Higher Education, planning and Architecture: the case of inclusive campuses. A comparative study of emotional perceptions of university physical spaces among vulnerable groups and students of creative disciplines

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Abstract: *The planning of spaces for Higher Education is a transcendental action, from which their urban-architectural, functional and experiential optimization arises. Research is a mission called upon to provide guidelines for innovation. The text comprises the results of the R&D Project "Inclusive Campus and Architecture" (Ministry of Science, Innovation and Universities of Spain, PID2020-114373RB-I00), that translate into the genesis of qualitative transformation patterns that are born from the sensitiveness of people with Intellectual Disabilities. The research process, aimed at providing criteria of excellence in university planning, also promotes the social inclusion of people with ID. The work explores the emotional responses of vulnerable population groups to a range of spatial typologies, adding a comparative study with what was contributed by students from two creative disciplines, such as Fashion and Architecture. In this way, full inclusion is achieved, where applied creativity has acted as a link between the 3 groups surveyed. The result is a series of renewed criteria to address the requalification of university spaces at 3 scales (classroom, building and campus), in order to increase values such as human scale and welcoming, which contribute to the effective improvement of inclusive campuses for any type of community.*

1. Introduction

Higher Education, social inclusion and planning

1.1. Basic concepts: social inclusion and Architecture

Institutions of Higher Education must fulfil three essential missions: teaching, research and social commitment (Olo, Correia, & Rego, 2021). This implies the need to integrate all types of groups, with special sensitiveness to those who suffer all kinds of vulnerability, a topic which is recently studied by numerous authors (Christodoulidi, 2024), (Jackson, 2018). For such a mission, the contribution of built places becomes basic, especially in the case of people with Intellectual Disability (ID), For this social inclusion to crystallize properly, the active and duly organized contribution of a set of management levels and groups in institutions of Higher Education is necessary, whose duty is to devise the necessary guidelines and procedures to achieve this goal (Richards, *et al*., 2014). These strategies should include internal training actions (Bosanquet, et al., 2012). From a holistic perspective, strategies and resources must be designed to promote the inclusion and reception of these people in university environments (Corby, *et al*., 2012). But the true social inclusion of ID also needs participation of physical space. Therefore, this consideration could be synthesized by expressing that for universities to properly attend to their social mission, the contribution of Architecture is of foremost importance (Foreman, 2008).

1.2. University and space: the three scales

Institutions addressed to host activities of Higher Education have been building society for more than nine centuries. To accomplish their missions, they must have an outstanding human capital, but also rely on the contribution of Architecture, which has always accompanied institutional and pedagogical models (Bender, 1988). Furthermore, when devised with a desire for excellence, physical spaces have triggered paradigm shifts (Kramer, 2010). The variety of formats can be classified into 3 categories: the university classroom, the architectural piece, and the urbanistic precinct (Campos, 2017).

Scale: classroom.-Teaching/learning activities reach significant levels of intensity in classrooms. They have enormous potential to reinforce students' sense of belonging and, consequently, social inclusion. The experiential richness inherent in the classrooms is related to certain dimensions, such as phenomenological-perceptual and poetic (Canter, 1975). Environmental variables have also been studied, such as shape,

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sound, temperature, furniture and occupancy, as well as the influence of light (Aliakbari, Moghadam, & Lombardi, 2022).

Scale: building. The architectural piece is the inclusive translation to the spatial composition. Some typologies have been particularly effective in inducing interpersonal relationships: the cloister (Latin), and the *college* (Anglo-Saxon). Both were heirs of the monastic archetype, and germ of the North American *quadrangle*. As a delimiting volume, it generates inclusive sensations of protection, shelter and human scale.

Scale: campus. There are links between campus spatial planning and social profile. Certain features of campus planning are called to inspire it, fostering integral learning communities (Turner, 1984). The crystallization of these communities constitutes an aspiration of unquestionable inclusive vocation, since the objective is the integration of groups of different social profiles.

