LTSHE

Learning and teaching space in higher education

Co-funded by the Erasmus+ Programme of the European Union

KEY ACTION
Cooperation for innovation and the exchange of good practices

ACTION TYPE
Strategic Partnerships for higher education

WEB INFORMATION
https://www.evalag.de/ltshe
INTELLECTUAL OUTPUT 1

Exploration of Policy and Practice: Learning and Teaching Spaces in Spanish Higher Education

“National Report” by Universidad Pública de Navarra about policy and practice of designing L&T spaces in Spanish higher education including institutional levels

Pablo Campos Calvo Sotelo (CEU- San Pablo)  
Laura Luceño Casals (Universidad Politécnica de Madrid)  
Izaskun Andueza Imirizaldu (Universidad Pública de Navarra)  
Rubén Lasheras Ruiz (Universidad Pública de Navarra)

23rd February 2021

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
For further information please contact:

Dr. James Williams  
Project co-ordinator  
Social Research and Evaluation Unit  
Birmingham City University  
B15 Bartholomew Row  
Birmingham, United Kingdom  
B5 5 JU  
Tel: +441213315000 / +441213317602  
james.williams@bcu.ac.uk  
https://www.bcu.ac.uk/social-sciences/about-us/staff/criminology-and-sociology/james-williams
# Table of contents

**Introduction** .......................................................................................................................... 5

**I. First Part: THEORETICAL FUNDAMENTALS AND APPLICATIONS ........8**

1. Theoretical fundamentals ................................................................................................. 8  
   1.1. Theoretical fundamentals in the field of teaching/learning ........................................ 8  
   1.2. Theoretical fundamentals in urbanistic-architectural matter .................................... 12  

2. Applications of theoretical fundamentals in spaces of higher education .... 17  
   2.1. Dimension in the field of teaching/learning ............................................................... 17  
   2.2. Dimension in urbanistic-architectural matter ............................................................ 20  
   2.3. Dimension in regulatory and documentary matter ...................................................... 22  

**II. Second Part: COMPARATIVE STUDY OF CASES OF EXCELLENCE .....32**

1. City ........................................................................................................................................ 32  
2. Campus .................................................................................................................................. 37  
3. Building .................................................................................................................................. 41  
4. Classroom ............................................................................................................................... 45  

**Conclusions** ....................................................................................................................... 49
Introduction

The topic of Teaching and Learning spaces in Higher Education is an extremely relevant issue, subject to be researched, in order to define criteria of evolution towards excellence. Such a need is present nowadays in Spain, as well as in countries of the European Union and other continents.

The present Erasmus+ Project offers an outstanding opportunity to achieve the aforementioned excellence. Thus, along the development of it, some important contents have been elaborated.

The document, centered in the Spanish Higher Education scenario, is divided in 2 parts.

First Part.-Theoretical fundamentals and applications
Second Part-Comparative study of cases of excellence

FIRST PART.-Theoretical fundamentals and applications

To begin with, it must be remarked that the contribution of architecture to university innovation in Teaching and learning has been of great relevance through History.

Such relevance started in the period of the original Middle-Age, whose physical format was centered in the cloister as a typology inherited form the former monasteries. Later, the different university models adopted diverse urban&architectural patterns, all of them following an essential principle: design Learning and Teaching spaces that promote the educational and institutional values of each University. The British college chose the quadrangle as a spatial pattern. The French model chose a polycentric structure over the Latin Quartier of Paris. The German University founded by Humboldt adapted a pre-existing Palace and developed an urban development with its buildings. And the North American campus, where starting from the heritage of the British colleges, generated an innovative new format: the campus. This transcendental typology was spread all over the continent through centuries, as well as exported to numerous countries, up to date.

The present text covers some topics which have the potential to orient future actions and projects of Learning and Teaching spaces in Higher Education.

The starting point will be that such spaces must be coherent with some fundamentals that affect the educational event, as it must be understood as an emotional, collective, sustained and spatial fact.

The work hereby introduced also refers to the actors in the Learning and Teaching processes, as a necessary consideration. Those actors include people (students and faculty), as well as teaching tools, furniture and, overall, the physical component at the diverse scales.

After remarking the aforementioned 4 principles of human formation, it has to be underlined that universities are in charge of accomplishing the all-embracing education of the human being.

When envisioning new strategies to enrich Learning and Teaching spaces in universities, it is relevant to manage a classification of innovative modalities, which will be enunciated later.
The essential cores of the present Erasmus+ Project is directly associated to the urbanistic-architectural matter. But keeping always as a critical issue that universities must be extremely sensitive to the human scale. Thus, a difference must be stated: spaces versus places, as to remark that the human component is unavoidable when designing physical seats for Higher Education. As part of such consideration, a reflection about the role of ICT’s is included.

The main core of the document studies the applications of theoretical fundamentals in university spaces.

First. It analyzes the dimension in the field of pedagogy, reflecting about the type and role of actors which participate in the Learning and Teaching processes (“Active” or “Inducing” ones). All of them play a role in the organization of the physical Learning and Teaching spaces, and also in the human relations generated within them.

As the structure of the present research defines 4 different scales, a classification of the innovative Learning and Teaching modalities is proposed, according to the defined 4 scales.

Besides the consideration of the role expected from ICT’s, and the coordination with online teaching, some keys to educational-spatial innovation are expressed.

Second, the text is structured according to the different dimensions regarding the urbanistic-architectural matter of Learning and Teaching spaces of Higher Education.

1.-Context of the university space, including general architectural environment, heritage environment, and specific comments (in regard to the 4 scales)

2.-Formal typology in plan, analyzing the diverse regular or irregular geometries, and specific comments (4 scales)

3.-Limits, including general characteristics, study of the opening or closing to the environment, and Specific comments (4 scales)

4.-Urban or interior furniture and spatial elements, with specific comments (4 scales)

5.-University-city synergies and synergies with other spaces in the building, including general characteristics and study of physical and functional synergies, as well as specific comments (4 scales)

Third.-Finally, the document analyzes the dimension in regulatory and documentary matter, referred specifically to the case of Spain. General contents; Sustainability; Social inclusion; Accessibility; Protection of Heritage–Catalog; Aesthetic-composition criteria; Formation; Norms derived from COVID-19. Due to the variety of documents, regulations and norms, the following global classification will be implemented:

- FIRST SECTION: Documents referred to Higher Education facilities
- SECOND SECTION: Complementary international documents
- THIRD SECTION: Documents referred to general building considerations in Spain
- FOURTH SECTION: General Bibliography
SECOND PART-Comparative study of cases of excellence

A series of examples are analyzed, according to the 4 scales already established. Each scale is illustrated with 2 cases. In order to develop a sound comparison, all of them are studied and classified according to the following index of characteristics.

a.-Basic data

b.-Justification of the election of the case

c.-Dimension analysis

c.1.-Dimension in the field of Learning and Teaching. This epigraph includes the following contents: Actors in the educational processes; Induced human relations; Main pedagogical modalities hosted; Role of ICTs.

c.2.-Dimension in urbanistic-architectural matter. This epigraph includes the following contents: Context of the university space; Formal typology in plan; Limits; Urban furniture and spatial elements; University-city synergies.

d.-Keys to educational-space innovation. This epigraph includes the following contents: Pedagogical dimension; Added value provided by the urban-architectural environment.

e.-Complementary observations

Proceeding with such a methodology, it is affordable to achieve a general classification of characteristics of each case, and a consequent easy comparison between them.
I. First Part: THEORETICAL FUNDAMENTALS AND APPLICATIONS

1. Theoretical fundamentals

1.1. Theoretical fundamentals in the field of teaching/learning

This first section of the document reviews some relevant themes related to one of the essential cores of the present project: the field of Teaching/Learning.

Basic principles of the human formation

Human formation can be regarded as an emotional, collective, sustained and, ultimately, spatial event. Firstly, it has a sound affective component. Any professors committed with his vocation should set up a positively emotional connection with their students, regardless the always-needed academic rigor (Dweck, 1986). As to individuality versus collectivity, it must be borne in mind that the amount of knowledge that a group is capable of acquiring and generating outstrips each individual’s private store.

Coexistence stimulates growth, and carries educational value in its own right. Human relation can be assumed as both the cause and outcome of human contact: it stimulates growth, and carries educational values (Castrejón, 1982). This quality is somehow connected to Architecture: “I use the term architecture in a positive and pragmatic sense, as a creation inseparable from civilized life and the society in which it is manifested. By nature it is collective.” (Rossi, 1980). When learning in groups, students actually benefit from an added enrichment: “From participation in activities, individuals are able to extend their intellectual capacity as well as provide knowledge to others” (Lippman, 2010, p.21). Recent studies suggest that stable social context might reduce attrition rates, and help students achieve academic and social aims (Wisely & Jorgensen, 2000). Taking sustainability as a quality to be evolved over time, human formation education should be viewed as a comprehensive process guiding a person’s development from childhood to old age; in this sense, "Lifelong learning" is a valuable concept.

That education should be an affective, collective and sustained event determines the need of space, as a global container, which host such personal contact. Thus, human formation is as well a spatial event. Focusing, then, on such "spatial" quality, it should be noted that Architecture is called upon to play a vital role, because human activity is shaped partly by the built spaces in which it takes place: “Buildings mould human behavior” (Arnheim, 1977, p.210). Back to the affective component of human formation, it can have a spatial meaning. Embodiment of a built metaphor of the University’s emotional embracement by means of an ordering of the precinct deliberately concerned with its impact on and empathy with the community. The plan, volume, form and texture of the various architectural constituents of a campus must be directed toward fostering the psychological wellbeing of those inhabiting the centre of knowledge.
Actors in the Teaching/Learning processes

Education is developed with the concurrence of different kind of participants, so called “actors”. The first ones are the members of the university community, basically teachers and students. Well, their corporeality implies that, when deploying their functions, they are structured in space (and in time), within the architectural spheres that correspond to each situation (conventionally, the classroom). However, the participants do not end there. To these people who take part in the training, there are other elements involved in the Teaching/Learning activities, and they can be classified according to two main classes, active and inductive.

