ART AND EDUCATION

# EL APRENDIZAJE ACTIVO EN EDUCACIÓN SUPERIOR MEDIANTE EL ARTE CONTEMPORÁNEO

## ACTIVE LEARNING THROUGH CONTEMPORARY ART IN HIGHER EDUCATION

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## RESUMEN

En el marco del Espacio Europeo de Educación Superior, el proceso de enseñanza-aprendizaje actual se enfrenta a un conjunto de desafíos caracterizados por la digitalización, la adquisición de competencias, la implantación de nuevas metodologías docentes y el protagonismo del alumno en el proceso educativo. El objetivo principal de la presente investigación es conocer la percepción de docentes y universitarios ante una experiencia innovadora de aprendizaje activo que promueva la interacción y la colaboración en un entorno online singularizado por el dinamismo y la autogestión. El proyecto Making Art Happen apuesta por la instauración de laboratorios de exploración conjunta que circunscriban al arte contemporáneo como elemento facilitador de la educación activa. Se utiliza una metodología mixta mediante una encuesta online a los alumnos y entrevistas en profundidad semiestructuradas a los docentes involucrados en la experiencia artística online durante el curso 2021-2022 en tres universidades (Universidad Rey Juan Carlos, Universidad Europea de Madrid y Universidad Internacional de La Rioja). Los resultados constatan la utilización de tecnologías vinculadas al trabajo colaborativo y a la comunicación por parte de docentes y discentes. Se verifica el papel de los artistas visuales contemporáneos motivado por la demanda de tratar contenidos, mayoritariamente audiovisuales, para fomentar el aprendizaje y la reflexión crítica entre el alumnado. Además, los profesores abogan por la promoción de estas experiencias innovadoras en su docencia cotidiana, por lo que respaldan divulgarlas mediante plataformas audiovisuales abiertas, con la finalidad de potenciar su reputación y retroalimentación.

## PALABRAS CLAVE

Aprendizaje Activo, TIC, Experiencia Artística, Metodología Innovadora, Educación Superior.

## ABSTRACT

**Objectives:** Within the framework of the European Higher Education Area, the current teaching and learning processes face a set of challenges characterized by digitization, the acquisition of competences as the core of university education, the implementation of new teaching methodologies and the leading role of the student in the educational process. The objective of article is to understand the perception of teachers and university students in light of an innovative active learning experience that promotes interaction and collaboration in an online environment characterized by dynamism and self-management. The Making Art Happen project opts for the establishment of workshops of joint exploration that circumscribe contemporary art as an enabler of active education. **Methodology:** A mixed methodology is applied to students through the conduction of an online survey and semi-structured in-depth interviews with teachers involved in the online artistic experience during the 2021-2022 in three universities (Rey Juan Carlos University, European University of Madrid and International University of La Rioja). **Results:** The results confirm the use of technologies related to collaborative work and communication by teachers and students. **Conclusion:** The role of contemporary visual artists is verified, and it is motivated by the demand to deal with mostly audiovisual content to promote learning and critical reflection amongst students. Furthermore, teachers advocate for frequent promulgation of these innovative experiences in their daily teaching, for which they support disseminating them through open audiovisual platforms, in order to enhance their reputation and feedback.

## KEY WORDS

Active Learning, ICT, Artistic Experience, Innovative Methodology, Higher Education.

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## INTRODUCTION

Competencies have become the core of university education, especially as a result of the elaboration of the Tuning Project, in which a set of generic competencies are categorized through research carried out in more than 100 European universities (González Ferreras & Wagenaar, 2008). Once the European Higher Education Area (EHEA) has been consolidated, and as a turning point before the arrival of the 2030 Agenda, universities are amidst a process of transformation regarding teaching innovation, whose beneficiaries are students. Mas Torelló (2016) defines teaching competencies configuration as "the new competency profile that any professional must possess in order to properly develop their teaching, research and managerial functions" (p.13).

Logically, competencies are linked to learning, which is why they are referenced in the teaching guides of the subjects of the degrees adapted to the EEES. These are classified as general, specific and transversal. Menéndez-Varela and Gregori-Giralt (2016) assert that "one of the factors that favour students' reflection on their learning is their guided participation in the management of the teaching environments of the subjects" (p.515).

### Consonant with these Premises, Reference is Made to Peer Review for the Following Reasons

1) It improves understanding of learning objectives; 2) it requires high-level cognitive processes; 3) it transfers part of the responsibility for the evaluation to the student, which determines the type of learning considered important and the effort devoted to the subject; 4) because it emphasizes the collective dimension of knowledge; and 5) it supposes a good ratio between educational benefits and resources necessary for its implementation (Menéndez-Varela & Gregori-Giralt, 2016).