1.3. Social inclusion and spaces: planning through perception

Social inclusion is closely related to the interaction between human beings and the built context, affecting physical and mental well-being, which is achieved by perceptions of identification and orientation (Proshansky, Fabian & Kaminoff, 1983). But also affecting sense of safety in campus (Coetzee, & Puren, 2016)). There are recent precedents on the importance of emotions in planning university seats, (Campos, Wilson, Turner, 2022). In people with ID, the psychological perception of space becomes essential to devise design criteria that promote positive emotions. In what affects the quality of university spaces, the best strategy to achieve technical solutions correctly structured is planning, as it brings quality and rigor to the conception and evolution of Architecture (Dober, 1996). To properly generate new criteria to design spaces for Higher Education, planning is undoubtedly the most solid strategy. But its main foundation should come through a rigorous process of understanding the perceptive and emotional impacts which are induced by diverse spatial typologies. Planning through perception reinforces the social sensitiveness that university Architecture is obliged to put into practice. Furthermore, such perceptive exploration on perception must be carried out making use of a well-structured research

process. The present text presents the outcomes of a research work aimed at encouraging the crystallization of inclusive campus and universal accessibility: "*Inclusive Campus*" (MICIU-PID2020-114373RB-I00).

2. The Research Project "Inclusive Campus and Architecture"

2.1. Planning through research: principles and goals

The basic features of the R&D Project "*Inclusive Campus*" are summarized next. The overall context reflected a dual situation, subject to be improved. Firstly, the need to undertake dynamics of social inclusion in universities, with emphasis on ID. Secondly, foster innovative university spaces. The motivation arose from investigating those typologies at the 3 already described scales, analyzing who each one induces feelings of welcoming, based on the sensitivity of vulnerable people. The main hypothesis was that having welcoming environments favors the social inclusion of these people with ID. And that, using their unique emotional characteristics, the criteria provided would optimize university spaces for any user.

In terms of goals, the first was to analyze antecedents: architectural typologies and characteristics of people with ID. The second was to face the challenge of including vulnerable population groups in universities, collecting responses to 3 questionnaires, using the sampling technique (Rahman, 2023). The third goal was to extract initiative-taking readings from those responses. The fourth included an added derivative: a comparative study between the affective impressions of volunteers with ID and those provided by university students in two disciplines characterized by creativity and sensitivity to objects (architectural pieces and costumes): Fashion and Architecture. From the contrasting vision between the 3 groups, a list of conclusions was generated.

2.2. Methodology: groups and surveys

The population groups who answered the surveys were 3. Added to volunteers with ID were students from 2 disciplines with a creative imprint: Fashion and Architecture. Their choice is justified next. Both disciplines have provided shelter and protection for the human body, sharing a sense of space and common "construction" materials. In terms

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of teaching innovation, the modality of "*Project-Based Learning*" enjoys a notorious prominence in both subjects. Contrasting the feelings of these 2 groups of university students with volunteers with ID was somehow coherent, due to the sensitivity inherent to both professions. First, these students are used to understanding and experiencing a sensitive relation with objects (Devetak, 2016). They will design elements that meet human needs, including the enjoyment of aesthetics (Ertas, & Samlioglu, 2015). Besides, both disciplines share innovative spaces for singular pedagogical modalities, (Campos, & Luceño, 2018), (Crewe, 2008), (Luceño, & Rodríguez, 2022).

The methodology, based on the sample technique, involved the design of 3 surveys, in "*Forms*" format. Each section contained questions with multiple-choice answers, based on the Likert scale: "*Strongly disagree-Disagree-Neither agree or disagree-Agree-Strongly agree*" (Allen, & Seaman, 2007). Expert advice was used to design the questions, as the need to understand them had to be combined with a minimum of richness in the answers, in order to draw initiative-taking conclusions about the planning of university spaces. A comparative study was conducted, which sought to transcend the results of the surveys completed by volunteers with ID. Emotional responses to the same spatial typologies contributed by university students were studied, and the results of the triad of sources were compared, as to achieve a wider human scenario.