The “active” actors, worth the redundancy, are those who carry out an academic task directly, through a formal, non-formal or informal procedure. This group would include, in addition to teachers and students, the citizens of the city where the university campus is located, the architectural pieces and valuable urban areas, the works of plastic arts (usually sculptures, paintings and murals), and Nature, understood as a factor in the construction of culture.

The “inducing” actors (elements) would be those capable of indirectly stimulating the referred Teaching/Learning activities. This category includes elements such as furniture, vending machines, unique architectural spaces (especially those initially residual or “inert” that can see this condition mutated), and Nature, in this case accepted without it being its formative-cultural component is necessary.

Besides the precedent classification, it must be remarked that, amongst the variety of actors, students must be taken as the true center of gravity (a principle underlined by the European Higher Education Area)-EHEA (Pinto, & Sales, 2008). A holistic review of the educational evolution would demonstrate that learning is bigger than teaching. That conviction remarks the student-centered learning (SCL). Such innovative paradigm shift implies demands modification of old-fashioned behaviors (Oser, & Baeriswyl, 2001). If students are located at the center of gravity of education, that implies progress, leaving behind an individual conception of knowledge and replacing it with more creative modalities.

University and human relations

After remarking the 4 basic principles of human formation, now it is recommendable to underline that he ultimate mission of Higher Education institutions is the all-embracing education of the human being. “Mission' means the essential and at least relatively permanent function of the institution; its ultimate purpose and raison d'être" (Pulido, 2009, p.47). Universities are devoted to the ethical and professional development of the individual; thus, they must delineate each and every one of its features on the basis of its values. The Greek philosopher Plato viewed education as a means to make of the student of today the citizen of tomorrow, and this vision retains its full vigor nowadays: “Martha Nussbaum points out that the aspiration that the strongest goal of a university is the production of better citizens is an uninterrupted thread throughout the entire history of Higher Education” (Harpur, 2006, p.139).

All over the world universities are in the midst of change, and a there is a clearly perceptible need to forge a new commitment to the community. The so-called "Third Mission" becomes transcendental. The design of university areas must try to balance the quantitative dimension (number of people) and the quality of the space where they meet.
It is nothing other than the revival of the historical awareness of the role of educational institutions in their social and urban contexts, but can acquire today specific added values, such as sustainability (Trenche, Yarime, McCormick, Doll, & Kraines, 2014). Modern universities embody the stage on which the shaping of the human being is enacted, and in this process close ties must be nurtured with the social and urban context. To keep the two apart would be self-contradictory. Individuals enhance their social integration to the extent that they are personally capable of optimizing their complement of values. Educate to live in the community; live in the community to teach and learn. If they interact, people can understand themselves better, reinforcing their personal and social identity (Tharp, & Gllimore, 1997).

As human formation is a spatial event, interaction takes place in a physical setting. Consequently, Architecture becomes a critical component, as it frames and induces the necessary contact that underpins the exhaustive construction of social relations. All spaces designed to host academic activities must be composed under the consciousness that their quality is directly linked to the one of Teaching/Learning processes. Expressing it with other words: good Architecture fosters good universities.

Innovative modalities of Teaching/Learning

Once it is assumed that learning must be centered in students (SCL), and according to recent research projects, it is feasible to define a list of innovative pedagogical patterns whose implementation in university spaces can enriching. One of the essences of the universities through History is the educational practice, which has been undertaken in a multiple typologies. Across the different periods, the rise of diverse understandings of how the transmission of knowledge should be has left a broad legacy of options, which can be recruited nonetheless to the demands of the present. Consequently, it is worthy to generate a simple but rich enough classification of the teaching and learning modalities now available to all universities, for the performance of they key mission (Campos, 2011):

1.-Traditional Master Lesson; 2.-Interactive master class; 3.-Master class in panel; 4.-Polarized (Seminar-Global Tutoring); 5.-General idea sharing; 6.-Idea sharing by nuclei (seminar-partial tutoring); 7.-Polarized cores; 8.-Interactive session on multiple panels; 9.-Reflection in common-“Soft-seat”; 10.-Workstations; 11.-Scenographic simulation of real activity; 12.-Individual study; 13.-Individual tutoring; 14.-Distance education; 15.-Student presentations; 16.-Staging and learning supported by other Arts; 17.-On-site experience (guided visits); 18.-Individual contemplative learning; 19.-Mobile learning; 20.-Social learning; 21.-Professionalizing actions-work practices; 22.-Community services; 23.-Project-based learning; 24.-Inverted class-“Flipped classroom”; 25.-Remote workshop; 26.-Inclusive collaborative learning

The roles of ICT’s

The humanistic dimension of learning ought to be viewed primarily from the perspective of face-to-face, physical interaction. That education should be an emotional, collective, sustained and spatial carries beneficial consequences. The direct relationships forged among the members of a community go beyond merely contextual circumstances. Proximity among the actors involved in the learning process is by no means a neutral incident of the shaping of an individual: it becomes a decisive factor in the growth of his or her knowledge and values. For these reasons,
as against the risks intrinsic to the so-called "virtual campus", the education of the whole human being is a spatial act.

Once this principle has been properly remarked, it is coherent with the implementation of the “Information and Communications Technology-ICT’s”), which acting always as complementary actors in the Teaching/Learning processes, they can facilitate some activities: activation of spaces (using wi-fi and internet accessibility, providing added contents through mobile devices, facilitating educational activities online, as during the COVID-19 confinement, or helping communication, in general). But there is a risk if an abuse of the “virtual campus” occurs: “Then came the development of audiovisual techniques and an explosion of communication systems that caused a crisis in the true concept of the University, and its validity as a defined place equipped for Education” (Coppola, & Mandolesi, 1997, p.5).

Such crisis becomes a true threat to the comprehensive excellence of university mission, especially detrimental to the human component. Online education can never truly replace personal interaction. Nevertheless, it is fair to recognize the advances that ICT’s have brought to learning, and it is positive that they continue contributing, since it would be unthinkable to suppress them from the social dynamics.

**Keys to educational-spatial innovation**

Higher Education must carry out the superior mission of providing an integral formation for the human being, building up a future committed citizen, professionally prepared to develop his social activity. This is the reason why a special emphasis on the proper arrangement of the physical spaces in which this sublime enterprise has to take place should be made. When analyzing Learning/Teaching processes and spaces, it becomes critical to understand that there is in fact a solid connection between innovation in education and Innovation in Architecture. The starting point to activate positive keys in the duality Education-Architecture is planning. In the last decades, several studies have been published in this matter: besides the classical ones (De Carlo, 1968), (Birks, 1972), (Rebecchini, 1981), some recent ones (Den Heijer, 2011), (Kramer, 2010), (Hertzberger, 2008), together with well-known Publications by the North American architect Richard Dober (Dober, 1996), or the works of Boys and Fraser, which connect the architectural, educational and planning dimensions (Boys, 2011), (Fraser, 2014), (Oblinger, & Lippincott, 2006).

Educational-spatial innovation becomes of special relevance in creative careers. Place is a critical concept regarding teaching innovation, becoming specifically evident in dynamics of pedagogical *Avant-garde* in some disciplines which foster creativity. Those reach high levels in the pedagogies used for the training of future professionals in areas of applied creativity, as in the case of fusions between Architecture, Fashion and Art (Luceño, 2018). The added benefits of such a fusion can be extrapolated to different areas of Knowledge, in order to foster university innovation.
1.2. Theoretical fundamentals in urbanistic-architectural matter

This second section of the document reviews some relevant themes related to one of the essential cores of the present project: the urbanistic-architectural matter.

Basic principles in university seats: spaces versus places

Universities build their physical settings as necessary containers to host all the Teaching/Learning activities carried out inside them: "The transmission of knowledge and memory have their first space in the brain, but, over time, have also demanded an actual place for Knowledge" (Navascués, 1993, p.13). But such a constructive activity must be planned and performed keeping in mind that when dealing with the Architecture of human formation, it is unavoidable to distinguish mere "spaces" from "places" (Yuan, 1997). “Space” only circumscribes to the quantitative configuration. “Place” goes beyond, as it adds a transcendental human component: it involves the locations used by people, generating a sort of identity, emerging as a consequence a domain of human use (Doorley, & Witthoft, 2012).

When planning, universities must bear in mind how important it is to create real “places” for the academic community, as those possess the power of awakening emotions: “Architectural quality for me can only come about because I am moved by a building” (Zumthor, 2006, p.10).

Higher Education must be internalized as a type of human interaction, which has to be necessarily induced within Architecture. The assembly of Architecture and human contact is the best way to transform inert “spaces” into active “places”, where faculty and students can crystallize their “sense of belonging” to their institution. Recent studies point out that IQ accounts in a reduced portion of career success: just 4% - 10% (Pink, 2005). Consequently, a question arises: what factors account for successful student learning? The possible answers to that include factors such as curiosity, feeling of wellness, visual, psychological and environmental comforts, positive perception of shape, etc. All have then to be born in mind before starting the formal design of university “spaces”, in order to transform them into “places”. Under such a principle, the urbanistic-architectural dimension is not just in charge of hosting academic activities, but inducing innovation, fostering social interaction, promoting identity (Romañá, 2004). But it can also assume a transcendental role: transmitting values (aesthetics, proportion, sensorial quality, etc.): “The curriculum embedded in any building instructs as fully and powerfully as any course taught in it.” (Orr, 2002).

Transversal innovation: the four scales of modernization in University spaces

The contents of the present report are divided in 4 basic scales: city, campus, building and classroom. They refer to the different physical dimensions that universities normally use in their academic activities.
A) City

*General definition.* This scale affects the physical relation between the university precincts and the correspondent urban environment (other buildings and Heritage pieces, open areas, infrastructures, streets and squares, amongst other elements). This relation is particularly critical within Spanish and the European scenario, as History shows the long tradition of connection between both entities, together with the fact that the EHEA fosters the University Third Mission.

*Features.* Cities are the most common context where university precincts are located (Bender, 1988). This circumstance constitutes the sign of identity of the European tradition, since the creation of the first institutions of Higher Education in the Middle Age. Although after World War II a process of displacement of new campuses to the periphery of urban areas occurred, it is unquestionable that still nowadays the cores of cities play a relevant role as centers of gravity of universities: “The already unanimous and generalized rejection of a university isolated from its context” (Rebecchini, 1981, p.5). The city, in turn, identifies with its university (Frijhoff, 1986). This circumstance offers outstanding opportunities for the activation of synergies between university and city, in several planes: educational, social, cultural, economical and urbanistic-architectural. In fact, cities become nowadays a transcendental source for Teaching/Learning.