### ICT at the Service of Higher Education

In the current context, the consolidation of Information and Communication Technologies (ICTs) and their application to the pedagogical field entail a technological and educational scenario that poses important challenges related to didactic methodologies and models stand out, as well as those that affect the interrelationships that are established between the subjects that are part of the educational process. The digital realm "has become the only means to continue educating, training and giving meaning to the work that universities have been doing for centuries" (Cáceres Taladriz et al., 2021).

In addition, the role of ICT in Higher Education transcends its understanding as an instrument for educational development, conceived as a form of socioeconomic evolution of the countries in which they are implemented (Saikia, 2017). In this manner, the use of ICT stands as one of the main lines of research in relation to the teaching and learning processes and educational innovation today (Martínez et al., 2019).

Thus, the *Digital Education Action Plan 2021-2027*, drawn up by the European Commission, sets out the main objective of adapting education and training systems to the digital age. To this end, teachers must use digital technology in a skilful, equanimous and effective way, providing inclusive education and individualized learning where the student is the protagonist. The role of technology is highlighted as "a powerful and engaging tool for collaborative and creative learning. It can help learners and educators to access, create and share digital content" (Comisión Europea, 2020).

With this same approach, the 2025 Digital Plan, drawn up by the Confederación Española de Organizaciones Empresariales (Spanish Confederation of Employers' Organizations), or CEOE, is committed to innovation "putting the focus on learning, on the use of the opportunities that new technologies open up, and on the promotion of *Science, Technology, Engineering, and Mathematics (STEM)*" (CEOE, 2020). Presently therefore, those virtual education environments of a collaborative and constructive nature prevail that promote collaborative methodologies on Web 2.0 (Rodrigo-Cano et al., 2019).

In conclusion, it can be affirmed that the strengthening of remote teaching modalities and online learning, represent opportunities to readjust learning and teaching strategies far from the convenience of conventional formats (Sangster et al., 2020). However, its rapid penetration requires the promotion of critical and reflective thinking about the strategic management of ICT in Higher Education (Tejedor et al., 2020).

### Active Learning as the Engine of Higher Education

Along with a significant increase in the use of ICT, pedagogical modernization advocates for greater emphasis on student-centred learning in Higher Education, with the aim to improve the quality of teaching, giving the learner a participatory role in educational work. These technologies facilitate the active engagement of students (Pinto & Leite, 2020). It is confirmed that "the reflective and

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constructive use of ICT allows the development and activation of methodological strategies in virtual teaching environments that promote a new student attitude towards learning" (Izquierdo Expósito & Fernández Maestre, 2020).

Active learning "involves students in doing things and thinking about the things they are doing" (Bonwell & Eison, 1991). For it to be applied properly, it is necessary to create student-centred learning environments: ¨to promote learning based on the ability of students to relate what they already know with what the teacher proposes¨ (Chinchilla & Gómez, 2020). Thus, by implementing student-focused learning environments, Higher Education institutions seek to promote student self-efficacy and self-regulation (Duchatelet & Donche, 2019). Simultaneously, previous studies highlight student participation, skills development and motivation as key factors that encourage this type of learning (Trinidad, 2020).

## A Teaching Innovation Project Around Active Learning

The experimental project Making Art Happen (see note 1) arises from a latent need in university faculties, motivated by the significant change in the previously explained teaching and learning processes. In keeping with this philosophy, researchers from the London School of Economics have promulgated the acronym *SHAPE (Social Science, Humanities and the Arts for People and the Economy)*, in order to emphasize the Humanities in a globalized and constantly changing world.

The first prototype of these experiences was carried out in London in 2017, amongst the students of the Instituto Cervantes and those of the IES Vicente Cañada Blanch, replicating it in various universities in Madrid: UCM, URJC, UEM and UAM, through the Aid for the Creation of the Madrid City Council 2018 and the Aid for the Promotion of Art of the Ministry of Education, Culture and Sport 2018. Satisfaction with these experiences based on artistic mediation (V. et al., 2020) enables their application in universities in Navarre UPNA, UNAV, thanks to the aid granted annually by the Caja de Navarra Foundation. The latest edition, is contextualized around online teaching, specifically, in subjects of the UNIR, the UEM and the URJC under the protection of the Aid for the Creation of the Madrid City Council 2019 (see note 2).

The existence of this project is based on the understanding that there are other ways to explore the unknown. In the educational sphere, the immediate context of the student is changing, is liquid and requires the exercise of skills different from the standards of traditional education. The Comisión Europea (2017) suggests looking for new ways of learning that combine generic and digital skills in an increasingly mobile and digital society, where the visual image is considered essential for the transfer of knowledge and citizen training.

In this environment of necessary change, the project provides the possibility of meetings between university professors and professionals from the contemporary art, and cultural mediators who, through joint exploration workshops, understand that contemporary art represents an element that favours the exercise of an active education. It is conceived as a prototype workshop at the university where a guest artist generates an active creative experience to think about the "non-artistic" subject, and thus achieve experiential learning: "they learn by a process of trial and error, working actively and independently" (Piaget, 1949). The reason for the encounter between contemporary art and Higher Education are identified between the creative process of a contemporary artist and the skills that a university student should exercise, from the understanding of art as an instrument that fosters aesthetic commitment, involvement of the imagination, sensory activation, evocation of emotion, cognitive stimulation, or social interaction (Fancourt & Finn, 2019).