The surveys were ordered into 3 scales: classroom, building and campus, formulating 469 questions, from which the following thematic sections were selected:

a.-Classroom scale: *Presence of Nature and Art; Texture in walls; Spatial appropriation, scale and sense of belonging*
b.-Building scale: Composition and call effect in itineraries; Elements of communication and distribution spaces; Spatial vibration and colour
c.-Campus scale: Uniformity and inner core; Library: symbolic role; Entrances and limits

2.3. Comparison and creativity

The research process conducted tries to take advantage of creative impulses as a form of social inclusion. Therefore, an added reason justified the threefold comparison: creativity, understandable as an extraordinary potential of human beings. Several works link ID with creative thinking (Lauronen, *et.al*., 2004); Fashion and Architecture also promote it (Casakin, Davidovitch, & Milgram, 2010). The present work explores how this quality arises in people with mild ID (borderline intelligence) and students of creative disciplines. The latter share a remarkable social sensitivity with vulnerable people, as they have historically been concerned with solving human needs.

3. Outcomes: innovation in the planning of spaces for Higher Education

A comparative reading of the results of the triad of surveys will be carried out, using a common analysis structure: *Typological-spatial theme/Emotional Responses: Analysis of results by population groups.* A simple code will be used: People with Intellectual Disabilities: (ID); Fashion students (FS); Architecture students (AS)

3.1. Social inclusion and Classroom scale

3.1.a.-Presence of Nature and Art
*Emotional Responses.-*The existence of natural elements in classrooms motivates positive emotional responses in the 3 groups (ID: 76%; FS: 81%; AS: 94%), which is proportional to what is manifested in the buildings. Regarding works of Art, their presence generates pleasant feelings, preferring to have them in the interior (ID: 80%; FS: 100%; AS: 63%).

3.1.b.-Texture in walls
*Emotional Responses.-*Enjoying natural lighting in the classroom generates highly positive emotional reactions in the 3 groups (ID: 96%; FS: 87%; AS: 94%). As a compositional and textural solution associated with the above, transparent vertical planes as limits are a factor on which these groups express different preferences; in ID 70-80% rate it positively, in FS: 40-50%; in AS: 60-70%. Besides, the 3 groups affirm that transparent partitions contribute to creating pleasant environments for group work.

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3.1.c.-Spatial appropriation, scale and sense of belonging

Emotional Responses.-The dimensions of the classroom condition affective responses, collaborating in the case of smaller scales to make the user feel more welcome and a feeling of belonging (ID: 65%: FS: 81%: AS: 63%). Having individual lockers or lockers is a fact highly valued by the 3 groups (ID: 85%: FS: 81%: AS: 63%).

3.2. Social inclusion and Building scale

3.2.a.-Composition and call effect in itineraries

Emotional Responses.-The majority of respondents showed positive affective reactions if the corridors are performed by curved compositions and contain elements that break the monotony in development (such as corners or spatial pauses) (ID: 81%; FS: 80%; AS: 89%). If the itineraries have an element at the end of their route or at intermediate points that generates a call effect, this awakens positive feelings of curiosity and security in the respondents (ID: 77%; FS: 80%; AS: 95%). In stairway landings, the emotional impact is assessed with greater positive intensity (ID: 88%; FS: 87%; AS: 97%).

3.2.b.-Elements of communication and distribution spaces

Emotional Responses.-In the majority percentage, ID, FS and AS recognize that accessing a distribution space and visually understanding the elements of communication (corridors or stairs) generates a positive feeling for them (ID: 86%, FS: 80%; AS: 95%). On the other hand, if these spaces are of considerable dimensions (in plan and height) this does not generate different extreme emotional impacts: in ID, 59% express that it causes them emotional discomfort or neutrality; in FS, 60%; in AS, 52%. Besides, casual meeting spaces are valued positively by the 3 groups (ID: 89%; FS: 87%; AS: 100%).