B) Campus

*General definition.* This scale relates to the university precinct, as a complex with enough dimension and differentiation in relation to the context (urban or natural). A campus consists in a global unified complex, composed by built volumes and open spaces (where Nature and Art have to play a key role). Both complementary inert areas and corners can be activated as new learning “places”, where education could be hosted.

*Features.* As a heritage of the American tradition, a campus embodies the most common university seat in the international scenario. Amongst the numerous definitions it has had through History, one of the simplest was the stated in 1925 by the German urban planner Werner Hegemann: “A piece of land that is covered with the buildings of an American university” (Hegemann, 1925, p.87). Overall, it must be remarked that the term “campus” refers originally just to the American model, although nowadays it is broadly used to name any university complex. But such a specific word should always be related to the authentic profile it acquired from the XVII on as an urbanistic reality with hosts all the functions necessary to develop a community of learning and life (Coppola, & Mandolesi, 1997), (Turner, 1984), (French, & Kennedy, 2015). A contemporary definition of a campus could be the one stated by professor Pié: “The campus could be the physical place where the university activity is carried out, but also a relationship space that generates knowledge and specificity” (Pié, 2004, p.17).
C) Building

General definition.-This scale corresponds to the architectural piece, as an independent unit. Inside its membranes, the areas dedicated to host educational activities must be conceived under the principle of becoming active sites for alternative Teaching/Learning modalities. Pieces of Architecture can activate plenty of innovative “places”; amongst other strategies, they can host works of Art or cultural elements that enrich the capacity of the building to increase Knowledge.

Features.-If there is a spatial object, which embodies with more intensity the outcomes of a sound design process that likely would be the building. Regardless its physical dimensions, an architectural piece has the capacity of hosting a large series of spaces, addressed to foster the different academic university functions: teaching, learning, social meeting, services, restoration, research, etc. Due to its neat corporeity, an architectural piece has the capacity of projecting visually most of the values of the institution. Such an “educational” dimension has induced some authors to brand buildings conceived under the principle of excellence as "three-dimensional textbooks" (Kong, Yaacob, & Ariffin, 2015).

D) Classroom

General definition.-This scale refers to the minimum pedagogical cell, which is normally located inside university buildings. Besides the typical magister lecture room, there are many other different types of “educational cells” that can be designed and implemented, in order to enrich the variety of the academic activities. It is needed to reflect upon the spatial configuration of alternative classrooms, and the way that furniture inside them can be arranged. The consequence will be the emergence of multiple learning innovative “places”, in contrast with the traditional ones.

Features.-As the essential Teaching/Learning space, classrooms are subject to be designed under a committed intention of innovation (Byers Imms, & Hartnell-Young, 2018). As they are the areas where students and faculty spend most of their time while at campus, it becomes of high relevance to design them with special sensitiveness, because they will undoubtedly generate psychological impacts in the users. This line of research was very fruitful in the Sixties and Seventies of the last century, by authors with recognized careers (Canter, 1978), (Sommer, 1974), (Proshansky, 1976). When composing classrooms, attention must be paid to features such as: typology in plan, colour, texture, natural and artificial Light, openness or closeness, transparency (visual or phenomenological) and floor arrangement; as well as the participation of complementary elements, like furniture or technological devices.
University and context

Universities are located in specific areas. As a first consideration at this point, it must be mentioned that a good physical university body must be rooted in its place (geographical, cultural, social and urbanistic-architectural. The need for these links between the university and its proper context has been defended from various conceptual perspectives: "No institution, regardless of whether it is an educational establishment or a professional body, can be significantly considered if it is divorced from its context, in the political and organizational structure of its country" (Chaabane, & Mouss, 1998, p.84). Thus, the interference of foreign styles improperly understood should be avoided, in particular those whose origin, essence or formal display would not fit in with local cultures. The ideation or transformation of a university complex must be the outcome of a deep analysis of the circumstances of all kinds that converge in each scenario. This should not be understood at all as an obligatory submission to determinism, but it must be acted firmly to avoid frivolity as a guideline.

Typologies of university spaces: internal shapes and limits

Any university space has a formal definition. This affects essentially the composition typology in plan, as well as other tangible aspects, such as volume, light, colour, texture or others. Under a geometric approach, it is feasible to draw a simple classification of patterns in plan, regular or irregular.

- Regular geometrical patterns in plan: rectangle, square, circle, ellipse, triangle, “L-shape”, or simple combinations of some of them.
- Irregular geometrical patterns in plan: organic shapes, with curves or complex combinations of regular geometries.

Amongst the diverse elements that participate in the configuration of university spaces, there is one especially relevant: the limit. The first approach is to understand it as a traditional partition or wall (Carpenter, & McLuhan, 1974.). But taking it in a more conceptual manner, it can be opaque, translucent, or transparent (in a visual or phenomenological meaning), and it can be configured with the implementation of diverse types of openings (windows, doors, in their diverse formats). In relation to the issue of transparency, qualify that it can be visual and experiential, affecting the possibility of cross-sectional experimentation of various spaces with diverse psychological impacts (Rowe, & Slutzky, 1963). The dissolution of the limit (in time and space) of traditional university seats also involves creativity. Professor Csíkszentmihály stated about creative people that: “...when they are focused on what they do, there is great joy and self-confidence that comes from expanding the boundaries of a domain” (Csikszentmihály, 1995, p.12). Nowadays, it becomes progressively indubitable that innovation in Teaching/Learning affects implies a new approach to the concept of limit, advancing towards a dissolution that brings as a benefit the activation of alternative “places” and times: “Under the new learning paradigm, we are looking at a model where different students (of varying ages), learn different things from different people in different places in different ways and at different times” (Nair, & Fielding, 2005, p.19).
To all this reflection on the concept of limit, as an entity that conditions the opening of a university seat towards its context, some more philosophical vision can be incorporated: "The link between the external and the internal, including the limit, consisted of communication. Conversely, it could be said that communication was born through the limit" (Ito, 2006, p.20).

University spaces and complements

Learning/Teaching spaces in universities have physical bodies, which can adopt diverse typologies in terms of form, and can be modified if conceived under a recommendable strategy of flexibility (Wall, 2016). Education has its own pedagogical procedures and should have coherent shapes associated (Campos, & Luceño, 2018). Besides the essential built framework of an academic space, there are complementary elements, which join the nucleus of the architectural body. They play an active role in the diverse educational modalities. That would be the case of furniture (indoor or outdoor), technological devices (screens, projectors, computers, etc), together with more traditional ones, such as blackboards or bookstores (if they are located inside classrooms). In regard to innovative Teaching/Learning strategies, some elements can join the central university spaces as well. That would be the case of works of Art, natural components (plants, vegetation, trees, etc) or pieces of heritage that have a cultural value.

Synergies in university spaces

Any space addressed to host or foster educational activities must be understood as a physical entity that can transcend its strict physical limits. Following such a principle, and assuming the benefits of the dissolution of the limits of traditional locations, the academic activities can interact with ambits situated in certain proximity (inside or outside the building walls).

In the case of a campus, the synergies have an outstanding field of activation: the social and urban context provided by the adjacent city.

Synergies between university and city can be both physical and functional. The first ones relate to the direct connection between internal university areas and urban areas situated in the nearby environment (streets, squares, parks or general equipments). The functional synergies present a larger dimension. They could be classified into two typologies: affiliations and participations. In the former, the Higher Education institution only joins externally to the activities housed in these facilities, nonetheless promoting those same activities carried out in them (museums, civic and cultural centres, libraries, artistic events, attendance to theater plays, etc.); in the latter, the university inserts its own use in those facilities that belong to the municipal sphere (such as distant open spaces, parks, unique pieces of heritage, fairgrounds, sports facilities and, in general, any place where the educational institution can carry out its own academic activities). One of the elements with the greatest pedagogical potential is museums, which is why its links with the university have led to specific studies (Riquelme-Quiñonero et.al., 2019).
2. Applications of theoretical fundamentals in spaces of higher education

In this section, some topics shall be described, in order to apply them in the analysis of the case study, which will complete the document (II.-Second Part: Comparative study of cases of excellence). Those topics are conceptually linked to the theoretical fundamentals that have been introduced in the precedent section. They are organized in three main thematic blocks: Specific characteristics in the teaching/learning dimension; Specific characteristics in the urbanistic-architectural dimension; Dimension in regulatory and documentary matter.

2.1. Dimension in the field of teaching/learning

Actors in the Teaching/Learning processes

“Active” actors. The most important are the following:

- People: students, professors and citizens who participate eventually in academic activities.
- Elements: Architectural pieces, urban spaces, works of Art and Nature, understood as participants in the construction of culture.

“Inducing” actors. The most important are the following:

- Furniture, unique architectural spaces, Nature, vending machines or other elements which foster educational activities of the community.

Specific comments (4 scales)

- 1.-Scale: City. Actors can be provided by the social and urban environment.
- 2.-Scale: Campus. The variety of elements which compose a campus can enrich the amount of actors.
- 3.-Scale: Building. Internal elements can foster some academic and social indoor interactions.
- 4.-Scale: Classroom. Normally, they consist in pieces of furniture and technological equipments.

Induced human relations

Quantitative dimensions:

- Large (50 people or more), medium (10-50) or small (10 or less).

Profile of the space as a facilitator of personal exchange:

- Some architectural compositions foster human relations, due to their embracing shape, scale or other reasons (such as colour, light or texture).

Specific comments (4 scales)

- 1.-Scale: City. The urban context is useful as supplier of added spaces for personal exchange.
• 2.-Scale: Campus. Open spaces designed with sensitiveness create places for interaction.
• 3.-Scale: Building. Specific internal areas can foster personal exchange, if designed on purpose.
• 4.-Scale: Classroom. The intentioned use of corners can create special academic locations.

