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Actions for gender equality in scientific-technical areas in Spanish universities

Acciones para la igualdad de género en las áreas científico-técnicas de las universidades españolas

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ABSTRACT

This article analyses the actions carried out in Spanish universities to achieve gender equality in scientific-technical disciplines, where women are still under-represented and there is a low level of gender mainstreaming that can affect research and innovation. In order to diagnose the situation, a survey was carried out aimed at the equality units that form part of the Network of Gender Equality Units for University Excellence (RUIGEU). The survey consisted of thirteen questions relating to: actions to favour the access and permanence of women in the PECS areas (Physics, Engineering, Computer, Science), the recognition of student work carried out with a gender perspective, the valuation of teaching and research with a gender perspective, the visibility and recognition of female researchers and actions for effective equality. This survey was anonymous and was answered by 28 units. From the answers obtained, we can extract a low level of involvement of the universities in promoting equality in this area. Furthermore, the analysis of archetypes shows that only five of the universities

that participated in this study are committed to equality in the scientific-technical field and carry out actions to achieve it. These results show, on the one hand, that it is possible to implement actions to promote equality in the scientific and technical field. On the other hand, the collaboration of other institutions (Ministry of Universities, National Agency for the Evaluation of Accreditation (ANECA) and Conference of Rectors of the Spanish University (Crue)) is necessary to promote equality in all universities.

Keywords: gender equality, gender stereotypes, gender bias, STEM education, research training, women scientists

RESUMEN

En este artículo se analizan las acciones llevadas a cabo en las universidades españolas para alcanzar la igualdad de género en las disciplinas científico-técnicas, donde las mujeres siguen estando infrarrepresentadas y existe una baja transversalización de la perspectiva de género que puede afectar a la investigación y a la innovación. Para realizar un diagnóstico de la situación se elaboró una encuesta dirigida a las unidades de igualdad que forman parte de la Red de Unidades de Igualdad de Género para la Excelencia Universitaria (RUIGEU). La encuesta estaba formada por trece preguntas relativas a las acciones para favorecer el acceso y permanencia de las mujeres en las áreas PECS (Physics, Engineering, Computer, Science), el reconocimiento de trabajos de estudiantes realizados con perspectiva de género, la valoración de la docencia e investigación con perspectiva de género, la visibilización y reconocimiento de investigadoras y las acciones para la igualdad efectiva. Esta encuesta era anónima y fue respondida por veintiocho unidades. De las respuestas obtenidas podemos extraer una baja implicación de las universidades para impulsar la igualdad en este ámbito. Además, el análisis de arquetipos nos muestra que sólo cinco de las universidades que participaron en este estudio están comprometidas con la igualdad en el ámbito científico-técnico y llevan a cabo acciones para conseguirlo. Estos resultados ponen de manifiesto, por un lado, que es posible implementar acciones para la igualdad en este ámbito y, por otro lado, que necesitamos de la colaboración de otras instituciones (Ministerio de Universidades, Agencia Nacional para la Evaluación de la Acreditación (ANECA) y Conferencia de Rectores de la Universidad Española (Crue)) para impulsar la igualdad en todas las universidades.

Palabras clave: igualdad de género, estereotipos de género, sesgos de género, educación STEM, Formación en investigación, científicas

INTRODUCTION

In Spain, female students are in the majority in university classrooms, but there is still a significant horizontal segregation by degree, with a lower presence of women in some disciplines linked to STEM (Science, Technology, Engineering and Mathematics) or PECS (Physics, Engineering, Computer, Science) areas. This

last acronym is used to emphasize that it is in these areas where women are less represented (Cimpian et al., 2020; Sáinz, 2017). Approximately three out of every four students in undergraduate and first and second cycle studies in Health Sciences are women, i.e. 71.8% of students in these disciplines, while in Engineering and Architecture the percentage of women drops to 26.5%, as shown in the report *Científicas en Cifras 2023* (Unidad de Mujer y Ciencia, 2023).

This situation is not new in Spanish universities or in the Western context, since almost sixty years ago Alice Rossi (1965) asked the question: why so few women? Since then, numerous studies have been carried out that show the influence of multiple social and cultural factors in the gender gap that exists in certain careers in the scientific-technical field and the need to continue our efforts to reduce this gap (Verdugo-Castro, 2022). Thanks to this research, we now know that the low representation of women in university careers related to PECS disciplines is not related to girls' performance or skills in these fields, but to the gender stereotypes that condition their choices at school (Bian et al., 2017; Couso, 2023). These stereotypes affect girls from an early age: at the age of six, girls already believe they are less bright than boys (Bian et al., 2017) and in primary school they perceive themselves to be less competent in mathematics and show greater anxiety before mathematics exams (Ayuso et al., 2021). Moreover, taking into account that students' interest in science decreases as they get older (Martín et al., 2023), action should be taken in the early stages of education to promote more vocations in the STEM field; without forgetting the stereotypes and expectations that teachers have and that they can transmit to students (Couso, 2023), and that we must combat by providing gender training to active teachers and future teachers so that they can educate in equality.