3.2.c.-Spatial vibration and colour

Emotional Responses.-Both in itinerary spaces and in distribution spaces, the treatment of the planes with warm colours generates positive emotional impacts on all groups, expressed in terms of joyful moods (ID: 84%; FS: 80%; AS: 92%). The use of chromatic variety as a tool to differentiate and

vibrate spaces is highly valued by all respondents, reflecting almost identical percentages (ID: 87%; FS: 87%; AS: 87%).

3.3. Social inclusion and Campus scale

3.3.a.-Uniformity and inner core
Emotional Responses.-A high percentage of respondents (ID) express positive emotional reactions to campuses with diversity in the composition of the different architectural pieces (85%). In the case of FS and AS, the responses reached similar values (92% and 78%, respectively). This percentage is significantly similar when answering the questions referring to the fact that buildings adopt a composition with respect to an inner spatial core (ID: 80%; FS: 80%; AS: 90%)

3.3.b.-Library: symbolic role
Emotional Responses.-The majority of respondents (ID, FS, AS) expressed a positive reaction to the fact that campuses have a separate building for the library. As specific information, it produced remarkably similar emotional responses, being an aspect that achieves a remarkably high degree of emotional satisfaction in all groups (ID: 88%; FS: 100%; AS: 95%).

3.3.c.-Entrances and limits
Emotional Responses.-The majority of respondents (ID, FS, AS) expressed a positive reaction to the fact that the sets show a clear and closed edge for the campus. Specifically, the existence of a single entrance to the campus produced significantly different emotional responses, being valued more positively by people with ID, and little by AS (ID: 52%; FS: 42%; AS: 7%).

4. Conclusions: towards innovation in planning spaces for Higher Education

To address the transcendent chapter of conclusions that derive from the research process, a specific methodology is used, summarized below. Given the typological-spatial partial theme, a cognitive and behavioral interpretation will be expressed (of affective responses to spatial typologies, based on Piaget theories)

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a.-Spatial properties; b.-Cognitive-spatial response; c.-Behavioral-spatial response

To assess the results of the research process in a cross-sectional manner, certain theoretical contents will be used later (Piaget, 1954). Piaget conceives space as a projection from the body, which expands consciously over the environment, establishing three typologies: euclidean, topological and projective; they will serve to establish the methodology for interpreting the cognitive-spatial and behavioral-spatial responses of people with ID and students of Fashion and Architecture

a.-Spatial properties.-It affects the quantitative, dimensional and geometric features of each typology, and the way in which they are passively perceived. It is related to the category of "*euclidean space*", assuming it as a physical container in which angles, measurements, surfaces or sizes can be identified.

b.-Cognitive-spatial response.-It refers to the more qualitative characteristics of each typology, and the way in which they are passively but subjectively perceived. It is related to the modality of "*topological space*", assuming it as a place in which an understanding of order, enclosure or continuity is accessed, and the cognitive perception of the variation of spaces in sequence, among other features. Among the environmental factors that influence this response, it should be noted that it can generate feelings of warmth, care, shelter, perspective mastery, or topophilia.

c.-Behavioral-spatial response.-It affects the properties of the different spatial typologies that are likely to induce behaviors, as a result of the user's active interpretation. It is related to the category of "*projective space*", assuming it as a personalized environment, where the point of view and the voluntary variations of the experience and variation of points of view are influential. This dynamic of internalization induces emotional responses and an appetite to conduct certain actions linked to the awareness of space, such as walking, moving and exploring the environment. It involves emotional and bodily intentionality.