Main modalities of Teaching/Learning hosted

List of modalities of Teaching/Learning

1.-Traditional Master Lesson; 2.-Interactive master class; 3.-Master class in panel; 4.-Polarized (Seminar-Global Tutoring); 5.-General idea sharing; 6.-Idea sharing by nuclei (seminar-partial tutoring); 7.-Polarized cores; 8.-Interactive session on multiple panels; 9.-Reflection in common- “Soft-seat”; 10.-Workstations; 11.-Scenographic simulation of real activity; 12.-Individual study; 13.-Individual tutoring; 14.-Distance education; 15.-Student presentations; 16.-Staging and learning supported by other Arts; 17.-On-site experience (guided visits); 18.-Individual contemplative learning; 19.-Mobile learning; 20.-Social learning; 21.-Professionalizing actions-work practices; 22.-Community services; 23.-Project-based learning; 24.-Inverted class- “Flipped classroom”; 25.-Remote workshop; 26.-Inclusive collaborative learning

Specific comments (4 scales)

• 1.-Scale: City. More frequent modalities: 12, 14, 16, 17, 18, 19, 20, 21, 22, 25
• 2.-Scale: Campus. More frequent modalities: 11, 12, 13, 14, 15, 16, 18, 19, 20, 25, 26
• 3.-Scale: Building. More frequent modalities: 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 18, 19, 20, 23, 26
• 4.-Scale: Classroom. More frequent modalities: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 16, 23, 24, 26

Role of ICT’s

Coordination with online teaching

• Traditional Teaching/Learning modalities can be complemented with ICT’s.

Guidelines associated with COVID-19

• During the COVID-19 confinement, several distance learning methodologies were implemented, associated to the correspondent technologies

Specific comments (4 scales)

• 1.-Scale: City. It depends on the urban disposal of ICT’s.
• 2.-Scale: Campus. The university can activate wi-fi, networks and outdoor technological tools.
• 3.-Scale: Building. Same observation, although inside a building the implementation of ICT’s becomes more sophisticated.
• 4.-Scale: Classroom. Inside the small-scale learning cells, some specific instruments can be easily installed: projectors, digital screens, cameras, etc.
Keys to educational-spatial innovation

Pedagogical dimension

- The connection between pedagogy and space can enrich the global Teaching/Learning experience.

Added value provided by the urban-architectural environment.

- Some urbanistic-architectural environments have the capacity of increasing the holistic formation of students, due to their heritage values.

Specific comments (4 scales)

- 1.-Scale: City. The urban context embodies outstanding cultural resources to enrich pedagogy.
- 2.-Scale: Campus. If designed on purpose, a campus can generate outdoor places where the physical composition can enrich human formation.
- 3.-Scale: Building. Following that same consideration, internal areas can be an extraordinary allies for educational purposes.
- 4.-Scale: Classroom. The design of a classroom must be very sensitive, in order to take advantage of the fusion between Teaching/Learning strategies and spatial elements.

Complementary observations

Specific comments (4 scales)

- 1.-Scale: City. Some specific urban locations promote academic innovation, and treasure outstanding values to enrich human formation.
- 2.-Scale: Campus. University precincts are quite different from each other, so through planning, they must try to increase the global quality of the academic context.
- 3.-Scale: Building. Architectural excellence needs to be pursued, as an endorsement of global quality.
- 4.-Scale: Classroom. Innovation in classroom design has to play a critical role in the design of innovative spaces for Teaching/Learning.
2.2. Dimension in urbanistic-architectural matter

*Context of the university space*

*General architectural environment*

- Basic characteristics of the spatial context: urban areas, architectural pieces or other components.

*Heritage environment*

- Qualified open spaces, architectural pieces of historical interest, monuments together with other artistic elements of accredited cultural value.

*Specific comments (4 scales)*

- 1.-Scale: City. The university shares the general context of the urban fabric.
- 2.-Scale: Campus. It can be located in different areas of the urban fabric: central, periphery or with a multiple distribution of buildings.
- 3.-Scale: Building. It can have open spaces, or singular architectural or artistic pieces of historical and cultural interest, located inside the campus.
- 4.-Scale: Classroom. The context consists normally of spaces or artistic elements located in the nearby areas of the building.

*Formal typology in plan*

*Regular geometries*

- Patterns in plan: rectangle, square, circle, ellipse, triangle, “L-shape”, or simple combinations of some of them.

*Irregular geometries*

- Patterns in plan: organic shapes, with curves or complex combinations of regular geometries.

*Specific comments (4 scales)*

- 1.-Scale: City. The university spaces depend on the patterns already existing in the correspondent urban locations.
- 2.-Scale: Campus. Combination of composition models of buildings and those of the open spaces.
- 3.-Scale: Building. They can be simple or complex, via the assembly of different geometrical shapes.
- 4.-Scale: Classroom. Due to their average small scale, the geometries in plan tend to be basic.
Limits

General characteristics

- Artificial elements (walls, partitions, fences, infrastructures or other urbanistic-architectural elements), or natural elements (vegetation, soil, riverbanks, seashores, or others).

Opening or closing to the environment

- Limits can be completely open, showing no barrier for physical accessibility or partially closed (with openings, gates and doors, defined with different number and characteristics).

Specific comments (4 scales)

- 1.-Scale: City. The limits of the university seat are normally drawn over the urban elements, and their openness or closeness depends on their nature.
- 2.-Scale: Campus. The campus limits can be derived from the internal geometry of the complex, or adapted to the external shapes; in both cases, they can be open or partially close.
- 3.-Scale: Building. The membranes of the architectural pieces define its limits, being of relevance the ones in the ground floor (access); globally, buildings are open to adjacent areas of the campus.
- 4.-Scale: Classroom. The limits refer to the adjacent spaces of the building; their openness or closeness depend on the proper design of the classroom.

Urban or interior furniture and spatial elements

General characteristics

- Pieces of urban furniture: benches, tables, planters, pergolas, streetlights, fountains, etc.
- Pieces of interior furniture: chairs, sofas, tables, lamps, desks, blackboards, technological devices, bookstores, etc.
- Elements: works of Art, natural elements, or pieces of heritage of cultural value.

Specific comments (4 scales)

- 1.-Scale: City. Normally, those already belonging to the adjacent urban areas.
- 2.-Scale: Campus. Furniture, natural elements or works of Art must be able to support conditions of outdoor locations.
- 3.-Scale: Building. They can present a larger variety of pieces of furniture or added elements, as are located in indoor areas.
- 4.-Scale: Classroom. The furniture and elements depend on the specific Teaching/Learning activities hosted.
University-city synergies and synergies with other spaces in the building

General characteristics

- Physical synergies: derived from the physical proximity. Amongst others: indoor or outdoor building areas, open spaces, squares, parks, streets, gardens, etc.
- Functional synergies: derived from coordination of activities and equipments with the university or urban context. They basically depend on the university-city relationship.

Specific comments (4 scales)

- 1.-Scale: City. They can be affiliations or participations.
  - Affiliations: the university just joins already existing external elements or activities (museums, civic and cultural centres, libraries, theaters, artistic events, etc.).
  - Participations: the university inserts its own use (such as distant open spaces, parks, unique pieces of heritage, fairgrounds, sports facilities, etc.).
- 2.-Scale: Campus. Physical or functional synergies with other buildings or spaces within the complex.
- 3.-Scale: Building. Physical or functional synergies with spaces within the building.
- 4.-Scale: Classroom. Physical or functional synergies with spaces within the classroom or adjacent areas.

2.3. Dimension in regulatory and documentary matter

Introduction.- In the following epigraph, a series of documents will be analyzed, all of them within the Spanish scenario. They deal with different features related to Teaching/Learning spaces. In advance, it must be remarked that none of them fulfill the whole list of topics that affect the planning and design of those spaces, but it is anyway worthy to review how they respond separately to the following issues:

- General contents; Sustainability; Social inclusion; Accessibility; Protection of Heritage–Catalog; Aesthetic-composition criteria; Formation; Norms derived from COVID-19.

Due to the variety of documents, regulations and norms, the following global classification will be implemented:

- FIRST SECTION: Documents referred to Higher Education facilities.
- SECOND SECTION: Complementary international documents.
- THIRD SECTION: Documents referred to general building considerations in Spain.
- FOURTH SECTION: General Bibliography.
FIRST SECTION: Documents referred to Higher Education facilities

- Ministry of the Presidency, Relationships with the Cortes and Democratic Memory (2015). “Real Decreto 420/2015, de 29 de mayo, de creación, reconocimiento, autorización y acreditación de universidades y centros universitarios”.
  - General contents: global requirements for universities and university centres.
  - Sustainability: fulfillment of general requirements.
  - Social inclusion: general requirements, as well as about facilities and infrastructure needed for distance education.
  - Accessibility: requirements about the fulfillment of general accessibility, prevention of occupational hazards and mobility for people with disabilities.
  - Aesthetic-composition criteria: requirements about the fulfillment of general norms about habitability, and be flexible in their arrangement, using the adequate furniture for the academic activities. Regarding spatial minimum modules: existence of a Learning and Research Resources Centre-LRRC (for 10% students); classrooms (1,5 sqm/student in classrooms up to 40 students; 1,25 sqm/student in classrooms over 40 students); research laboratories (5 sqm/student; 10-15 sqm/professor).
  - Formation: connection between academic and research requirements and those affecting facilities.

  - General contents: considerations about Spanish universities towards the 2015 horizon, in social, economic, governance, aggregation, general and regional development promotion and territorial matters.
  - Sustainability: strategies towards the environmental quality; besides, the “sustainable” strategy towards campus excellence defined by the Spanish Government.
  - Social inclusion: strategies for social responsibility.
  - Accessibility: global criteria for future planning.
  - Protection of Heritage: general considerations about the need of excellence in urbanistic-architectural matter, as to build future heritages.
  - Aesthetic-composition criteria: advance of planning criteria (International Campus of Excellence program).
  - Formation: building a new knowledge about future campuses.