Based on the above, the main objective of this research is to understand the perception of teachers and university students regarding the innovative experience of active learning which encourages creativity and collaboration in an online environment characterized by dynamism and self-management. This general purpose is specified in the following specific objectives:

- To determine the relevance of pedagogical innovation from the genesis of the EEES to its consolidation today.
- To analyse the technological skills of teachers and students in their daily work, as well as the impact of these abilities on the educational task.
- To investigate the role played by this innovative didactic methodology in the teaching and learning processes in Higher Education.

The starting hypothesis proposes that this innovative experience implies a change in the teaching and learning methodologies by encouraging autonomy and interaction between students and teachers, where the student has a primary role in the current

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educational context linked to a society in constant digital and visual transformation.

## METHODOLOGY

In order to achieve the previously defined objectives, a mixed descriptive and explanatory methodology that combines quantitative and qualitative techniques is implemented. Regarding the quantitative methodology, María José Albert Gómez, asserts that:

[...] The objective of research is to explain, predict and control the phenomena. A series of hypotheses, which are usually assumptions of reality, are established, and a plan is designed to test them. The concepts included in these hypotheses are measured, and the measurements are transformed into numerical values (Albert Gómez, 2018).

### Regarding the Qualitative Methodology

according to Contemporary Philosophy, is the practice that aspires to the strict knowledge of phenomena, which are, simply, things as they are shown and offered to consciousness (Guerrero Bejarano, 2016).

The techniques used for this purpose have been surveys and semi-structured in-depth interviews, thus causing a methodological triangulation.

### Sample and Analysis Period

After carrying out eight online experiences during the 2021-2022 academic year in three national and international universities, both public (URJC) and private (UEM, UNIR), an online questionnaire was conducted with students of the following subjects and degrees (Table 1):

Table 1: Quantitative Research Sample.

| University | Degree/Master | Subject | Participants | Questionnaire answers |
|---|---|---|---|---|
| URJC | Degree in Audiovisual Communication | Contemporary Social Structure | 56 | 14 |
| UEM | Degree in Economy | Digital Ecology | 9 | 2 |
| | Master's Degree in Graphic Design | Portfolio Creation | 15 | 10 |
| | Degree in Digital Design | Audiovisual Language | 17 | 15 |
| | Degree in Digital Design | New Media | 17 | 14 |
| UNIR | Master's Degree in Social Intervention | Modernization and Social Change | 30 | 21 |
| | Degree in Digital Design | History of Design | 49 | 23 |
| | Master's Degree in Graphic Design | Audiovisual Culture | 27 | 7 |
| TOTAL | | | 220 | 106 |

On the other hand, eight in-depth interviews were conducted with all the teachers who participated in the artistic experience.

### Tools

Two instruments have been used to collect information: on the one hand, the survey method through the application of an online questionnaire (https://bit.ly/3BiOhnf), carried out with students who were part of the experience, in order to know their opinion and be able to assess it. Participation was voluntary and anonymous. This instrument is made up of 23 items with closed and semi-open responses of multiple and single response types, distributed in three content blocks: a) identification data; b) data on active learning in an online environment, where interaction, collaboration, learning and autonomy on the part of the student are measured; c) the use of ICT, the incorporation of new tools and the perception of the use of ICT in the artistic experience are explored.

On the other hand, a semi-structured in-depth interview was used for teachers, and designed *ad hoc*. As in the case of the questionnaire, the in-depth interviews were carried out, based on thematic blocks and were applied sequentially during the 2021-22 academic year. For this purpose, the authorization of each of the interviewees was requested, and all interviews were subject to recording and verbatim transcription. Their duration was 30 to 45 minutes. Discourse analysis is used to study the contents of the interviews in order to analyse speech, discourse and communication (Van Dijk, 2012). To do this, we proceed to a detailed reading to simplify the material, following the coding proposal of the Grounded Theory (Strauss & Corbin, 2002; Trinidad et al., 2006).

The interview script (Table 2) was outlined in three blocks that define the perception of teachers who had participated in said innovative experience of active learning in an online environment.