4.1. Cognitive and behavioral interpretation of affective responses to spatial typologies (Classroom scale)

4.1.1. Presence of Nature and Art. Cognitive and behavioral interpretation

*a.-Spatial properties.-*Analyzing it in terms of "*euclidean space*", the existence of natural elements or works of Art inside the classrooms is configured according to their condition as complementary factors to the global environment in each case. Due to their essential nature, they are usually defined by sizes and locations subordinated to the geometry and physical features of the areas they complement.

*b.-Cognitive-spatial response.-*The existence of natural elements, such as plants or flowers, in the classroom generates emotionally pleasant sensations; this is consistent with the favorable assessment of Nature also in the internal areas of the building, and outside the campus. In relation to sculptural, pictorial works of Art, or artistic profile photographs, their presence is also valued very positively as a resource that provides additional training, especially in the case of FS (Menninger, 2011).

*c.-Behavioral-spatial response.-*If the classroom sees its interior enriched with elements from Nature or Art, an increase in social relations is induced, as it is within a place that provides cognitive enrichment, both as a context and as a theme. Likewise, greater curiosity is awakened by the discovery of morphological and artistic qualities, which reinforces the use of the classroom as a carrier of complementary formation.

4.1.2. Texture in walls. Cognitive and behavioral interpretation

*a.-Spatial properties.-*An approach to the classroom walls in terms of "*euclidean space*" reflects that its dimensional configuration is conditioned by the free height, as well as by its surface and plan measurements, with the frequent use of orthogonal geometry in the three-dimensional composition.

*b.-Cognitive-spatial response.-*Transparency in classrooms walls is an increasingly present trend in teaching environments (Benade, 2020). It provides environments with abundant access to natural light, a quality

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highly preferred by users. In what affects the "*topological space*", this type of planes generate positive responses, from a perceptual-experiential approach; the fact that FS do not value it as much as ID and AS may be due to a reason pointed out earlier: the preference to preserve intimacy of their creations, which have considerable dimensions (scale of the human body).

c.-Behavioral-spatial response.-In terms of "*projective space*", transparency in classrooms leads to a greater visualization of the immediate environment, as well as an increase in the appetite to go beyond conventional physical domains. It also awakens a positive feeling of non-concealment from the outside, and the consequent visual enjoyment of the context.

4.1.3. Spatial appropriation, scale and feeling of belonging. Cognitive and behavioral interpretation

a.-Spatial properties.-The physical dimensions of classrooms, associated with their compositional patterns, define its nature as material containers for teaching activities. These dimensions are performed by means of coherence guidelines between the general size, the floor area and the free height, making it possible to place functional emphasis on certain partial sectors.

b.-Cognitive-spatial response.-It has been found that the scale of classrooms affects the emotional responses of the 3 groups, with the smaller ones being the most appreciated. This feature is related to the psychological appropriation of space, and the associated feeling of belonging (Black-Hawkins, Maguire, & Kershner, 2022). The existence of individual lockers also contributes to the latter, which function as elements that awaken a sense of personal connection with the place. Small classrooms are especially valued by FS, an issue linked to the aforementioned desire for intimacy that characterizes their design work on the costume, as an object associated with the human body.

c.-Behavioral-spatial response.-The spatial emphasis on the smaller-scale areas of the classroom, such as corners, awakens in users the desire to

explore them, especially if they are thematized. It can also generate an increase in the frequency of use of the classroom environment, conducting stays or activities beyond those strictly for teaching.

4.2. Cognitive and behavioral interpretation of affective responses to spatial typologies (Building scale)

4.2.1.-Composition and call effect in itineraries. Cognitive and behavioral interpretation

a.-Spatial properties.-In terms of "*euclidean space*", the formal composition of the itineraries is performed following linear configuration models, straight or curved, with variable width dimensions depending on the user flows. The stairs usually have double sections, with one or more landings, usually located on the walls of the architectural piece.