  - General contents: strategies to improve the Spanish University System, in several global aspects, such as universities aggregations, development promotion and territorial matters.
  - Sustainability: strategies towards the environmental quality.
  - Social inclusion: strategies for social responsibility.
  - Aesthetic-composition criteria: criteria for planning and design under an aim of excellence and a philosophy of “educational campus”.
  - Formation: building a new knowledge about future campuses.
• Ministry for Ecological Transition and Demographic Challenge (2016). “Reunión de las partes del convenio sobre el acceso a la información, la participación del público en la toma de decisiones y el acceso a la justicia en materia de medio ambiente”.
  o General contents: participation of citizens in matters affecting environment.
  o Sustainability: planning of issues affecting environment.

  o General contents: integration of Art in campuses as a key for excellence.
  o Protection of Heritage: fundamentals about the creation and preservation of Art as Heritage.
  o Aesthetic-composition criteria: introduction in of Art university spaces to reinforce learning, creativity and sensitiveness.
  o Formation: criteria for the transference of Art, according to its cultural dimension.

  o General contents: global consideration about the development of the University System, according to internal reflections and other successful policies carried out abroad.
  o Social inclusion: strategies for social responsibility and impact of universities.
  o Accessibility: global criteria for future university policies and student mobility.
  o Aesthetic-composition criteria: criteria for campus planning and implantation in the territory, as well as the integration in cultural contexts.
  o Formation: building new strategies for future Teaching/Learning activities and research.

• Conferencia de Rectores de las Universidades Españolas (CRUE) (2001): “Universidad: Compromiso Social y Voluntariado”.
  o General contents: role of universities towards society.
  o Social inclusion: social commitment and responsibility.
  o Accessibility: volunteering policy towards accessibility of vulnerable people.

• Conferencia de Rectores de las Universidades Españolas (CRUE) (2006): “Universidad, Ciudad y Territorio”.
  o General contents: strategies of integration of university buildings and campuses in the territory and the city, and the synergies associated to that (physical and functional).
  o Sustainability: fostering of renewable energies, waste management.
  o Accessibility: strategies for global accessibility and mobility.

• Conferencia de Rectores de las Universidades Españolas (CRUE) (2010): “Seminario permanente de la comisión para la calidad ambiental, el desarrollo sostenible y la prevención de riesgos (CADEP)”.

24 Exploration of Policy and Practice: Learning and Teaching Space in Higher Education
• General aspects: considerations about environmental quality. Universities should be exemplary in policies affecting environmental quality and sustainable development.

• Sustainability: recommendations about waste Management.

• Formation: inclusion of academic programs to teach these values.

• Conferencia de Rectores de las Universidades Españolas (CRUE) (2011): “La declaración sobre movilidad y accesibilidad (CADEP)“.

  o General contents: main goals and strategic guidelines.

  o Accessibility: global recommendations.

  o Sustainability: management of mobility coherent with sustainable strategies.

• Conferencia de Rectores de las Universidades Españolas (CRUE) (2011): “Carta de la CRUE sobre Urbanismo Universitario”.

  o General contents: 10 basic criteria for planning of university complexes, understood as social and community equipments, and taken as territorial components (not just municipal).

  o Sustainability: criteria for the planning and design of university precincts under the principle of sustainability, at its different scales; criteria for the adequate integration of the university facilities within the urbanistic and territorial frame, in matters such mobility infrastructures and public transport, water, electricity, sewerage and internet systems; progressive consolidation of university spaces as exemplary in sustainability matters.

  o Social inclusion: presentation of policies addressed to promote positive social impacts derived from the presence of university precincts; relevance of the residence as a strategic function to enrich social inclusion and feeling of belonging of the community; understanding of the university complex as part of the city; criteria for social responsibility.

  o Accessibility: demands about the need of incorporating elements and facilities which foster accessibility.

  o Protection of Heritage: as part of a sensitive integration in the city, university spaces have to respect and value existing pieces of Heritage.

  o Aesthetic-composition criteria: need of integral planning for university spaces; need of elaboration of specific planning documents by the universities; criteria for the geographical implantation of university seats in the territory and the city; criteria for a coherent design of open spaces and green areas.

  o Formation: promotion of educational programs to transmit an urban culture of excellence by the institutions of Higher Education.

• Conferencia de Rectores de las Universidades Españolas (CRUE) (2015): “Institucionalización del Aprendizaje-Servicio como estrategia docente dentro del marco de la Responsabilidad Social Universitaria para la promoción de la Sostenibilidad en la Universidad”

  o General contents: promotion of human development in universities.

  o Sustainability: global recommendations.

  o Social inclusion: fostering social responsibility and inclusion.

  • General contents: instructions referred to universal design for instruction, including a study of cases of excellence.
  • Social inclusion: criteria to design university spaces and Teaching/Learning activities that foster social inclusion.
  • Accessibility: special criteria and norms for members of the university community with disabilities.
  • Formation: design of an academic program oriented towards the “Diseño universal para la instruccion DUI” ("Universal design for instruction UDI").
  • Norms derived from COVID-19: some criteria for virtual activities of Teaching/Learning that could be implemented in university spaces.

• Cátedra UNESCO-UPM (2020). “Nuevos frentes abiertos en las universidades españolas por la pandemia por COVID-19”.

  • General contents: global analysis and projection of criteria towards the implementation of actions to guarantee qualified processes of Teaching/Learning, face-to-face, online or mixed.
  • Social inclusion: online methodologies must consider the availability of resources for all students.
  • Accessibility: criteria to implement measures of security and efficiency in university spaces.
  • Aesthetic-composition criteria: need to redesign university spaces, in order to adapt them to the new academic and social situation, but keeping overall quality.
  • Norms derived from COVID-19: universities must make an effort to implement strategies that optimize spaces, faculty and students to new online methodologies of Teaching/Learning.

SECOND SECTION: Complementary international documents


  • General contents: providing of guidance about standards for quality assurance in the European Higher Education Area, both for internal and external spaces.
  • Social inclusion: some recommendations are expressed regarding people with disabilities.
  • Accessibility: general criteria to make university seats accessible; universities should have the proper funding for Teaching/Learning activities.
Aesthetic-composition criteria: no specific criteria about quality in design are expressed, but a global guidance for environments of Higher Education; recommendations are defined regarding the convenience of certain resources and equipments (libraries, study facilities, etc.); it is recommended that every institution defines its own campus equipments and facilities depending on the proper context; the document covers a multiple understanding of quality assurance.

Formation: references to academic activities, in relation to quality assurance; special attention is made to student-centered learning.

- Sorbonne Declaration. (1998). “Joint declaration on harmonisation of the architecture of the European higher education system by the four Ministers in charge for France, Germany, Italy and the United Kingdom in Paris, the Sorbonne, May 25th 1998”.
  - General contents: definition of principles for the European universities, towards the European Higher Education Area (EHEA).

  - General contents: launching of the European Higher Education Area (EHEA), in order to reflect a search for a common European answer to common European problems.

  - General contents: development of the European Higher Education Area (EHEA).


THIRD SECTION: Documents referred to general building considerations in Spain

- General documents and norms about urban planning, design and construction of buildings in Spain:
  - Código Técnico de la Edificación (CTE), or “Technical Building Code” is the regulatory framework that establishes the requirements that buildings must meet in relation to the basic safety and habitability requirements established in the Ley 38/1999 de 5 de noviembre, de Ordenación de la Edificación (LOE).
  - The Basic Quality Requirements that buildings must meet refer to safety matters: structural safety, fire safety, safety of use, as well as accessibility; and habitability: sanitation, noise protection and energy saving. The CTE aims to respond to the demand of society in terms of improving the quality of the building while pursuing to improve user protection and promote sustainable development. The CTE applies to new buildings and interventions on existing buildings. In the regulatory framework of the building, other basic technical regulations are mandatory, such as the EHE concrete instructions, the seismic resistant construction standard, the Regulation of Thermal Installations for
Buildings, RITE, other regulatory regulations for industrial safety, etc., which coexist with the CTE and which in principle are external references to it.

- Ministry of Education. Documents and initiatives about new Teaching/Learning spaces in educational institutions. Courses “Aula del Futuro en los centros educativos” (INTEF) (2020). Courses addressed to non-university teaching staff, on topics such as:
  - Design and implementation; STEM scenarios and activities for the learning spaces of the Classroom of the Future; The Future Classroom areas for Project Based Learning; The digital formative evaluation and the activity areas of the Classroom of the Future; Expansion of physical learning spaces with virtual reality and augmented reality; Personalized learning in the Classroom of the Future; Digital environments and physical spaces for educational inclusion; Digital Teaching Competition for the Classroom of the Future; Active methodologies in innovative learning spaces.


- Ministry of Transport, Mobility and Urban Agenda (2020). Diverse norms and regulations about the following topics: Road technical regulation. 01. general normative of roads 01.8 urban planning. 02. environmental impact. 03. safety and health. 04. road safety. 05. Project. 06. Layout. 07. Drain. 08. geology and geotechnics. 09. step works: bridges and structures. 10. Tunnels. 11. firms and pavements. 12. road equipment. 13. Lighting. 14. Plantations. 15. Noise. 16. stations and service areas. 17. general technical specifications. 18.-Quality. 19. construction materials (general materials used on roads). 20. road inventory.

