teacher Surveys

1. *correspondences* between needs (adaptation of teaching to the needs of the pupil)
2. *convergences of perception* (relationship with students, etc.)
3. *differences of perception* (commitment, reflection, etc.)

Focus groups

In particular, the people who participated in the focus groups noted a series of shortcomings of the university of different orders regarding the quality of teaching and the size of university teaching:

Transversal dimension

- policies and educational actions that are not close to professional realities;
- insufficient involvement of stakeholders in teaching;
- insufficient knowledge of the University of the characteristics of stakeholders who could contribute to the improvement of teaching;
- gaps between the level of perception of the usefulness of what students need by stakeholders and that of teachers.

Dimension of education proper

- teaching too tied to theory, especially in some subject areas;
- professional internship poorly systematized from a technical-design point of view;
- poor didactic coordination with professional organizations/orders;
- insufficient theory-practice integration;
- insufficient didactic preparation of professors who are mainly interested in research;
- teaching still too transmissive and not very applicative;
- methodologies not adapted to the world of work;
- insufficient awareness on the part of professors of the need to focus on students' learning needs;
- insufficient attention to learning contexts;
- gaps between the level of perception of the usefulness of what students need by stakeholders and that of teachers;
- insufficient stakeholder involvement in educational planning.

Results

- the need to strengthen the strategic management of teaching with the contribution of stakeholders;
- the need to incorporate the needs of the labour market into teaching;
- The need for renewed teaching, especially on the methodological level:
- the need for teaching that prepares students in solving professional problems;
- a teaching that is misaligned by design;
- teaching that does not prepare students to use professional tools;
- a teaching that does not always allow an adequate integration of the student into the labor market;
- disconnect between research and teaching and their lack of integration;
- poor use of technologies;
- little emphasis on interaction;
- teaching not integrated with research;
- the University does not always act as a driving force towards the world of work that is strictly dependent on the teaching function.

In this present survey some characteristics have also been evolved that have been relevant for the guidance of the bearer, which have indicated that new roles are necessary for teachers to become guides, facilitators and counselors and that they must act as a reference.

From the various local surveys conducted in the different countries, a series of central aspects have emerged concerning the way of managing the lessons, still too based on lectures, poorly diversified on the methodological level and not very attentive to the tools used for the evaluation of learning outcomes. This, according to the interviewees, seems to be caused by the lack of preparation of teachers on the didactic plan.

The triangulation of data related to the perceptions of students, teachers and stakeholders, confirms these data and underlines the urgent need for a change in pedagogical processes and in the management of teaching and its development. All participants emphasize the importance of careful time management and teaching load sharing, but above all they highlight the question of the quality of experience that permeates training, which is often not investigated by teachers to ensure that their students get the skills they need. Another problem reported is the lack of knowledge and familiarity that teachers would have in the use of educational technologies and their unpreparedness in their use for educational purposes.

Interviews

Participants feel that there is a lack of appreciation for the work of teachers and that, especially in Italy and Spain, they feel undervalued, overburdened with administrative work. Prevalence to consider teaching as a transmission of knowledge and not as a tool that serves to build knowledge, to share it with students and to implement it. The passion for teaching seems to be the same passion and diffusion of what they are passionate about.

These reflections also agree with the answers of the expert teachers in the interviews, who emphasize the lack of attention to teaching, stating that it does not count or counts for little, especially in the career. Experienced teachers also noted that, due to the pandemic, the lack of teaching preparation of teachers has revealed itself in many aspects, especially and on the educational technological level. All university teachers, as well as for other teachers of other levels of education, should receive specific pedagogical and didactic training to ensure adequate teaching and keep up to date on educational theories and methodologies to ensure effective teaching (possible areas of professional development of teachers: updated contents of the discipline, classroom management, assessment, how to effectively guide and support learning etc.

Forty direct structured interviews were carried out with professors, divided into two profiles: professors (profile A) and professors with positions of responsibility in the Quality Assurance Bodies/Committees of the project partner universities (profile B).

The main cognitive objective of the interview was to explore faculty members' beliefs and ideas about specific dimensions related to the quality of undergraduate teaching:

- most important teaching skills and aspects of teaching that are most difficult to measure;
- pedagogical training received and perceptions of its usefulness;
- centrality attributed to students and expectations of them;
- teacher influence on classroom climate and teacher functions;
- prevalent aspects considered important for the quality of teaching in all its phases and processes (design, communication, relationship, management, organization, evaluation);
- quality teaching practices implemented (content, methods, objectives, tools, etc.).

There were 26 professors interviewed with profile A (distributed among PP countries as follows: IT n.5; SP: n.6; LT: n.9; RO: N.6) and 14 those with profile B (IT: n.1; SP: n.5; LT n.4; RO n.4)

The respondents, mostly women (28 out of 40), are three-quarters aged 46-60 years (19) and 31-45 years (12), work almost all full-time (34), and are mostly (20) «senior» professors with more than 22 years of teaching experience teaching (with a range of 22 to 48 years) or semi-senior (12), with teaching experience between 15 and 21 years.

The following processes have been studied:

– Curricular processes
– Teaching-learning processes
– Evaluation and assessment processes
– Teaching practices
– Collaboration/Support/Tutoring Processes
– Curricular processes
– Teaching-learning processes
– Evaluation and assessment processes
– Teaching practices
– Collaboration/Support/Tutoring Processes

It is necessary

- validate components and constructs;
- refine the possible indicators that can be collected for triangulation;
- refine a template report to summarise an institution's findings from surveys, and indicators;
- collect examples of effective practices;
- collect feedback from administrators to ensure that data is relevant and useful for decision-making and continuous improvement of teaching culture.

4. System of indicators

University Teacher Profile Learning/Teaching Focused (TPLTF) (IO2)

University Teacher Profile Learning/Teaching Focused (TPLTF) (IO2)						
Dimension	**Descriptor**	**Criterion**	**Measurement/ Instrument**	**Levels**	**Evidence**	**Documentation**
Promotes the construction and co-construction of knowledge and skills	Build knowledge and skills					
	Provide deep and meaningful learning					
	Promote relationships between skills and knowledge					
Communicate clearly	Care about using clear and transparent communication that is understandable to all students					
	Provide explanations, clarifications etc.					
	Respond to students' questions or requests					
	Conceptualize and expose in logical progression the contents of the instruction					
	Articulate your explanations in a conceptually clear way					
	Use organizational schemes to tie together content and goals according to increasing levels of different complexity					
	Use effective communication modes					
Use the language of instruction correctly	Clarifies the vocabulary used to make messages intelligible					
	Vary communicative records depending on the situation to improve the understanding of all students					
	Use formal and informal records					
	Use a clear, scientific and shared teaching language					
	Clarify the use of disciplinary lexicon					
Use a democratic style	Provide in the classroom the conditions for a fruitful debate and to build skills related to critical and reflective thinking					
	Stimulate and implement comparison and debate as a student-centered strategy					
	Allow each student to express their ideas					
	Listen carefully to students and work well with them					
	Answer questions, objections, requests for clarification from students without showing impatience					
	Non-directive technical uses					
	Encourage students to speak					
	Encourage students to engage					

Use flexible teaching	Tailor teaching to students' learning characteristics, needs, and needs					
	Provide the learner with individualized tools to improve their learning outcomes					
	Make use of and solicits in the student the learning of adaptive skills					
Create inclusive learning environments	Create supportive and diversity-friendly environments					
	Remove barriers to learning, also identifying those potentially present at the start of the instruction sequence					
	Use welcoming attitudes and behaviors					
	Promote a climate of respect and mutual understanding					
	Encourage respectful and trusting behavior towards others					
Respect and value differences	Welcome and enhance cultural diversity					
	Respect the different learning needs of different categories of student					
	Help learners deconstruct stereotypes and prejudices					
Use a variety of content and in different ways	Use a variety of content and vary it according to cognitive needs					
	Present interesting and inspiring content to grab students' attention					
	Use key content to facilitate further learning and increase opportunities for skill transfer in different contexts					
	Promote connections between content by students in a progressive way					
Combine didactic and disciplinary knowledge	Help students adopt discipline-specific survey methods					
	Adopt relevant approaches and methodologies in line with different disciplinary objectives to allow students a greater focus on the content and skills to be learned					
	Stimulate ways of thinking in the discipline by increasing the levels of applicability and practicability of disciplinary skills					
Promote active involvement	Through the use of active methodologies, it involves students in the learning process					
	Use student experiences to increase student engagement					
	Recognize and values students' resources to enhance their learning					

Promote experiential learning	Facilitate experiential learning					
	Leverage students' previous experience to enable them to learn new skills					
	Provide individualized and personalized learning experiences					
	Draw on student experiences to prepare new learning experiences					
Prepare authentic and reality-related experiences	Create real, authentic learning experiences					
	Promote the acquisition of skills by students so that they can apply in different contexts					
	Create didactic conditions for the application of students' skills and knowledge					
	Help the student connect the study experience to the personal one					
Create learning opportunities	Create learning opportunities that meet the needs of all students					
	Create learning opportunities for all categories of students					
	Offer the student the opportunity to identify suitable goals and means to achieve them					
	Offer the student opportunities to discover new interests					
	Create learning opportunities based on student interests and experiences to maximize engagement					

Use instructional design for all	Designs, plans, plans, and regulates teaching explicitly to enable students to acquire skills and knowledge					
	Design learning environments and opportunities based on students' learning characteristics and needs					
	Use available resources to set up appropriate learning environments and learning settings					
	Sets up spaces for strategic experimentation in problem solving					
	Identify student prerequisites					
	Recall students' skills and knowledge to build new ones					
	Tell students about the skills they need to learn					
	Articulate your teaching clearly					
	Know the characteristics and needs of the students to whom it is addressed					
	Respect the characteristics and needs of the students to whom it is addressed					
	Tailor educational times to students' needs					
	Design, plan and implement a lesson in a functional way for learning					
	Respect the canons of scientific design when designing a lesson					
	Define clear and expressed learning objectives in the form of learning outcomes					
	Adopt precise teaching procedures					
	Use learning strategies focused on learning and aligned with learning objectives					
	Focus the teaching action on the characteristics of the students					
	Give clear instructions and instructions to students to organize learning activities					
	Ask questions and manages student answers					
	Explain to students how to use available materials, sources, and resources					
	Vary stimuli to meet students' needs					
	Design educational settings in line with learning objectives					
	Use appropriate forms and methods of evaluation in line with the objectives					
	Use appropriate assessment tools in line with the object of the measure (type of learning)					
	Adopt alignment processes to improve the coherence and internal cohesion of the instructional design					

Promote collaboration and participation	Stimulate collaborative learning					
	Work collaboratively with your students					
	Promote collaborative learning activities					
	Inspire students to work in teams					
	Promote group cohesion					
	Encourage students to collaborate on specific initiatives or product creation					
	Facilitate collaborative learning					
	Work collaboratively with your students					
	Expand student participation					
Promote positive relationships and interactions	Set up constructive and meaningful relationships with learners					
	Respond to student requests					
	Promote interaction between students					
	Vary forms of interaction					
	Connect with students: initiates, maintains and strengthens professor-student relationships					
	Make a balanced dosage of interactions with all students / frequency of interactions					
	Has supportive behaviour provided as response to students' needs / learning difficulties and/or as response to personal, non-academic needs / problems					
	Provide support for the students` integration into the group/academic community					
	Develop students' socio-emotional skills					
	Stimulate behaviours of mutual support, conflict mediation, etc. among students					
	Promote behaviors of expressing affectivity					
Stimulate and supports motivation to learn	Motivate students to learn using every opportunity, in and out of the classroom					
	Support the student's motivation to learn					
	Promote appropriate motivational attitudes and behaviors					

Organize and manage teaching and teaching-learning processes	Manage the group					
	Promote forms of teaching organization adapted to the needs of students					
	Identify optimal forms of management and organization of teaching-learning processes, in terms of time, resources, environments, contexts, etc.)					
	Offer spaces of discretion of the student in the realization of a task					
Promote a positive classroom atmosphere and a serene atmosphere	Promote a positive classroom climate					
	Manage conflicts					
	Create conducive learning environments that stimulate learning					
	Create a cozy atmosphere					
Facilitate learning	Facilitate communication between students					
	Act as facilitator and guide					
	Use facilitating techniques to help students learn					
	Provide attractive tasks and «hands-on activities» to help transitions					
	Respond to specific needs					
	Use any means or tool capable of favoring the achievement of the student's educational objectives					
	Worry about difficulties students may encounter in learning					
	Guide student learning					
	Stimulates students' deeper understanding of who they are as students					
Orient learning	Help the student recognize their resources					
	Help the student recognize their resources					
	Help the student build a positive relationship with knowledge					
	Help the student build a positive relationship with discipline					
	Recognize and identify any training needs of students with respect to the learning path					
	Show confidence in the student's ability to progress in learning					
	Support self-esteem					
	Support self-efficacy					

Promote accountability	Promote the active assumption of responsibility by the student in the study					
	Stimulate learning responsibility					
	Stimulate students' responsibility					
	Create learning environments that motivate students to accept responsibility for learning					
Provide support	Build didactic support actions					
	Build supportive teaching routines					
	Use personalized and individualized strategies					
	Use compensatory and dispensatory tools when needed					
	Provide help to students anytime, anywhere, and on demand					
	Provide social and emotional support					
	Support tasks					
Connect teaching to reality	Help students develop real-world skills					
Promote autonomy and independence	Provide opportunities for independent practice					
	Promote autonomy in students					
	Enable students to make decisions					
	Create the conditions for exercising autonomy in decision-making					
	Teach students to think for themselves					
	Promote students' autonomy and self-determination					
	Promote the autonomous exploration of disciplinary knowledge					
	Offer spaces of autonomy to the student in facing the study					
Support education practices for change	Use curricular design and development					
	Take charge of feedback on the curriculum					
	Update periodically and when necessary the curricular path (teaching modules)					
	Improve your practices in curricular aspects					
	Implement inclusive and adaptive practices					
	Maintain a constant relationship with external stakeholders to increase the student experience					
	Enhance and takes into account the indications periodically received from stakeholders to increase the effectiveness of teaching-learning processes					

Create conditions conducive to learning	Create the learning conditions needed to make positive change happen					
	Contextualize the results acquired and difficulties encountered to increase understanding					
Regulate teaching-learning processes	Facilitate self-regulated learning					
	Offer opportunities and opportunities for students to receive formative feedback so that they can improve and move towards mastering skills					
	Provide students with differentiated feedback before completing a task helping them improve comprehension					
	Send systematic and constant feedback					
	Send feedback to students on the accuracy and completeness of what they understand					
	Help students learn from their mistakes					
	Adjust your teaching according to the needs of the students					
	Self-directs his own teaching and works independently					
	Reduce the inconsistency of teaching actions through feedback that informs of dialogue with students					
Use the assessment correctly	Use assessment to promote learning					
	Use a formative assessment					
	Track individual students' progress and provide feedback on their progress					
	Use peer review and co-evaluation					
	Identify bridge skills (strengths) to use when learning becomes difficult					
	Provide the student with tools to monitor their learning processes					
	Share assessment criteria with students					
	Detect skills and knowledge through valid and trusted tools					
	Promote a proactive function of evaluation to enhance teaching and learning					
Promote self-assessment	Promote self-assessment to allow students to perceive and recognize their resources and their work in a way that adheres to reality and improve their performance and develop better skills and competences					

Promote awareness	Promote in the student the awareness of the skills to be achieved					
	Promote in the student the awareness of the skills and competences he possesses to go towards educational success					
	Promote in the student the awareness of his own motivation to learn					
	Stimulate the student's awareness to use their own learning style					
	Promotes students' awareness of their disciplinary interests					
	Promote in the student the awareness of their strategies to face and solve problems					
	Encourage students to guide their learning					
	Stimulate the student's self-awareness					
Stimulate reflection	Teach students to reflect on how and what they are learning					
	Use their skills and knowledge to improve learning					
	Stimulate students to recognize their own positive learning behaviors					
Use technologies in a relevant way	Use technologies to enhance learning					
	Leverage technology to personalize learning					
	Leverage technology to adopt new forms of assessment					
Self-evaluate your teaching	Promote self-assessment and peer review					
	Evaluate your teaching and identify what can be done differently to increase students' understanding					
	Evaluate your teaching and identify what can be done differently next time					
	Recognize their own positive teaching behaviors					
Reflect on his own teaching	Reflect on what he learned in the classroom to improve student learning					
	Reflect on one's attitudes, behaviors and positive and negative teaching actions					
	Reflect on student learning					

Innovate teaching	Challenge common sense in teaching-learning processes					
	Face new challenges and difficulties in teaching					
	Incorporate research within it by recognizing when information is needed and identifying, retrieving it, evaluating it and using it effectively					
	Use and promote the development and application of new methodologies, strategies and tools to improve teaching-learning processes					
	Increase spaces for didactic experimentation					
Promote learners' professional development	Commit to the professional and personal growth of students					
	Connect classroom learning with the needs of the professional world					
	Consider stakeholders a key resource for learning each student					
Promotes one's professional development on the educational level	Identify new interventions and new spaces for action when learning becomes difficult					
	Use your skills and knowledge to improve teaching and learning					
	Use instructional training to respond to new learning needs when it becomes difficult					
	Identify what they learned from teaching to set new goals for improvement					
	Learn from students					
	Use and promote the development and application of new methodologies, strategiesand tools					
	Recognize its resources to deal with new teaching situations					
	Increase strategic experimentation in problem solving					
	Identify and use new learning strategies					

VII
Brief description of the TPLTF profile methodologically robust and characterized by a democratic style

1. The characteristics of the TPLTF profile

The profile of the teacher focused on teaching-learning processes and centered on the characteristics of the student as perceived by students, teachers and external stakeholders appears to be characterized by a democratic style, by deep understanding for teaching-learning processes, by a positive personal human relationship with each student, of which he sincerely cares about the educational success.

Taking into account the above, the explorations of students, faculty and external stakeholders accurately described the characteristics of the profile and style of a teacher-focused on teaching-learning processes who acts democratically during the teaching process and is centred on the characteristics of the student. As part of this IO2, a research segment is presented that refers to the observation of the characteristics of a teaching profile that characterizes a methodologically robust and democratic teaching style as a dominant characteristic.

The university teacher of the profile obtained assumes responsibility for his teaching, taking charge of the learning of the students and becoming a facilitator capable of responsibly and consciously guiding their acquisition path by supporting them in transitions. Students actively engage in the acquisition process and build their own meanings starting from the teaching action, becoming aware actors capable of managing their own learning. The teacher focused on teaching-learning processes goes beyond the transmission of content and information and becomes a creator of «favorable conditions» for learning, which through careful design and evaluation and the preparation of an appropriate teaching material allows students to acquire skills and disabilities apply them to new situations by addressing problems and identifying solutions.

The teacher focused on teaching-learning processes organizes and implements the teaching centered on learning by explicitly designing the paths and aligning the objectives with the course evaluations. Instead of assuming that students possess skills, it allows them to practice them (Blumberg, 2009; Nelson, 2010),

measures them precisely and offers tools to self-assess them. An essential component of learning-centered teaching is the teacher's ability to send students relevant formative feedback so that they can improve and move towards mastering course learning outcomes before outcomes derived from summative assessments. Increased formative assessment gives students the opportunity to learn from their mistakes, interact with course content, and receive feedback before completing a task, thereby improving knowledge and understanding of the learning material (Blumberg, 2009; Nelson, 2010). When students receive formative feedback, which guides their learning, they perceive that the teacher cares about them as individuals and their acquisition process; which increases their motivation and desire to learn. Formative feedback can take many forms and can be provided in many ways (direct and indirect), commenting on tasks and reviewing them, identifying sets of problems, obstacles, analyzing weaknesses and so on (Bloxham & Campbell, 2010),informing students, dialoguing with them and thus reducing internal inconsistency between teaching actions. The teacher focused on teaching learning processes is aimed at continuously improving the design of teaching and evaluation and their evaluation, in turn, informs the teaching (evaluation for learning), tohelp develop shared standards among the teaching team, improves the consistency of judgments, allows more discussion (calibration) of criteria and timingin the management of a course. The focused lecturer allows students to iteratively discuss the relationship between discipline and real-world open problems and, when encountering problems, raise questions that they must independently research by appealing. to resources to find answers. When they come together, they share and integrate new information to discuss concepts at a deeper level or apply their knowledge to a similar problem.

The teacher's competence and professional skills focused on teaching-learning processes and on the student are qualities and traits which he is called upon to implement throughout the educational workconducted together withthe students, which concerns planning, implementation and the evaluation of the teaching process, the creation of the atmosphere of the class and, in general, its relationship with its students. In this context, each teacher differs in his style of classroom management. The classroom management style is determined by the characteristics and behaviors of the teacher in teaching situations, but also by his ability to adapt his teaching to the interests and needs of the students, in order to ensure that students acquire knowledge, skills and habits in a stimulating atmosphere in the classroom. The democratic style of classroom management is important because, among other things, the teacher must be able to establish positive relationships with students and that they are characterized by dialogue, openness to

students' experiences, encouraging and giving space to their expression of opinions, questions and assumptions. In this process, the professional activity of teachers is aimed at educating in cultural and disciplinary values, developing cooperation and cooperation, honest and responsible relationships and encouraging students to acquire knowledge of high skills and quality. The results show that teachers are focused on a democratic style of classroom management. With their accessibility, tolerance and empathy towards students, teachers create an atmosphere in which the student is supported in the process of acquiring and relating to others through collaborative forms and is driven to develop responsibility for himself and the group by adhering to agreed rules. They encourage students to actively learn, express opinions and develop responsibility, thereby strengthening students' self-confidence.

The development of the teacher's profile focused on teaching-learning processes, an autonomous and reflective professional, who, through a democratic style of classroom management, encourages the independent construction of students' knowledge and skills, their personal growth and their professional development, appears as A challenging but necessary process.

The teacher's profile focused on teaching-learning processes, with its results-orientation, is centred on the characteristics and activities of the students, who assume responsibility and initiative for both independent work and learning and cooperation. The goal is to encourage students to learn actively through open communication, a positive relationship and collaboration that leads to fruitful discussion of ideas.

Teachers focused on teaching-learning processes therefore play a significant role as they guide students through their teaching and style, without prejudice, respecting differences, avoiding judging and discriminating against them.

As head of teaching, which is aimed at an extraordinarily wide range of students, the teacher focused on teaching-learning processes combats inequalities and discrimination in order to turn and ensure equity, assess the needs of students without prejudice, reviewing Continually make judgments and assumptions about others when necessary. This requires a significant effort in working together with colleagues and students, as active actors in all phases of the curricular path. He takes into account the differences between students, their individual abilities and previous knowledge and skills, identifying prerequisites and training needs to reinvest them in further training. The idea is that of a teacher who adopts selective and creative programming, careful planning involving the use of a dynamic of hydration involving the use of different modalities, strategies and activities aimed at encouraging learning and motivation. to learn. In order for learning and

teaching to be oriented towards positive results, the teacher focused on teaching-learning processes creates a positive classroom atmosphere and a welcoming and conducive learning environment, which encourages the mental and emotional action and activity of each student, varying the teaching and orienting it towards research. In the classroom management plan, the teacher focused on teaching-learning processes, aims at harmonizing all available resources to achieve the educational objectives of the course. He possesses professional skills and qualities which he implements throughout his work with his students and which determine the organisation of teaching processes and performance, the relationship he builds with his students., in the creation of the atmosphere in general of the classroom. In this context, each teacher differs in their own style of classroom management, which includes personality qualities and behaviors that determine the character of teaching, which influences students and their learning. The style assumed in the classroom can be seen as a multifaceted construct that includes the areas of teaching management, conditions management, and behavioral management. The forms of teaching of the teachers, the management of the class and the atmosphere of the class that is created are linked to the way in which the teacher adapts his verbal and communicative style to the needs of the students, their characteristics, time and other circumstances, managing the learning conditions well. Two factors appear significant and concern the clarity of the teacher's behavior that varies, adapts and makes his style flexible. He is a lecturer with a democratic style that encourages the involvement of students in the process of making decisions and behaviors, who has a high control of teaching and learning and provides a high involvement of students, who feel a sense of satisfaction with have managed to achieve the objectives of the course and have carried out the planned activities. He is a democratic lecturer who strives to nurture reciprocity, fairness, and fairness by leading students toward active learning. In teaching, the teacher uses the dialogical method and explains objectives and criteria, which he shares with the students, allowing them to express their opinion, encouraging them to have confidence in themselves and their abilities, supporting their self-esteem through the exchange of social strategies that ensure their independence and responsibility. The teacher offers suggestions, provides support and strives to encourage and recognize the efforts of the students, does not use coercion, but helps and tries to develop the responsibility of the individual and the group in order to achieve the final results, i.e. the educational objectives. The teacher's style focused on teaching-learning processes is, in fact, characterized by a model of responsibility towards the goal that pushes to teach students how to make responsible decisions and how to be guided by the principle that they should learn from their own be-

havior and from the decisions taken. The teacher explains in a clear and conceptually logical way, using appropriate examples and exhaustive examples. Use appropriate communication to the learning recipients and vary it, if necessary, in case there are difficulties in understanding. The teacher carries out the lessons in a relaxed and relaxed atmosphere for everyone, with fewer opportunities for conflict and more opportunities for exploratory and collaborative work. The educational objectives are achieved with teaching methods and forms in which the teacher places students in the role of active participants in the teaching process, using, when appropriate, individualization and personalization strategies to enable all students to achieve results. It is necessary or that the teacher is endowed with high teaching skills, that he observes and self-evaluates in the performance of his training, communicative, collaborative and active functions and, guidance, of effective classroom management, establishing a positive atmosphere in the classroom, choosing forms and methods of teaching aimed at the growth and continuous development of students, choosing teaching content interesting for students, always updated and linked to reality, profession and the most advanced research in the discipline. This translates into high demands for continuous professional development of teachers for quality teaching, which requires new roles and new challenges. However, in order for a teacher focused on teaching-learning processes to correctly apply his pedagogical knowledge and act at a high professional level, it is necessary that he maintains a high level of ability to act in different areas of teaching and decision-making processes of critical, independent and responsible reflection. The teacher, focused on teaching-learning processes, uses reflective practice to systematically analyse his own practice and experience in order to bring out and bring awareness to his subjective perceptions and to achieve a gradual change in classroom and teaching activities. .