b.-Cognitive-spatial response.-If the horizontal communication itineraries (corridors) have a singular element at their end (openings, or works of Art), so that it creates a call effect in the users, this generates a highly positive cognitive-spatial response in the 3 groups (ID, FS, AS). The existence of windows at the end of the corridors is particularly appreciated. But it is done with greater intensity in visual openings to the outside located on landings of stairs. This resolution refers to the pleasant sensation of momentary visual projection that accompanies vertical displacements, as well as an awareness of the presence of the environment and the entry of natural light (Kaplan, 2001).

c.-Behavioral-spatial response.-As far as it affects the "*projective space*", the knock-on effect created by the existence of openings or other singular elements in stairs or corridors favors the appetite for experimentation. At the same time, the consequent increase in the time of use of these spaces induces them to mutate from a mere condition of transition space to a place of social learning.

4.2.2. Elements of communication and distribution spaces. Cognitive and behavioral interpretation

a.-Spatial properties.-The areas of entrance and distribution tend to have considerable dimensions in terms of "*euclidean space*", compared to

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others that are more fragmented within the university building. Due to their nature as reception hubs and origin of communication routes, they often resort to centralized geometric solutions, where interior sections converge with different angles and measurements.

*b.-Cognitive-spatial response.-*The visual domain enjoyed from the distribution spaces can encompass the visualization of communication elements, which are preferably made up of corridors and stairs (Liang, & Huang, 2021). This fosters a more unitary, functional and simultaneous reading of the architectural piece, which is related to the "*topological space*". If the dimensions of these spaces are large, this does not constitute a factor of emotional acceptance or rejection, although the 3 groups chose to express that they feel some unease. It is worth adding the marked positive impact of open spaces for casual encounters and human interaction, because they activate social relationships, which are seen with intensity in people with ID. It should be noted that in FS and AS, large lobbies are frequent, as they usually host exhibitions of work, either by professionals or students.

*c.-Behavioral-spatial response.-*The prominent existence of spaces of distribution located in the core areas of the architectural piece encourages intense use, both for the dynamics of internal movement and to promote social relations within it. The visualization of communication elements leads to greater efficiency in accessing them, increasing agility in daily functionality.

4.2.3. Spatial vibration and colour. Cognitive and behavioral interpretation

*a.-Spatial properties.-*The interior spaces of a university building are designed as a result of a compositional process, which arranges them according to guidelines aimed at their effectiveness and correct compliance with interactions with common elements. The dimensions of each of them vary depending on the activity to be hosted, as well as the geometric resolution of the aforementioned interactions.

*b.-Cognitive-spatial response.-*The use of colour in the internal areas of architectural pieces, especially those with a warm tone, is valued as a resource that induces positive emotional sensations, as it contributes to creating environments of spatial welcome (Heller, 2004). This is valued by ID, FS and AS especially in distribution elements. It is also found that the 3 groups opt for the preference of chromatic variety as a resource to differentiate spaces. Besides, furniture can contribute as an added contribution.

*c.-Behavioral-spatial response.-*The chromatic variety contributes to distinguishing spaces, which generates a simpler and more direct perception and experience of them, and the consequent more direct reading of functional divisions or differentiations. When the reception or distribution areas are resolved with warm tones, the feeling of spatial welcome is reinforced, favoring an appetite to remain in them.

4.3. *Cognitive and behavioral interpretation of affective responses to spatial typologies (Campus scale)*

4.3.1. *Uniformity and inner core. Cognitive and behavioral interpretation*

*a.-Spatial properties.-*The urban layouts of universities are ordered using a variety of geometries, presenting homogeneous or heterogeneous languages. The internal composition often presents an open space that acts as the central core. The passive perception inside it becomes truly clear, as the architectural pieces are organized in a formal arrangement based on angular orientations that are easily understandable.

*b.-Cognitive-spatial response.-*It is notorious that the urban planning of architectural pieces with typological diversity and organized around a central nucleus as a place of interaction generates positive feelings in all the members surveyed (ID, FS, AS). Consequently, in terms of "*topological space*", it seems convenient to have built volumes organized around a central animated void, where their respective resolutions reflect a diversity that achieves the social metaphor of "*unity within diversity*" (Samoná, 1975).