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Table 2: Organization of the Script of the Semi-Structured Interview.

| | |
|---|---|
| Block 1. European Higher Education Area (EHEA) | How many years have you been teaching?<br>Do you think university education has changed since you started teaching? In what respects?<br>From your point of view, do you think that the university of the twenty-first century faces new challenges? Which are said challenges?<br>Do you tend to innovate methodologically in your subjects from one academic year to the next? Give some examples. |
| Block 2. Information and Communication Technologies (ICTs) | What are the main ICT tools you use? For what purpose? Give an example.<br>What benefits/difficulties does the use of ICT bring?<br>Is there a tool that you do not currently use and would like to use in the future? |
| Block 3. Innovative classroom experience | Do you think that ICTs favour interaction/collaboration between teachers and students?<br>Do you think that this artistic experience has fostered the autonomous work of students?<br>Do you think that this experience of teaching innovation has increased creativity amongst your students?<br>Do you think that this experience of teaching innovation has fostered your creativity as a teacher?<br>Do you think that this artistic experience uses a new didactic methodology when teaching university subjects? In what sense?<br>Do you think it would be useful to apply the knowledge acquired in future situations?<br>Imagine that this artistic experience was published on open audiovisual platforms (YouTube, Vimeo, TikTok, Facebook) so that other people knew about it and could apply it. What is your opinion on this?<br>What have you gained from this experience?<br>Do you think that innovative experiences like this will be more common in the future of Higher Education?<br>Finally, do you want to add any consideration or comment regarding this experience? |

## RESULTS

### Quantitative Phase

In relation to the people surveyed, 106 students out of a total of 220 participants in the online artistic experiences that were developed throughout the 2021-2022 academic year responded. This represents a percentage of 48.1% with respect to the sample under study. These students mostly belong to UNIR, with 84.7%; followed by URJC, with 13.4%; and UEM (1.9%).

Regarding gender, it is women who have answered the survey to a greater extent, with a percentage of 66% compared to 34% of men. Those who have responded are between 20 and 55 years old. The majority age is between 23 and 28 years old, which is related to both Degree and Master subjects. The subjects in which the artistic experience has been implemented are heterogeneous; the predominant subjects are History of Design (21.7%), Modernization and Social Change (19.8%), Audiovisual Language (14.2%), Contemporary Social Structure and New Media, both with 13.2%, Portfolio Creation (9,4%), Audiovisual Culture (6.6%). However, the subject with the lowest representation is Digital Ecology (1.9%).

### Block 1: Active Learning

Students perceive that the experience has incorporated those elements that characterize an environment that encourages active learning (Figure 1). They have especially valued the indicators of interaction and critical thinking.

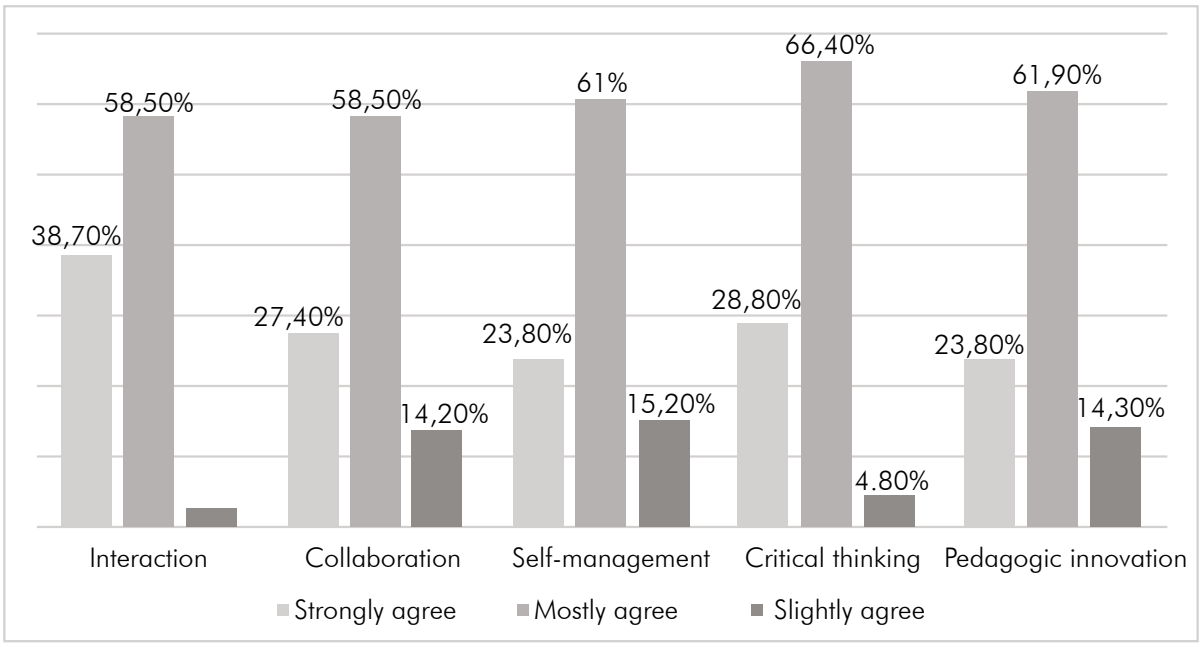


Figure 1: Promotion of Active Learning Variables Through this Innovative Experience.