2. The teacher focused on teaching-learning processes and classroom management

The teacher focused on teaching-learning processes structures the teaching process with his strong methodological and professional skills but also leveraging his personal characteristics, his attitudes and his skills. In doing so, it pays attention to many factors that directly and indirectly influence the teaching and classroom management process; it questions how to achieve successful interaction, what forms, methods, strategies, techniques and working methods to apply in teaching processes, how to harmonize them with the curriculum and needs of students, how to create a positive atmosphere, how to respect the individuality of students

and their different abilities, etc. In this direction it tries to create positive interactional relationships with the students, which are characterized by dynamism and pleasantness, offering the opportunity to students to express their lack of understanding of what is studied and presented in class, advancing their ideas, opinions, suggestions and to request further explanations regarding what was stated by the teacher. The latter respects the students, accepts suggestions and tries to adapt to the students' requests, offering further explanations, encouraging them to communicate in relation to the motivation or interest expressed by the students in certain explanations or activities.

In the lesson, the explanation contributes significantly to the clarity and systematicity of the presentation of the contents and the open comparison and discussion help to verify the understanding of the student, nourishing the assumption of different perspectives in the reading of the phenomena and disciplinary problems addressed, also looking at unresolved issues and including interdisciplinary connections. The teacher's lesson focused on teaching-learning processes is accompanied by a serene interaction, full of joy and humor, without interruption, where two-way verbal communication between students and teachers prevails and the «opportunity to speak». In it students are active and very motivated during the interaction and have no difficulty in telling their experiences and expressing opinions. During the interaction, the lecturer addresses the students with gentle tones addressed with warmth, encouraging them even with kind words and supporting them to try to persevere in achieving goals and doing their job. During teaching, teachers alternate different forms of lecture and work (frontal, individual, collaborative), creating effective learning environments that require the diversification of individual, frontal and group forms of learning, interweaving the independent work of students with the classroom, that group etc., and establishing links with other disciplines and teachers of other disciplines and with external professionals, coming from the world of work, who can make a contribution both to the planning phase of the course contents and in the classroom. Within a lesson during the teaching, the teacher applies different approaches, methods, tools and techniques of work (intelligent maps, problem solving activities, etc.), guiding the teaching from discovery to conversation, from watching videos to activities with teaching materials prepared ad hoc, motivates encouraging students to actively participate in the teaching process. He encourages students to use creative, critical and reflective thinking and to learn innovative teaching practices that are also related to his professional development, of which he takes great care to be able to discuss policies, models, teaching practices and systems, which allow its continuous professional development at the individual,

team level, as well as the creation, sharing and innovation of didactic knowledge. The teacher focused on teaching-learning processes engages in professional development is subject to continuous changes and to the continuous search for needs, conditions and educational possibilities, including curriculum planning, design, evaluation etc., which seeks to adapt to emerging student needs and changing university contexts. Teachers focused on teaching-learning processes announce in advance to students the objective of the lesson and give clear and precise instructions about instructions for solving tasks, engaging in activities, asking questions to guide interaction and encouraging the acquisition of disciplinary vocabulary and independent reasoning on the discipline. In the classroom, the environments are structured according to the activities – if interactive there is the use of forms of collaborative work in which the active participation of students is expected to independently discover new content. The lesson is structured on the progression of the contents, where the emphasis is placed on the attribution of importance to the connection of new concepts to the previous ones, but also to pre-existing experiences and knowledge. Theteacher focused on teaching-learning processes shows himself mediator and guide in the processes of knowledge acquisition by planning interesting activities and moderating his action. He places emphasis on problem solving, active involvement of students and the expression of their creativity and individuality.

The teacher focused on teaching-learning processes starts from the assumption that it is necessary to create efficient and innovative learning environments in training, which require a selection and integration of various teaching strategies, teaching methods, tools and working methodsor to achieve predefined objectives. He is an expert in individualization strategies that help to adapt teaching to the needs of students and to identify suitable teaching solutions for them. Teachers use different teaching materials and learning resources, ranging from PowerPoint presentations to textbooks to documentary material etc., and activities are often accompanied by instructions or explanations from the teacher addressed to all students. The individualized approaches that teachers use are most evident in structuring according to the complexity of different types of tasks, also adopting compensatory forms, where necessary, to work on students' prerequisites. They adapt the rhythm of teaching to that of learning and in some way dwell, when necessary, on what students find difficult to master in terms of content and skills or find interesting to deepen. The focused teacher pushes students to deepen, stimulates the more timid ones to ask additional questions, invites all students to engage in interaction and study.

Focused teachers direct all students towards educational success, helping the

weaker ones, are available to help any student who needs help, try to direct students to engage in the work by providing clearer, observant or accurate instructions and, if necessary, reviewing scheduled lessons . They always provide students with feedback on their achievements and support them in their efforts and work.

The atmosphere of the classroom contributes to the effectiveness of teaching. During the teaching process, the focused teacher takes into account a number of factors that influence the success of the education process, also because of its complexity that represents a challenge in creating a classroom atmosphere. positive and welcoming, attaching, in this sense, also importance to collaborative learning, which directly influences interpersonal relationships. The teachers urge students to be responsible and to confront each other openly, inviting them to cooperate, to listen to each other, and to be patient and tolerant, to be constantly invited to express opinions, make suggestions, present ideas, tell experiences, express feelings in class, when in some cases Observe conflicts among students, invite students to talk about them, and teach them to take responsibility for their actions. In the classroom, therefore, the focused teacher encourages students to cooperate, to respect diversity, tolerance, the rules of the game or homework, the agreed times, etc. He is sensitive and to the needs of the students, empathetic, enthusiastic about his work, approach the students with joy and smiling face.

In the environment, the teacher focuses on the use of the equipment and space in which they carry out the activities and their respect in use, uses the classroom space differently during different activities, which is subject to change, and is directed to reflect on possible ways of influencing the atmosphere of the classroom and acting continuously in accordance with them.

The analysis of the characteristics of the democratic style of classroom management through student-centered teaching activities, as well as in relationships, interactions, active forms and methodologies, individualization and personalization strategies and classroom atmosphere, etc., has found that teachers focused on teaching-learning processes are able to create stimulating atmospheres in which students are supported also through forms of collaboration with students, who, if appropriately solicited by the teachers, develop the responsibility of personal and group learning in compliance with the agreed criteria. Dynamic, active, interactive and collaborative working approaches and methodologies, also in a disciplinary sense, encourage students to actively participate in the learning process, to express opinions and to develop awareness and responsibility, which strengthens their control and confidence in their own learning. It emerges from the triangulation how the understanding of the professional role of a teacher focused on teaching-learning processes implies the understanding of his role not as a trans-

mitter of knowledge, but as a facilitator and stimulator of the active learning of the student, determined largely by methodological-didactic skills and his way of teaching. who are able to determine the quality of student achievements. The key role is played, in fact, by teachers focused pedagogically and didactically competent, responsible and autonomous. In order to ensure a better understanding of classroom management, objectives to be achieved in the teaching process, teacher behavior and student behavior, it seems fundamental for the teacher-focused on teaching-learning processes to focus on the quality of sequences and curricula and on his continuous professional development.

Thus from the present research emerges a profile of teacher engaged in an in-depth professional didactic reflection, in a systematic analysis of his own practice and in an examination of the experiences of managing a classroom that lead him to the awareness of his own teaching ideas, of his actions, of the activation of effective training interventions. and the gradual improvement of its teaching activities carried out in the classroom, also as a result of a progressive updating that leads it towards a gradual improvement in the quality of teaching as well as in other areas of professional activity.

What emerges strongly from the results of the research, however, is the question of developing the profile of a teacher focused on teaching-learning processes who, as an autonomous and reflective professional, adopting a democratic style of classroom management, needs to encourage the independent construction of students' knowledge and facilitate their personal and professional development by adopting, from time to time, renewed teaching practices. This development is at the heart of a challenging but necessary process which is aimed at supporting a democratic style of classroom management and respecting students' freedom of choice and decision-making, but also responsibility for their learning obligations. It requires, therefore, an effort on the part of the students and a professionally competent action of the teachers.

3. The need for pedagogical and didactic knowledge and skills

The triangulation of the data has shown that the teachers who are most effective in the perception of teachers are those who have good planning, evaluation and communication skills, who are able to identify the needs of their students, to try to increase their motivation, to use diversified teaching strategies tailored to students' characteristics, encouraging them to be optimistic about their abilities (Shukrie, 2011). Research has shown that teachers' pedagogical knowledge has

been found to be a significant criterion when students evaluate their teachers (Hill et al., 2003; Faranda & Clarke, 2004; Barnes & Lock, 2010; Gruber et al., 2010; Benekos, 2016), as the literature clearly highlights. This shows that students and stakeholders have special emphasis on teachers' teaching skills. The results also shed light on the «methodological question» that appears emerging and of fundamental importance to ensure quality education centered on the characteristics and needs of the student. Next to it, and not of secondary importance, we find the problem of classroom interaction between teachers and students, often limited by unilateral communication, with lessons taking place by projecting PowerPoint slides that do not involve students in the learning process. In-depth interviews with students who are experts or students working on teaching bodies show that students complain about a too frequent lack of interaction in the classroom by some teachers with students and lack of involvement in the lesson. The problem of support, teaching materials and forms of delivery appears complementary and diversified in the different partner countries, where in some contexts such as Spain they appear to be central support for learning, while more scarce arise in contexts such as the Italian one. In all cases it appears central that the teacher (Singh et al., 2021) is, on the one hand, a good connoisseur of the discipline and, on the other, a professional capable of transposing it didactically and methodologically prepared from a didactic point of view or able to communicate and logically expose interesting contents connected to the real world, to professional problems and to research advances.

Quality of teaching approaches, ability to take charge of the individual needs of students, possession of strong co-didactic methodological skills (design, evaluation, communication, etc.) appear the coordinates of a teacher focused on teaching-learning processes and centered on the characteristics of the student. Although expressed differently, many of these aspects emerging from the research results appear to be in line with the categorizations employed by other scholars. The teacher who guides the learning path, supportive, takes care of his students, understands their difficulties and guides the teaching-learning processes by design, never losing sight of the individual needs of his students (Pratt, Kelly, & Wong, 1999), appears to be central components of the **TPLTF .**

All the participants in the explorations then clearly indicated how the teacher's ability to provide clear explanations, supported by relevant examples, linked to reality and profession, are the demonstration of a teacher who is didactically effective, but who needs to leverage, to complete his function, the ability to establish relationships and interactions. and with students, to stimulate them to critically, to reflect and debate with others interactively, also encouraging the use of criti-

cal-reflective thinking as the most important attribute of a good teacher. It is interesting to note that the participants' concern regarding the teacher's knowledge of the subject taught appears to be closely linked above all to the teachers' ability to provide effective explanations, examples and demonstrations (Odom, 1943; Lowman, 1984; Tam, Heng, & Jiang, 2009; Murphy, Delli, & Edwards, 2014; Lee, Kim, & Chan, 2015) and his passion for teaching. However, the values of a teacher focused on teaching-learning processes for respondents remain the «heart» and «care» for his students.

VIII
Principles and points of focus of quality teaching: University Teacher Profile Learning/Teaching Focused and Student-Centered (TPLTF) (IO2)

1. Points of attention for a teaching related to TPLTF

Encourage an integrated teacher-student vision and learning characteristics-teaching characteristics

The experiences concerning quality teaching involve the active involvement of both teachers and students. Research into how faculty view teaching has revealed a process of continuity between a «teacher-centered approach to a «student-centered approach» (Prosser & Trigwell, 1999). Research results in the QUALITI project have shown that such approaches need to be integrated and that a teacher-centred approach, where the teacher pays attention to what he teaches or would like to teach, must be properly integrated with one centred on the learner and how he learns and would like to learn.

Stimulating active learning

Active learning involves the involvement of students through the use of precise social strategies that are essential to make the student participate in their own learning. Weimer (2002; 2012) proposes five characteristics that can be considered the basis of student-centered teaching and that are also mentioned in the QUALITI project by internal and external stakeholders, These characteristics concern the ability of the teacher to:

– involve students in learning;
– include in the educational process explicit indications of the skills to be achieved and teaching approaches that help students to think, solve problems, evaluate evidence, analyze themes, topics and problems, generate hypotheses, master disciplinary material;
– Encourage students to reflect on what they are learning and how they are doing it, encouraging them to accept responsibility for the decisions they make about

learning (how they study for exams, how they review their writing or check their answers, etc.). The goal is to make students aware of themselves as students and eager to learn;
– motivate students by giving them some control over learning processes, making them work for independence and autonomy, such as when, for example, they share assessment criteria with teachers;
– stimulate collaboration and promote shared commitments to learning, looking at individual and collective learning as the most important goal of any educational experience.

A student-centred approach to teaching encourages the student to take a more active role in his or her education, enabling him to ask questions, share ideas, and receive feedback on his learning experience (Carini, Kuh, & Klein, 2006). Teachers who are focused on student characteristics contemplate the contribution that students can make to the educational process, meet their individual learning needs, look for new ways to stimulate learning, and reflect on their own teaching performance (Healey, 2000).

Fostering learning communities

The growing focus on student-centered teaching also calls into question knowledge, which is actively constructed by students as they shape and construct mental structures to make sense of their environment (Cross, 1998). Lenning and Ebbers (1999) state that learning communities have extraordinarily positive effects and diverse benefits on students, which include higher academic achievement, better success rates, greater satisfaction with college life, better quality of thinking and communication, a better understanding of oneself and others, and a greater ability to bridge the gap between academia and society (Lenning & Ebbers, 1999). The scholars point out that there are, in addition to the individual teacher, also benefits for the department that include less isolation of teachers, a shared purpose and cooperation among colleagues, greater curricular integration, the possibility of employing new disciplinary approaches and greater satisfaction with students' learning. which the lecturers take care of (Lenning & Ebbers, 1999). The institution can also benefit from these learning communities, which are often interdisciplinary and aimed at devising new curricular approaches and strategies to strengthen teaching and learning. Learning groups are a good response for universities to become proactive, open and purposeful communities. Lenning and Ebbers (1999) classify such learning communities according to two criteria. First,

«primary membership» which allows learning communities to be separated according to the characteristics of group members: some learning organizations are faculty learning communities, other student learning communities, etc. Second, the primary form of interaction differentiates groups according to the method of interaction: physical in-person contact, non-direct interaction, correspondence, virtual interaction (Lenning & Ebbers, 1999). Using these two criteria, four basic types of learning communities can be elaborated: curricula and learning communities, classroom learning communities, residential learning communities, and student learning communities. Some learning communities work better than others. For learning communities to be effective, the department/faculty must ensure that they are student-centered and focused on a common goal. Learning communities should involve planned activities outside the classroom. They appear to be particularly important for students enrolled in the first year of the course. The institution should do its best to publicize the existence of these learning communities, for example through attractive brochures, word of mouth from satisfied students or through the Internet (Lenning & Ebbers, 1999).

Allow all students to learn better and in depth

The idea that quality teaching indicates students to learn better and in depth (Marton & Säljö, 1976) starts from the assumption that it is necessary to overcome the mnemonic approach to learning and adopt an «internalized» approach (Nuzzaci, 2028), which allows students to perceive the quality of teaching (Barrie, Ginns, & Prosser, 2005; Ellet et al., 2002), providing a coherent and integrated understanding of the teaching module, the discipline addressed and the learning conditions, improving the understanding of the contexts. This responds to the need to create an environment conducive to students' personal learning in which the desire to learn thrives and the possibility of looking inside what is being studied and how this study can be reinvested in every moment of life.

Ensure equitable and inclusive learning environments

Learning environments can be considered fair when they are created taking into account the needs of all students during design. This includes the use of an appropriate teaching language, appropriate delivery approaches, easy access to teaching resources and support structures. Such inclusive teaching-learning environments are characterised by the assumption that all learners are diverse and have different learning approaches and needs, which must be cared for and re-

spected. The initial idea is to assume diversity rather than homogeneity in the classroom, which is sometimes referred to as adopting an approach to teaching-learning processes through «universal design» (Mcguire et al., 2006). It is a question of thinking of a design for the development of teaching modules that supports and benefits all students (O'Leary & Gordon, 2009) and specifically targeted and implemented for certain categories of students (disabled, etc.). This can provide the necessary impetus to work towards the important goal of equity.

Implement alignment processes

Use «alignment processes» between desired learning outcomes, teaching type and assessment modalities (Biggs & Tang, 2007), in order to design lessons, teachings, programs and curricula to give coherence to training. At the study course level, for example, the profile of the graduate (a set of attributes or achievements that students should have achieved at graduation) should be taken into account, so that experiences and learning paths, as well as their assessment, can be carefully designed. to enable students to acquire an appropriate profile. This requires careful mapping of the characteristics and attributes that the graduate should possess in terms of the knowledge, skills, and attitudes that are promoted within a degree program. Similarly, at the teaching level (module), the desired learning outcomes should be well defined, since learning experiences and activities and assessment practices should be designed accordingly and find full internal cohesion. Constructive alignment provides a framework for student-centred teaching, helping the student achieve expected learning outcomes and evaluate their effectiveness. This approach to design relies on microteaching techniques (Brent & Thomson, 1996; Uzun, 2012) and on lesson designs that serve to center teaching on the student, facilitating alignment between learning outcomes, learning activities and assessment tasks. Constructive alignment is expressed at various levels (University, Faculty, Department, Course) for all the implications it produces for the policy that supports teaching-learning processes and quality teaching. On an organizational level, it challenges both conventions of schedules and spaces, to shift the focus from trying to «place» or «relocate» lesson time slots and classrooms assigned to a teaching to that of deciding what is the most appropriate way for students to learn.

Being able to count on solid pedagogical and didactic skills of the teacher, especially those of a methodological nature (planning, evaluation, relationship, communication, organization and didactic management)

The ability to teach requires methodological skills that include a wide range of skills such as the use of various techniques, tools and strategies according to available resources, the correct application of educational technologies, the creation of interactive environments, the provision of supportive environments, the use of active learning principles, constant interaction, but above all the centrality and participation of the student, putting it in first place in all the main teaching functions (design, relationship, communication, evaluation and support/tutoring). All university teachers, as well as for other teachers of other levels of education, should receive specific pedagogical and didactic training to ensure adequate teaching and keep up to date continuously on educational theories and on the most appropriate methodologies to ensure effective teaching (possible areas of professional development of teachers: updated contents of the discipline, classroom management, assessment, how to effectively guide and support learning etc.)

2. Principles

Teaching is a cultural construction

Teaching is cultural construction, in terms of the ability to produce literacy and to apply specific skills to allow students to learn, starting from the ability of the university teacher to acquire, organize, analyze, evaluate and explain and clarify concepts, information, themes and problems, recognizing the growing importance of teaching, its design and its evaluation .

Teaching is selective

When a teacher understands learning as a mere collection of knowledge or as a process of memorizing facts and reproducing information, his teaching is more likely to be less effective, since he asks the student to reproduce in context a similar reproductive behavior, preventing him from looking at knowledge as an opportunity to improve. If teaching is based exclusively on information and content overloads and evaluated for independent facts, then these superficial approaches to learning can produce harmful effects on knowledge, leading to the forgetfulness of information and to a learning that does not produce internalization of acquisitions, but only momentary. Evanescent memories. The selectivity of information protects against these risks.

Teaching takes a profound approach

If the teacher adopts a profound approach, he encourages students to look at learning as a resource for continuous improvement, bringing out the structure underlying what he explains, and to confront erroneous ideas and visions that help him evaluate the connectivity of ideas and concepts, rather than independent facts (Biggs & Tang, 2007).

The course includes a communication aimed at producing learning

The course includes an ability to communicate information, data and content in a clear and comprehensible way to all, to express oneself effectively, both orally and in writing, to employ a form of didactic communication in which information emerges as the order of the elements of the educational system and oriented to produce learning, which maintains the conceptual complexity of the messages by simplifying the ways to make meanings accessible to all students (Nuzzaci, 2018).

Teaching is flexible and adaptable

The course requires that the teacher is equipped with the ability to analyze problems, and didactic ones in particular, and that it is carried out in a logical and structured way, challenging conventional hypotheses, considering different options and points of view, making informed decisions and acting with flexibility, adaptability and creativity with respect to the contexts and recipients of the training. While being flexible also means incorporating student feedback into teaching, being adaptable also means being able to acclimatize to changing roles and responsibilities related to teaching-learning processes. Adaptability and flexibility allow you to go through different learning theories and teaching methods without being immobilized by stress or indecision.

The teaching is enhancement of cultural variety and variability

Teachers must take into account the characteristics of the students (background, socio-cultural origin, etc.) take charge of them in teaching, responding to the needs of all categories of students, valuing differences to ensure the academic success of each and every one; These are prerequisites for inclusion in higher education contexts and for democratic participation in culture.

Teaching is systemic action

Teaching is a systemic action that starts from the understanding of the principles that govern teaching-learning processes, from the behaviors and attitudes that are expressed in context, from the effects of teaching activity on education systems and from the cultures of teaching quality that interact with these systems (Nuzzaci, 2018).

Teaching is autonomy and responsibility ability

The teacher is autonomous and responsible in guiding and encouraging students to complete the pathways, to commit to engage in learning activities and to orient them towards educational outcomes. The goal of any accountability system is to help students become, in turn, autonomous and independent.

Teaching is learning expectation

Research suggests that the way they teach and expectations about learning influence how students respond to the stresses and approaches they take to their study (Säljö, 1979), especially when they try to extract meanings from education and understand how they can apply what they learn or when they attempt to reinterpret the knowledge to better understand the broader meaning of their learning, in such a way as to internalize what they have learned to make it expendable when they have to use it again, thus discovering that they have changed.

Teaching is the ability to work in a team

The teaching contemplates the ability of the teacher to work effectively with other teachers and with students both as a team leader and as a team member in order to enhance the conditions of implementation of the teaching-learning processes.

Teaching is the ability to provide adequate feedback according to learning

The feedback sent by the teacher to students on their learning through formative assessment to improve the acquisition process (Brown et al. 1997; Light and Cox 2001, p. 170) It is intended to highlight any learning difficulties or gaps or to identify areas which can be further developed. Feedback is mainly used in formative assessment to encourage a more student-centred approach. As

a transaction or process, it involves the transmission of information from one individual to another with the intent of improving performance and information transmitted in response to a previous action or performance. The effectiveness of feedback is determined by the extent to which the recipient can use it to reduce the gap between where it is and where it should be (Sadler, 1989; Davies, 2007; Al-Ghamdi, 2017) and characterized by qualified supervision that offers the opportunity to enable the student to constructively welcome corrective actions and improve their skills, allowing them to successfully pursue the experience of learning. It also helps the teacher to become a better teacher (Re, 2008), because it makes him reflect on his strengths and allows him to rectify his mistakes, thus increasing and enhancing his teaching skills, as well as their impact on the level of interventions.