The participation of women scientists and researchers in the celebration of the International Day of Women and Girls in Science has been fundamental in providing students with female references in PECS areas, helping girls to see these careers as a possible career option. This promotion of scientific-technological vocations in girls and young women is an equality measure successfully implemented in 2022 (Women and Science Unit, 2023), although it seems to be carried out primarily in secondary education. Given the importance of these promotional activities, the participation of female researchers and professors should be recognised and prevented from becoming an increase in women's "academic housework" at university (Heijstra et al., 2017), as they devote more hours than their male colleagues to these tasks of care and service to the students (Cabero et al., 2023).

But it is not only a matter of increasing the number of female students in these degrees, we also have to take into account that "when scientific-technical areas are a socio-economic scenario of high employability and excellent salaries for qualified people, men move to occupy these socio-economic centres and women remain

on the margins" (Samper-Gras, 2022, p. 209), which could explain the changes in enrolment in the mathematics degree in recent years. We should also be able to retain our female students (González-Pérez et al., 2022) and researchers (González, 2018) and end the dynamics that push them out of the system, including harassment (Yang & Wright, 2018; Bernardo, 2021), which has remained silenced in Spanish universities (Valls et al., 2016) and the criminalisation of motherhood (Gallardo, 2021; Powell, 2021). Not forgetting that there are gender biases in the scientific evaluation system (Moss-Racusin, 2012) and that women are systematically denied publications and citations, hindering their professional promotion (Sugimoto & Larivière, 2023), which favours vertical segregation or the so-called scissors effect that still persists in universities and public research organisations (Women and Science Unit, 2023) and contributes to a 12.7% pay gap in universities (De la Cal, 2023). This scissors effect also affects other more feminised areas, such as biomedicine, and to overcome this inequality "it is necessary to distribute women's and men's time fairly, favouring conciliation; and that equality policies between women and men are implemented effectively, not only by limiting themselves to establishing recommendations but also by taking concrete action and sanctioning non-compliance" (Segovia et al., 2023, p. 408). Otherwise, we will continue with this low female representation in the field of science and technology, which, in addition to reducing work opportunities and women's participation in future advances and decisions, also affects the quality of science, since "the presence of women in science (like other groups) is not a sufficient condition for better science, but it is necessary" (García Dauder & Pérez Sedeño, 2017, p. 9). On the other hand, Schiebinger and Klinge (2020) show us the importance of including sex and gender in research and innovation, and the consequences of not doing so (harm to people, delay of innovations...).

The involvement of universities is of great importance in order to solve the problems listed in the previous paragraphs. To this end, they should promote the incorporation of the gender perspective in the teaching of disciplines related to PECS (Calvo-Iglesias, 2022a), and teach students to introduce the sex/gender approach in research (Calvo-Iglesias, 2022b), thus complying with the laws in force at both European and national level. Universities should also train future pre-school, primary and secondary school teachers to promote coeducation and to support a non-stereotypical choice of university studies. All of this would contribute to achieving Goal 5 "Achieve gender equality and empower all women and girls" of the Sustainable Development Goals (SDGs) set by the United Nations. And we must not forget that, although "we currently find ourselves in a favourable context in which new educational laws allow us to rethink the development of teacher training in which coeducation becomes an essential element" (García-Lastra, 2022, p. 33), for now the integration of the gender perspective in university teaching is

scarce, as stated in Miralles-Cardona (2020). Although important steps have been taken towards this, such as the collection of guides published by the Xarxa Vives d'Universitats (Calvo-Iglesias et al., 2022), which already has thirty-eight guides, twelve of them belong to the field of science and engineering, and the provision of training courses on gender perspective among teaching and research staff, but male participation in these courses is very low (Unidad Mujer y Ciencia, 2023). To understand this situation, we must take into account the resistance to implementing gender equality initiatives in Spanish universities (Castaño & Vázquez-Cupeiro, 2023) and the neoliberal context that has been implemented in the university and which directs teaching and research staff to promote their research activity (Saura & Caballero, 2020) in order to climb positions in the rankings. This evaluation policy based on rankings is beginning to be questioned after the recent scandals (Galán, 2023) and it is not going to help us achieve gender equality, as shown by the study carried out by Reverter-Bañón (2020) on the Times Higher Education ranking.