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Differences are few when we disaggregate the data by gender (Figures 2 and 3). Even so, it is appreciated that men consider that the experience has allowed them to exercise more critical thinking compared to the responses of women.

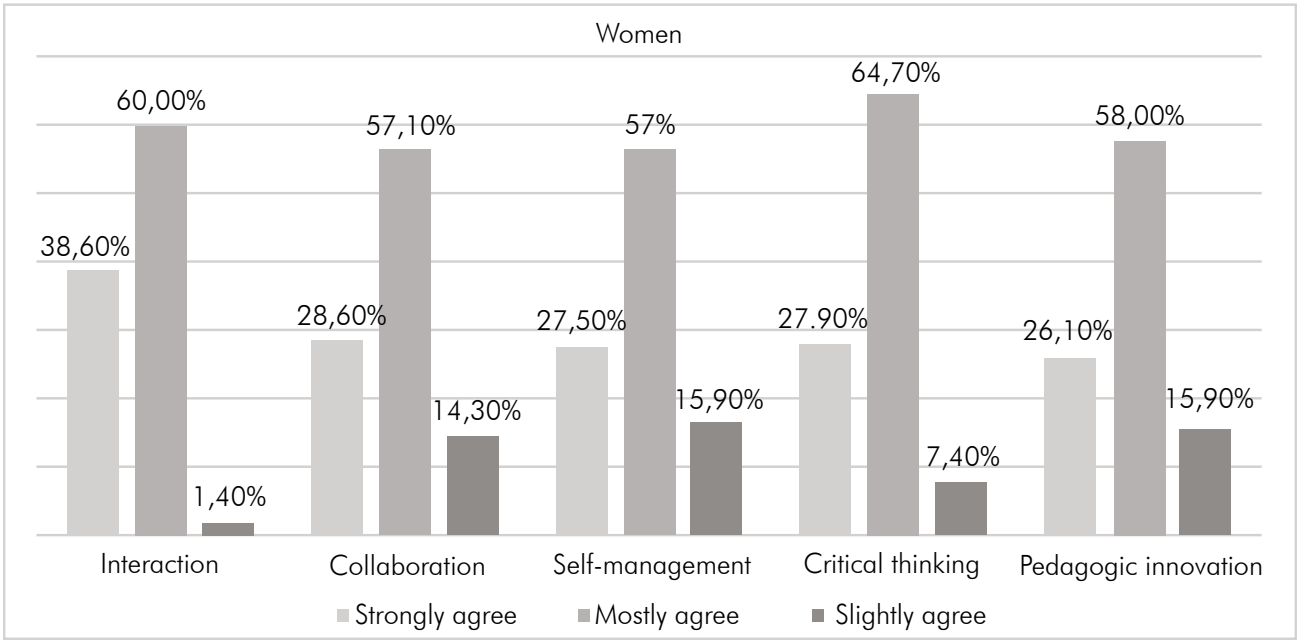


Figure 2: Differences by Gender (Women) in the Perception of the Promotion of Active Learning Variables of this Innovative Experience.