Teaching is the ability to self-direct action

The ability to self-direct oneself in work, throughout the course of teaching, implies for the teacher the need to develop a set of strategic skills that help him to successfully face the teaching-learning processes in the complex transformative framework that invests the training path and its link with other disciplines, the world of work and that of research. The teacher's ability to self-regulate the teaching-learning processes useful for promoting in students the self-assessment of skills that are the basis of the ability to direct themselves in study and work becomes a key competence of the TPLTF.

The course includes open discussion

The management of the classroom becomes challenging for the teacher because he must be able to establish relationships and positive interactions with students characterized by an open dialogue, by a democratic confrontation, by openness to their experiences, which encourages space to be given to the expression of their opinions, questions, additions, requests for clarification and hypotheses. In this process, the professional activity of teachers is aimed at developing ethically correct relationships, based on trust, and productive collaborations that leverage forms of encouragement aimed at making students acquire knowledge and skills of high quality and degree.

Teachingis active listening

Active listening is crucial if you want to effectively diagnose and help students overcome any obstacles to learning. Seeking feedback, encouraging honesty, providing ways for students to contact you easily, listening carefully and always trying to read between the lines and assessing body language while communicating, these are some of the conditions that aim to improve active listening skills. of the teacher focused on teaching-learning processes.

The course involves the use of strategic, critical and reflective thinking

The teacher's set of skills includes skills such as procedural and strategic thinking, which allow him to organize and manage time and to accurately guide teaching and learning through critical reflection on action, action and after action, as well as the development of a suitable style of intervention and a Clear communication.

Teaching uses a language of action and specialist vocabulary

The language of teaching (verbal, non-verbal and written) is fundamental for the teacher focused on teaching-learning processes as a vehicle for clear didactic communication that translates objectives, contents, methods, tools and evaluation into actions. It allows students to be better educated, how they learn and what motivates them most, to dialogue with them, to share information with colleagues and administrators in a more productive way, or to create inclusive environments, but also to effectively convey disciplinary content accurately and conceptually elaborated to be understood by all learners.

Teaching is the ability to manage time

Time management is a central aspect of teaching-learning processes in university settings, fundamental to allow all students to acquire the expected skills. Effective time management will help ensure that all students successfully complete the course, address the difficulties encountered in studying with the teacher's help in a timely manner, and achieve the intended learning outcomes. Good time management is a variable that also affects the curricular organization and the lesson plan.

Classroom Management

The teacher's classroom management skills are essential to create and maintain an inclusive, welcoming and highly stimulating learning environment that supports the learning of all students.

Teaching is an ethical force

The teaching is expressed in the knowledge and in the didactic and ethical skills and in the ability of the teacher to apply them autonomously and with a sense of responsibility within the University and the academic community. Teachers can bear heavy workloads and the ethical dimension of the profession allows them to manage the demands of the teaching function in a professionally appropriate manner (Appleby, 1990).

Teaching is supportive

The teacher focused on teaching-learning processes is called to create a culture of mutual support that goes beyond the classroom. This also happens when students are empowered to behave respectfully and trustingly towards others, reinforcing positive social behaviour through forms of mutual help.

Teaching is solving learning problems

Teachers are often faced with unplanned situations that need to be resolved so that student learning can continue to occur. In this sense, teachers must be able to rely on solid problem-solving skills to ensure that they are ready to face a wide range of learning obstacles.

Teaching is leadership

Teachers are leaders for their students and need strong leadership skills to be able to design, plan, organize and evaluate teaching-learning processes and to keep their students engaged with learning objectives, content and tasks, demonstrating respect for them and for the colleagues, administrative and technical staff of the institution to which they belong.

Teaching is variety of action

Teachers need the ability to employ a variety of approaches, methods, techniques and teaching tools to meet the diverse needs of students, ranging from direct teaching modalities (such as lectures and practical examples) to those using survey methods, to collaborative/active direct and student methods. and those based and project-based.

Teaching is a variety of teaching methods

Teachers must be familiar with the processes of developing teaching strategies adapted according to the contexts, situations and learning settings.

The course includes the use of methodological and technical skills

Teachers must develop and refine methodological and technical skills that include not only technological skills, but also classroom management skills, curriculum building skills, ability to identify and employ individualization and personalization strategies, etc., for which they must also obtain appropriate additional qualifications.

Writing skills and didactic grammar

Teachers need to master a writing and didactic grammar that require a solid pedagogical knowledge with strong teaching skills .

Teaching is inclusion

The teacher is called upon to promote diversity and correct behavior, to create an inclusive environment, which will not only help students to deal with diversity but will help him to consider it a value in learning. He will support the students, making them more aware and tolerant towards each other and showing great expectations towards everyone. Research shows that students respond better when they perceive a confidence in their abilities rather than an excessive focus on their difficulties. The inclusive teacher learns a «community» approach to teaching, which stimulates the values of inclusion, which are developed through the students' experience and through their exposure to different cultures and different ways of seeing the world.

The course involves the use of teaching sources

The teacher to teach uses «didactic sources» and resources of different nature, internal and external to the university, so that teaching can benefit from what is present inside and outside the classroom. When he prepares and provides students with teaching materials appropriate and relevant to the teaching, its objectives and its contents, he is appreciated by the students, because it facilitates the process of acquiring the skills foreseen in the course.

Teaching is building opportunities

The teacher gives students opportunities to let you know what works and what needs more attention from him, you can more easily get an idea of where to focus.

Teaching is planning and participation

Planning lessons that include everyone's participation and encourage educational success requires creating environments that are tailored to students' needs and focus on what students can do and what they would like and should learn to do. This can be put into practice through the planning of tutorials, individualized learning plans, short and long term, shared with the student in such a way as to allow him to control his educational path.

The course includes a correct and respectful evaluation of students

There are many reasons to evaluate students' learning outcomes: monitoring the progress of learning, motivating students, recording learning outcomes, meeting the expectations and responsibilities of the institution etc. Teachers must aim to direct students towards constructive, self-directed, contextual and collaborative learning and to do so they need to increase the value of evaluation, especially in a formative sense, providing each other with constructive feedback in a positive and useful way, also adopting interpersonal behaviors adequate and correct towards students, in terms of use of evaluation tools, evaluation methods, evaluation judgments, etc.

Teaching is a process of relationship and connection

The teacher is called to establish in his teaching relationships between different knowledge and disciplines to work in an interdisciplinary and transdisciplinary

sense to connect the different areas of knowledge and integrate them, but he is also directed to develop connections between university experience and the world of real and professional life, since teaching It does not prepare for life but is life itself in the path of cultural and social construction. The complexity of society and the world of professions require interrelation between skills and knowledge in order to be adequately faced and experienced. Teachers focused on teaching-learning processes are «relationship weavers» and possess a capacity for connection, they are able to weave a complex network of connections between them, between their disciplines and their students so that students can learn to weave a world for themselves. The methods used vary widely and range from direct lectures to laboratory experiments, from problem solving to Inquiry Based Learning and so on. The connections established are not contained in their methods but in their way of employing them.

Teaching is a process of innovation

Teachers are called upon to innovate and differentiate in relation to the different dimensions and teaching functions linked to precise strategic objectives and emerging priorities, paying particular attention to the methodological aspects of innovative management of the environment and learning conditions.

Teaching encompasses research

Teaching must incorporate research within it, recognizing the necessary dimension to evolve individual and social knowledge and skills. Research, in fact, does not only pass through the construction of increasingly advanced disciplinary and transversal skills, but helps to identify them, recover them, transform them, evaluate them, use them and transform them into increasingly effective ways in the context of

The principles are closely related to both **teaching and learning and intersect with the dimensions below.**

3. Dimensions

Democratic linguistic and communicative traits, registers and styles

Intelligibility is certainly a problem that can affect the credibility of a teacher (Liu, 1999; Thomas, 1999). The issue of language and expressive language are explicitly identified by the participants as an important factor in terms of teaching practices, where the possession of linguistic security, also in a disciplinary sense, and a use of specialized language is considered by students and stakeholders as a central requirement of teaching, in terms of the ability to make understandable to students what taught, to make the lessons interesting and attractive and captivating contents, preventing the concentration of the interlocutors from being dispersed.

It is then evident that a teacher focused on learning is a teacher who has a democratic style in the way of managing the classroom and that is characterized by a model of responsibility aimed at achieving the goal, where the teaching activity becomes more demanding, as it requires the ability to establish positive relationships with students. These relations must be characterized by dialogue, confrontation, openness of the teacher to the experiences of the students, giving them space and encouraging them to express opinions, to ask questions. The availability of the teacher to answer questions, suggestions, requests for clarification and opinions, becomes central in the profile.

The type of style adopted during classroom interactions is welcoming and characterized by cooperation, honest and responsible relationships, sharing rules, the use of forms of encouragement to acquire high skills and knowledge, correct interactions, joint agreements in the implementation of activities, the teacher's attention to motivation and active participation. The teacher-focused on teaching-learning processes and student-centered teaches students to make responsible decisions about their own learning and guided by the principle that they should learn from their own behavior and decisions made. He is able to invest time and effort in developing interpersonal relationships with his students. This is confirmed by the studies of Binswanger (2015), who believes that the inability of teachers to get in touch with their students can lead to student dissatisfaction.

The teacher's teaching style and forms of expression appear closely connected and related to the activities, contents and subjects of the teaching, as well as to the ability to provide instructions, explanations and questions.

Personality traits

In the present study, the personality characteristics of the teacher were among the components perceived as most important by the students in the description of the ideal teacher. This finding supports some previous studies (Brosh, 1996; Curran % Rosen, 2006; Park & Lee, 2006; Babai Shishavan & Sadeghi, 2009; Barnes & Lock, 2010), which showed how students perceive the personality traits of the teacher as a key characteristic of the «effective teacher», arguing that professors must exhibit certain personal characteristics that generate respect from the student, promote learning (Moore, 2004) and allow positive relationships to be established (Bensone et al., 2005, p. 238; Graniz et al., 2009). This aspect is widely shared by external stakeholders who argue that the personality of the teacher is related to his ability to stimulate the interest of students and to be supportive or on the level of learning, as well as available and, patient, humorous, friendly, sensitive, passionate about his discipline and enthusiastic about his work. Teachers' respect for students, regardless of their ethnicity, social position and gender, is seen by participants as an essential trait, connoting specific attitudes that makes teachers kind, caring, empathetic, enthusiastic and inspiring. The results also showed that students greatly appreciate teachers who are positive and constructive towards their students.

Characteristics of an effective teacher

From the point of view of affective characteristics, the effective teacher is the one who respects the student's learning times and his cognitive needs and who is characterized by being fair, encouraging, proactive, proactive and who manages to stimulate interest in the discipline, which shows tolerance and understanding. What emerges in an overbearing way is what the students reject, that is, an indifferent, intolerant teacher who does not care about how they feel and what they think.

Socio-emotional traits

Students, rather than teachers and stakeholders, focus on affective factors andthe link they have with learning and its success. With respect to these traits, they emphasize the character of sensitivity, understanding and listening. Participants depict a respectful, ethically correct teacher, especially in the treatment of students and in the assessment of gender differences and aimed at creating inclusive environments (Feldman, 1976; Patrick & Smart, 1998; McCabe and O'Connor,

2014) and conducive to learning, as well as stimulating and stimulating action and knowledge.

Traits related to contexts

The teacher centered on learning and on the characteristics of the student is able to organize supportive contexts and environments and positive atmospheres.

4. TPLTF and processes

The **TPLTF** refers to reflection on teaching and teaching and ideally it is a continuous process concerning:

- what is quality teaching in context,
- the action of the teacher, or what the teacher does or should do;
- how to teach;
- what to do to improve teaching and move learning forward towards educational success;
- reconsider and refine the teacher's ideas about what makes teaching quality;
- improve the design of what is taught;
- increase the value of teaching and teaching in the improved way;
- evaluate the success achieved and continue to reflect to improve.

Looking for evidence

A multi-level interpretative framework is needed to assess the quality of teaching. Many researchers have tried to offer a systematic view of the evaluation of teaching and the improvement of its quality (Goh, 1996), offering interpretative frameworks at multiple levels. Among them, the quality of the personal characteristics of the teaching staff can be taken into account in three components: knowledge, skills and attitudes of the teacher. Teachers possess «knowledge and skills» by virtue of their formal education and professional preparation that guides them in how they relate to the teaching function that translates into completeness of preparation, enthusiasm in the delivery and care of students.

The following dimensions represent some of the most common characteristics that characterize «robust» teaching.

Methodologically robust teaching						
Dimension	**Teacher Characteristics**	**Performance Criteria**	**Livello e grado**			
			A	**B**	**C**	**D**
Learning Climate (The teacher creates a supportive environment in which high and clear expectations and positive relationships are fostered and active learning is promoted)	creates learning environments in which students are active participants as individuals and as members of collaborative groups					
	motivates students by nurturing their desire to learn i					
	creates a supportive, healthy and supportive environment that develops mutual respect					
	cultivates intercultural understanding and dialogue					
	values diversity					
	encourages students to accept responsibility for their own learning					
	takes into account the diverse learning needs of all students					
	manages the classroom effectively and efficiently					
	uses routines that accompany the orderly scanning of learning activities and times					
	uses appropriate and respectful behaviors toward students					
	provides students with equitable access to learning materials and tools, including technological devices					
	provides students with space and time for discussion and reflection					
	effectively allocates time for students to engage in hands-on experiences, process content, and make meaningful connections					
	designs lessons that allow students to participate in compensatory and reinforcement learning activities					
	does not punish errors but considers them an integral part of the learning process that must be diagnosed and corrected					
	uses compensatory and dispensatory interventions					
	creates an environment in which student work is valued, appreciated and used as a learning tool					

Assessment and Reflection (The teacher and student collaboratively gather information and reflect on learning through a systematic process that informs instruction)	uses and integrates tools to systematically collect data on students' understanding and abilities					
	Uses collected data, student observations, and interactions with colleagues to reflect on and improve teaching practice					
	Revises teaching strategies on the basis of collected data related to student achievement in diagnostic, formative, and summative assessment					
	Induces students to express their own conceptions of the topics covered and corrects or supplements incorrect or incomplete ones					
	Develops assessment tools (rubrics for example) with students and provides appropriate modeling to clarify expectations related to quality performance					
	Shares and guides students in applying the assessment tools used to evaluate their performance					
	Identifies strategies for improvement					
	Provides regular and timely feedback to students to enable them to make progress					
	Allows students to use feedback to improve their work before a grade is assigned					
	Facilitates students in self and peer assessment					
	Reflects on instruction and makes changes as student learning occurs					
Instructional Rigor (A teacher supports and encourages a student's commitment to initiate and complete complex, inquiry-based learning requiring creative and critical thinking with attention to problem solving)	Instructs the complex processes, concepts, and principles contained using differentiated strategies that make instruction accessible to all students					
	provides instruction to help students reason and develop problem-solving strategies					
	sets up effective classroom discussions that promote higher-order thinking skills					
	Provides meaningful learning opportunities and experiences for all students					
	Encourages students to think deeply about problems					
	encourages looking at problems by employing a variety of approaches to arrive at a solution					
	integrates a variety of learning resources to enhance learning					
	facilitates the sharing of rules					
	facilitates the application of inquiry skills to learning experiences					
	clarifies and shares learning objectives and achievement criteria with students					

Instructional Relevance (A teacher's ability to facilitate meaningful learning experiences for students and prepare them for their future)	designs learning opportunities that allow students to participate in compensatory activities in which they can understand how to proceed in learning and compensate for what is wrong					
	connects key concepts and ideas to students' previous experiences and understandings, using examples, explanations, representations, etc.					
	incorporates students' experiences, interests, and real-life situations into instruction					
	selects and uses a variety of technologies that support student learning.					
	effectively incorporates learning skills that prepare students for future challenges.					
	works with other faculty to make connections across disciplines					
	makes connections to community, society, and current events					
	effectively incorporates research into the teaching of the discipline					
Disciplinary content knowledge and teaching transposition (A teacher's understanding and application of current theories, principles, concepts, and skills of a discipline)	demonstrates a thorough understanding and knowledge of disciplinary content and is able to expound and explain it to students					
	continues to keep up-to-date with his/her discipline and has an awareness of the importance of doing so					
	designs and implements courses/lessons/units based using well-selected and well-formulated learning outcome objectives					
	uses and promotes understanding of appropriate disciplinary vocabulary					
	provides essential supports for struggling students					
	accesses a rich repertoire of teaching practices, strategies, resources for teaching appropriately					
	demonstrates a thorough understanding and knowledge of disciplinary content and is able to expound and explain it to students					

The quality of teaching is based on the fact that university professors have values, attitudes, skills, knowledge, critical understanding and responsible conduct present in the characteristics of the profile and that are essential to ensure the development and improvement of student learning. However, it must be possible to count on

– on systems to assess the level of methodological-didactic competences of teachers on each of the key competences of the course, in order to identify their learning needs and areas of further development:
– on institutional references that can help university professors to design, implement and evaluate educational interventions in educational contexts.

The skills of a university professor are associated with performance criteria that concern the need to:

– train teachers in terms of teaching and methodological skills, which allow teachers to design and organize optimal and stimulating learning environments with the aim of supporting and facilitating students' learning processes;
– develop, in terms of the quality of teaching, the teaching professionalism so that the latter becomes a professional responsible for his own professional learning process;
– develop collegial moments of reflection, create working groups between teachers of the same disciplines and different disciplines on the quality of teaching;
– create working groups between teachers and professionals participating in the education process;
– develop effective communication and organization;
– know the characteristics of students, necessary to effectively motivate, adapt and stimulate learning processes;
– develop methodological innovation to determine effective and useful teaching-learning processes to make responsible professional students capable of learning to learn;
– develop teaching quality assessment processes to improve effective teaching-learning processes;
– produce explicit planning documents (such as school curricula, school development plans). programming and evaluation;
– develop self-evaluation of teaching;
– use modern information and communication technologies in teaching-learning processes and in a manner that is also relevant to the needs of one's own professional development.

The prerequisites for the implementation of a quality university education concern the ability of the teacher to:

• connect science, research and teaching, which help to make content attractive to students and provide them with increasingly correct, accurate, useful and stimulating information;
• be teaching professionals;
• understand one's profession as the completion of one's personal qualities;
• support training models that provide for forms of active participation ofstudents in teaching-learning processes and respect for their needs, particularities and personalities.

This means that the **TPLTF** is a unique intersection of self-focused personality skills, i.e. personal skills of self-reflection, self-renewal, self-motivation and self-development with personality skills focused on other people – students, i.e. skills of inter-reflection, inter-renewal, inter-motivation and inter-development. In this area it is important to continuously improve direct research and educational performance of the teacher (to communicate and transfer knowledge, mediate and teach skills.

– ability to practice different teaching methods;
– communication skills;
– classroom management opacity;
– digital and technological skills;
– leadership skills;
– knowledge of the curriculum;
– problem-solving skills;
– time management opacity;
– adaptability;
– ethics;
– writing skills and didactic grammar.

In essence:

1 teaching and curriculum design must focus on meeting students' future needs;
2 Teaching students' future needs, which implies the development in students of generic skills such as critical thinking, teamwork and communication, among others.
3 Critical thinking, teamwork and communication skills, among others.
4 Students must have a thorough understanding of the fundamental concepts even if this means that the contents covered are fewer.
5 The relevance of what is taught must be established using real-life, current and/or local examples.
6 Real-life, current and/or local examples and relating theory to practice.
7 Students' beliefs must be challenged to address misconceptions.
8 A variety of learning tasks that engage students, including discussion among them, are needed to ensure meaningful learning.
9 It is necessary to establish authentic and empathetic relationships with individual students, so as to allow interaction.
10 Teachers must motivate students by showing their enthusiasm.
11 Encouraging students and providing interesting, enjoyable and active lessons.

12 Curriculum design must ensure that objectives, concepts, learning activities and assessment are consistent with the achievement of learning outcomes.
13 Evaluation are consistent with the achievement of learning outcomes linked to future.
14 Future needs of students.
15 Each lesson must be carefully planned but flexible, so that the necessary adjustments can be made based on the feedback received during the lesson.
16 The assessment must be consistent with the desired learning outcomes and should.
17 Therefore, be authentic tasks for the discipline or profession.

The explorations carried out within the QUALITI Project also intersect with dimensions reflecting effective teaching (Marsh & Roche, 1994), which emerged from a rigorous selection process (such as genuine learning, academic value, enthusiasm, organisation and clarity, relationship and interaction etc.).

The five basic guiding criteria for determining quality in higher education for recognition are:

- teaching advocates who influence, motivate and inspire students to learn;
- development of curricula and resources reflecting mastery of the sector;
- evaluation and feedback that foster autonomous learning;
- respect and support for the development of students as individuals;
- research activities that influence and improve learning and teaching;
- dissemination of a culture of teaching quality that is useful in terms of impact, promotion of high quality teaching and substantial contribution to the dissemination of a culture of effective learning.

Conclusions

The project team recommends that more stakeholder groups continue to evaluate teaching culture in higher education institutions. From the results of the research it is clear that as teachers, students have valued the teacher's commitment to creating teaching practices that reflect a culture that values quality teaching. The results reinforce the value of a tool such as the **TPLTF** which can help to identify the traits of a university lecturer focused on teaching-learning processes and on the characteristics of the student aimed at building a teaching culture and providing information on areas to be developed. The **TPLTF** can support the teacher in the decision-making processes and in the choice to adopt a precise approach to teaching, which varies according to the different variables involved, such as the year of course, type of offer, number of students, etc. (Lindblom-Ylänne et al., 2006), type of discipline taught (Nevgi et al., 2004, characteristics of teachers (e.g. gender, nationality, status and experience, etc.) (Prosser et al., 1997;2014). It helps to counter the tendency of academics to adopt a content-focused approach (Singer, 1996). In line with literature (Lindblom-Ylänne et al., 2006; Prosser et al., 2005; 2008; 2014), students who perceived the learning environment as of superior quality reported the need for a profound approach to learning, although differenced and significant, and there are pedagogically prepared professors (experts) and those less prepared for teaching (novices).). In addition, the characteristics of teachers (gender, teaching experience, age, academic status) are partially linked to some key characteristics of teaching.

Conceptions and perceptions of students, academics and stakeholders on teaching have been instrumental in constructing and organising **TPLTF**, as has been the emerging data concerning the need for pedagogical and didactic training of university teachers that HEIs have to organise, since and It can have a direct and indirect impact on the curricula and conceptions of teachers themselves regarding teaching functions, their conceptions of teaching and the context in which it takes place (Prosser & Trigwell, 1997; Thoonen et al., 2011; Rubie-Davies, Flint, & McDonald, 2012).

The present exploratory work with triangulation on the perceptions of students, teachers and stakeholders has confirmed many of the results of previous studies (e.g., Arnon & Reichel, 2007; Reichel & Arnon, 2009; Su & Wood, 2012; Morrison & Evans, 2018). However, the characteristics and qualities of the university professional focused on the teaching-learning processes that make up the profile of the effective lecturer were rather different in this study. As Vinz (1996), rightly observes, teaching practices are placed in specific contexts and these contexts are framed by interconnected factors. Therefore, it could be argued that the question of what characteristics make a university professor effective in the eyes of students, in his own eyes and those of external stakeholders is a multidimensional and multifactorial component.

The research also suggests that the characteristics of a teacher focused on teaching-learning processes rest on dynamics open to contextual, cultural and temporal factors that influence the evaluation of these characteristics (Reichel & Arnon, 2009; Murray & Kosnik, 2011). This result also agrees with those studies (Lisa et al., 2021) that have not confirmed that how the characteristics of a competent teacher are also related to the factors of time, context and social and cultural conditions in which teachers operate. The importance of mastery of the language of instruction, a good pedagogical and didactic knowledge and the use of effective teaching strategies, supported by a balanced personality with good interpersonal and communication skills and with a passion for teaching, which is expressed through enthusiasm and humor are the fundamental traits of **TPLTF** and quality teaching. The results then revealed that the three most important components of the teacher's profile focused on teaching-learning processes and centered on the characteristics of the student were personality, pedagogical and didactic knowledge and competence, and disciplinary knowledge and competence.