- Ministry of Education. “Real Decreto 132/2010, de 12 de febrero”, which establishes the minimum requirements of the centers that teach the second cycle of infant education, primary education and secondary education (2010)


**FOURTH SECTION: General Bibliography**


II. Second Part: COMPARATIVE STUDY OF CASES OF EXCELLENCE

1. City

<table>
<thead>
<tr>
<th>Scale</th>
<th>CITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of excellence</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>01</td>
</tr>
<tr>
<td>Basic data</td>
<td>Name of the University/Faculty</td>
</tr>
<tr>
<td></td>
<td>Universidad Politécnica de Madrid (UPM). Centro Superior de Diseño de Moda (CSDMM)</td>
</tr>
<tr>
<td>Justification</td>
<td></td>
</tr>
</tbody>
</table>

### DIMENSION IN THE FIELD OF TEACHING/LEARNING

- **Actors in the Teaching/Learning processes**
  - People: students and faculty of the Degree in Fashion; experts of the Museum of Costume
  - Elements: collections of the Museum, which students use for their learning process; scenography of the catwalk

- **Induced human relations**
  - Quantitative dimensions: students involved (from 20-40); general audience in the catwalk (150-200 people)
  - Profile of the space as a facilitator of personal exchange: internal areas of the Museum as spaces for reduced scale interaction; outdoor gardens induce group global interaction (audience of the catwalk)

- **Main modalities of Teaching/Learning hosted**
  - Student presentations; staging; on-site experience (oriented visit)

- **Role of ICTs**
  - Coordination with online teaching: in the catwalk, ICTs which were used enabled a live transmission (streaming)
  - Guidelines associated with COVID-19: none, although online attendance could be implemented
### DIMENSION IN URBANISTIC-ARCHITECTURAL MATTER

- **Context of the university space**
  - General urban-architectural environment: urban area in the “University-City”, located in the West periphery of Madrid
  - Heritage environment: the whole campus (“University City”) is acknowledged as Asset of Cultural Interest. The building (Museum of Costume) was recipient of the National Award in Architecture (1969)

- **Formal typology in plan**
  - Regular geometries in the internal spaces of the Museum (orthogonal grid)
  - Irregular geometries in the open spaces and gardens

- **Limits**
  - General characteristics: the outline of the complex faces the surrounding streets. The main entrance is located in calle Juan de Herrera
  - Opening or closing to the environment: the complex is closed with a fence, but visually permeable

- **Urban furniture and spatial elements**: Average benches in the open spaces (gardens). For the exhibition (catwalk of students) provisional chairs and platforms were installed. The gardens contain big trees and varied vegetation

- **University-city synergies**
  - Affiliations: the UPM (CSDMM) organizes its own academic activities in the Museum of Costume

### KEYS TO EDUCATIONAL-SPACE INNOVATION

- **Pedagogical dimension**
  The spaces of the Museum of Costume hosted 2 innovative modalities of Teaching/Learning, within a complex belonging to a different institution (the Museum of Costume, of the Ministry of Culture of Spain)

- **Added value provided by the urban-architectural environment**
  The architectural piece contributed with its heritage value, framing both activities with spaces of excellence

### Complementary observations

The spaces of the Museum of Costume have been used for these innovative activities since 2004
<table>
<thead>
<tr>
<th>Images</th>
<th>Graphic documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image 1" /></td>
<td><img src="image2.png" alt="Image 2" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image 3" /></td>
<td><img src="image4.png" alt="Image 4" /></td>
</tr>
<tr>
<td>Scale</td>
<td>CITY</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>Example of excellence</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>02</td>
</tr>
<tr>
<td>Basic data</td>
<td>Name of the University/Faculty</td>
</tr>
<tr>
<td></td>
<td>Universidad San Pablo CEU/Escuela Politécnica Superior</td>
</tr>
<tr>
<td>Justification</td>
<td>The space chosen, of high architectural interest, hosted an innovative academic experience: collaboration between students of Architecture and people with intellectual and visual disabilities in the design of an architectural transformation</td>
</tr>
</tbody>
</table>

**DIMENSION IN THE FIELD OF TEACHING/LEARNING**

- **Actors in the Teaching/Learning processes**
  - People: students and faculty of the Degree in Architecture; historians of the Palace of Infante Don Luis
  - Elements: architectural piece, gardens and orchards which students analyzed and proposed an spatial transformation for people with intellectual and visual disabilities

- **Induced human relations**
  - Quantitative dimensions: students involved (25); external volunteers with disabilities (20)
  - Profile of the space as a facilitator of personal exchange: external areas of the Palace (gardens and orchards) as spaces for interaction between students and volunteers

- **Main modalities of Teaching/Learning hosted**
  - On-site experience (oriented visit); project-based learning; inclusive collaborative learning

- **Role of ICTs**
  - Coordination with online teaching: the direct experience of the Palace was complemented by online research
  - Guidelines associated with COVID-19: the development of the projects of spatial adaptation designed by students was supervised online in the last stage of the course

**DIMENSION IN URBANISTIC-ARCHITECTURAL MATTER**

- **Context of the university space**
  - General urban-architectural environment: historical complex located in the town of Boadilla del Monte (periphery of Madrid)
  - Heritage environment: the complex (“Palace of Infante Don Luis) is a Neoclassical masterpiece, designed in 1765 by Ventura Rodríguez, acknowledged in 1974 as Asset of Cultural Interest

- **Formal typology in plan**
  - Regular geometries (orthogonal grid) in the internal spaces of the Palace, as well as in the gardens and orchards

- **Limits**
  - General characteristics: the global complex has a rectangular outline which draws a neat limit
<table>
<thead>
<tr>
<th>Keys</th>
<th>KEYS TO EDUCATIONAL-SPACE INNOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Pedagogical dimension</strong></td>
</tr>
<tr>
<td></td>
<td>The main spaces of the Palacio of Infante Don Luis hosted 3 innovative modalities of Teaching/Learning, developed in a complex belonging to a different institution (the Palacio, of the Municipality of Boadilla del Monte)</td>
</tr>
<tr>
<td></td>
<td><strong>Added value provided by the urban-architectural environment</strong></td>
</tr>
<tr>
<td></td>
<td>The whole spatial complex (architectural piece, gardens and orchards) contributed with its outstanding heritage value, as a frame for the activities</td>
</tr>
</tbody>
</table>

| Complementary observations | The academic activities carried out in the Palace meant a human interaction between students and volunteers, whose outcome were ideas for the hypothetical adaptation of the complex to people with disabilities |

<table>
<thead>
<tr>
<th>Images</th>
<th>Graphic documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image 1](Image 1)</td>
<td>![Image 2](Image 2)</td>
</tr>
<tr>
<td>![Image 3](Image 3)</td>
<td>![Image 4](Image 4)</td>
</tr>
</tbody>
</table>
2. **Campus**

<table>
<thead>
<tr>
<th>Scale</th>
<th>CAMPUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of excellence</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>01</td>
</tr>
<tr>
<td>Basic data</td>
<td>Name of the University</td>
</tr>
<tr>
<td></td>
<td>Universidad de Alicante <a href="http://www.ua.es">www.ua.es</a></td>
</tr>
<tr>
<td>Justification</td>
<td>The University Museum introduces an innovative artistic content in the Campus, becoming an element of cultural attraction towards the social environment</td>
</tr>
</tbody>
</table>

**DIMENSION IN THE FIELD OF TEACHING/LEARNING**
- **Actors in the Teaching/Learning processes**
  - People: students, faculty, administration and services staff, as well as visitors
  - Elements: the building itself, and the artistic collections hosted inside
- **Induced human relations**
  - Quantitative dimensions: the Museum has a large capacity of visitors
  - Profile of the space as a facilitator of personal exchange: the artistic profile of the building contents offers spaces for social interaction, simultaneously to the cultural enrichment derived from the contemplation of works of Art
- **Main modalities of Teaching/Learning hosted**: Individual contemplative learning; Staging and learning supported by other Arts; Mobile learning
- **Role of ICTs**
  - Coordination with online teaching: could be available in the space, as a complement to learn about the works of Art
  - Guidelines associated with COVID-19: virtual visits to the Museum could be available online

**DIMENSION IN URBANISTIC-ARCHITECTURAL MATTER**
- **Context of the university space**
  - Define the general urban-architectural environment: the building is located in the South area of the San Vicente Campus, surrounded by other buildings and open spaces of the complex
  - Define the heritage environment: architectural pieces that compose a showcase of contemporary academic Architecture
- **Formal typology in plan**
  - Regular geometries: the whole Museum follows an orthogonal grid in its composition; the plant is a rectangle
- **Limits**
  - General characteristics: the outline is open towards the adjacent areas
- Opening or closing to the campus environment: the Museum itself is a closed prismatic volume; the access follows a wide ramp that leads to the main entrance
  - **Urban furniture and spatial elements**: Average outdoor benches in the main access platform
  - **Synergies with other buildings on campus**
    The building is quite closed to the main areas of the San Vicente Campus, serving to the whole academic community as well as to visitors

<table>
<thead>
<tr>
<th>Keys</th>
<th>KEYS TO EDUCATIONAL-SPACE INNOVATION</th>
</tr>
</thead>
</table>
| - Pedagogical dimension
  The interaction of students with Art fosters an enriched transversal modality of Teaching/Learning |
| - **Added value provided by the urban-architectural environment**: the Museum hosts an innovative university function, choosing a modern architectural composition that symbolizes that same innovation |

| Complementary observations | Including a Museum in a self-standing building within the University Campus remarks the presence of Art as an added formation value for the academic community |

<table>
<thead>
<tr>
<th>Images</th>
<th>Graphic documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Image 1" /></td>
<td><img src="image2.jpg" alt="Image 2" /></td>
</tr>
<tr>
<td><img src="image3.jpg" alt="Image 3" /></td>
<td><img src="image4.jpg" alt="Image 4" /></td>
</tr>
</tbody>
</table>
### Example of excellence

<table>
<thead>
<tr>
<th>Scale</th>
<th>CAMPUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of excellence</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic data</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Justification</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>Identification (name)</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>Educational space</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of the University</th>
<th>Location (city, country)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universidad de Málaga/Escuela Técnica Superior de Arquitectura</td>
<td>Málaga (Spain)</td>
</tr>
</tbody>
</table>

**Justification**
The University undertook in 2015 a project of transformation of an existing marginal space, in order to activate it as an emerging social learning place.