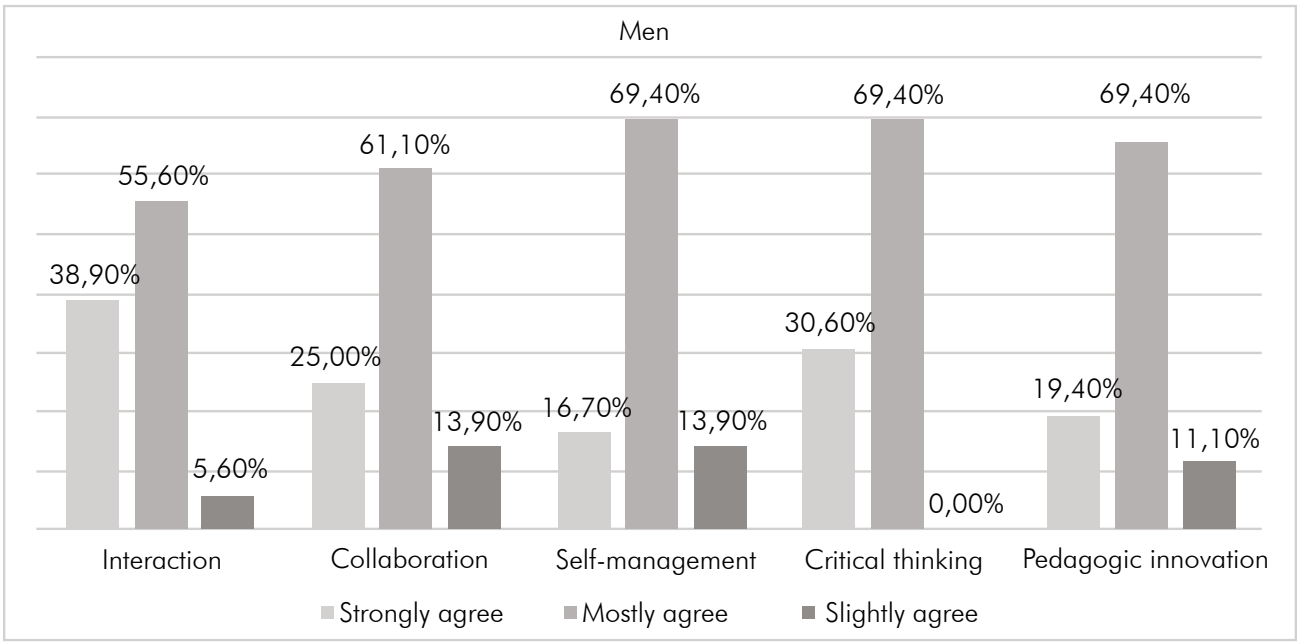


Figure 3: Differences by Gender (Men) in the Perception of the Promotion of Active Learning Variables of this Innovative Experience.

Regarding the transfer of knowledge, two-thirds of the people surveyed believe that they will apply the knowledge acquired in the experience in the future, mainly, the female gender (69.4%). In addition, they think that this knowledge is applicable in the professional field (88.6%), followed by the educational field (73.8%) and the personal field (68.6%). Regarding how the artistic experience carried out has influenced the learning process of the subject, 73% of the students consider that the experience has had an effect on the learning process of the subject. (Table 3):

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Table 3: Impact in the Learning of the Subject.

| Impact type | Frequency | Fragments of speech |
|---|---|---|
| Encourage their creativity, originality and innovation | 25 | "Being more creative"<br>"It was a very inspiring workshop" |
| Opening up to new approaches | 12 | "Expand the panorama"<br>"Open the mind"<br>"It gives a very interesting insight"<br>"Aperture of sights"<br>"New insights"<br>"Vision of an artist" |
| Put into practice or apply | 7 | "Uniting the academic and the work/professional seems crucial to know how to apply the knowledge" |
| Discover new expressions or artistic languages | 6 | "Learning to know our weaknesses as creative elements" |
| Learn about new teaching tools or give them a new use | 6 | "Understanding different digital tools to create audiovisuals" |
| Learn from and share with colleagues | 6 | "It reminds us that we can all create learning spaces"<br>"Making all of us participate in a single collective creation" |
| Reflecting on technology and digital media | 3 | "Seeing how to generate digital content from analogue and vice versa" |
| Thinking of art as a tool/weapon of social empowerment | 2 | "It has broadened my vision of regenerating forgotten, lost and marginal spaces"<br>"I have learned to appreciate what is close, the everyday, the mundane, teaching me that anything can become art and social criticism" |
| Research | 2 | "Observation and analysis" |
| Be in touch with artists | 2 | "Have contact with the real artist" |
| Be in contact with professionals in the sector | 1 | |

## Block 2: The Use of ICTs in the Teaching Activity

Regarding the use of ICT by students, it has been found that it is high or medium-high, mainly the use of collaborative tools (*Zoom, Meet, Classroom, Jitsi*), as well as *Office*, Drive and email. There are no notable differences in the management of tools by gender, since in the case of for example, collaborative tools, their use represents 90% in women and 92% in men. Linking the use of ICT to the artistic experience, 48% of the people surveyed consider that they have learned to handle new tools as a result of the experience. The tools they have learned to use are mainly creative in nature and are used for photo editing and 3D animation. After completing this artistic experience, 77% of the students consider that their interest in using new tools has notably increased. This interest should be interpreted as a motivation or a favourable predisposition to continue learning. The learner's perception about the integration of ICT in the artistic experience has been endorsed by the fact that the vast majority of students (97%) consider it appropriate to have these ICT tools incorporated in the classroom.

## Block 3: General Assessment of the Artistic Experience

All the students surveyed found the experience interesting. It has also been useful (94%) and significant (95%). Other characteristics collected regarding the degree of satisfaction in relation to the artistic experience are linked to active learning, such as: "It was introspective / enriching" (Woman, 24); "I liked creating with my colleagues / I liked the proposals of my colleagues" (Man, 28); "From time to time it is necessary to know a different form of seeing things, especially if it is artistic and to also be able to apply it to your reality in its different areas" (Man, 25); "Thanks to the team and the teacher for her interest in innovating" (Woman, 26); "I really liked creating something live" (Woman, 19); "I found it interesting how humour was introduced into the classroom" (Woman, 20).

In addition to the interesting, useful and significant attributes already described, and in addition to the promotion of active learning as a distinctive feature of the artistic experience, the surveyed students underline, in turn, the following characteristics associated with its development: "It has allowed me to broaden my vision in the face of opinions and ideas related to the subject, encouraged participation and free development" (Woman, 21); "It is a way of exploring other ways that favour interaction and relationship with the group" (Man, 24); "We have generated our own collective language" (Woman, 25).