*c.-Behavioral-spatial response.-*The organization of a precinct around a pedestrian interstitial area induces an appetite to access it, to place oneself

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in the centre to enjoy a panoptic perception, while at the same time awakening an interest in the exploration of disparity in architectural pieces.

4.3.2. Library: symbolic role. Cognitive and behavioral interpretation

*a.-Spatial properties.-*The most symbolic function on campuses is that associated with the "*Deposit of Knowledge*". Libraries are often of considerable size, occupying strategic locations, perceptible from many angles of the premises.

*b.-Cognitive-spatial response.-*Libraries or Learning and Research Resource Centres (LRRC) buildings play a functional role that is highly valued by all members of the university community (ID, FS, AS). When they are performed through free-standing architectural pieces, the symbolic role they play is reinforced, while at the same time they can function as visual landmarks in the campus landscape, facilitating orientation and serving as experiential nuclei. In addition, their constructed language sometimes serves as a support for cultural expression (González, 2004).

*c.-Behavioral-spatial response.-*People with ID and students (FS, AS) feel a special attraction for using libraries or LRRC, both for study or research activities, as well as for social learning and group work. If they are configured as autonomous pieces, behavioral responses are generated that lead to an increase in the frequency of their daily use.

4.3.3. Entrances and limits. Cognitive and behavioral interpretation

*a.-Spatial properties.-*If the campuses have a clear formal configuration of their limits, this leads to more unitary perceptions, as well as the fact that they have a main entrance of contrasting dimensions.

*b.-Cognitive-spatial response.-*Cognitive-spatial responses reflect disparate results. FS may prefer multiple entrances due to the tendency to generate multiple urban synergies, which could have their spatial translation in several entrances, as a sign of a vocation for openness. This

same preference is observed in the AS, which can be explained by the fact that their technical knowledge makes them value a variety of typological solutions, accessibility and route in urban areas. ID opt for a prominent main entrance, as they need to orient themselves from the outside, and a single access point acquires remarkable perceptual and emotional effectiveness. Conversely, verifying the existence of such an exit nucleus helps them feel safe, given their vulnerable condition.

*c.-Behavioral-spatial response.-*The existence of clear limits induces behaviors derived from the feeling of welcome, especially in population groups with ID. In the case of university campuses (FS and AS), the dissolution of boundaries suggests an appetite for communication and functional and experiential overlap with environments, especially if they are dominated by consolidated urban areas, and even more so if they have added heritage and cultural qualities (Campesino, & Salcedo, 2014).

5. Final reflections and initiative-taking approaches

The ideation of future criteria in the planning of Higher Education premises will always benefit from a preliminary research process, where human sensitivity plays a key role (Salingaros, 2020). The conception of physical spaces in institutions of Higher Education is a matter of transcendental relevance, as they are called to influence the mood of those who use them. To conduct this task, it has been demonstrated with the research on which this text is based that having the perceptual-emotional sensitivity of people with ID and some university students helps to enrich and diversify the views on this subject. First, because they all share subjective perceptions of the architectural education typologies; second, because having these 3 groups under a same strategic research process has meant a full inclusion activity, where all of them help each other.

For all these reasons, the initiative-taking approaches that have emerged from the research dynamics are classified in the various themes that have nourished the surveys. The recommendations for planning university spaces, in terms of innovation, can be put together from a simple extraction and generalization of these themes, as described in sections 4.1, 4.2 and 4.3, relating to the 3 scales: classroom, building and campus.

In fact, it has been proven throughout the development of the R&D Project "*Inclusive Campuses and Architecture*" that, through fully inclusive work, people with ID help others, and that the qualitative criteria they have

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provided through the emotional impact of the different spatial typologies are likely to optimize university environments, for any type of user of them.

Acknowledgments

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