**DIMENSION IN THE FIELD OF TEACHING/LEARNING**

- **Actors in the Teaching/Learning processes**
  - People: students and faculty of both buildings
  - Elements: the innovative outdoor furniture, which was designed by the students who won the competition

- **Induced human relations**
  - Quantitative dimensions: the Educational space can host up to 50 people, approximately
  - Profile of the space as a facilitator of personal exchange: the small global scale, together with the original furniture design fosters social interaction between students and faculty of Architecture and Fine Arts, in an informal atmosphere

- **Main modalities of Teaching/Learning hosted**: Reflection in common-“soft-seat” Individual study; Social learning

- **Role of ICTs**
  - Coordination with online teaching: could be available in the space, as a complement to regular classes
  - Guidelines associated with COVID-19: none

**DIMENSION IN URBANISTIC-ARCHITECTURAL MATTER**

- **Context of the university space**
  - Define the general urban-architectural environment: the space belongs to the El Ejido Campus, located in the historic area of the city of Malaga
  - Define the heritage environment: the renovated space is framed by 2 university buildings: the School of Architecture and the Faculty of fine Arts; they are both part of the historical educational complex of El Ejido, designed originally in 1948 as an educational complex, representative of the Avant-Garde of the period

- **Formal typology in plan**
  - Regular geometries: the Educational space has a simple rectangular plant

- **Limits**
  - General characteristics: the space is framed by the volumes of the 2 adjacent buildings
### Opening or closing to the campus environment: the Educational space is opened to the external open area (Plaza El Ejido, a small urban park)

- **Urban furniture and spatial elements:** The transformation of the space was the outcome of a design competition of teams participated by students of Architecture and Fine Arts; the winner project designed a game of wooden pieces of furniture, which create an atmosphere of social interaction

- **Synergies with other buildings on campus**
  The renovated space connects the 2 adjacent buildings: School of Architecture and Faculty of fine Arts, and is open to the outdoor campus park

### KEYS TO EDUCATIONAL-SPACE INNOVATION

- **Pedagogical dimension**
  The interaction between students of Architecture and Fine Arts is positive, due to the conceptual proximity and synergies of both areas of knowledge

- **Added value provided by the urban-architectural environment:** the renovated space is framed by the 2 university buildings, which represent a remarkable period of contemporary educational Architecture

### Complementary observations

The transformation of a former abandoned space offers an emerging renovated place where the innovative furniture represents as well the creativity of students (it was the outcome of a competition)

### Images

<table>
<thead>
<tr>
<th>Graphic documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image 1" /></td>
</tr>
<tr>
<td><img src="image2.png" alt="Image 2" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image 3" /></td>
</tr>
<tr>
<td><img src="image4.png" alt="Image 4" /></td>
</tr>
</tbody>
</table>
### 3. Building

<table>
<thead>
<tr>
<th>Scale</th>
<th>BUILDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of excellence</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>01</td>
</tr>
<tr>
<td>Basic data</td>
<td>Name of the University/Faculty</td>
</tr>
<tr>
<td></td>
<td>Universidad Pompeu Fabra <a href="http://www.upf.edu">www.upf.edu</a></td>
</tr>
</tbody>
</table>

**Justification**

Space of innovative function: it induces to personal reflection and meditation with the contribution of Art

#### DIMENSION IN THE FIELD OF TEACHING/LEARNING

- **Actors in the Teaching/Learning processes**
  - People: students, faculty, administration and services staff, as well as visitors
  - Elements: works of the famous artist Antoni Tàpies
- **Induced human relations**
  - Quantitative dimensions: small scale space (approximately, 10 attendees)
  - Profile of the space as a facilitator of personal exchange: the space embraces the visitor, and the works of Art contribute to create an atmosphere or meditation
- **Main modalities of Teaching/Learning hosted**: Individual contemplative learning; Staging and learning supported by other Arts
- **Role of ICTs**
  - Coordination with online teaching: available in the space, but not recommendable (in order to preserve meditation and contemplation of the works of Art in the room)
  - Guidelines associated with COVID-19: the visit to the Meditation room could be available online

#### DIMENSION IN URBANISTIC-ARCHITECTURAL MATTER

- **Context of the university space**
  - Define the general architectural environment: the Meditation room (Sala Tàpies) is located between two main buildings: Roger de Lluria and Jaume I of the Ciutadella Campus
  - Define the heritage environment: the whole campus of Ciutadella was the outcome of the transcendental restoration carried out in 1996: several former military quartiers and the water deposit of the adjacent park, which was transformed into a library
- **Formal typography in plan**
  - Regular geometries: rectangular plant
- **Limits**
  - General characteristics: average partitions which connect with the underground hall (Agora space) that connects the 2 buildings
| Keys               | Opening or closing to the environment of the building: the Meditation room is permanently open, although using conventional doors to preserve intimacy  
 o **Interior furniture and spatial elements**: average seats  
 o **Synergies with other spaces in the building**: the Meditation room is connected with the whole spatial context, available for all students and faculty of the campus |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Keys               | **KEYS TO EDUCATIONAL-SPACE INNOVATION**  
 o **Pedagogical dimension**: The Meditation room fosters meditation and introspection as innovative pedagogical attitudes that enrich the visitor  
 o **Added value provided by the urban-architectural environment**: the space itself, of reduced dimensions, together with the works of Art create a space characterized by a sound experiential value |
| Complementary observations | The Meditation room fosters a slow-motion living experience, which helps attendees to introduce moments of reflection, pause and artistic enrichment in their daily university life |
| Images             | Graphic documentation |

<table>
<thead>
<tr>
<th>Images</th>
<th>Graphic documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Image 1" /></td>
<td><img src="image2.jpg" alt="Image 2" /></td>
</tr>
<tr>
<td><img src="image3.jpg" alt="Image 3" /></td>
<td><img src="image4.jpg" alt="Image 4" /></td>
</tr>
<tr>
<td>Scale</td>
<td>BUILDING</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>Example of excellence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>02</td>
</tr>
<tr>
<td>Basic data</td>
<td></td>
</tr>
<tr>
<td>Name of the University/Faculty</td>
<td>Location: city (country)</td>
</tr>
<tr>
<td>Universidad de Vigo</td>
<td>Vigo (Spain)</td>
</tr>
<tr>
<td>Justification</td>
<td>Space designed to host innovative academic activities, inside a building which is of common use for all faculties</td>
</tr>
<tr>
<td>Dimension analysis</td>
<td></td>
</tr>
<tr>
<td>DIMENSION IN THE FIELD OF TEACHING/LEARNING</td>
<td></td>
</tr>
<tr>
<td>o Actors in the Teaching/Learning processes</td>
<td></td>
</tr>
<tr>
<td>▪ People: students, faculty, administration and services staff, as well as visitors</td>
<td></td>
</tr>
<tr>
<td>▪ Elements: stands, fixed seats and additional chairs or desks, depending on the activity to be developed</td>
<td></td>
</tr>
<tr>
<td>o Induced human relations</td>
<td></td>
</tr>
<tr>
<td>▪ Quantitative dimensions: medium scale space (approximately, 50-75 attendees)</td>
<td></td>
</tr>
<tr>
<td>▪ Profile of the space as a facilitator of personal exchange: the Classroom-corridor works both as a gathering place (static) and a communication element between the two edges of the building</td>
<td></td>
</tr>
<tr>
<td>o Main modalities of Teaching/Learning hosted: General sharing; Social learning; Student presentations</td>
<td></td>
</tr>
<tr>
<td>o Role of ICTs</td>
<td></td>
</tr>
<tr>
<td>▪ Coordination with online teaching: available in the space</td>
<td></td>
</tr>
<tr>
<td>▪ Guidelines associated with COVID-19: none</td>
<td></td>
</tr>
<tr>
<td>DIMENSION IN URBANISTIC-ARCHITECTURAL MATTER</td>
<td></td>
</tr>
<tr>
<td>o Context of the university space</td>
<td></td>
</tr>
<tr>
<td>▪ Define the general architectural environment: the space is inside the Miralles Building, located in the upper central area of the Lagoas Campus</td>
<td></td>
</tr>
<tr>
<td>▪ Define the heritage environment: the building itself represents the vanguard of Spanish Architecture, designed in 2004 and recipient of the FAD Award</td>
<td></td>
</tr>
<tr>
<td>o Formal typography in plan</td>
<td></td>
</tr>
<tr>
<td>▪ Irregular geometries: the plant follows a curved pattern, similar to a deformed rectangle</td>
<td></td>
</tr>
<tr>
<td>o Limits</td>
<td></td>
</tr>
<tr>
<td>▪ General characteristics: the lateral limit is quite diffused, framed by the partitions to complementary rooms</td>
<td></td>
</tr>
<tr>
<td>▪ Opening or closing to the environment of the building: in the opposite side, the edge is an original long stand for seats, attached to a continuous window opened towards the landscape; it also has lateral doors to outdoor areas</td>
<td></td>
</tr>
<tr>
<td>o Interior furniture and spatial elements: seats with an original distribution in the stands, with some of them oriented towards the views (landscape)</td>
<td></td>
</tr>
</tbody>
</table>
**Synergies with other spaces in the building**: the space defines a flexible and fluid display along the main floor of the Miralles Building

### KEYS TO EDUCATIONAL-SPACE INNOVATION

- **Pedagogical dimension**
  The Classroom-corridor induces innovative and flexible modalities of Teaching/Learning, due to the flexible space arrangement

- **Added value provided by the urban-architectural environment**: the location of the space and the design of its openings towards the South permits an attractive contemplation of the natural surrounding landscape and other architectural pieces of contemporary value

### Complementary observations

The classroom-corridor is part of the global shape of the Miralles Building, which represents the concept of “built landscape”, as an architectural piece inspired in the natural context

### Images

- Graphic documentation

![Image 1](image1.jpg)

![Image 2](image2.jpg)

![Image 3](image3.jpg)

![Image 4](image4.jpg)
## 4. Classroom

<table>
<thead>
<tr>
<th>Scale</th>
<th>CLASSROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of excellence</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>01</td>
</tr>
<tr>
<td>Basic data</td>
<td>Name of the University/Faculty</td>
</tr>
<tr>
<td></td>
<td>Universidad Pablo de Olavide/Facultad de Derecho <a href="http://www.upo.es">www.upo.es</a></td>
</tr>
</tbody>
</table>

### Justification
An innovative function hosted in an average space, transformed with the contribution of a singular internal design and furniture

### Dimension in the Field of Teaching/Learning

#### Actors in the Teaching/Learning processes
- People: students and faculty of the Degree in Law
- Elements: special furniture (court) and average classroom chairs

#### Induced human relations
- Quantitative dimensions: reduced groups (40 attendees)
- Profile of the space as a facilitator of personal exchange: the physical design of the classroom motivates students, as it represents a professional activity

#### Main modalities of Teaching/Learning hosted
Scenographic simulation of real activity

#### Role of ICTs
- Coordination with online teaching: available in the space, but not relevant
- Guidelines associated with COVID-19: online attendance could be available