Part III
METHODOLOGICAL-DIDATICS GUIDELINES FOR THE "LEARNING/ TEACHING FOCUSED TEACHER" OER (IO3)

I
Cross Section

1. The Methodological-Didactics Guidelines (OER)

1.1 The OER and the corpus of empiric

These Methodological-Didactics Guidelines represent the results of an articulated work based on the application outcomes of experimental protocols, which aim to provide an empirical corpus linked to the QUALITI project on the quality of teaching and teaching-learning processes in higher education. They highlight the main results obtained by the IO3 Project Partners (PPs), which allowed an accurate description of the experimental apparatus organized on the basis of the results obtained according to the main research questions.

As the final product of a research process aimed at investigating and identifying empirical evidence of high- quality teaching, they provide a guide for university professors about the methodological-didactic aspects and factors on which teachers should focus to allow them to develop proposals and activate qualitatively appreciable teaching interventions on the design level and to support and implement quality teaching over time. Therefore, in line with the system of indicators for measuring the quality of teaching (IO1) and adequate with respect to the References/Quality Levels of the teacher's profile learning/teaching focused (IO2), the present Intellectual Output (IO3) had three objectives:

- support and improve teaching functions and actions in university education contexts;
- contribute to strengthening the systemic action to improve the quality of teaching by integrating with measures at institutional (IO1) and programmatic-managerial (IO2) level;
- support the continuous training of university teachers in pedagogy and teaching (IO3).

Starting from the system of indicators identified and the profile of the teacher learning / teaching-focused and centered on the characteristics of the student, it was decisive and functional to translate into concrete contexts the dimensions that define the quality of teaching, proposing an operational reference framework (methods, techniques, strategies and tools) that would guide the teaching action and the development of design and evaluation tools capable of implementing the quality of the function teacher.

These Methodological Guidelines can be used by teachers belonging to the same CdL or more CdL, helping them to develop and activate a quality didactic action system and a didactic-organizational model (also in terms of programming, planning and proceduralization) such as to ensure the implementation of a flexible teaching in terms of design, evaluation and documentation of the cultural proposal and didactic intervention, while adopting a strategic approach that supports decision-making processes in context.

They are structured in:

1. a cross-section related to OER testing;
2. Three related content sections:
   a) self-assessment of incoming resources (skills, attitudes, perceptions, teaching practice) with respect to the learning/teaching-focused teacher;
   b) action structures (didactic actions in relation to a context/problem): methods and tools of the teacher learning/teaching-focused;
   c) self-regulation structures (reflection and change of teaching strategies by virtue of the inputs of the learning context): methods and tools of the teacher learning/teaching-focused.

Each section has a common part and specific parts related to the profile of the teaching-focused teacher and his differentiation (as in IO2), which is modular with respect to both specific teaching and learning needs and specific profiles identified.

The Guidelines are an innovative tool that has sought to respond to one of the benchmarks of the Europe 2020 strategy (40% of young people with a higher education qualification by 2020), for the achievement of which the documents recommend training higher education teachers (EUA, trends 2018; High Level Group 2014 et al) from a methodological-didactic and pedagogical point of view. They operationalize the profile of the "teaching-focused university professor" and centered on the characteristics of the student experienced by the partner institutions, which implies the translation and usability of precise skills in context, combining the most advanced literature on the quality of teaching with the empirical need to affect and modify real teaching-learning environments and contexts.

OER therefore answers three main questions:

1. What is quality teaching and why is it important in higher education?
2. How can teaching be made in concrete terms?
3. How to make interventions effective in quality teaching?

The contents of the OER can be exported and transferred to other university contexts, territories and different subjects, because, contemplating a modular structure, they can be adapted to specific needs.

Precisely within this reasoning, the experimentation of the Teaching Quality Indicators Framework (TQIF) and the University Teacher Profile Learning/Teaching Focused (and Student characteristics Centred) (TPLTF) and the Methodological Fieldbook (Methodological guidelines for the teacher focused on learning and teaching) are located, which have provided the basis for the construction of the experimentation related to the methodological-didactic skills of the university professor.

The present OER offer, therefore, an operational dimension of the behaviors and didactic attitudes of the Learning/Teaching Focused Teacher (TPLTF), focusing on the effectiveness of behaviors and attitudes observable in university contexts, also and above all related to the design and practices of carrying out a lesson, starting from the reconstruction of the educational profile of the **TPLTF** (**IO2**) (and centered on the characteristics of the student) outlined in IO2.

These Guidelines are to be understood as a tool that, both by nature and functionality, can contribute, in the initial or continuous training phase of university professors, to outline the teaching role of professors, to make the teaching function integrated with other institutional tasks (research and third mission), helping them to pursue training objectives and increasingly ambitious results.

They constitute the third Intellectual Output of the QUALITI Project (IO3), whose literature review and meta- analyses have provided a theoretical background (IO1), where the different perspectives on quality teaching have been combined within a common conceptual framework, offering the space for choosing reliable and quantifiable indicators to assess the quality of teaching-learning processes and teaching efficiency (IO2). This made it possible to define:

– institutional policies for the promotion of teaching;
– teaching features;
– professional development of university lecturers;
– institutional efforts to improve the professional development of university lecturers.

2. Guidelines and experimental research[1]

2.1 The Experimental Protocol

These Guidelines are the result of experimental research conducted at PP Universities in application of TPLTF (IO2). The experimentation focused on the methodological skills of the university professor, i.e. on the design, evaluation, communication, relationship and management, organization and teaching support, which were also the subject of teacher training at the IIS PP.

The experimentation involved the construction of an experimental protocol that was structured in four key components on the basis of the selected indicators (TQIF) in the IIS PP (EG; RO; THEM; PL), each of which experienced a key methodological competence (See Table 2), while UNIVAQ experimented with all the key methodological skills examined by the PPs within a precise lesson design.

The Protocol concerned:
- definition of criteria and quality levels (Table 1);
- protocol structuring;
- application of the protocol;
- collection of students' opinions on its effectiveness. The specifications are shown below.

*A. **Quality criteria and levels*** (Table 1)

Criterion	Measurement/ Instrument	Levels	Evidence	Documentation

Protocol
(general structure that will be detailed according to the specificities)

1 Methodology, experimental design and Formats Apply States realizedi by Antonella Nuzzaci.

B. Structure of the Protocol

1. Introduction
2. Defining Criteria and Levels
3. Indication of the essential elements (communication, report, etc.)
4. Use of these elements in the didactic context (lecture)
5. Context of use
6. Transfer to other contexts

C. Sustainability of the protocol

(evaluation of effectiveness - processes and tools -: provide examples)

1. Objectives
2. Direct recipients: university professors (number of experimental teachers)
3. Recipients of beneficiaries (number of students)
4. Discipline(s): type of teaching and sector of reference
5. Method of administration of the Protocol
6. Internships
7. Experimentation window: timing
8. Tools used
9. Results
10. Documentation (graphic material, photographic material, etc.)

C. Application of the Protocol

(application and collection of students' opinions on its effectiveness)

1. Objectives
2. Direct recipients: university professors (number of experimental teachers)
3. Recipients of beneficiaries (number of students)
4. Discipline(s): type of teaching and sector of reference
5. Method of administration of the Protocol
6. Internships
7. Experimentation window: timing
8. Tools used
9. Results
10. Documentation (graphic material, photographic material, etc.)

D. Reports

(reporting the data of the experimentation methodological part)

1. Direct recipients: university professors (number of experimental teachers)
2. Recipients: students

3. Disciplines
4. Tools used
5. Modalities and phases
6. Experimentation window: timing
7. Number (students)
8. Results on report
9. Documentation (graphic material, photographic material, etc.)

Experimental phase and contribution of the Partners						
TQIF	**Methodological skills**	**IT**	**ES**	**RO**	**LI**	**PL**
University	Definition of	Indicators	Indicators	Indicators	Indicators	Indicators
Profile	criteria and quality					
Learning/	levels					
Teaching						
Focused						
OER	Protocol structuring application of the Protocol	(a) Training of university lecturers (use of indicators)	Support and teaching material	Relation	Didactic communication	Management and organization of teaching
		b) Lesson design (effectiveness)				

Table 2. *Experimental phase contribution of the Partners*

IT = University of L'Aquila and il mio lavoro
ES = Universitat de Barcelona
RO = Valahia University
LI = University of Vilnius and Siuolaikiniu Didaktiku Centras
PL = SSW Collegium Balticum

UNIVAQ studied the interaction between the different methodological skills, using a precise lesson format that leveraged a Micro-teaching Lesson Study (MLS) approach, aimed at allowing to prepare, share and present a lesson plan developed according to the characteristics of the discipline taught and based on an internal alignment process. It has applied the Protocol to:

(a) Training of university lecturers (use of indicators);
(b) Lesson design (effectiveness);
(c) Model of interaction of key methodological-didactic skills.

The areas involved in the experimentation of the lesson according to the MLS model were:

1. Humanities area
2. Scientific area
3. Technical area

UNIVAQ has experimented with a lesson model in which all the descriptors identified by the PPs have converged. This experimentation was able to count on a specific instructional design approach, based on an internal alignment process, starting from the definition of some pre-indicators of concepts that would act as a spy to ensure the success of teaching in relation to learning. The design involved the construction of lesson plans of different disciplinary areas, grafted into the routine of the lessons of the module, as integral parts of a hierarchically organized approach to didactic design, which incorporated the multidimensional dimension of teaching and learning, attributable to the different ways of "doing lessons", to different teaching strategies and to the available forms of structuring of teaching units and segments. This with the aim also of recalling the research background on teaching practices, which has the merit of focusing more the professional preparation of teachers on the implementation of effective teaching actions for learning (Taylor & Colet, 2010), starting from the cultural and experiential background of the university professors concerned: learning to teach by breaking down and recomposing a practice, working on the relationship between ability and willingness to learn to teach and on the relationship between routine development and adaptive skills building (Nuzzaci, 2009).

In this sense, the experimentation concerned the lesson plan with reference to a specific model of Instructional Design (ID) and to the levels and degrees of skill and knowledge related to the most accredited taxonomies. Starting from the use of particular micro-teaching strategies, lesson plans have been developed focused on the nature of stimuli with high motivational value, paying particular attention to factors such as significance, relevance, relevance, interest and elements such as variety and didactic variability, as well as those attributable to socio-emotional commitment related to motivation, belonging, adaptability and security. Starting from the analysis of the lesson models documented in the literature and from the examination of complex educational contexts, characterized by a high variety of

learner characteristics and extreme variability of educational contexts and learning conditions, the experimentation focused mainly on the analysis of lesson planning processes and its results to try to increase the micro-design skills of teachers and support their decision-making processes in situation.

2.2 The design of the experimentation

A single experimental group design was used, which is subsequently subjected to two treatments, which can be the ordinary and the experimental, or simply two different conditions. The sample of teachers proposed lessons carried out with experimental method (independent variable X1) within a segment of the disciplinary teaching module carried out with ordinary method (X2) for a certain period of time. A single groupThe learning was monitored through evaluation that, starting from the starting level of the students (intermediate verification with respect to the module and initial with respect to the lesson with MLS format), detects, through a final (structured) test, knowledge, skills and degree of mastery of the acquisitions of the students concerned following the application of the experimental factor compared to the ordinary method.

The changes in the knowledge and skills acquired have been monitored through evaluation that, starting from the starting level of the students, intermediate test, detects the level reached by the learners with the ordinary method and constitutes the initial test for the application of the experimental factor and the final exam, which detects the level of knowledge and skills reached overall by the students. The following variables were studied:

A. ***University lecturer***

1. Entry and exit phase and administration of the following instruments:
   - training and teaching experience
   - Self-perceived methodological skills
   - Attitude toward teaching

B. ***student***

a Entry and exit phase and administration of the following instruments:
   - Post-test tests
   - perception
   - satisfaction

Independent variable (X1): Micro-teaching Lesson Study (MLS) (treatment) with attention to the disciplinary and methodological component (use of indicators and alignment processes)

The MLS format, already used in a previous research and adapted (Nuzzaci 2018), focused on the ability of the university professor to build and implement a lesson model capable of:

- combine theory and practice within a precise conceptual scheme that, starting from the definition of the lesson plan (structure and forecast) and its realization, used the implicit knowledge of the participating teachers and their previous acquisitions;
- prepare a technical plan of the lesson, which would allow teachers to manage its opening, body and closure, and a practical plan that would help them to control times (preparation, opening, application and evaluation) and phases;
- develop a lesson structure that would strengthen the alignment processes, making it more coherent in terms of objectives, prerequisites, contents, strategies and verification systems adopted, both in the planning phase (structure of the plan) and in the implementation phase (action), regarding the style of exposure / presentation, clarity, etc.;
- develop a "lesson design" that contemplates: the recovery of prerequisites, in terms of using what has been previously taught and learned by students; the introduction, in terms of continuity between what precedes the lesson and what follows it; concreteness, in terms of link with aspects and concrete data and object relations of reality; presentation, in terms of control in the introduction of new information and concepts with respect to the material and task(s) concerned; practice, in terms of opportunities to practice the information received and the skills acquired; the evaluation in terms of verification by the teacher of what has been learned by the students (effectiveness) and use and control of feedback;
- manage transitions in situation during the implementation phase of the action and any difficulties emerging in the classroom context, such as obstacles and unforeseen events, and to vary and correct the functioning of teaching-learning processes.

Single-group pre-experimental plan (on replication)
experimenting with the effectiveness of lesson design

Pre-test and input tools
measurement of incoming knowledge and skills

Treatment
lesson development with innovative approach (MLS) (X1)

Post-test

The experimental hypothesis can be accepted when the X1 and X2 variation is significantly equal to or greater than expected.

In addition, it was possible to establish a relationship with teacher training.

Define a hypothesis of relationship between dependent variable (training effectiveness) and an independent variable (protocol)

Define which variation of x is necessary and sufficient to confirm the relationship hypothesis between y and x Define the conditions of the environment in which the experiment is to be carried out (online)
Define the experiment sample (single group)

Measuring X1 (pre-test)

Introduces Y (treatment) Measure X2 (post-test)
For experimentation related to teacher training and its impact on learning, please refer to further internal research material.

Single-group pre-experimental plan
testing the effectiveness of didactic training on teachers

Pre-test and input tools measurement of learning (X1) and,
in the alternative, of self-perceived methodological skills (X2) and attitude towards teaching (X3) – context variable: previous experience

Treatment
training module with innovative approach (Y)

Post-test
measurement of learning (X1) self-perceived methodological skills at the output (X2) and attitude towards teaching (X3)

For reasons of space it was not possible to account for all the experimentation.

2.3 Results

The results of the research show how the lesson, elaborated according to the MLS model, placing particular emphasis on the "performance aspects of planning skills" in the didactic situation ("making lesson") aimed at facilitating the teaching-learning processes in context, has strengthened the action of construction and structuring of the lesson plan and its realization, with a significant impact on the degree of understanding and satisfaction of students, as well as their results in terms of acquisition.

The experimentation brought together the TP that had precisely outlined the profile of the university professor in terms of both professional characteristics and personal traits and outlined a friendly, reliable, correct, ethical professor eager to understand them, but also able to communicate with them clearly, to establish positive relationships and create learning contexts and supportive and welcoming classroom environments, Experimentation confirms this fact. Most of the interviewees believe that the ideal professor must be able to design taking into account the needs of students and to evaluate correctly, using appropriate tools and methods to detect learning, but also to bring into teaching instances of civil society, the professional world and the territory, as well as research by adopting appropriate and innovative methodologies. In teachers' perception, the most effective professors are those who are able to identify the needs of their students, increase their motivation and use diversified teaching strategies tailored to the needs and characteristics of the students, possessing good planning, evaluative and communication skills and encouraging students to be optimistic about their abilities (Shukrie, 2011) (this is a figure of student-teacher convergence). Participants (teachers and stakeholders) stressed that the ability to teach, employing innovative approaches, requires methodological skills that include a wide range of skills such as the use of various techniques, tools and strategies according to available resources, the correct application of educational technologies, the creation of interactive environments and supportive environments, the use of learning principles and active methodologies, a constant exchange of information, but above all the centrality and participation of the student, putting him in first place in all teaching functions (planning, relationship, communication, evaluation, organization and support / tutoring) and not only in a general sense. For professors and stakeholders, all university professors, as well as those of other levels of education, should receive specific pedagogical and didactic training to guarantee teaching based on active, interactive and collaborative teaching approaches and methodologies, on classroom management techniques, on guiding and supporting

learning in different contexts and being able to count on possible areas of professional development regarding the updating of contents disciplinary.

The results of the project are ensuring a multiplier effect and producing impacts that seem sustainable even beyond its period. The strong sustainability component of the project, both for the contents and for the activities aimed at the outside (an important number of universities have joined as associated partners of the project), and for its logistical / cultural characteristics and for the strategic choices involved, is determined, on the one hand, by the articulation of the partnership, capable of generating cascading processes even after the conclusion of the project and, on the other hand, by the tools identified, which allow its wide-ranging replicability. The nature of IOs is such as to allow the latter to create effects even at a distance in relation to the needs of the contexts, without the need for additional resources once the products have been validated, representing a starting point for wider interventions, from which it is hoped the whole scientific community will benefit.

I
Content Section

3. Self-assessment of incoming resources with respect to the learning/teaching focused teacher

3.1 Institutional support for quality teaching with TPLTF

Institutional support for quality teaching with the University Teacher Profile Learning/Teaching Focused (**TPLTF**) (IO2) and student-centred could help institutions address future teaching challenges. The **TPLTF** (IO2) could be considered as a tool that contributes to raising the overall quality of teaching quality in institutions and to support educational actions and the quality of the learning environment. This is because the pedagogical and didactic training of the university lecturer helps to meet the expectations, needs and demands of students and employers, who pay attention to learning outcomes, the rate of inclusion in the labor market and the acquisition of flexible skills. Often compensate for the difficulties of objectively measuring learning outcomes, some institutions have embraced a wide range of actions and interventions aimed at improving the quality of teaching, often accompanied by a commitment to evaluating results and promoting systematic pedagogical training of university teachers. Quality, in fact, is expressed through the educational offer and is perceived as a promising set of tools to improve teaching processes. Assuming that a sound institutional policy of teaching quality focuses on a culture of institutions aimed at strengthening student learning outcomes, the use of **TPLTF** (IO2) can certainly support this culture.

Point of attention: Professional development of the university teacher from the didactic point of view

The indications for a professional development of teaching in the didactic sense mainly concern the ability to:

- support the forms and modalities of recruitment, recruitment and training of highly qualified teachers;
- support all those training and teaching activities that improve and increase the knowledge and skills of university professors for the disciplines taught and for their continuous development and updating;
- support all those activities related to the teaching and didactics of the discipline taught and for all those training activities that allow professors to qualify their teaching;
- for knowledge and skills aimed at providing teachers with the opportunity to meet the needs of students; provide follow-up training to teachers who have participated in training activities to ensure that the knowledge and skills learned by teachers are implemented in classrooms
- systematically use evaluation to measure the impact and increase in the effectiveness of teachers on improving
- student learning and for the systematic use of evaluation results to improve the quality of teachers' professional development;
- define plans for the improvement of education;
- improve classroom management skills;
- organize initiatives aimed at promoting the performance of the teacher in the classroom;
- support teachers in the use of effective strategies based on scientifically based research, to improve students' academic results or increase knowledge and teaching skills;
- train teachers in the didactic use of technologies, so that they can be effectively used in the classroom to improve teaching and learning in the curricula and disciplines in which they teach;
- develop instructions on the best methods for teaching and on the main strategies of individualization or personalization to be used with students with special needs or with specific categories of student;
- develop instructions on the use of data obtained through assessments to inform teachers about their classroom
- teaching practices, the quality of their professional development and student achievements;

– include activities involving the formation of disciplinary and interdisciplinary teams in HEIs able to encourage the development of programs of connection and didactic innovation and exchange of teaching practices between expert university professors and novices;
– include liaison activities involving the formation of partnerships between HEIs and to establish vertical
– training programmes between academics and school lecturers to enable teaching and curricular connections between schools and universities.

3.2 Student-centred teaching: a "container" notion

Didactic design provides the environment and tools that make learning possible, supporting, guiding and orienting activities and tasks recognized as conducive to learning. The teacher who organizes the environment and offers learning opportunities puts the student at the center, supporting him in the action and allowing him to carry out activities and tasks and to use resources, tools, guidance, etc. to activate, enhance and support his learning. Student- centered teaching is, however, a "container" notion (Dam a & de Lange, 2019), which has not always been well operationalized by the literature and which often appears as unclear as that of student-centered learning, which appears a paradox since learning cannot be student-centered, as it is not a process implemented by the student but rather determined by teaching and the opportunities that this teaching offers (Dam a & de Lange, 2019).

In line with other scholars (Goodyear & Dimitriadis, 2013; Jonassen et al., 2012; Sawyer, 2014), the QUALITI Project felt the need to clarify how the teacher focused on teaching-learning processes (TPLTF) (IO2) places the student at the center and to disambiguate the concept of "student-centricity", referring only to teaching and didactic design that may be able to provide positive environments and tools that make learning possible, supporting, guiding, nurturing objectives and contents and directing activities recognized as conducive to learning. From this point of view, it is rather context, conditions and learning settings intentionally constructed through teaching that offer concrete learning opportunities. Therefore, emphasis should be placed on designing environments that place the student at the center, who is enabled to self-sustain his own learning with the guidance of the teacher.

The interpretation given to student-centered teaching (Land, Hannafin, & Oliver, 2012) focuses on the creation of spaces, environments and contexts that

provide students with the opportunity to act according to their needs, intentions and learning interests, always supported and guided in a conscious and responsible manner by the teacher, who progressively expands his interpretative and incisive capacity of teaching on learning.

A cursory look at the skills required for quality teaching and learning helps us assess the main challenges facing educational institutions. For this reason, it is first necessary to point out some points of attention, which concern the importance for HEIs to engage:

- developing a culture of teaching quality;
- in the development of the quality of teaching and in the strengthening of the didactic profile of the university professor;
- in the initial and in-service training of university professors and in the professional development of university teaching at the didactic level;
- in the evaluation of quality teaching;
- in the involvement of students at different levels (institutional, programmatic and individual);
- in the didactic interaction between colleagues through ad hoc initiatives;
- in design focused on teaching and learning;
- in the organization and management of teaching-learning processes;
- transparency of communication and effective communication;
- in the training of experts in educational management;
- in didactic alignment processes;
- in the authentic assessment of learning;
- in the processes of continuous evaluation and self-evaluation of teaching;
- the progressive improvement of the training offer and the updating of curricular courses that must always be in line with the labor market;
- in the involvement of stakeholders at different levels (institutional, programmatic and individual), as figures able to have a profound impact on the reformulation of the training offer and in the redefinition of the relationship between different types of teaching activities (teachings, laboratories and direct and indirect internship activities).

The TPLT (IO2) suggested characteristics, traits, principles and dimensions of action of the teacher focused on teaching-learning processes and centered on the student, or a teacher "builder of culture", who adopts a profound approach to teaching, which encourages students to look at learning as a resource for improvement, which communicates in a clear and understandable way to all stu-

dents, in written and oral form, which openly confronts students, which challenges conventional assumptions by making informed decisions and acts with flexibility, adaptability and creativity with respect to the contexts and recipients of training, which pays attention to the characteristics, needs and prerequisites of the students, which provides adequate feedback, which welcomes and values cultural variety and variability, which provides for an open debate, which is ethical, responsible and aware that teaching has effects on learning, which possesses strong pedagogical and methodological-didactic skills capable of significantly influencing student acquisition processes and the principles that govern teaching-learning processes, which it designs and evaluates using alignment processes, who communicates and relates appropriately and respectfully with students, who works effectively with other teachers and students both as a team leader and as a team member, who appropriately organizes and manages teaching processes, who knows how to explain, clarify, support students and have fun with them, self-directing their teaching and incorporating research into their teaching, that connects disciplinary content and objectives to the real and professional world.

This profile of teacher also connotes quality teaching, which recovers indicators and descriptors well known in the literature (IO1 and IO2).

The quality of teaching is based on the fact that university professors have values, attitudes, skills, knowledge, critical understanding and responsible behaviors described by the different competence models, which are essential to ensure the development and improvement of student learning, first of all didactic and methodological ones, which allow teachers to design and organize optimal and stimulating learning environments with the intent to support and facilitate students' learning processes. The possibility of identifying forms and ways to assess the level and degree of acquisition of the methodological-didactic skills of teachers on each of the key competences of the teaching, becomes central to enable them to identify their learning needs and their areas of further development. This means building stable references, cultures, structures and services, within HEIs that help university teachers learn to design, implement and evaluate educational interventions in educational contexts.