Based on the report prepared by the Network of Gender Equality Units for University Excellence (RUIGEU), which shows the diagnosis of the mainstreaming of the gender perspective in teaching and research, the measures for prevention and action against harassment, and the measures for joint responsibility and work-life balance in the public and private universities that make up the network (RUIGEU, 2022), we have prepared and analysed a survey to carry out a diagnosis of the situation of the actions to promote gender equality in STEM areas carried out in Spanish universities. This survey has been addressed to the equality units because, as stated in the Organic Law 2/2023 of 22 March on the University System (23 March, 2023), they are "responsible for advising, coordinating and evaluating the mainstreaming of equality between women and men in the development of university policies, as well as for including the gender perspective in all the activities and functions of the university". This is the first time that this diagnosis has been carried out and, therefore, it complements the RUIGEU report (2022). The purpose of this survey is to find out about the implementation of measures to favour the presence of women in STEM or PECS areas, which should be implemented at all stages of education, from infant education to the recognition of women in PECS disciplines in appointments as Honorary Doctorates, showing that we are not just guests, but that women have made and continue to make important contributions to science and technology.

METHOD

Participants

The Network of Gender Equality Units for University Excellence (RUIGEU) includes the equality units of all Spanish public universities and those of private universities that have applied for membership. In 2023, the RUIGEU is made up of the units of 54 universities (RUIGEU, 2022).

To collect information about each university, a survey was sent out with questions about the initiatives and policies carried out in their university on gender equality with emphasis on the PECS field. The survey was sent to the 54 RUIGEU units during December 2022 and January 2023 on three occasions (two reminders), in order to collect more responses. A total of 28 units responded, i.e. 52% of the units.

Survey

The survey was elaborated with Google forms and consisted of 13 questions so that it did not take long to answer and was easy to answer. The answers were given with several options and there was always a section for others, so that they could optionally write if they wished to clarify their answer. The full questionnaire is available at https://bit.ly/3v8IdiY and the questions are also specified in the Results section. However, they can be grouped into several areas: a) actions to fight against gender stereotypes before access to university (questions 1 to 3); b) actions to favour access and permanence in the PECS areas (questions 4 and 5); c) recognition of students' work carried out with a gender perspective (questions 6 and 7); d) valuation of teaching and research with a gender perspective (questions 8 to 10); e) visibility and maximum recognition of female researchers in the STEM area (question 11); f) actions for effective equality (questions 12 and 13).

Limitations

Since not all units responded, the information comes from a self-selected sample. Therefore, the study is exploratory, only descriptive statistics will be used, not inferential statistics.

The survey did not deal with personal data, but with data from the institutions. However, in order to avoid possible non-response to hide a low involvement in gender equality on the part of some universities, the survey was anonymous. It could be answered without specifying information about the institution. In any case,

a response rate of 52% is much higher than the usual response rates for university staff, which range between 25 and 35% (Cabero & Epifanio, 2021). Moreover, according to Menachemi (2011) it seems that in online surveys conducted in universities, response bias is undetectable.

On the possible bias of non-response, Armstrong and Overton (1977) suggest three approaches. The first would be to compare with known values in the population. However, this is not possible in our case because we do not collect data from the responding universities and trying to find the answers to the survey questions on the websites of the 54 universities is an arduous and complicated mission, in addition to the fact that such information is not always available on the websites. It is precisely for this reason that we designed the survey. The second approach would be to consider subjective estimates of non-response. It is assumed that those people most involved in the issue will respond. So, in our case, the non-responses could correspond to those universities with a lower degree of involvement in equality policies, especially in the STEM field. The third approach would be based on comparing the responses of the different waves of respondents. Here it is assumed that the respondents after the last reminder are more similar to the non-respondents. In the last reminder, 5 universities responded, which is a small number to draw conclusions from. In any case, their responses are not out of line with those obtained previously, although there are perhaps slightly more negative responses and unknown answers.

Despite these limitations, this study provides a snapshot of the situation of equality policies focused on the STEM field in Spanish universities, which has not been carried out to date. Therefore, although it is possible that it reports statistics that might overestimate to some extent the equality policies in STEM currently in place, if indeed the universities most involved responded in greater proportion, this study offers a novel and important contribution to pointing out avenues for improvement in relation to equality in STEM.