As possible improvements pointed out by the students, the following are exposed: "There were few sessions and they were also brief" (Woman, 26); "We didn't have time to interact with each other" (Man, 22); "Maybe it should be given as a special class apart from class hours" (Man, 55); "Repeat the methodology to make learning more human" (Woman, 27).

## Qualitative Phase

## Block 1: European Higher Education Area (EHEA)

Regarding the number of years teaching, 49.9% of the lecturers have 7 years of teaching experience;

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one of them (16.6%) has taught for 15 years, and 33.5% have taught for between 18 and 22 years. In relation to the change in Higher Education during the last decades, 33.3% of the teachers suggest that Internet access, in a generalized way, has produced significant changes in education, accelerating this process in times of pandemic. 33.3% consider that there has been a change in roles, in which students acquire more prominence, reinforcing "their possibilities of self-management and self-evaluation" as competencies inherent to their daily learning.

Regarding the new challenges that the twenty-first university faces, most teachers maintain that education "faces a comprehensive digital transformation", in which it must "incorporate and adapt its academic configuration with the addition of new degrees", through directly related materials, such as science, technology, engineering and mathematics *(STEM)*. This is due to the system demanding competitive experts trained in this type of content, introducing "social networks, video platforms, gaming, etc., adapting to a mixed methodology: face-to-face / virtual".

Another teacher (16.6%) states that: "The challenges of this education are not only technological; we also compete with greater difficulty in maintaining the attention of our students". With respect to the methodological innovation applied to the subjects taught, 100% of the teachers maintain that every year different practices, exercises, activities and all kinds of strategies are incorporated into their subjects. One of the teachers (16.6%) states: "I tend to innovate with activities based on service learning and active learning". In relation to active learning, he says it occurs "through the Making Art Happen project". Another teacher (16.6%) says that: "We have developed augmented reality tools at the university for an Erasmus + project and, of course, the Making Art Happen project". Two of the teachers (33.3%) use gamification in their activities in order to motivate students. Finally, one of the educators (16.6%) adds: "I am incorporating different strategies to turn students into cultural producers, using, for example, performances, ready-made or found footage documentaries, so that the students' observation be wider and more creative".

## Block 2: the Use of ICT in Teaching

Regarding the use of ICT by teachers, all the interviewees state that they use them to a greater or lesser extent, highlighting the tools provided by the virtual classroom of each of the universities participating in the study. One of the teachers (16.6%) asserts that: "Our university is strictly online, so our pedagogical ecosystem is based on ICTs: Adobe Connect, and virtual campus, to which the tools commonly used by students (*YouTube, Zoom, Teams, Google Apps*, etc.) are added". Another of the teachers (16.6%) stated to "having carried out a questionnaire using gamification" and two other teachers (33.3%) expressed that they "use ICT tools such as *Teams, YouTube, Google Apps*".

## Block 3: General Assessment of the Artistic Experience

For 83.3% of the university teachers interviewed, the use of ICT stands as a key resource that fosters collaboration and interaction between teachers and students. For this purpose, it is required that teachers are able to encourage their use amongst students, "presenting all the advantages that the proper use of ICT can offer". In addition, thanks to the use of these tools "the student feels that the teacher is more involved". This aspect results in teacher satisfaction as they see their effort and dedication rewarded. Nevertheless, the importance of both parties being familiar with these tools and their possibilities is emphasized, since, otherwise, "a wall that makes interaction/collaboration unfeasible" could be established, as stated by one of the interviewed teachers.

From the frame of reference favoured by ICT in education, 66.6% of the teaching and research staff who have participated in the artistic experience consider that it has promoted the autonomous work of students. Specifically, two of the six interviewees link autonomous work with the students' capacity for reflection. The remaining 33.3% clarify that autonomy is already part of their usual educational routine, motivated by the online learning modality.

Creativity is, alongside autonomy, another of the characteristics analysed in the interview. 83.3% of teachers say that this experience of teaching innovation has increased creativity amongst their students, developing interesting initiatives with original results. Teachers emphasize curiosity and motivation as qualities linked to creativity. Additionally, 66.6% indicate that the experience encouraged their creativity as teachers, as well as their interest in continuing to innovate with their students: "The exchange of synergies between participants is essential to promote creativity".

When addressing the assessment of artistic experience as an example of a novel didactic methodology to teach university subjects, 83.3% of those interviewed agree with this statement. A teacher states: "I find it very difficult to bring art into the classroom and to be able to connect it with the content of the subjects taught, and

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thanks to this project it has been achieved, with surprising results". Two of the six teachers value this initiative as a breakthrough in the academic program, traditionally unattractive and excessively corseted: "It helps to remove students from their classic educational path. It moves them to develop the competencies of their subject but using an innovative methodology".