This means:

– develop, in terms of the quality of teaching, the teaching professionalism so that the latter becomes a professional responsible for his own professional learning process;
– develop collegial moments of reflection, create working groups between

teachers of the same disciplines and different disciplines on the quality of teaching;
– create working groups between teachers and professionals participating in the education process;
– develop effective communication and organization;
– know the characteristics of students, necessary to effectively motivate, adapt and stimulate learning processes;
– develop methodological innovation to determine effective and useful teaching-learning processes to make responsible professional students capable of learning to learn;
– develop teaching quality assessment processes to improve effective teaching-learning processes;
– produce explicit planning documents (such as school curricula, school development plans). programming and evaluation;
– develop self-evaluation of teaching;
– use modern information and communication technologies in teaching-learning processes and in a manner that is also relevant to the needs of one's own professional development.

Points of attention
- Encourage an integrated teacher-student vision and learning characteristics-teaching characteristics.
- Stimulating active learning.
- Fostering learning communities.
- Allow all students to learn better and in depth.
- Ensure equitable and inclusive learning environments.
- Implement alignment processes.
- Being able to count on solid pedagogical and didactic skills of the teacher, especially those of a methodological nature (planning, evaluation, relationship, communication, organization and didactic management).

II
Content Section

4. Action structures: learning/teaching-focused teacher methods and tools

4.1 Take an approach to teaching

New approaches to teaching are gradually spreading among teachers interested in change and from different sectors, also fueled by the debate on disciplinary didactics and educational research that is showing the way for increasingly adequate pedagogical and didactic approaches. The push for innovative approaches in the classroom has come from professors and departments deeply committed to improving the quality of teaching. In response to this need, European universities have started to provide support and funding to make possible an innovative pedagogy in the various disciplinary fields to offer adequate support to students, also using individualized and personalized strategies increasingly calibrated to the student in order to meet their needs and preferences.

The different approaches used to help students achieve learning outcomes allow them to choose and manage tasks and activities. They help students to:

– master the contents and objectives of the course;
– learn skills and knowledge and to apply and transfer them to different contexts.

However, teachers should be able to understand which approaches to employ as teaching takes place to adequately support a particular learning outcome, the effectiveness of which will depend above all on the processes of alignment between design, planning and evaluation. To make appropriate choices, a teacher should first consider some essential components of teaching, such as:

– prerequisites;
– the needs of students;
– learning outcomes;
– teaching methods;
– the learning environment;
– the forms and tools adopted for evaluation.

Without the detection of the prerequisites on which the teacher is called to work, students will not be able to achieve the set results at the end of the course, i.e. the required skills. For example, in a research methodology course, at the end of the course students will have to be able to elaborate an appropriate research design, describe data collection procedures and so on.

If the prerequisite exam does not predict what students need to do first to achieve these skills as a result, students at the end of the course will not be able to come up with an adequate research proposal.

The learning process advances through a succession of sequences and a logic of result, which must be anticipated in design and planning.

Prerequisites are a combination of competencies and skills that students should have acquired before the course and when designing the teaching. This means working backwards, determining precisely what students can do or should be able to do before entering a new segment of training in order to achieve the final results successfully.

The challenge is to understand how to be able to give logical order to the contents and activities, so as to allow students to acquire the necessary skills. The first problem, however, is to understand how to choose the approach, which includes techniques, active methodologies, assignment of tasks, etc. It offers students the opportunity to have different kinds of experiences and to learn independently and from each other.

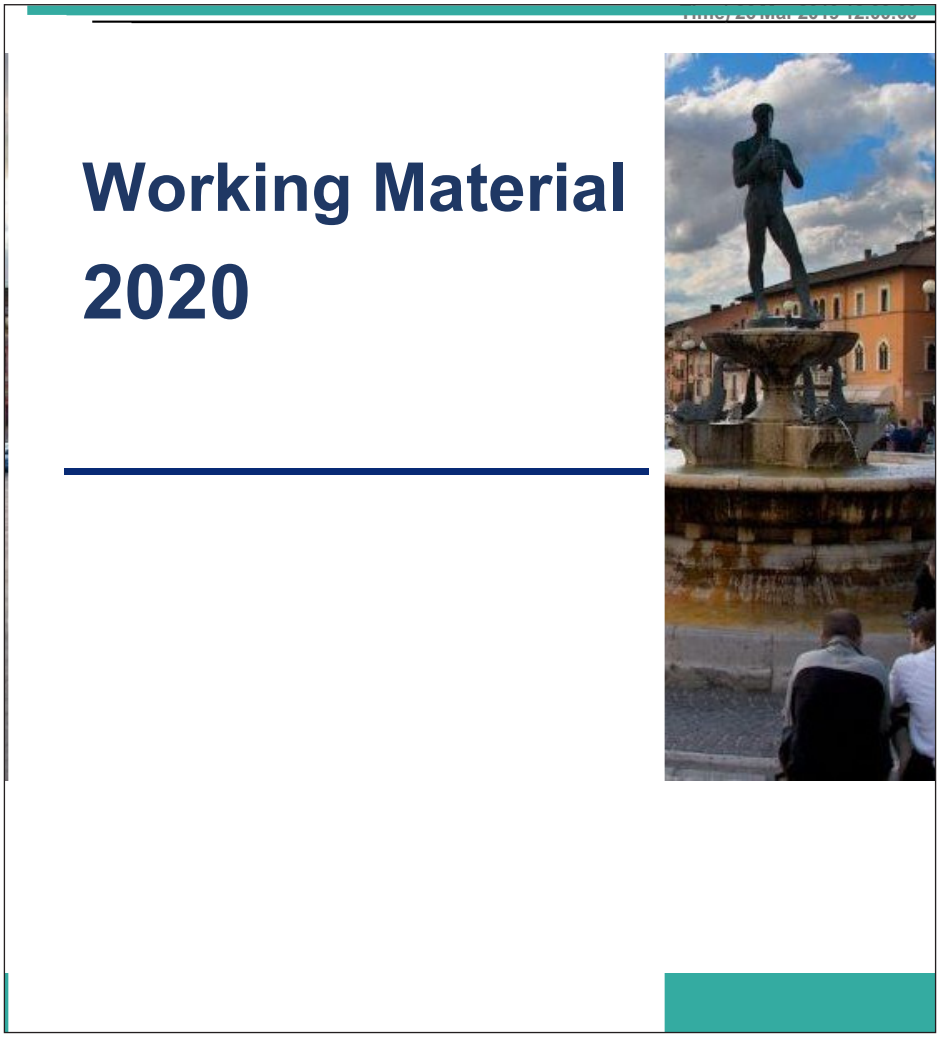
Educational research has shown that, among the methodologies, active student-centered methodologies lead to greater motivation to learn, greater retention and internalization of knowledge, deeper understanding, and more positive attitudes toward discipline (Bonwell & Eisen 1991; Johnson & Smith 1991a; Meyers & Jones 1993).

Promoting a comfortable classroom environment, a sense of community, communicates the teacher's commitment to student success, which is expressed in his function as a social "facilitator", which prepares conditions and environment conducive to learning for all students, since if the learning environment is boring or uninteresting the student moves away from learning.

Before the courses (teaching modules) begin, it is necessary to carefully structure the environments where the teaching-learning processes will develop, determining the organization of the course, its contents and the methods of diagnostic, formative and summative assessment used. The diagnostic evaluation serves to detect the prerequisites, the formative evaluation is intended to provide useful feedback to the performer, while the summative one aims to establish a final judgment on the student's competence, which is expressed in a summative judgment and can take the form of grade, score, suitability, etc. Generally the grade that is attributed to students following an exam.

In this sense, a teaching based on the TPLTF, intends to focus on some points of attention, namely the importance of:

– design, structure, plan and implement the course;
– explain the motivation of its organization and logic to students;
– allow students to have a say in determining a variation of content, any insights, etc., in order to involve them from the beginning of the course and make them participate and responsible for their learning;
– integrate readings, materials and activities that push students to go beyond their beliefs and points of view and beyond a mnemonic way of learning, challenging prejudices, naive beliefs, stereotypes etc.;
– highlight the link between discipline and employment potential, linking it to professions, careers and the labour market, to offer interpretations about how a discipline can create opportunities and be useful for some kind of employment;
– connect disciplinary teaching to scientific research to advance content, keeping them up to date and making
– teaching more attractive;
– motivate students to stimulate in them the desire to learn something, giving meaning to the relevance and applicability of the topics covered for work, for life, for their own fulfillment; However, extrinsic motivation, such as that of parents' expectations towards study, towards better grades and well-paid occupations, remain elements that weigh on the course of study (and which must be taken into account) because they are a responsibility of adults that often has an enormous weight on students' decisions and careers;
– remember that the learning outcomes guide the teacher on the type of evaluation and evaluation tools to be adopted, so that an alignment between design and evaluation is produced and the training path is made internally more cohesive and more coherent.



It should be remembered that, however, teachers are slowly reconceptualizing teaching in different domains of didactic behavior described in the literature Grift (2007), which largely coincide with those of the domains described in other behavioral frameworks of teaching widely used by several parties, such as the Framework for Teaching by Danielson (2013) and the Classroom Assessment Scoring System (CLASS) by Pianta and Hamre (2009).

Charlotte Danielson's *Framework* for Teaching

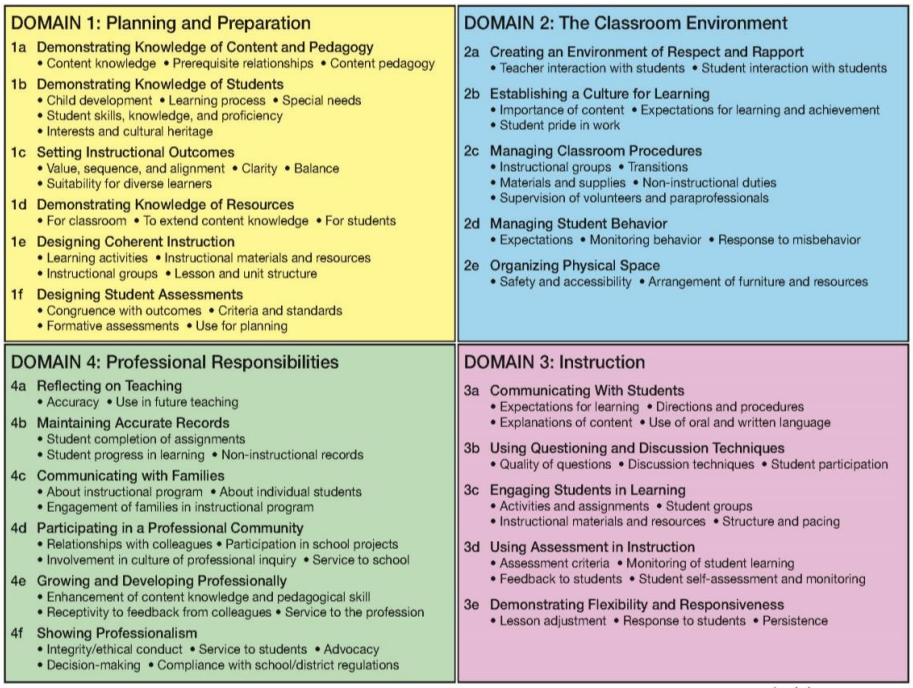


Figure 2. *Framework* for Teaching (Danielson, 2013)

The conceptual framework offered by Charlotte Danielson (2013) is an approach aimed at understanding and promoting quality teaching and learning and aimed at improving the professional practice of teachers. The framework connects four domains and twenty-two components that serve, in a university context, to guide teaching practices.

4.2 Design the course or teaching module

However, once you have chosen the approach, you need to design the course/teaching module taking into account the design process. In the table (Tab. 3) there is a template to compile this step.

Sequence	Learning Outcome	Assessment	Methods	Activities	Reflections
1	Identifies learning outcomes using Bloom's Taxonomy. Levels align to task complexity. Includes at least two higher cognitively complex outcomes (e.g., apply, analyze, etc.)	Aligns to the level of taxonomy. Includes both diagnostic, formative and summative assessment	Choos the appropriate teaching method or strategy brings instruction to life while encouraging students to actively engage with content and develop their knowledge and skills	Activities align to the cognitive complexity of the learning outcomes. They will prepare students for assignments and assessments. Active and social learning is evident	Reflects on the teaching before during and after
2					
3					

Figure 3. *Course Design Model*

This section outlines some fundamentals that are the basis of quality teaching according to TPLTF (IO2)

We might consider an approach to the design that include:
- project work derived from student's current experiences;
- discussion which allow students to recognise and consolidate what experience has taught them, and also lead them to identify what else they need to learn and practise;
- the learning of specific problem solving techniques and tools which can be applied to a range of situations;
- activities designed to provide opportunities for specific learning outcomes.

Points of attention

It is important that:
- students are involved in the planning and evaluation of their education;
- previous experience provides the basis for subsequent learning activities (Knowles, 1984).
- learning is linked to the reality outside education and the professional world;
- learning is problem-focused rather than content-focused (Kearsley, 2010).

Teachers find it difficult to translate their student-centred conceptions of teaching into the concreteness of teaching, but such translation cannot include:
- the use of a variety of teaching strategies;

– the use of research-based methodologies to make education student-centered;
– the involvement of students in teaching-learning processes;
– attention to improving higher-order thinking skills;
– the use of students' knowledge and previous experience to facilitate their learning;
– the possession of strong communication skills to offer students clear explanations and directions;
– the possession of strong interpersonal skills to guarantee them forms of effective interactions;
– the possession of strategies and forms of differentiation of education to meet all the needs of students using strategies of individualization and personalization;
– the use of appropriate techniques to make students learn better;
– the use of appropriate forms and tools of evaluation and self-assessment.

In the design of a course/teaching module, the first step is to identify how contextual factors influence teaching- learning processes. The table below illustrates the factors that can be taken into account to design a module in which the objectives, contents, tasks and activities are aligned with the needs and interests of the students and with the evaluation of learning outcomes.

Contextual Factors
Specific Context of the Teaching and Learning Situation
Students
Course level
Modality
Frequency
Expectations of External Groups
Societal expectations
institutional goals
accreditations
external stakeholders expectations
Nature of Subject
Disciplines
sequence
Skills
current state of field

Characteristics of the Learners
life situation
prerequisites
needs
Student Goals
Investment
prior experiences
learner differences
Characteristic of the Teacher
Training
prior experiences
subject experience
competence and confidence
understanding of effective teaching
Course Challenge

Figure 4. *Analysis of Contextual Factors*

In terms of improving design practice, measurable objectives must be envisaged. In a continuous improvement process, as courses are offered and feedback is received, faculty can choose to review courses when necessary and plan the improvement process. In doing so, the course can be improved to provide additional or stronger means and tools for students to achieve desired results and goals.

5. Fundamentals of the Instructional Design Process

5.1 Instructional Design Processes

Instructional Design (ID) is a science aimed at creating in detail the development, implementation, evaluation and control of teaching situations that facilitate the learning of large and small units of knowledge. It can also be considered a discipline pertaining to a certain branch or area of knowledge in relation to research and theories relating to educational strategies and the processes of development and implementation of these strategies. The ID provides forms of didactic design that use learning and theories of instruction to ensure the quality of interventions, involving an entire development process ranging from needs analysis to objectives

to provide a system of "deliveries" aimed at meeting the needs of the recipients; It includes the structuring and implementation of proposals, materials and teaching activities, the try out of the tools, the monitoring and evaluation of learning and all processes and activities. Instructional design can also be understood as a systematic process «employed to develop education and training programs in a coherent and reliable manner» (Reiser & Dempsey, 2007, p. 11). In the instructional design process, there are four key elements.

1. *Whom to teach*: knowing the background and characteristics of the students is important because without this information the teaching activities cannot be built and implemented and the teaching cannot achieve the objectives and expected results;
2. *What to teach*: make appropriate decisions about objectives and instructional design. The teaching objectives provide the teacher with information on what to teach during the teaching activities.
3. *How to teach*: get information on how to offer objectives and content to students in education, on what approaches and methodologies to adopt, what types of teaching and learning techniques and tools to use.
4. *How* to evaluate: choosing "how to evaluate", identifying the assessment tools that can play a key role in obtaining information on whether or not students have achieved the objectives set or integrating multiple tools to obtain more information, when necessary.

So what is great instructional design? How does course design work? How do students achieve the desired results? What design elements can be incorporated into courses to ensure goals are achieved? There are many definitions of instructional design and numerous models for instructional design in the literature.

An effective, efficient and attractive (or engaging) design for students (Merrill, 2009; Merrill et al., 1996) can also be understood as a systematic process employed to develop education and training programs in a coherent and reliable way (Reiser & Dempsey, 2007, p. 11). Instructional design can also be understood as an iterative and systematic problem-solving process to align learning theories, student expectations, teaching pedagogy, educational technology, and student experience design with the curriculum and course outcomes. When choosing a design can not miss some essential information such as: recipients, needs, knowledge gaps and situations to determine the educational objectives and desired results (Dick, Carey, & Carey, 2014). From there, you can design and develop effective, efficient, and engaging educational programs.

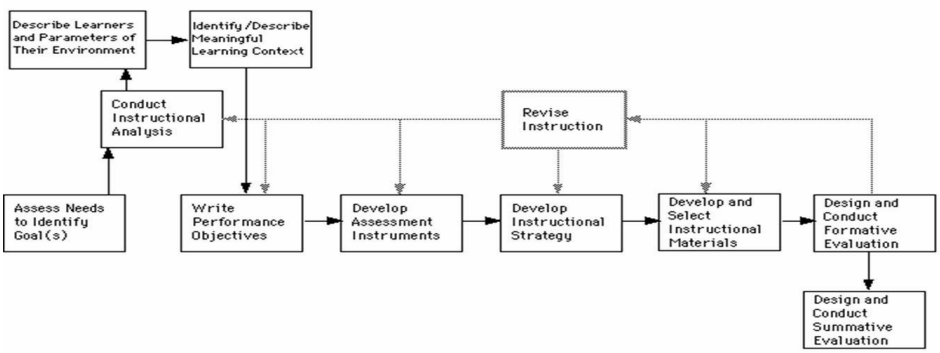


Figure 5. *Instructional Design Model* (Dick & Carey, 1966)

	Sample Tasks	Sample Output
Analysis the process of defining what is to be learned	• Needs assessment • Problem identification • Task analysis	• Learner profile • Description of constraints • Needs, Problem Statement • Task analysis
Design the process of specifying how it is to be learned	• Write objectives • Develop test items • Plan instruction • Identify resources	• Measurable objectives • Instructional strategy • Prototype specifications
Development the process of authoring and producing the materials	• Work with producers • Develop workbook, flowchart, program	• Storyboard • Script • Exercises • Computer assisted instruction
Implementation the process of installing the project in the real world context	• Teacher training • Tryout	• Student comments, data
Evaluation the process of determining the adequacy of the instruction	• Record time data • Interpret test results • Survey graduates • Revise activities	• Recommendations • Project report • Revised prototype

Figure 6. *ADDIE Model*

To meet these needs, this concise framework provides the basic descriptors for each area contained in the table, helping to operationalise areas of expertise that provide important and useful tools for curriculum planning, teaching and learning, and assessment. In addition, the descriptors describe observable behaviors that indicate whether the teacher has reached a certain level of competence in relation to a specific field. Therefore, for descriptors to be relevant to curriculum planning, teaching and learning, and assessment, they must be formulated using the language of learning outcomes.

Teaching-learning processes					
Competence	Performance Criteria	Level and grade			
		A	B	C	D
Take an approach to teaching	Discuss learning needs by confronting the group				
	Create the positive attitude towards learning				
	Discuss group management methods				
	Start the teaching self-assessment				
Plan and organize teaching-learning processes	Identify learning outcomes				
	Content related to results				
	Produces session plans and learning sequences				
	Identify ways in which learning is recognized				
	Use learning resources				
	Structure and sequence of content according to students' needs				
Managing teaching-learning processes	Use delivery methods that are appropriate to the group				
	Organize the environment in a way that encourages learning				
	Use appropriate language				
	Use appropriate resources				
	Use appropriate methodologies to produce learning				
	Encourage student feedback				
Assessing teachingand learning processes	Assess student prerequisites first				
	Evaluate the prerequisites of the group composition				
	Analyze students' strengths and weaknesses				
	Identify and confirm student strengths and weaknesses				
	Carries out teaching and learning assessment				

Table 4. *Teaching-learning processes and performance criteria*

5.2 Micro-teaching

Microteaching is an effective teacher training technique that plays a key role in improving the teaching skills of university lecturers. It was born as a training practice to provide teachers with elements for the analysis of their teaching practices, so as to allow them to acquire techniques and skills essential for carrying out the teaching activity (Allen and Ryan, 1974, p. 29). It aims to prepare teachers for the real classroom environment (Brent & Thomson, 1996; Uzun, 2012). It is considered an innovative approach to teacher education since its introduction in the early 60s (Ostrosky et al., 2013).

It is based on the concept of "applied teaching", in which some complexities of teaching are reduced, on the execution of specific tasks, on the preferable or

most appropriate method and on the expansion of the use of feedback. According to Amobi (2005), microteaching is a technique employed to help teachers master specific skills in a teacher training program. Similarly Uzun (2012) describes it as a teaching technique used especially for teachers in training to train them systematically, allowing them to experiment with important teaching behaviors. As a vehicle and process of initial and continuing education, microteaching can be applied at all stages of teachers' careers (Ananthakrishnan, 1993) and its use has progressively expanded from its original objective, which is to help teachers master teaching skills to include comprehensive teaching experiences, correcting specific teaching errors and enabling them to progress in their way of teaching.

Microteaching provides the opportunity to accept and constructively use feedback and to improve methodological-didactic skills, allowing teachers to pursue the path of reflective teaching. Using microteaching and feedback helps educators become better teachers (Re, 2008).

Teaching reduces the complexities of real teaching as immediate feedback can be sought after each practice session (Remesh, 2013). These feedback opportunities allow them to reflect on their strengths and rectify their mistakes, thereby improving their overall teaching skills. This methodological process also offers them opportunities for discovery and reflection on their own and others' teaching styles, while at the same time allowing them to learn new techniques (Wahba, 1999).

It is an effective means of improving teaching skills and promoting real-time teaching experiences (Remesh, 2013). With the help of microteaching, teachers experiment, learn and enhance their teaching skills, refining, developing and improving both teachers' confidence in teaching and learners' confidence in learning.

Fernandez (2012) in his study on «Learning Through Microteaching Lesson Study in Teacher Preparation» concluded that microteaching is an effective tool for the professional development of in-service teachers.

5.3 Plan and organize teaching-learning processes

Lesson planning is an essential part of any teacher's role, and lesson plans help ensure that teaching is equipped with meaningful, relevant objectives and rich in fascinating content, providing a guiding structure to follow, such as a road map that helps ensure effective instruction.

Lecture

Teaching is a specific professional knowledge that is aimed at prescribed subjects, which needs transparent rules to function, where:

– *the teacher*: must know how to organize a clear and coherent message;
– *the student*: must be able to understand the explanations that are provided, to remember the information, to organize on their basis precise lines of behavior

Planning and implementation of models and lesson plans is part of the tasks of a university professor, who cannot ignore the recognition of the following elements:

1. lesson model;
2. format;
3. drawing;
4. Plan

It's about being able to:

– design and describe a lesson model within a precise didactic design model;
– recognize the key elements of a lesson plan;
– recognize the key components of a lesson plan;
– describe effective ways to develop information and knowledge in terms of skills and knowledge within a lesson plan;
– describe the forms of collaboration within the co-planning between different professional figures (trainers, educators, sector experts, teachers, etc.).

Micro-planning refers to one of three phases of the teaching process initially identified by Jackson (1968):

– the pre-active phase (reflection on planning).
– the interactive phase (the teacher and students in action).
– the post-active phase (reflective feedback on planning

Objectives

The greater the structure of a lesson and the more precise the indications of what needs to be accomplished, the higher the rate of accomplishment. A teacher is a professional who brings with him tools and tries to make the best use of them in action and must induce students to establish good study habits and acquire time management skills, so as to enable them to work effectively and efficiently and to develop the expected knowledge and disciplinary skills.

5.4 Alignment processes

Instructional design that ensures alignment is critical to any course. This alignment is traced in the route map, the purpose of which is to ensure that all objectives will be measured, outline how teaching materials and activities will support students to achieve goals through aligned assessments.