### Dimension in Urbanistic-Architectural Matter

#### Context of the university space
- Define the general architectural environment: the campus is located in the SouthEast periphery of Sevilla, within a rural environment
- Define the heritage environment: the whole complex was formerly a Professional University, which was transformed in 1997 into a Higher Education institution. The Courtroom is located in the internal spaces of the building “Manuel José de Ayala”

#### Formal typology in plan
- Regular geometries: the Courtroom has a rectangular plan

#### Limits
- General characteristics: average partitions which separate the Courtroom from the adjacent internal corridors
- Opening or closing to the classroom environment: closed limits, with average opening (door)
<table>
<thead>
<tr>
<th>Keys</th>
<th><strong>KEYS TO EDUCATIONAL-SPACE INNOVATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>o <strong>Interior furniture and spatial elements:</strong> singular, simulating a typical courtroom</td>
</tr>
<tr>
<td></td>
<td>o <strong>Synergies with other spaces in the building:</strong> just the physical connection with the adjacent spaces, corridors and common areas</td>
</tr>
<tr>
<td></td>
<td><strong>Pedagogical dimension</strong></td>
</tr>
<tr>
<td></td>
<td>- The Courtroom introduces innovative dynamics of learning, as the students have the opportunity of getting used to real professional activities</td>
</tr>
<tr>
<td></td>
<td>o <strong>Added value provided by the urban-architectural environment</strong></td>
</tr>
<tr>
<td></td>
<td>- The campus structure represents a positive transformation of the past heritage (as a professional university of the 50’s) into a new Higher Education institution</td>
</tr>
<tr>
<td>Complementary observations</td>
<td>The University fosters the implementation of innovative Teaching/Learning modalities in the knowledge area of Law as well as in others</td>
</tr>
<tr>
<td>Images</td>
<td>Graphic documentation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Images</th>
<th>Graphic documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Image 1" /></td>
<td><img src="image2.jpg" alt="Image 2" /></td>
</tr>
<tr>
<td><img src="image3.jpg" alt="Image 3" /></td>
<td><img src="image4.jpg" alt="Image 4" /></td>
</tr>
</tbody>
</table>
### Dimension Analysis

<table>
<thead>
<tr>
<th>Scale</th>
<th>Example of excellence</th>
<th>Basic data</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>02 Creative classroom</td>
<td>Universidad de la Laguna/Facultad de Bellas Artes</td>
<td>In this creative classroom two virtues meet: innovation in the type of academic activities hosted and creativity of the architectural shape</td>
</tr>
</tbody>
</table>

#### Dimension in the Field of Teaching/Learning

- **Actors in the Teaching/Learning processes**
  - People: students and faculty of the Degree in Fine Arts
  - Elements: special furniture and elements associated to the creation of works of visual Art

- **Induced human relations**
  - Quantitative dimensions: reduced groups (25 students, expandable)
  - Profile of the space as a facilitator of personal exchange: the design of the classroom remarks the committed geometry of the building; flexibility in the extension or reduction of space (mobile partitions), which promotes collaborative and creative dynamics

- **Main modalities of Teaching/Learning hosted**: Idea sharing by nuclei (seminar-partial tutoring); Staging and learning supported by other Arts; Project-based learning

- **Role of ICTs**
  - Coordination with online teaching: available, but not relevant
  - Guidelines associated with COVID-19: online attendance could be available

#### Dimension in Urbanistic-Architectural Matter

- **Context of the university space**
  - Define the general architectural environment: the classroom belongs to the new Facultad de Bellas Artes building, belonging to one of the 3 campuses of the University (Guajara), located between the urban fabrics of San Cristóbal and Santa Cruz de Tenerife, in the Canary Islands
  - Define the heritage environment: the building is representative of modernity and innovation in its design; it was recipient of the International Architecture Award 2015

- **Formal typology in plan and volume**
  - Irregular geometries: the classroom follows the curvature which characterizes the global layout of the building

- **Limits**
  - General characteristics: embracing concrete walls and mobile flexible partitions which allow extension or reduction of space
  - Opening or closing to the classroom environment: closed limits, with openings towards the adjacent corridors
| Keys | **Interior furniture and spatial elements**: singular, with tables, easels and tools proper of the creative disciplines of visual Arts  
| | **Synergies with other spaces in the building**: besides the direct physical connection with the adjacent corridors, the possibility of expanding or contracting the internal spaces, using mobile partitions |
| **KEYS TO EDUCATIONAL-SPACE INNOVATION** | |
| | **Pedagogical dimension**  
| | - The creative classroom fosters collaborative, experimental and innovative process of Teaching/Learning  
| | **Added value provided by the urban-architectural environment**  
| | - The committed shape of the building induces the shape of the creative workshops, as well as it transmits conceptually the artistic geometries inherent to the discipline of visual Arts taught inside |
| Complementary observations | The innovative processes of Teaching/Learning hosted in the creative classroom share the equivalent creativity of the building shapes |
| Images | Graphic documentation |
Conclusions

The present document has analyzed the Spanish scenario, according to several contents, dimensions and characteristics. As part of that global analysis, 8 examples of excellence have been studied, taken from universities spread all over the country.

The study was carried out following a structured sequence. Once a global set of principles was defined, a consequent methodology was used in order to research about the diverse features of Learning and Teaching spaces in Higher Education. For such a purpose, the aforementioned methodology seeks to create a general analytic pattern, valid for all the cases of excellence subject to be interpreted.

As part of the methodology, one preliminary decision was to create 4 physical scales for those spaces: city, campus, building and classroom.

The document has developed a comparative study of 8 examples of excellence in Spain, 2 corresponding to each of the 4 scales (city, campus, building and classroom). These are the cases:

- **City scale**: Universidad Politécnica de Madrid (UPM). Centro Superior de Diseño de Moda (CSDMM); Universidad CEU San Pablo (Madrid) Escuela Politécnica Superior.
- **Campus scale**: Universidad de Alicante-Museo universitario; Universidad de Málaga/Escuela Técnica Superior de Arquitectura.
- **Building scale**: Universidad Pompeu Fabra-Meditation room; Universidad de Vigo-Classroom-corridor.
- **Classroom scale**: Universidad Pablo de Olavide/Facultad de Derecho; Universidad de La Laguna- Faculty of Fine Arts.

The analysis of each of those 8 examples was done applying the same methodological pattern. Proceeding in such a way has facilitated the comparison between them, as responding to one of the intentions of the Erasmus+ Project, and its applications in the Spanish University panorama.

After the general theoretical background was defined, the consequent study of those 8 cases was performed. As a result of the research carried out and the analysis of the cases chosen, a series of conclusions can be pointed out:

1.- Innovative modalities of Learning and Teaching have narrow links to physical spaces. Expressed in other terms: the implementation of new pedagogical strategies depends on educational principles, but also on the configuration of the built environment.

2.- Innovative spaces for Higher Education can be implemented no matter the area or scale where they can be located. Some are situated in small scale ambits (such as classrooms or internal sections of buildings) as others are located in outdoor zones of the campus or in urban open areas or pieces of architectural heritage.

3.- One of the most relevant conclusions is that, after the comparative study carried out for examples in the Spanish Higher Education scenario, the methodological pattern based on the 4
scales (city, campus, building and classroom) has demonstrated to be perfectly valid, in order to be applied to any international university.

4.- The implementation of innovative spaces where to host modern pedagogical dynamics gives the opportunity of enriching them through the added formative values derived from the artistic, heritage or aesthetic features of those same spaces.

5.- As a consequence of such consideration, one of the proactive outcomes of the research carried out is that universities should study in depth the specific location of any innovative space, trying to take advantage of those added formation values.

6.- The role of ICTs must be planned with extreme sensitiveness in each university. They can enrich the activation of innovative spaces (which before were inert in this function), but being careful in choosing the correct strategy of their implantation, because the abuse of virtual pedagogical processes can damage the human dimension that Higher Education must always preserve.

7.- Regarding the proactive conclusions of the present document (and overall, of the Erasmus+ Project), it must be remarked that it becomes critical to proceed to the creation of new educational innovative spaces after a deep study and consideration of theoretical fundamentals.

8.- The fundamentals that can contribute to a valid orientation of the design of Learning and Teaching spaces are useful both for university seats of new design as well as for transformation of preexisting ones.

9.- One of the principles that must feed any process of design of spaces in a university seat (both of new plant or derived from the transformation or existing ones) must be that education is an event which has several essential characteristics: emotional, collective, sustained and spatial.

10.- The application of those essential features must be carried out after a detailed analysis of the place is done. One same theoretical principle can be translated into different spatial solutions, depending on the specific university local circumstances.

11.- In Spain, there is nowadays a lack of regulations, documents or recommendations regarding criteria for the design and implementation of qualified spaces for Learning and Teaching. Consequently, the present Erasmus+ Project becomes of high interest in this sense, as an attempt to fill the aforementioned lack of official or general criteria. If that were the case of other countries, they could benefit as well from the existence of an emerging documentation that could help institutions of Higher Education to plan their future spaces under the aim of excellence in the link Education-Space.

12.- Through a process that combines global research (national and international Higher Education scenario) and local research (conditionings of every university), the possibility of defining criteria of excellence for Learning and Teaching urban&architectural spaces is a transcendental strategy in order to optimize Higher Education in all institutions.

13.- As part of those specific conditionings, it is recommendable for every University to carry out a parallel classification of Learning and Teaching modalities and urban&architectural spaces that could be adequate to them including a study of the actors that will participate in all of them.
14.- It must be interiorized that Learning and Teaching spaces are becoming progressively more versatile, multi-scaled and creative. Thus, the planning of new university seats or the transformation of existing ones must be developed assuming this current innovative profile.

15.- Innovation is a key philosophy for fostering a sound evolution of university activities and physical settings towards excellence.

16.- Overall, the main outcome of the present document is that the quality of Higher Education is narrowly connected to the quality of its urban & architectural dimension.

The main global outcome of the document elaborated for the Spanish scenario is that through a sound methodology, any national or international university can plan with solid arguments the genesis or transformation of its spaces of Learning and Teaching. The universal aim is their requalification, and the activation of those spaces that, prior to such potential transformation, were inert in terms of hosting educational activities of diverse profile.