In general terms, the experience has provided the teacher with qualities such as motivation to continue innovating (33.3%), desire to continue with the experience (33.3%), implication (16.6%) and freshness (16.6%). The interviewees thank and praise the project, stating that it provided: "personal and professional satisfaction. It has been an intense but enriching experience". All teachers highlight the usefulness of applying the knowledge acquired in future situations and think that innovative experiences such as this one will be more common in the future of Higher Education. Hence, they agree to disseminating the initiative through open audiovisual platforms in order to increase its notoriety and possibility of replication.

## DISCUSSION AND CONCLUSIONS

Teachers innovate, in many cases, incorporating elements typical of a Knowledge Society, where electronic devices and their uses, and languages blend in with the standard forms of learning and pedagogical interaction. It must also be understood that ICTs are not only a mere instrument, but also play a transforming role in spaces and their use, blurring the boundaries between the educational institution and the home, as well as those between work and leisure (Furlong & Davies, 2015).

For this reason and faced with the requirement to respond to the learning needs of these students, who while growing up, have been largely trained with and for the new media, it is necessary to experiment with new formats for online Higher Education. In these formats, attention, interaction, and directionality of the information are conditioned by electronic screens. The use of technologies for the learning process involves accessing multiple resources and perspectives, helping to understand complex procedures and active learning, and also influencing academic performance (Noor-Ul-Amin, 2013).

Another purpose of this research has been to examine the role played by innovative didactic methodologies in the teaching and learning processes in Higher Education. In order to analyse teachers' and students' acceptance of new forms of encounter with the knowledge of these subjects in an online format, a prototype that considers the variables and conditions that interfere in this learning process is proposed: the lack of physical presence determines certain collateral behaviours that affect attention, interaction and, ultimately, learning.

In this context, the Making Art Happen project is designed. An innovative learning experience is launched through creative processes designed by contemporary visual artists and teachers of ¨non artistic¨ subjects to explore questions related to the subjects, in the arena of the methodologies of critical visual thinking. This also favours creativity, self-management, and collaboration in the online learning process. Therefore, the initial hypothesis raised in the investigation is confirmed. The reason why contemporary visual artists are used responds to the demand to treat highly visual content, images and audio-visual material, which are not innocent, and which require an exercise of learning and critical reflection similar to the one we assimilate through texts. The methodologies that have been carried out are based on collaborative and interactive dynamics between groups, using new technologies; individual works made with new media and presented in groups; or online co-creation (synchronous) to build audio-visual elements relevant to the subject. All these processes require staging the body in front of the screen, which implies more presence, participation, and commitment than a conventional unilinear online education.

In order to measure the perception that both students and teachers have had in this regard through this experience, the questions in block 3 were designed. The results show very positive student receptivity to these types of methodologies, given that all the students surveyed found the experience interesting, useful (94%) and significant (95%). The learning methodologies focus on the participation of the students, making it possible for this participation to derive in an experiential reflection that increases the level of commitment to what has been learned, encourages autonomy and allows collaboration with classmates.

In order to measure the satisfaction and perception of the experience in this regard, the questions in block 1 are designed and the open reflections that are collected in table 3 are analysed. The aforementioned reflections show the impact that these experiences have had on fostering creativity, originality and innovation. It was also necessary to know to what extent new technologies are used in online training to verify if said technologies help when motivating students and teachers. To analyse the technological skills of teachers and students in their daily work, as well as its impact on the educational task, block 2 was formulated.

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Both teachers and students regularly use certain technologies associated with collaborative work and communication. The experiences carried out, on some occasions, have motivated the implementation of new technological tools.

As a general conclusion, it is inferred that the current ecology of university learning, especially after the impact that COVID-19 has had on university attendance, makes it increasingly necessary to explore new ways of approaching students in the digital environments of Higher Education. These novel ways incorporate learning processes that allow facing the unilinear characteristics of shared information and remote attendance. By incorporating dynamics typical of contemporary artistic research, such as synchronous co-creation, active and collaborative reflection as well as self-management, response to some of the demands of the EHEA and the 2030 Agenda is met.

Finally, both the limitations and the prospects of this prototype of active online learning are shaped. The greatest limitations have been associated with the lack of time for the experiences to be fully developed, especially in those university teaching formats where each session lasted 45 minutes. In addition, certain problems of adaptation of some of the artists to online educational platforms arose, since some of them used specific university software, which had not been previously used by the artists participating in the project. Regarding the prospective project, the incorporation of part of these methodologies to some of the subjects taught at UNIR is confirmed, in a specific program called Impact Learning, where students are trained in VUCA environments (characterised by volatility, uncertainty, complexity and ambiguity).

## NOTES

1. The Making Art Happen project has a display digital tool for the educational and scientific community: https://www.makingarthappen.es/
2. The present article, as well as the implementation of the artistic experience detailed in it, are the result of the Creation Grants of City Council of Madrid, 2019 (extended in 2020-2021 and 2021-2022, due to COVID-19). BOAM no. 8,491 (September 27, 2019).

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