The alignment process is used as part of the instructional design process in many contexts and can be used at the beginning of a new planning path.

A lesson is an organized set of activities designed to present a sequence of manageable dimensions of a teaching module.

The first step in designing a well-aligned lesson is to formulate learning objectives in terms of outcomes. If it is not clear what students should have learned at the end of the lesson there is no way to know what and how to evaluate and what teaching and learning methods should be used.

Alignment mapping

Communication and didactic action are extremely complex moments that bring into play many variables within an educational project that requires the acquisition of strong methodological skills to teach and in the student the ability to take advantage of teaching-learning processes Nuzzaci, 2018).

In didactic communication it is necessary to take into account the fact that the disciplinary languages:

– vary in relation to time
– that there is an internal variability to the individual languages (synchronic dimension)
– The variety of languages is given by the means and techniques used as transmission channels
– the variety related to users
– specificity in relation to the topics covered

Aligning all materials, activities, assessments and other course elements with learning objectives is essential to success. Reeves (2006) states:

The success of any online learning environment is determined by the degree of proper alignment between eight critical factors:

1. objectives;
2. contents;
3. didactic design;
4. tasks of the student;

5. roles of the teacher;
6. roles of the student;
7. availability of technological devices;
8. evaluation.

Teaching-learning processes					
Areas	Performance Criteria	Level and grade			
		A	B	C	D
Area of methodological expertise	Design				
	Evaluation				
	Relation				
	Communication				
	Organization/management				
Design Expertise Area	Planning and programming skills related to the construction of specific lesson plans;				
	Lesson management skills in relation to other teaching functions;				
	Skills related to the evaluation of educational processes and products (example: subsidies, pathways, etc.)				

Table 5. *Teaching-learning processes and criteria*

A more appropriate consideration of teaching includes:

1. the determination of favourable learning conditions in pupils;
2. the definition and communication of learning objectives and content;
3. the consolidation of the skills acquired by the students;
4. differentiation of learning approaches;
5. the acquisition of information on the training process.

To design an aligned lesson, a teacher must commit to the following:

– clearly identify what students will know (analyze goals) and be able to do (verb analysis) (Marzano & Haystead, 2008) (See taxonomies).
– create a goal that is aligned with verbs and content;
– design meaningful educational activities to meet the alignment between objectives and assessments;
– create diagnostic, formative and summative assessments aligned with objectives (Shumway & Berrett, 2004; Tyler, 1949; Wiggins & McTighe, 2011).

5.5 Identify learning outcomes

The advantage of talking about learning outcomes lies in the fact that:
– communication is intended in terms of learning outcomes;
– teachers in teaching;
– students in learning;
– assessing the learning that has taken place;
– Improving teaching.

The objectives are used by so many teachers to be effective they must convey the same meaning to everyone who read them. They must be unambiguous.

Consider the following statement written as a product objective:

«The lesson is intended to demonstrate the project life cycle to the students»

What is wrong with this? You will notice that it describes the method of instruction but it does not specify the intended learning outcome. What does the teacher expect the learners to learn? What changes in behaviour will the students display?

How can the learning be verified?

The above objective will be achieved as soon as the teacher completes the demonstration, irrespective of whether the students have learned anything or not.

Now consider the following objective:

«And the end of instruction the student will understand the working of a dam»

Again does the word "understand" convey the same meaning to everyone? What does the term "understand" mean? What will the students have to do to demonstrate that they actually understand? Will they have to describe the project life cycle? Will they have to draw a sketch of the phases? Will they have to identify the working phases? Or will they have to complete all of these?

The use of the word "understand" does not clearly communicate the intent of the objective and therefore it is not useful in guiding the teaching and testing. The terms has to be further clarified.

There are many verbs similar to the verb "Understand" which are open to many interpretation (for example "believe") such as "know", "appreciate" etc. which do not describe observable action hence they cannot be used in specific product objectives. What is required is a description of some observable behaviour which can be accepted as proof or indication of the student's understanding or

appreciation. A product objective should specify what the student should be able to do which can be observed by an outsider.

For Robert Mager (1975) an objective is a description of a performance you want learners to be able to exhibit before you consider them competent. An objective describes an intended result of instruction, rather than the process of instruction itself (Mager, 1962; 1975). The Mager model (1962) recommended that objectives be specific and measurable, and specified three parts to an objective as follows:

– It should have a measurable verb (an action verb);
– It should include a specification of what is given the learner;
– It should contain a specification of criteria for success or competency.

When the objective is written using a verb which specifies an observable behaviour it is known as a product objective. Verbs such as "identify", "classify" etc. describe actions which can be observed and can be used when writing product objectives.

According to Guilbert (1984). the qualities of specific learning objectives are:

– relevant
– unequivocal
– feasible
– logical
– observable
– measurable

5.6 Characteristics of objective

The objectives, expressed in the form of results, must have the following characteristics:

– verifiability;
– operability;
– feasibility;
– significance;
– coherence;
– precision;
– communicability;
– completeness;
– controllability.

At the base of their formulation there is a basic process: *behaviorizing*

– Order
– Specify
– Translating into operations
–

Developing a Learning Outcomes	
Dimensions	Domains
Behaviour	Cognitive
	Affective
Degree	Psychomotor

Student-Centered	**Verb**	**Learning Statement**	**Learning Outcome**	**Assessment**
Students will beable to	Eecognize	The main behavioral risk factors as a cause of social distress	Students will recognize the mainrisk factors	Structured multiple-choicetest

Learning objectives include:

a measurable verb, i.e. a verb of action

a behavior expressed by the verb (choose the verb that best describes the type of behavior and use taxonomies to derive it

a condition

how the behavior will be performed

under what conditions it will be performed

The criterion, i.e. the acceptability of the service

how well the behavior must be performed to meet the acceptability threshold

Student-centred	**Verb**	**Condition**	**Acceptability criterion**
Students will be able to	recognize	From a list of factors	At least three factors

Goals involve determining what they will be able to do when they have completed a segment of education.

They are declarations of objective. Identifying measurable goals is the first step in a sequence that requires knowing where students are going.

It is necessary to know what students must be able to know or do at the end of a course or sequence or course.

The answer to this question involves clarifying the definition of "learning outcome" in terms of measurable learning (Acevedo, 2014). Measurable goals are expressed in such a way that what students have achieved is observable, through an assignment or assessment. These objectives guide the design of the course. It is also important that goals are presented in student-centered language, which means that what is expected of them is clear to students and that they are able to use the goals to guide their study.

5.7 Create a lesson plan

It is necessary to pay attention to different aspects of education at different stages of the lesson.

Teaching processes should be planned and include multiple perspectives and information that fully understand the use of different methodologies followed by forms of meaningful assessment. The sequence of events for quality learning requires students to take on greater responsibility, which implies the ability to attribute meanings to the learning material and to reconstruct the meanings necessary for understanding, precisely by adopting a multiplicity of perspectives and making new knowledge evident.

Below are six domains of didactic behavior that can be considered useful references in the planning phase.

Six domains of instructional behavior:
1. safe and stimulating learning climate;
2. classroom management;
3. clarity of teaching;
4. intensive and stimulating teaching;
5. teaching of learning strategies;
6. differentiation (Van de Grift, 2014).

Points of attention: scrivere the learning objectives
At the beginning, I plan to:
1. Use a bridge-in to capture students' interest and motivate them to learn
2. Make the learning outcomes clear
3. Assess prior learning and student expectations

In the middle, I plan to:
1. Use strategies to actively involve students in the learning process
2. Use a variety of media to illustrate concepts and processes
3. Ensure that the lesson flows easily and logically
4. Ensure that students are learning material that is meaningful and new
5. Provide opportunities for practice and feedback
6. Review and build on related material

At the end, I plan to:
Provide the proper closure students find important. To do this, I will:
1. Assess what students have learned
2. Summarize the lesson
3. Connect the lesson to real life and/or the next lesson

The techniques you plan to use in your lessons depend on:
– the types of students you have and their previous knowledge
– your physical teaching environment and the available equipment and resources
– the type of learning you are aiming for.

Key questions:
– What learning objectives do you want to achieve
– What content you intend to present
– What activities and strategies do you plan to employ
– What learning tasks will students have to do
– How teaching strategies will be integrated into action to engage students in active learning
– What forms of evaluation will be used
– What assessment tools will be used

How to Build a Lesson Plan
Checklist for lesson planning
The checklists for lesson planning are manifold. An example is given below, as an indication.

Lesson Planning Checklist
Learning objective(s)
Write down goals...

1. Clearly state what you expect students to be able to do at the end of the teaching module
2. Reflect on the level of learning on which to focus attention
3. Express what students will be able to do rather than what you as a teacher will do
4. Explain to students what they will learn to do

Revision
The review and connections for links...
1. Attract students' attention and interest in the topic(s)
2. Inducing concentration in students
3. Make connections between the previous instruction and the goals pursued in the current lesson
4. Recall what students have already acquired (prerequisites) and are aware of

Input strategies
Build your input strategies
1. Communicate clearly to students the concepts and problems that affect the topics of the course
2. Clarify what students need to know to successfully achieve their goals
3. Prepare learning activities
4. Provide students with step-by-step support opportunities to learn and practice using what they have learned to achieve goals
5. Strengthen the learning needed to achieve goals
6. Allow students to learn from a properly prepared environment

Formative review and evaluation
Formative evaluation
1. Provide feedback on learning
2. Measuring learning outcomes
3. Guide students on the learning they will need to demonstrate
4. Strengthening key elements of learning where needed

Summative assessment The closure...
1. explicitly show students how assessment aligns with teaching/learning objectives and activities;
2. link learning to the outcomes of the teaching module and summative assessment.

Questions for planning a lesson

Plan a lesson

– What does it mean to plan a lesson?
– What is the purpose of a lesson plan?
– What to consider when writing a lesson plan?
– What to consider when designing a lesson plan?
– What are the key components of a lesson plan?

Example of a lesson plan format

Teacher _____
Bachelor's degree _____
Course year_____
Date _____

1. *Content*: This is a statement that refers to the content of the object. Content can be a concept or a skill. Phrase it as follows: I want my students: (to be able to [name the skill]) *or* (I want my students to understand [a description of the concept). Often, this content is predetermined or strongly suggested by the specific curriculum you are implementing through teaching.

2. Prerequisites: Indicate what the student must already know or be able to do to succeed with this lesson (list one or two specific behaviors needed to begin this lesson). Some research indicates that up to 70% of what a student learns depends on their possession of the appropriate prerequisites.

3. *Educational objective:* indicate what needs to be learned - this must be a complete goal, in terms of:
   a. *Conditions* (a statement that describes the conditions under which the behavior is to be performed)
   b. *Behavioral Verb* (an action word that connotes an observable student behavior)
   c. *Criteria* (a statement that specifies how well the student must perform the behavior).

Write this goal in terms of what an individual student will do, not what a group will do. Limit the goal to a behavioral verb. The verb you choose must

come from the list of behavioral verbs derived using taxonomies (Bloom etc.). Make sure the goal relates to the above statement of content.

4. *Teaching Procedures: A description of what you will do in teaching the lesson and,* if applicable, includes a description of how you will present the lesson to students, what actual teaching techniques you will use, and how you will conclude the lesson. Include specific things that students will actually do during the lesson. In most cases, you will provide some sort of summary for students.

5. *Materials and equipment*: lists all the materials and equipment that must be used by both the teacher and the student and how they will be used.

6. *Assessment/Measurement*: Describe how you will determine the extent to which students have achieved the learning goal. Make sure that this part is directly related to the behavior required in the learning objective.

7. *Follow-up activities*: indicate how other activities/materials will be used to strengthen and extend this lesson. Include tasks, tasks, and projects.

8. *Self-assessment* (to be completed after the presentation of the lesson): address the main components of the lesson program, focusing on both strengths and areas for improvement needed. Determine here how you plan to gather information that will help you plan future lessons. A good idea is to analyze the difference between what you wanted (the goal) and what was achieved (the results of the evaluation).

Of course, there is a huge difference between being able to plan and actually being able to carry out the plan. However, if you have thought carefully about where you are going before you start writing the plan, the chances of success, as well as student success, are much greater.

No.	Teaching Skills	Total Score	Marks Scored
1	Learning objectives and lesson planning		
2	Introductory procedures and closure and use of language in the classroom		
3	Give instructions for organizing learning activities		
4	Managing pupils' responses		
5	Use of learning materials		
6	Stimulus change: interaction change		
7	Teaching of concepts and generalizations		
8	Teaching skills and procedures		
9	Teaching values and attitudes		

5.8 Some lesson design patterns

The Lesson Design Model: *Robert Gagné's Nine Education Events*

1. Attracting attention (reception)
2. Inform learners of the objectives to be achieved (expectation)
3. Stimulate the recall of previous learning (prerequisite recovery)
4. Presenting stimuli (selective perception)
5. Provide a learning guide (semantic coding)
6. Eliciting/eliciting performance from a practical point of view (response)
7. Provide feedback (reinforcement)
8. Measure and evaluate performance (recovery)
9. Increasing retention and transfer (generalization)

Madeline Hunter's lesson design pattern

The eight steps of Madeline Hunter are given below with a brief description of each. Understanding these components will increase your understanding of how to plan a lesson and can be useful for the model presented above.

1. Anticipatory set (focus)

A short activity or suggestion that focuses students' attention before the actual lesson begins. Used when students enter the classroom: transition: a review question written on the board, "two problems" on the board are examples of the anticipatory set.

2. Purpose (objective)
   The teacher clarifies the purpose of the lesson, why students need to learn, what they will be able to "do" and how they will show learning as a result.
3. Input
   The vocabulary, skills and concepts that the teacher will impart and that will allow students to succeed.
4. Modeling (show)
   The teacher shows in graphic form or demonstrates how the finished product looks.
5. Guided practice (follow me)
   The teacher guides students through the steps necessary to perform the skill using the listening/seeing/doing approach.
6. Checking For Understanding (CFU)
   The teacher uses a variety of strategies and questions to determine whether the student has understood and to move forward or backward.
7. Independent practice
   The teacher allows students to practice on their own.
8. Closure
   Lesson summary: «Tell me/show me what you learned today»

A successful lesson plan addresses and integrates these three key components:

– Objectives for student learning
– Teaching/learning activities
– Strategies to check students' understanding

Specifying concrete objectives for student learning will help you determine the type of teaching and learning activities you will use in the classroom, while those activities will define how you will check whether learning objectives have been achieved

The design pattern of Barak Rosenshine's lesson

Rosenshine has identified 12 procedures (subsequently expanded). identifying the most effective teaching behaviors in terms of students' profit, the list of which clearly reveals the consistency of the programming work and the development of the model. The procedures are:

– Start the lesson with a brief review (retrieval) of previously acquired learning prerequisites.
– Spell out the objectives of the lesson.

– Center attention on only one point (conceptual core) at a time, completing it before starting to treat another.
– Present the new material in small steps, followed by an exercise immediately after the student has taken each step considered necessary.
– Give clear directives and detailed explanations (redundant) for each point addressed.
– Provide many and varied examples (vary examples and not just present one).
– Ask specific questions and verify the understanding of each student to get answers from all students and not just from some.
– Make sure that for all students there is a high degree of active exercise (ie everyone has the opportunity to engage in activities where what is explained is used in concrete learning tasks)
– Guide students during the initial exercise.
– Offer systematic feedback by stimulating students with appropriate questions.
– Provide during direct education individual exercise opportunities.
– When necessary, assist and control students individually as they work, repeating, if necessary, what has already been addressed.

These eight factors are examined as alignment of objectives, materials, activities, assessments and technology. The roles of the instructor and the student are addressed by the overall course design so that the expectations and means of interaction are clear for both groups.

Operations and activities
– Share your lesson plan with other teachers
– Share your lesson plan with students
– Reflect on alternative lesson plans from other groups and discuss how to solve existing problems
– Check if learning objectives are clearly defined
– Check whether learning materials, tools, techniques and strategies are selected appropriately and are relevant to the objectives
– Check if the procedure is clearly indicated
– Check whether assessment activities and tools are explicitly linked to stated objectives

Of course, learning is rarely so linear and organized; However, when it is organized according to these principles of instructional design, a guided path is created for students that allows them to succeed. In order for the expected learning

outcomes and learning objectives to be achieved, alignment must be present in the course design.

- What are the most important concepts or skills to learn?
- What kind of learning does the goal express (memorization, application, appreciation)? Has it been communicated to the students?
- What learning style is this lesson aimed at? Are you changing the ways you learn?
- Are there works of difficult concepts that need further explanation?
- How will you help students connect with previous learning?
- What activities will you plan to create interest in the lesson?
- How will you make transitions between tasks?
- What materials will be needed? Will students have to learn how to use them?
- What procedures will students need to know to complete the activities?
- How much time will you spend on the lesson? For different parts of the lesson?
- If the activities require students to work together, how will the groups be formed? How will you encourage productive teamwork?
- What examples and evaluation strategies will you use? Prepare a list of examples for explanations and list higher-order questions.
- How will you know during and after class what students understand?
- What are some presentation alternatives if students have trouble with concepts?

University professors' acceptance of the responsibility to teach and to provide meaningful knowledge skills to their students through careful teaching design, leveraging appropriate ID models involves:

- the introjection of the belief that all students are able to learn;
- the use of effective teaching strategies aligned with objectives, tasks and evaluation;
- the willingness to modify strategies according to the needs of the students;
- the willingness to create learning opportunities for students.

The above elements intersect with factors related to educational design models, which can be summarized in different models (classroom models, product models, teaching systems, trends and problems, etc.).

6. Organize and manage teaching-learning processes

6.1 Organization and management

Teachers devote most of the available time to teaching, but not always to organizational and management activities. Organizational and teaching management activities must be carefully aligned with learning objectives.

Classroom management and organization

Teachers organize learning environments and use group management approaches effectively to maximize the time they spend in lessons.

Plan tasks in small steps

Behavior management

It understands teachers' ability to use effective methods to prevent and redirect misbehavior by presenting clear behavioral expectations and minimizing time spent on behavioral problems.

Productivity

Consider how well teachers manage teaching time and routines so that students have the maximum number of learning opportunities.

Didactic learning formats

The degree to which teachers maximize student engagement and learning ability by providing interesting activities, instruction, centers, and materials.

Classroom

The degree to which teachers effectively manage the classroom in such a way that interruptions predominate.

6.2 Classroom management

The teacher with the help of teaching aids and strategies generates a harmonious environment for the objectives already foreseen in the design phase. Themanagement of teaching-learning processes involves a process of structuring, planning and directing resources to achieve its goal.

Classroom management refers to the various ways in which teachers ensure that environments are conducive to learning and setting clear expectations. Classroom management is often seen as a necessary part of teaching, as it can help cre-

ate optimal conditions for learning. It can help create a positive learning environment, prevent disruptive behavior, and set clear expectations for student behavior. Classroom management can also make it easier to teach effectively and efficiently, as it can help reduce the amount of time spent dealing with disruptive behaviors.

Effective management has the advantages:

– *Creating a positive learning environment*

An environment that helps create an environment conducive to learning, where students feel safe and respected.

– *Prevention of dysfunctional behavior*

Disruptive behavior can interfere with the learning process and make it difficult for teachers to teach effectively. Classroom management techniques can help prevent disruptive behavior from occurring in the first place.

– *Clearly state expectations*

When students know what is expected of them, they are more likely to behave appropriately. Classroom management can help teachers set clear expectations for student behavior.

– *Make it easier to teach effectively*

When classrooms are managed effectively, it can make it easier for teachers to teach effectively. Classroom management can help reduce the amount of time spent dealing with disruptive behaviors and simplify the implementation of instructional strategies.

– *How to achieve proper classroom management?*

Each teacher has their own unique style and approach and freedom of teaching. However, there are some general tips that can help you manage your class properly.

– *Establish clear rules, criteria and expectations from the beginning*

It is important to establish clear rules and expectations for student behavior from the beginning. This will help students know what is expected of them and make it easier to manage their behavior.

– *Be consistent with expectations*

It's important to be consistent with your expectations regarding student behavior. If you are inconsistent, students will become confused and may start misbehaving.

– *Use positive reinforcement*

Positive reinforcement is a powerful tool to encourage desired behavior. When students behave the way you expect, be sure to praise them and give them positive reinforcement.

– *Be proactive*

It is important to be proactive in your approach to classroom management. This means being aware of potential problems and taking steps to prevent them.

– *Be flexible*

It is important to be flexible in your approach to classroom management. There is no perfect way to manage a classroom, and you may need to adapt your teaching approach to suit your students' needs and situation.

– *Use technologies and their features to make it easier for teachers to manage classrooms:* manage information, attendance monitoring, lesson planning and assessment, track student progress and performance over time.

Some problems may arise in classroom management, such as:

– *Inappropriate behavior*: can interfere with the learning process and make it difficult for teachers to teach effectively.

– *Lack of student involvement*: can make it difficult for teachers to maintain control of the classroom

– *Poor organization*: It can make it difficult for teachers to identify resources and materials they need and can lead to dysfunction in the classroom.

– *Poor preparation or experience of teachers or inexperience* who may not be familiar with effective classroom management techniques or may not be prepared to deal with classroom challenges, risks and contingencies.

Classroom management is a crucial part of teaching, as it can help create optimal conditions for learning.

Effective classroom management can help prevent dysfunctional behavior, set clear expectations of student behavior, and make it easier to teach effectively. Management is about the ability to manage:

- Design
- Teaching processes
- learning processes
- the learning environment
- the climate and the classy atmosphere
- the learning environment
- the learning context
- the use of teaching means, materials and tools
- the use of virtual technologies and environments
- the time
- Feedback processes
- Communication
- The report
- Interaction
- Collaboration
- Participation
- assessment of learning
- Evaluation of teaching
- monitoring of the tasks foreseen in the curricular activities
- Change and the conditions for implementing change for effective learning and teaching
- The action
- the use of approaches and methodsto learning-teaching processes
- teaching and learning styles
- Cultural variability in an intercultural perspective
- Teaching strategies
- individualization and personalization strategies
- learning environments and settings
- manage teaching-learning processes in the classroom and beyond the classroom

Points of attention

Manage interaction and relationship

Fundamental to a quality course is the design of interaction opportunities that lead to meaningful learning experiences. Teachers use frameworks that help engage students, through different types of interactions (Moore, 1989), different modalities (Garrison, Anderson, & Archer, 2010), and different types of lesson design (Gagné, Briggs, & Wager, 1992). To develop opportunities for interaction, they

draw on different "teaching sources" to address contexts and how students react to teaching and interact with faculty and other students (Moore, 1989), to develop educational communities (Garrison et al., 2010), and to engage students using appropriate learning conditions (Gagné et al., 1992). All this serves to support learning opportunities and relationships and interactions in context and to get students' attention.

Manage the action

Active learning involves students in the teaching process by promoting learning through the execution of targeted skills and tasks. Active learning is defined as «students who do things and think about what they are doing» (Bonwell & Eison, 1991, p. 3) and can take many forms, from short and simple reflection exercises to long and complex group activities (Bonwell & Sutherland, 1996). The fundamental components of active learning are action and reflection, which concern, in increasing complexity, also the learning objectives, which require students to apply, analyze, synthesize and then evaluate (Bloom, 1956).

To properly prepare students and ensure that they achieve these types of learning goals, students must demonstrate that they can perform certain tasks in specific situations. Through situational practice and assessment, the teacher enables students to learn by doing (Aleckson & Ralston-Berg, 2011). In terms of course improvement, activities may involve different methodological approaches (case studies, simulations or other types of activities) that require students, from time to time, to try their hand at skills of a different nature and of a higher order. In cases of critical thinking and decision-making, students can benefit from situational simulations in which they are asked to adapt strategies according to the consequences of the decisions made, emotionally involving them in the experience and allowing them to benefit from open comparisons about it.

Managing didactic communication

Didactic communication differs from other forms of communication because it presents selected signs and previously defined objectives, because information emerges as the order of the elements of the educational system and because it is a form of communication oriented to produce learning. Direct instruction is generally considered as a way in which the teacher follows a lesson structured in small steps and provides students with the necessary support to lead them towards autonomy (Rosenshine, 2008; 2010; Rupley, 2009), reflecting before, during and within the action. Compared to other approaches, direct education is extremely advantageous for students in difficulty (Marchand- Martella, Kinder, & Kubina,

2004; 2005). Direct education methods are suitable for all students and particularly effective in increasing the pace of learning of students in difficulty (Somerville & Leach, 1988). Baker et al. (2013,

p. 334) describe the evidence that explicit (direct) education has a positive effect on different learning outcomes, particularly those of at-risk students.

The direct education scheme consists of a form of teaching provided directly, following a lesson structured in three stages, including:

– the demonstration of what needs to be learned;
– a subsequent phase of guided exercise;
– a period of independent practice.

Manage collaboration

The teacher who stimulates active learning in the classroom also ensures integrated active learning opportunities from the beginning of the course from the beginning, where collaboration can be a great resource and different members can share their skills. The collaboration envisaged in the design phase of courses/teaching modules allows teachers to maximize the value to the student experience and to collaborate with them and with other teachers for the pursuit of quality training.

Managing interaction as media and technologies

To attract attention and provide opportunities for students to interact with content, the teacher can introduce in the classroom and outside it, media, technologies, educational applications that can increase learning. However, any technology, device or support used to improve a course/teaching module must meet a teaching need, be relevant and help solve a teaching problem.

Objectives

Objective 1: To create a favourable teaching-learning environment

Providing a supportive teaching and learning environment is critical to student success, and to do so it is critical to being able to:

passionate and enthusiastic teachers for teaching and for their discipline;

careful consideration of student diversity;

adequate consultancy services and educational support ;

available teaching materials and basic training documents;

curricula structured in such a way as to take account of the different characteristics of students (recognition and enhancement of diversity);

knowledge of students, in terms of background, demographics, experience,

motivation and knowledge and basic skills, expectations towards discipline and teaching.

documents and programmes that respond to the diversity of students' learning strategies, challenging them to expand their perceptions of learning (regular updating of course contents/teaching modules, peer review and shared understanding of the knowledge and skills that can be taught through a programme etc.);

technologically advanced learning environments with adequate infrastructure and resources to ensure that teachers are equipped with the technical and pedagogical skills to use technology wisely and for educational purposes.

Objective 2: Improve the quality of teaching and the learning environment

At the heart of any quality teaching and learning environment is a culture of improvement through quality improvement processes. These processes involve continuously seeking feedback and using this data to further improve teaching and learning experiences. For quality improvement, an institutional mandate is needed that these processes are important, as well as structures to allow for the collection and action of feedback. Teaching is at the development of higher education's mission to work collaboratively with staff and students to advance, preserve and promote the ideals, knowledge and values of higher education. Part of this mandate is to promote and support teaching and learning.

Objective 3: Engage students with rich and diverse opportunities

Promote student-centered approaches

Promote research-based teaching and student involvement in research

Encourage and support students to broaden their learning experiences

Students who are involved in productive educational activities develop routines and study habits that expand their capacity for continuous learning and personal development (Kuh, 2003). But what makes a didactic approach engaging? Certainly, a key element is to make students active in their learning. Gibbs (1988) commented that active learning is about learning through practice and, as Healey and Roberts (2004) suggest. It involves a student-centered approach. However, there is evidence to support the effectiveness of well-designed active learning, involving both doing and thinking (Ramsden, 2003, p. 113).

Goal 4: Increase staff capacity to facilitate the delivery of high-quality educational experiences

At the heart of any quality teaching and learning environment is the teaching staff who are well qualified, knowledgeable and able to teach. Generally, however,

there is no requirement of compulsory education for university teachers, but only recommended, and this requires, on the part of the institutions, an effort to support and develop the pedagogical and didactic skills of teachers and to promote adequate professional growth. Therefore, in order to develop a culture of teaching quality, it is essential to promote research on teaching, which should be adequately resourced, both in terms of funding and support for professional development. Staff will be more motivated to commit themselves if the quality of teaching is recognized and rewarded by the Departments or Institutions. In this sense, the sharing of good practices is also fundamental for an institution focused on teaching.

7. Assessing learning and teaching-learning processes

7.1 The evaluation measures the design capacity of the teacher

Evaluation is a measure of the planning and methodological capacity of the teacher, who must leverage concrete aspects of teaching to promote and implement learning (Nuzzaci, 2012).

An assessment requires you to
- be unique
- be objective (observable behaviors in terms of performance)
- meet certain conditions
- meet certain criteria
- be representative
- be participatory
- identify and recognize differences through their positive discrimination that then leads, after appropriate planning, to their enhancement;
- be useful precisely to those who most need specific support actions; meet the needs of all students and especially those with needs

An evaluation that makes explicit the didactic action system becomes a tool for promoting knowledge for all students and for all teachers, stimulating and nourishing a deep learning whose depth depends on how a problem is perceived, which determines the quality of the thought that derives from it; and any teaching model that induces the student to sail above the thin ice that covers the real problems overturns the correct method of mind formation (Dewey, 2016).

Evaluation as an integral part of the didactic action system and serves to manage interventions, improve them in "real time", guarantee the conditions for educational success, responding to precise parameters (adequacy, coherence, etc.) concerning its three dimensions:

Assessment = the process of measuring something with the aim of assigning a numerical value

Scoring = the procedure for assigning a numerical value to evaluate a task

Evaluation = the process of determining the value of something in relation to benchmarks established using the information obtained from the assessment, i.e. the process of analyzing, reflecting and summarizing the information collected through the assessment in such a way as to be able to make judgments and / or make the most appropriate decisions based on the information collected.

Assessment plays an important role in the learning process of students and isused for various purposes:
– to help teachers gain insight into what students understand to plan and guide education and provide them with useful feedback;
– to help students develop awareness of how they learn and use that awareness to advance their learning and take greater responsibility for their learning;
– to inform students and faculty, as well as the wider educational community, about the realization of a certain learning to celebrate the success of the interventions and support the progress achieved.

The evaluation must be planned taking into account its purpose; It has a role to play in supporting and enhancing student learning and must be properly balanced. The most important part of the evaluation is the interpretation and use of the information collected for its intended purpose.

Assessment is integrated into the learning process and is closely interconnected with the education process, playing a constant role in informing, guiding the next steps of the teacher and the student and monitoring the latter's progress and educational success.

Teachers use different processes and strategies for assessing learners and adapt them to meet the assessment goals and needs of individual learners.

Research and experience show that student learning is best supported when

instruction and assessment are based on clear learning objectives and when education is differentiated according to students' learning needs.

Students are involved in the learning process (they understand the learning objective and criteria for quality work, receive and use descriptive feedback, and take corrective measures to adjust their performance).

Assessment information is used to make decisions that support further learning. Parents are knowledgeable about their child's learning and work with the school to help plan the training activity and provide the right support.

7.2 Types of evaluation

Diagnostic and initial evaluation

It can be used to better understand what characteristics students have at the beginning of an educational segment when it is necessary to understand:

- *What prerequisites do they have (diagnostics)*
- *What are their experiences (initial)*
- *What are their needs (initial)*
- *What are their learning characteristics (initial)*

This data informs the planning.

Formative or mid-term evaluation

Formative assessment is part of the teaching-learning process and lesson planning processes, informing about what happens and how you need to revise your plans for the next lesson.

- *What concepts and skills did students acquire?*
- *Where are there gaps, misunderstandings, difficulties?*
- *Which students need additional reinforcement or compensatory intervention to move forward?*
- *What corrections to make to the teaching or what adjustments to implement?*

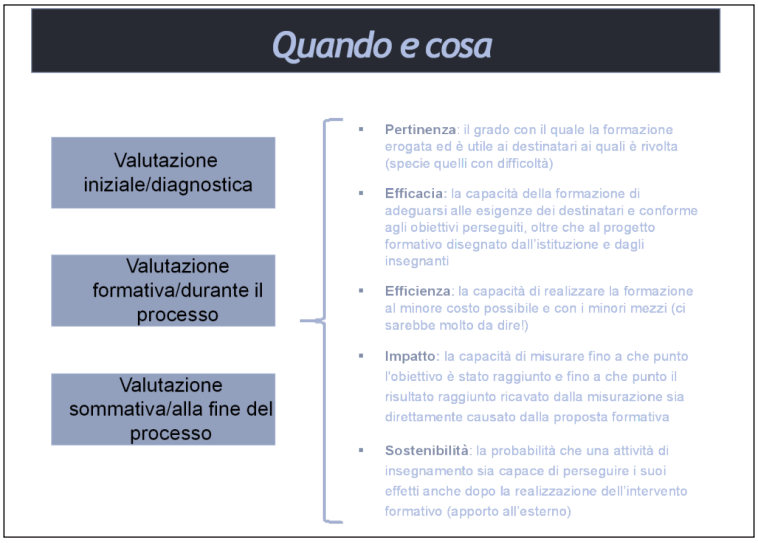
Summative assessment

Summative assessment closes a teaching sequence and is conclusive in terms of performance review at the end or after learning has occurred. It informs about what has been taught and how it has been done. If a summative assessment does not meet expectations, professors should reflect on how they implemented the teaching, on the relevance of the methodologies used, on the achievement or not of the objectives and on the way they guided the path.

Evaluation					
Questions	Answers	Level and grade			
		A	B	C	D
Why evaluate	To allow teachers to determine the steps needed to get students to learn				
What to evaluate	Each student's progress and learning needs with respect to expected curricular learning outcomes				
With what methods to evaluate	With the different methods and methods of evaluation (also integrated) that shed light on the skills and understanding of what is happening in the student's learning process				
	With the accuracy and consistency of student learning observations and interpretations				
	Clarifying and detailing learning				
	Using appropriate measurement scales, accurate and detailed scores to provide descriptive feedback to each student				
How to ensure the quality of teaching	Provide a descriptive and detailed assessment so as to allow each student to continue learning				
	Differentiate education by constantly monitoring where each student is in relation to expected learning outcomes				
	Provide descriptive feedback on learning students and give suggestions to provide them with the necessary assistance in relevant and appropriate forms				

Points of attention

Do we use reliable measures for understanding skills and knowledge?



Evaluation					
Questions	**Answers**	**Level and grade**			
		A	**B**	**C**	**D**
Why evaluate	To allow teachers to determine the steps needed to get students to learn				
What to evaluate	Each student's progress and learning needs with respect to expected curricular learning outcomes				
With what methods to evaluate	With the different methods and methods of evaluation (also integrated) that shed light on the skills and understanding of what is happening in the student's learning process				
	With the accuracy and consistency of student learning observations and interpretations				
	Clarifying and detailing learning				
	Using appropriate measurement scales, accurate and detailed scores to provide descriptive feedback to each student				
How to ensure the quality of teaching	Provide a descriptive and detailed assessment so as to allow each student to continue learning				
	Differentiate education by constantly monitoring where each student is in relation to expected learning outcomes				
	Provide descriptive feedback on learning students and give suggestions to provide them with the necessary assistance in relevant and appropriate forms				

Mid-term or benchmark evaluation

Provides information on the group's progress towards these goals at set intervals over a specified period of time.

– *What patterns are emerging?*
– *Where are there significant gaps?*
– *How can you move resources to meet needs?*

III
Content section

8. Self-regulation structures: learning/teaching-focused teacher methods and tools

8.1 Reflecting on teaching

All information obtained by teachers from different sources can support their reflection on teaching practices. The dynamic interaction of reflection on one's own teaching practice and conceptions of teaching is expected to have a positive outcome on professional learning (Nevgi & Löfström, 2015). An example of a professional learning activity that supports feedback and fosters reflection could be evolutionary peer observation of teaching in authentic teaching environments as part of a professional learning community that focuses on developing teaching behavior. Most elements of lesson planning are learned from experience. It is therefore important for the teacher to evaluate how the lesson took place and ended, namely:

- What went well and why
- What didn't go as planned and why
- If you were to repeat that same situation what would change
- What students learned that can be accounted for in planning the future lesson
- If there were students who needed compensation, additional aid etc.
- How did you make sure all students attended the lesson?
- How the lesson was adjusted (whether the time was too short or too long etc.)
- What kind of product is expected at the end of the lesson
- What students will do when they finish the lesson or activity
- How student work will be evaluated and feedback will be provided
- How students will use the skills acquired in future lessons

A model of reflection		
Actions	**Questions**	**Answers**
Description	What happened during the lessons?	
	What is the background to the lesson?	
	What is the context in which it took place?	
	Who was it directed to?	
	Who was involved?	
Reflection	What did I want to achieve?	
	Why did I act that way?	
	What did I feel at that moment?	
	How did the students feel about the lesson?	
	What were the consequences of this lesson?	
Influences	What factors influenced my decisions and actions?	
	What factors could I have considered?	
Alternative	What else could I have done?	
	What difference could this alternative action(s) make?	
Learning	What did I learn from that event?	
	How did it change me?	
	If it happened again, what would I do?	

Table 7. *Reflecting on teaching*

8.2 Reflection Diary

The QUALITI Project involved the construction of a Reflection Diary by Vilnius University and the Centras Siuolaikiniu Didaktiku Centras (**Appendix 1**). This reflective diary is aimed at supporting teachers in microteaching situations and activities. It is characterized as a tool for the descriptive, reflective and / or critical recording of the professional experiences lived by the teacher. The reflective diary helps to organize the activity of guided analysis of experiences and aimed at identifying the training motivations and degree of mastery of the acquisitions, as well as detecting the effectiveness in practical teaching situations. The analysis, elaboration and interpretation of such a structured reflective diary are focused on areas that characterize the factors of teaching and teaching practice and on the identification of strengths and weaknesses in terms of classroom management.

The diary should be used as a way to preserve evidence to highlight:

– the development of teaching-learning processes, personal development, etc.;
– critical moments or challenging experiences;
– Important decisions.

The activities and function of the diary:
- Satisfaction analysis
- Self-reflection and analysis of the diary
- Approach to teaching
- Self-analysis and evaluation
- Reflective course reminder
- Responsiveness to student feedback

Koch et al. (2002) have drawn a dynamic framework for achieving successful quality teaching:

1. *Identification of the problem:* the professor must reflect on the weaknesses of his teaching:
2. *Information gathering:* the professor must read literature, participate in workshops and work with mentors or associate students;
3. *definition of assessable objectives:* the professor must choose a specific project to work on;
4. *development and implementation of strategies* to achieve the set objectives;
5. *evaluation of the project*, both qualitative and quantitative.

Gathering information to increase the quality of teaching

8.3 Document teaching

Documenting teaching performance is an important part of a teacher's professional development, which serves to provide and make available evidence of what happened in the teaching-learning processes and to allow reflection on the data that emerged. It serves to pursue important objectives in training and to organize thinking about teaching and its development, constituting a form of useful conceptualization on which the teacher can reason alone or in teams (at the level of the Degree Course, Department, etc.).

The events or circumstances that arise in the teaching and learning processes show how it is possible to intervene on factors that contrast the educational success of students, even with respect to external factors such as participation in opportunities for individual and professional development.

The documentation supports changes in teaching and learning and can be accompanied by various evaluative, self-assessment, reflective, and process tools such as the portfolio, which can also serve to provide feedback on teaching, to organize and to highlight the efforts made towards improving the quality of teaching and learning.

8.4 Evaluating teaching

Module assessment is key to improving teaching and learning opportunities for students. Students' perceptions of the teacher's teaching behaviour are extremely important to allow the teacher to revisit the course/module of teaching. For the purposes of feedback and accountability, it is important to determine a valid and reliable measure of teaching effectiveness (Timperley et al., 2007). To do this many scales and tools are present in the literature. Evaluation is crucial to improving the effectiveness of teaching and can take different forms depending on the purposes for which it is used. In particular, self-evaluation is aimed at allowing teachers to collect data on the effectiveness of their teaching and analyze the information to evaluate any improvements. This process can be undertaken in several ways. However, the unique advantage of self-evaluation is the close involvement of teachers in assessing the effectiveness of their teaching (Taylor, 2006). This article considers different methods of self-assessment and suggests a technique that has proven successful.

Features of the professional area of the teacher to be taken into account for teaching self- assessment					
Descriptor	**Criterion**	**Measurement /Instrument**	**Levels**	**Evidence**	**Documentation**
Create and maintain a suitable environment					
Motivate students to learn and study					
Commonality in discipline					
Involve students in debates and discussions					
Lesson template offered to students					
Adequacy and organization of content					
Teaching methodologies and strategies					
Using appropriate examples					
Use of new technologies in teaching					
Summary of the topic					
Clarification of doubts					
Relevant use of feedback					
Timely use of clearing instruments					
Fairness in dealing with students (assessment, verbal communication, etc.)					
Periodic evaluations (tasks, tests) and feedback					
Accessibility outside the classroom					
Motivation of students to deepen through extra or co-curricular activities					
Maintains positive relationships with the university and with colleagues					

Module evaluation is a key component of quality improvement and can serve several purposes:
– allow the continuous and iterative improvement of the contents and teaching methods of the module;
– provide feedback to teachers on the quality of teaching;
– help teachers understand what approaches students find valuable;
– alert teachers of any problems that may arise in the context and suggest ways to correct them;
– demonstrate to students that their opinions matter and their concerns are put into practice;
– provide evidence of good practice;
– supporting the quality of teaching.

Since module assessment can have different purposes and there are different mechanisms that can be used to collect data, the main objective of module evaluation is to understand and improve the university experience and experience of individual students. This involves the use of different tools, ranging from interviews to focus groups, to questionnaires, at the end of a training segment of the teaching module. Assessment is perhaps the most valuable source that students and teachers have available and that allows them to reflect on what happened in the module from start to finish, including how much students have learned, as well as for decisions on teaching methods, content, evaluations etc. in time for the next execution of the module.

Formative assessment has many advantages, the main one being the timeliness with which you can respond to problems and solve small problems before they turn into cumulative deficits. It also serves to send precise messages of communication and collaboration with students.

This is a fundamental step in instructional planning because it provides the teacher with information on the effectiveness of education.

It is, of course, possible to combine different approaches, such as evaluative and self-evaluation, so that a complete and integrated datum can be obtained to make timely decisions and better correspond to training needs. All forms of assessment contribute to the improvement of the course and benefit the growth of students.

Evaluation of teaching in reference course planning

Needless to say, one purpose of the assessment is to understand how well a form performed how well the boarding and insertion process for the form worked, prior to completion.

The aims of a Study Programme evaluation concern the students' learning experience, which provides teachers to improve their teaching practices by providing them with a deeper understanding of the teaching-learning processes, the effectiveness of the teaching methods used, the type of learning environment that has facilitated or not facilitated their study paths.

The literature points out the importance of determining the quality of the teaching provided, highlighting some essential characteristics:

– communication skills of the university, department and faculty;
– correct organization of the course;
– flexibility offered to students;
– correct evaluation setting;
– quality of classroom experience;
– taking a positive attitude of the teacher to interaction with students;
– support, motivation and accompaniment of students during the course;
– depth of decisions taken;
– attention to the treatment of students;
– attention to the quality of educational interventions;
– clarity of curricular teachings;
– level of difficulty of the teachings;
– Adequacy and Distribution of the teaching load
– adequacy and achievement of the objectives of the course/discipline;
– consider the structure, progression, balance and coherence of the path;
– identify the relevance and topicality of the program of the course of study;
– understand the quality and effectiveness of the teaching approach used in the course;
– detection of graduates' skills;
– improve and develop skills in assessment methods and techniques in relation to objectives and their effectiveness in revealing student outcomes;
– enhance the teaching staff of the course, their development and its internal cohesion;
– promote a positive attitude in the use of resources.

Evaluation of factors intersecting the quality of teaching:

– Relationship between theory and practice
– Quality of professional practice
– Skill assessment methods
– Course Contents
– Learning outcomes
– Quality of curricula
– Available resources and equipment
– Quality of the teaching process
– quality of teaching methods, techniques and tools

– Quality of study programmes
– awareness, fairness, responsibility and ethics of the professor towards students
– Evaluation of teacher teaching by students
– availability of teachers
– quality of teaching staff in relation to pedagogical and didactic competences

On the basis of appropriate and acceptable references and criteria, the quality of teaching, with respect to the intervening variables, requires the use of multidimensional and multifactorial methods to allow appropriate evaluations, an educational program is a complex concept and difficult to judge. The evaluation allows to evaluate courses / teaching modules for the development and implementation of programs and for the achievement of training objectives. By evaluating an educational program, it is possible to understand the degree of correspondence to the needs of the students and the target community and determine the actual factors affecting its development.

In principle, this kind of evaluation serves to increase the strengths and partialize the weaknesses, remaining the basis of the decision-making processes of the didactic design and providing the necessary tools to implement the improvement and increase the quality levels of the training offer as a whole.

Assessment dynamically transforms teaching-learning processes, enabling the identification of citing factors that influence teaching quality.

Different evaluation models have been employed over time to evaluate teaching in educational programs, but probably the most useful is that proposed by Stufflebean (1971). which suggests thinking about evaluation in terms of four main elements:

– *Contest,* i.e. the setting of the course or subject related to the curricular objectives
– *Input,* which is the elements related to students, administrators, and resources used
– *Process, to the* appropriateness of what happens in the course, how the input elements were used to achieve goals and objectives
– *Product,* i.e. related to learning outcomes and students who passed the exam and what they learned.

Context assessment aims to provide a logical basis for defining educational objectives, attempting to identify problems, needs and opportunities in a context or situation. The purpose of input evaluation is to facilitate the implementation of the designed program in the context phase, focusing on human and financial resources, policies, educational strategies, barriers and limitations of the education system. Process assessment refers to identifying or predicting performance problems during educational activities and determining the appropriateness of the implementation process, which involves discussion related to the implementation of the program and the effect of the program on students. The evaluation of the

results is carried out to express a judgment on the adequacy and efficiency of the educational activities carried out.

8.5 Self-evaluating Teaching

The central tasks of the course concern:
– identification of student needs;
– analysis of a subject/topic into a logical sequence;
– indication of expected student learning;
– selection of appropriate teaching/learning methodologies;
– writing systematic lesson plan;
– selecting and preparing learning resourses.

Self-assessment Teaching Task						
Competence	Performance Criteria		Level and grade			
			A	B	C	D
Preparation	Identification of student needs					
	Analysis of a subject/topic into a logical sequence					
	Indication of expected student learning					
	Selection of appropriate teaching/learning methodologies					
	Writing Systematic Lesson Plan					
	Selecting and preparing learning resourses					
Presentation	Implementation of selected teaching/learning methods					
	Provision of appropriate: (a) introduction (b) development (c) conclusion	Introduction				
		Development				
		Conclusion				
	Flexible response to classroom situations					
	Using learning resources effectively					
Traine/Student relationship	Securing student participation in lessons					
	Promotion of a classroom climate that facilitates learning					
Communication	Using appropriate language registers					
	Employment of effective skills in verbal and non- verbal communication					
Assessment of leraning	Making an assessment of the extent to which the students achieved the stated intensions					
Subject Matter	Demonstration of mastery of the subject matter					

These elements provide the basis on which to evaluate one's teaching and constitute references to someone else to evaluate some key teaching skills. They can also be used to provide specific feedback on specific aspects. The basic idea of using student feedback for teaching development is to give teachers a complete view of their teaching from the students' point of view, which could translate into valuable information or data for teachers about the quality of their teaching.

Based on feedback, they can carry out improvement-oriented activities or actions that could improve their lessons. This, in turn, may be more positive in students' perception of teaching and better learning processes for their students (Remmers, 1927; Lai et al., 2014; Poortman & Schildkamp, 2016; Schildkamp, 2019; van Geel et al., 2016). where it is stated that the use of teaching-related data, such as assessments of student learning processes, can help improve teaching and student learning outcomes.

In addition, the process for obtaining student feedback and related student-teacher communication is an educational element process, which can promote skills such as giving and receiving feedback, discussing, addressing criticism, and different points of view (Bastian, 2010; Zierer & Wisniewski, 2019).

Self-assessment of teaching-learning processes					
Competence	**Performance Criteria**	**Level and grade**			
		A	**B**	**C**	**D**
Engage in the evaluation of your own teaching and that of colleagues	Identify the central tasks of teaching, responsibilities and functions				
	Identify strategies to monitor and evaluate the effectiveness of the functions performed				
	Develop appropriate feedback mechanisms				
	Start the teaching self-assessment				
	Use feedback from students, peers, colleagues to support the assessment				
Engage in the evaluation of your teaching courses	Consider appropriate course assessment methods				
	Evaluate aspects used to be evaluated				
	Identify the components of an internal evaluation report				
	Identify suggestions to improve course teaching based on the information obtained from the assessment				

Self-assessment of teaching-learning processes					
Competence	Performance Criteria	Level and grade			
		A	B	C	D
Assessing learners' needs	Identify and plan the needs of potential students				
	Carry out an initial assessment of learners' needs				
Plan and prepare for teaching and learning by programming for individuals or groups	Identify the outcomes of planned learning programs				
Manage learning processes	Contribute to the organization's quality assurance system				
Evaluate learning outcomes	Use appropriate methods and tools to measure learning				
	Make use of the information obtained through assessments				
Meets professional requirements	Working within a professional value base				
	Compliant with codes of agreed professional practice				

Dimension	Total Score	Marks Scored
Learning climate		
Efficient classroom management		
Clear and structured instructions		
Activation instructions		
Teaching learning strategies		
Differentiation		
And so on.....		
.....		

8.6 Evaluation, alignment processes and evaluation skills

Evaluation policies

The purpose of this entry is to document the guidelines and procedures that will contribute to high quality. evaluation of student performance.

The evaluation must provide in the Universities an institutional level that in-

volves the University policies that must be present within the programmatic decisions, where the evaluation practices are required to:
– give greater emphasis to formative functions rather than summative ones;
– focus on knowledge, skills and attitudes;
– calibrate the work associated with the assessment requirements;
– describe forms, methods and assessment tools in a comprehensive way to give students the opportunity to understand what they will be called to answer
– define with temporal clarity the activities and tests to allow students to share the study load and adapt it to other commitments.

Detailed guidelines on the following policy issues are attached to this policy.

Competence	Performance Criteria	Level and grade			
		A	B	C	D
Identify the central tasks of teaching, responsibilities and functions					
Identify strategies to monitor and evaluate the effectiveness of the functions performed					
Develop appropriate feedback mechanisms					
Start the teaching self-assessment					
Use feedback from students, peers, colleagues to support the assessment					
Evaluation related to criteria					
Relative weights assigned to the different objectives of the programme					
Relative weights attributed to ongoing evaluations					
Relative weights attributed to final exam assessments					
Use of terms and ongoing evaluation					
Feedback on students' work					
Evaluation of group work					
Assessment tools					
Evaluation methods					
Student workload					
Procedures for approval and review of evaluation agreements					
Monitoring and moderation procedures					
Staff development processes					

In the alignment process the teacher encourages the student to adopt a deep approach to learning by employing appropriate assessment methods, which guide the acquisition process through meaningful and relevant evaluative tasks.

When we talk about increasing the quality of assessment in higher education, we must refer to a shared understanding of what it means and the changes that would be needed to achieve it.

It should be remembered that the evaluation of student work serves the following purposes:

– diagnostic;
– training (learning);
– summative (evaluation).

The first comes at the beginning of the module or at the beginning of the unit/topic that is part of the educational segment and is used to collect data on skills and content (prerequisites) that students already know, Diagnostic assessments are sets of written questions (multiple choice or short answer) that assess a student's current knowledge base or opinions on a topic/problem to be studied in the course. The goal is to get a snapshot of where students are at that moment, allowing the university lecturer to make valid didactic choices on how to teach new content and skills and which teaching approach to use.

The second helps structure, guide and improve student learning.

The third involves certifying student achievement and admitting students to subsequent learning opportunities.

The assessment identifies the need for sufficient and reliable evidence regarding learning and provides useful information for decision-making. It is important

– for learning, responsibility and improvement of paths and programs and is not a bureaucratic requirement but a valuable learning tool;
– because it is an opportunity to achieve greater effectiveness of teaching development and greater impact of learning.

It is necessary to develop an evaluation system that starts with the training of each teacher on the basic principles of quality in evaluation.

Below are a series of checklists that identify what defines quality through:

– early identification of learning problems;
– the intentional use of assessment from start to finish in the teaching-learning process;
– the identification of clear expectations from teachers regarding the process and meaning of the assessment.

This is the ability to:
- implement a wide range of assessment methods;
- give guidance to students on how they could improve;
- learn from students' mistakes;
- use assessment to identify misunderstandings and then modify the teaching to address them;
- involvestudents in the evaluation process through discussions on the most appropriate methods and tools and how these relate to the results of the teaching module;
- carry out a joint teacher-student planning with respect to evaluation questions and the negotiation of criteria for success or failure;
- propose self-assessment and peer evaluation activities;
- offer students a responsible choice between several possible assessment methods;
- increase the relationship between formative and summative assessment;
- use assessment tools, preferably in combination with others;
- use integrated assessment methods (oral, written, etc.);
- focus on the validity of assessment tools, as it is important to be aware of what you are measuring and whether the evidence used is reliable and consistent;
- reduce students' anxiety raised by assessments;
- Never use an assessment assignment that you are not ready to answer on your own, and use model answers against the questions asked (criterion) to help students understand what you want to achieve;
- Always evaluate the contribution of each student when evaluating a group work and what has been achieved.

8.7 Evaluating teaching practices to improve the learning experience

A cornerstone of quality teaching is to regularly evaluate students' learning experiences. Develop an assessment plan for the course: It is important to intentionally decide how and when to evaluate the teaching and documents. It is equally important to consider how the collected data will be analyzed, put into practice and transmitted to students. Data on learning experiences can be collected from a wide variety of sources, including student learning outcomes, peer review, student assessment feedback, and self-reflection. It is possible to evaluate students' teaching experiences: individual evaluation questionnaires of teachers and course evaluation questionnaires.

Individual teacher assessments contain key questions with additional questions chosen from a pre-established catalog, while course assessments are customized questionnaires that allow you to select questions from an extensive catalog of questions. Generally, teachers are encouraged to accumulate a portfolio of student assessments covering all their main teaching responsibilities over a period of three years. The assessment provides an opportunity to continually reflect on how the course is going and gather evidence in as many forms as possible.

9. Assessing the quality of teaching

9.1 The role of indicators and descriptors of teaching quality

This section presents a set of indicators to provide guidance on aspects of quality teaching at individual and programmatic level.

Indicators at individual level

Indicators at the individual level include:

- *Commitment to continuing education on the didactic level.*
- *Commitment to professional development,* participation in initiatives focused on teaching and learning topics, familiarization with the literature on teaching and learning, qualifications in teaching.
- *Participation in research groups on teaching quality* through conducting teaching research, publications, participation in the teaching development *of* others, including mentoring, providing workshops and seminars, and presenting at conferences.
- *Documentary and documentary teaching corpus* showing the design, planning and preparation that teachers carry out in favor of teaching teaching.
- *Appropriate instructional design* practices, demonstrated through attention to clear explanations, the use of a range of examples, concern for student involvement in learning, etc.
- *Appropriate assessment practices,* demonstrated through a focus on expected learning outcomes, valid tools and modalities, relevant assessment tasks, regular feedback etc.
- *Systematic teaching*
- *Course evaluation,* presence of evaluation data from student and course evaluations, individual reflection, etc.
- *Actions related to results, regular evaluation* of teaching and curricular practices,

use of classroom assessment techniques to monitor students' understanding of complex concepts, provision of feedback, etc.
– *Contribution to the teaching culture at individual, departmental and degree course level,* active participation in departmental committees, working groups on teaching, the performance of specific teaching functions (tutoring, orientation, etc.).

Indicators for departments

Indicators of a supportive departmental culture include:
– *A current* teaching and learning plan aligned with the *University's Teaching* and Learning *Action Plan and*
– including clarifications on graduate outcomes.
– *Clear policies and procedures* covering every aspect of teaching and course design, including explicit alignment between design, teaching methods, and assessment. Examples include a departmental assessment policy and course counselling that promotes appropriate learning pathways.
– *Departmental evaluation system* in which a regular, planned and systematic evaluation of programs is carried out. The processes are transparent, individuals and groups actively participate and the atmosphere is encouraging, supportive, forward-looking and developmental. Very important, actions are planned and implemented in response. Students are appropriately involved and are informed of the processes and outcomes.
– *Curriculum* and address committee that oversees curriculum development and teaching quality. This may be composed of annual coordinators, who oversee course offerings for that level and who ensure an appropriate mix of knowledge and skills, as well as a satisfactory timing of assessments throughout the semester period.
– *Proprogramme* of initiatives on teaching and learning processes *and* course design (teaching modules.
– *Explicit supervision,* forms of tutoring to new teaching staff and support for staff development and qualifications in teaching.
– *Links* between teaching and disciplinary research, explicit awareness of research-teaching links, articulation of the complementarity of *research* and teaching in policies and actions.
– *Public awards* for the quality of teaching and supervision.
– *Benchmarking* with other institutions in similar subject areas.
– *External evaluations* to ensure the quality of programs and standards.
– *Explicit support for educational innovation and research on quality* teaching, subscription to journals on subject teaching, educational publications, etc.

– *Presence of educational repositories* with access to educational update materials.

Points of attention

Institutions can also improve the quality of their students' learning by emphasizing the importance that students should give to their education. Finally, they should compare other higher education institutions to identify best practices for improving learning to drive change.

9.2 Evaluation guides and guides teaching and learning

Quality assessment of teaching is an essential element of all quality improvement initiatives. For it to be truly effective, the level of teaching must continue to be assessed regularly because its main objective is the continuous improvement of the level of teaching and the removal of obstacles to learning (Hau, 1996).

The choice of methodologies, ways and styles of teaching influences the teaching and learning processes. What is measured and how you measure affects how you learn. Assessment not only informs students about their achievements, assessment itself is a prerequisite for quality learning. It is in this sense that it guides (Chalmers, 2007) and directs learning.

Student questionnaires

The use of questionnaires for students is one of the most controversial issues in relation to the quality of teaching. Those who advocate the use of such questionnaires emphasize that the method is relevant because it collects the opinion of students, that is, those who have the greatest exposure to the teaching of the professor and therefore the most accurate idea of his level. Students are also those individuals who are most directly interested and influenced by the level of teaching of their professors, sincetheir future careers are at stake.

Kwan's (1999) survey indicates that student questionnaires provide a relatively accurate report of teaching quality, and 70% of the variance observed in student questionnaires is directly related to teaching quality, the remaining 30% is influenced by factors such as class size, subject and course material. McKeachie and Kaplan (1996) highlighted another advantage of using student questionnaires: student assessments of teaching can encourage students to reflect on their educational experiences, to develop a clearer conception of teaching which in turn will contribute to their learning.

9.3 Evaluation as a tool for change

Erstad (1998) points out that student questionnaires measure teaching outcomes and not process, and peer evaluation in the classroom measures the process rather than outcome. The use of assessment may be preferred to that of mysterious students, because many professors consider mysterious students to be threatening. A common conception is that their use is linked to disciplinary action (Telford & Masson, 2005).

One of the most used tools today to assess the quality of teaching and identify the quality of teaching are undoubtedly peer evaluations in the classroom. The literature on quality teaching recognizes several advantages over peer reviews. Pagani (2002) describes peer review as a tool for change, enabling individuals to improve their performance, ensuring standards are adhered to, and helping to identify best practices.

9.4 Principles underlying evaluation

At the base of all this there are some important principles, namely:

1. Autonomy
2. Accountability
3. Awareness

The concepts of autonomy and accountability are closely linked.

Autonomy

Autonomy provides that teachers are free to choose how to implement their practices rigorously, maintaining and developing some key elements of their skills

The autonomy of the university lecturer refers to the freedom of teaching and the educational process, also playing a critical role in the process of social change. Teacher autonomy refers to the ability to develop and self-develop skills, knowledge, and attitudes appropriate to oneself as teachers by cooperating with others (Smith, 2000). Benson (2000) argues that teacher autonomy can be understood as a right to freedom from control (or the ability to exercise such a right) as well as effective freedom from control and his will, ability and freedom to take control of teaching learning processes are known as teacher autonomy. This is also due to the fact that «the ability of learners to exercise their rights depends upon the extent to which teachers are prepared to exercise their own right to autonomy» (Benson, 2000, p. 2017).

Faculty autonomy is also known as academic freedom. Autonomy is also described as the ability to take charge, take responsibility, or control one's own learning and teaching. It involves skills and attitudes that people possess and can develop at various levels. The ability to self-evaluate to bring benefits to students, the ability to develop certain skills for oneself as a teacher, the tendency to criticize oneself, personal development, self-observation, self-awareness one's teaching, continuous reflection, sustainable development, taking responsibility self-control for its students, being open to change through cooperation with others, questioning oneself in a particular position, improving oneself to keep up with change, etc. are all attempts to improve what is missing professionally or partially present.

Teacher autonomy (Mac Grath, 2000; Smith, 2001)					
Dimensions	**Performance Criteria**	**Level and grade**			
		A	**B**	**C**	**D**
Autonomy of the teacher	Self-directed action or development				
	Freedom from the control of others				
Self-directed vocational action(teaching)	Self-directed vocational action (self-directed teaching)				
	Capacity for self-directed professional action				
	Freedom from control over professional action				
Professionaldevelopment	Self-paced professional development				
	Self-managed professional development skills				

University lecturers should have the freedom to innovate, to create appropriate communication approaches and activities relevant to the needs and abilities of students and the academic community.

The autonomy, independence and professional responsibility of university lecturers are closely linked. However, there would also seem to be a further relationship between these and other related concepts, such as academic freedom and the role of the university, both internally and in relation to the outside world, Academic freedom, on the other hand, is inextricably linked to autonomy, for the fundamental criterion that academic freedom cannot exist without autonomy. From the point of view of the concept of development, it would seem that when a country reaches a higher level of development, the interest in university autonomy decreases and that for its accountability increases.

Degree of autonomy of teaching	Responsibility area	Level and grade			
High degree of autonomy = A Very low degree of autonomy = B		A	B	C	D
Interact with the student(s) in the classroom					
Ensure a learning environment that addresses the diverse needs ofstudents					
Guide to personal and professional improvement, so that an independent teacher can identify educational opportunities tocontinue improving					
Feel personal responsibility					
Attending seminars on teaching quality to advance new ideas for theclassroom refers to the ability to attitude towards oneself as a teacher, in cooperation with others					
Respond to students' needs and interestsmotivate students					
Individualize					
Have the freedom to innovate, to devise appropriate methods of communication and activities relevant to the needs and ability tocare for the academic community					

Accountability

The professional responsibility of the teacher with respect to teaching refers to professional integrity and to being professionally responsible for teaching; This also means representing the values of the teaching profession, in terms of attention paid to the recipients of the training action, namely the students. However, the responsibility is also *social*, that is, addressed to the community concerned. With many stakeholders involved (students, faculty, administrative, etc.). in higher education produces evidence that it has fulfilled, to some extent, its various obligations: accountability «is a systematic method to assure those inside and outside the higher education system that colleges and universities - and students – are moving desired goals» (Leveille, 2005, p. 10). A single individual may simultaneously have several and different relationships of responsibility with one or more other individuals (Lerner & Tetlock, 1999; Sinclair, 1995). In a training institution there is a complex system of different but parallel relationships of responsibility, which can be oriented both outwards and inwards (Romzek, 2000; Sinclair, 1995). Since accountability is a social relationship, it often refers to formal or-

ganizational structures and decision-making processes, and accountability is directed both up and down in a structure, suggesting that, in the forum, a single office holder is simultaneously responsible for various hierarchical levels (Romzek, 2000). It is conceptualised as an emerging phenomenon in relation to perceived changes in stakeholder engagement, triggered, in turn, by increased attention and pressure from labour market orientations.

It could be envisaged to favorably encourage professional responsibility, empowerment and empowerment rather

than compliance in teaching. Accountability and collaboration foster, at departmental and interdepartmental levels, communities of teaching practice (Blackwell & Blackmore, 2003; Wenger, McDermott, & Snyder, 2002) to encourage action courses and to change teaching practices based on students' learning tests.

Awareness

Awareness is considered one of the most important educational processes and means to develop a healthy university education system, especially in times of emergency. It is essential that teachers develop awareness of their actions and the activities they propose to students, in the form of behaviors, ways of doing and reasoning. Starting from their beliefs and experiences, it is appropriate that a teacher is able to acquire this awareness:

– observing himself;
– cooperating with colleagues, students and administrators;
– opening up to criticism;
– issuing appropriate feedback to students;
– developing its autonomy;
– observing each other with colleagues to issue peer feedback;
– planning and planning lessons accurately;
– evaluating appropriately;
– analyzing the strengths and weaknesses of their teaching.

10. Building strategic guidelines for quality teaching-learning processes in higher education: the role of TPLTF

Recent trends in higher education have increased attention to the quality of teaching offered to students. First, the broadening of the social base of higher education has led to changes in the conception of the role played by universities, calling into question the nature of the relationship between teaching and research, which

continues to be considered the main function of universities (Coaldrake & Stedman, 1999). This has led to the redefinition of the teaching function of the university professor, traditionally neglected, leading scholars to think that it was necessary to pursue a more integrated professional identity, through the reconciliation of the relationship between teaching, learning and research (Bauer & Henkel, 1997).

The transformation of the student body has progressively changed expectations regarding teaching, at least in most European countries, where growing social diversity has made it possible for students to access university by increasingly broad categories of students traditionally excluded from higher education.

This has led to the need for new approaches, new teaching methods and new teaching strategies to be able to meet the needs of all students, also with respect to the methods of teaching (presence, distance, etc.).

The entry into education of adult populations, who have not attained higher education or for whom the knowledge and skills acquired at school are no longer sufficient to pursue a professional career, has strengthened the role of lifelong learning in European university contexts, broadening the functions and role of training in higher education systems, as well underlined by the EU and the Lisbon Process 2010 (Marginson, & Van der Wende, 2007).

These changes have encouraged debate and reflection, which was the driving force and launch of the QUALITI project, which focused on the need for pedagogical and didactic skills of the university professor, repositioning his profile in relation to the main factors that contribute to the growth of training and its alignment with the labor market. The evolution of this profile constitutes one of the most predictable transformations in the future of higher education and caused by globalisation, which is transformative in all institutional policies and habits. This may mean that institutions may find themselves reflecting on what should be taught or how it should be taught in the near future.

The very nature of quality education changes over time, requiring European HEIs to be more responsible for training outcomes (OECD, 2006). The Bologna Process is currently accompanying these major changes.

All this requires flexible teachers who can be adapted to new global political, social and cultural demands. The design of the TPLTF profile goes in this direction, which relies on quality teaching and a solid culture of teaching quality, which are the distinctive features of the identity of every university institution, in constant change.

The culture of teaching quality
- it is a distinctive feature of the identity of each university institution;
- is linked to a set of shared values, principles, beliefs, expectations and commitment to the quality of teaching;
- it is linked to institutional, structural and managerial elements and to well-defined and shared processes that coordinate the efforts of HEIs in the direction of improving the quality of teaching;
- it is not built independently of the contexts in which it is produced and outside the quality assurance policies of the IIS;
- it must be seen as a tool capable of responding to the challenges linked to innovation in higher education systems;
- it is not built, in a systemic perspective, outside the culture of research quality;
- It is aimed at creating environments in which the pedagogical and didactic training of teachers leads to support a design capable of creating quality training courses that equip students with high level skills and that are well prepared culturally and professionally.

The culture of teaching quality is based on a strong teaching profile that has been identified by the Qualiti Project in the TPLTF.

- *Who is the teacher with the TPLTF?*
- *How does the teacher with the TPLTF ensure that quality teaching is effective?*

The quality teaching pursued by the teacher focused on the teaching-learning processes and on the characteristics of the student

1. It is placed at the heart of the culture of quality and is part of its mission.
2. cannot be disconnected from the debate on quality or quality culture in higher education, affected by different conceptions of quality, even if research shows that it depends on the pedagogical and methodological- didactic skills of the teacher and on what he teaches and other contextual factors;
3. is focused on the student and on the possibility of creating favorable learning environments and conditions for him, responding to his personal needs and increasing his interest and satisfaction with the discipline: it enhances learning through the enhancement of teaching;
4. contemplates the implementation of educational initiatives, at institutional, departmental and individual level, aimed at implementing quality teaching to improve student learning;

5. integrates the contribution and perspective of the quality of stakeholder teaching into the didactic action system (Nuzzaci, 2018);
6. integrates perspectives on teaching quality (Tam, 2001; Telford & Masson, 2005) of all "stakeholders", i.e. internal stakeholders (students, teaching and non-teaching staff, etc.) and external stakeholders (social partners and communities in general), bearers of different views of education, within the teaching culture.

Within this framework the main traits of the teacher who has a profile in line with the TPLTF:

1. adopt a learning-centred approach;
2. helps the student to be aware and responsible for his own learning, in terms of knowledge of the objectives, tasks to be carried out, participation, relationship with other students, request for help from the teacher if necessary, etc.;
3. considers teaching quality to be a process of continuous improvement, resulting from the ability to correct and eliminate defects and which can be enhanced by HEIs in a complementary form;
4. believes that diversity can improve the quality of learning, as the way in which the institution addresses the different characteristics of student target groups has an indirect but significant impact on the quality of teaching and learning;
5. questions its teaching practices and interaction with students from different cultural backgrounds, because it is aware that such reflection can have a positive influence on the quality of students' learning, in terms of challenging prejudices, stereotypes, misconceptions, etc.
6. believes in quality teaching;
7. is able to choose and use indicators and descriptors to measure the quality of teaching, as it is aware of the impact that teaching has on learning;
8. is a leader in teaching quality because it is called upon to implement quality teaching initiatives and to support the improvement of teaching quality according to experience;
9. is also supportive on the socio-affective level and not only cognitively;
10. is flexible, adaptable, forward-looking and transformative in terms of educational perspectives;
11. focuses on their own teaching practice and on students' learning in the context of their discipline;
12. has the courage to propose innovative educational ideas;

13. has clear objectives, adequate preparation, uses appropriate strategies, achieves significant results, communicates and relates effectively with colleagues, students, administrators and external stakeholders;
14. is a critical-reflective professional, who reflects on his teaching before, during and after and uses, in this sense, appropriate tools.
15. has passion for his discipline and teaches it with pleasure;
16. takes into account various and changing types of learning;
17. designs, evaluates and does teamwork;
18. promotes the involvement of students in the planning and organization of teaching to create learning communities aimed at improving the quality of learning;
19. promotes group study in students;
20. knows what to teach and how to make teaching transparent, in order to make learning or possible;
21. knows what to teach, how to do it and how to improve.
22. focuses on teaching-learning processes and not only on results;
23. varies education by adapting it to the characteristics of students, their experience and their knowledge prerequisites, acting as "facilitators and orientations of learning";
24. encourages students to study, even in groups, to improve learning outcomes;
25. invites students to confront and see problems from multiple points of view, thus gaining a deeper understanding of the topics covered;
26. is distinguished from the good teacher, because he is open to criticism and evaluation, to didactic investigation, to the review of one's own behaviors and attitudes and to critical reflection;
27. is committed to continuous improvement and evaluation of the quality of its teaching, because it is aware that quality teaching and centered on the characteristics of students requires strong methodological skills and an ability to focus on teaching-learning processes;
28. urges students to take an 'approach to deep learning';
29. studies and reflects on the links between students' entry characteristics and outcomes, between them and effective teaching behaviours;
30. studies the teaching situation, identifies the central problems, acts on problems and monitors the progress of the corrections used;
31. takes into account students' expectations and perceptions;
32. apply themes, content, knowledge and skills to real-world problems;
33. uses student evaluation questionnaires on teaching to receive appropriate feedback and improve teaching action;

34. evaluates and takes stock of the learning outcomes of the teaching training initiatives to which it is exposed.

The TPLTF enables the construction of quality teaching underpinned by an institutional culture of quality The role of TPLTF can be important to allow the culture of teaching quality to flourish and succeed within degree programmes, faculties, departments, making visible the teaching commitment of teachers in favor of the entire academic community and all stakeholders, interior and exterior. In fact, it stimulates the creation of communities that work in favor of quality teaching-learning processes, the involvement of all actors in decision-making processes concerning teaching action and the implementation of quality policies at different levels (institutional, programmatic and individual).

The TPLTF can be easily integrated into the strategic mission of the university organization on the quality of teaching and lends itself to being easily disseminated among all actors, increasing communication on the quality of teaching from top to bottom or from bottom to top (vertical communication) and between different organizational units dealing with teaching quality (horizontal communication) and with the external environment (transversal communication).

The TPLTF, due to its characteristics, is the bearer of a culture of teaching quality that becomes a strategic direction for those institutions, departments, teachers, students, administrators and stakeholders who intend to continue on the path of improving a culture of quality aimed at improving the quality of teaching. In this context, the TPLTF, easily exportable to different contexts, can be easily integrated into the quality policies and processes of each university with the main objective of helping HEIs to support teachers in carrying out their teaching functions and universities in their strategic functions.

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It should be noted that all documentation related to the bibliographic repertoire can be found in one of the three volumes (further research products), which accompany the three Intellectual Outputs of the project.