RESULTS

As each question had different possible answers and all of them are categorical, the results of each question are presented and analyzed separately.

Regarding the first question: "at your university, is there any programme or initiative to bring STEM careers to primary school girls?", 15 units (54%) stated that no such programme existed at their university.

The second question "If your university offers teaching or primary and early childhood education degrees, in the subjects dedicated to mathematics didactics, is there any topic dedicated to coeducation in mathematics?" reported the following results: in six of the 28 universities those degrees are not taught, three of those where it is taught were unaware of it, and in only three cases the answer was affirmative, while in 16 cases the answer was negative. Consequently, of those universities with teaching degrees, according to the data available to the equality units, only 16% have a topic dedicated to coeducation in mathematics.

The third question "If your university offers a Master's degree in teacher training in the subjects of science (physics and chemistry), technology and/or mathematics, is there a topic dedicated to coeducation in these disciplines? "Therefore, of the universities that offer such a Master's degree, according to the data provided by the equality offices, only 5% of the universities that do offer such a Master's degree devote a topic to coeducation in these scientific-technical disciplines.

In reference to the fourth question "In your university, is there any action to favor the incorporation of female undergraduate students in PECS (Physics, Engineering, Computer Science)?", 14 universities (50%) indicated that there was no action. Among those that did and indicated what they consisted of, the most repeated actions were campaigns and scholarships.

Regarding the fifth question "In your university, is there any positive action to favor the permanence of women in pre- and post-doctoral stages in PECS areas?", one did not know the answer, while 21 units (78%) answered that there was none. Of those who answered in the affirmative, three corresponded to the undergraduate stage, and four to the doctoral and postdoctoral stage. One of these initiatives was a mentoring programme.

The sixth question "At your university, are there any specific awards for dissertations and theses in mathematics-intensive areas, such as PECS, to assess gender mainstreaming in these areas?" yields the following data: six universities do not offer awards in any area; 19 units offer awards, but not specific to these areas, while three universities do offer specific awards in different fields.

The information obtained from the seventh question "In your university, do any of the criteria for awarding extraordinary doctoral prizes consider that the thesis incorporates the gender perspective?" is shown below: four units do not know,

two universities (8%) answer affirmatively, one of them indicates that only a few doctoral programmes, while 22 units indicate that it is not considered.

Regarding the eighth question "if your university has a programme for assessing teaching, such as the DOCENTIA programme or similar, for example, for the recognition of five-year periods, do you get extra points if you teach with a gender perspective or training in equality, as a specific section?", one unit does not know, 22 universities (81%) answer in the negative, three units indicate that teaching with a gender perspective is valued and two universities value training in equality as a specific section.

The responses to the ninth question "If your university has a programme to fund educational innovation projects, are extra points awarded for projects that integrate the gender perspective?" are as follows: one unit does not know; the programme does not exist in four universities; it is not valued in 17 universities (74%), while it is valued in six universities.

In reference to the tenth question "If your university has a programme to finance research projects, is equality valued in the projects? "Again, one unit does not know; the programme does not exist in six universities; it is not valued in 16 universities (76%); and among the five universities that do value it, it is valued in the following way: in one university extra points are given if the project is directed by a female researcher; in another extra points are given if the team is an equal-gender team; and on another occasion extra points are given for the two previous conditions; and finally, in two universities it is valued that the project integrates the gender perspective.

The eleventh question asks whether "in your university, is there an Honorary Doctorate in STEM disciplines?", with the result that two units do not know, and in 11 cases the answer is negative (42%).

The information collected in the twelfth question "in your university, do people who have suffered a break or reduction in research, either due to situations recognised by leaves of absence, or due to other situations, such as care in the COVID crisis, have the possibility of reducing their teaching in order to recover research, if they so wish, by means of a specific programme for this purpose? "The answer is summarized as follows: two units do not know; in 18 universities there is no programme at all (69%); in five of the universities only for maternity leave; while in three of them, in addition to leave, there is also leave for caregiving. None of them consider situations not recognized as leave situations.

In the thirteenth question "In your university, in the event that a student suffers inappropriate behavior or even harassment, are there mechanisms in place so that this person can immediately change university (by paying for the transfer) or research group if they wish to do so? "The following answers were obtained: one of the units does not know; 19 units (70%) answer in the negative; in the affirmative

cases, the answers are very heterogeneous, in some cases only indicating a change of research group within the same university or on different campuses; while in others it is explicitly stated that the transfer is paid for.

Archetype analysis

In order to analyze the responses in a multivariate way and thus to discover the joint behavior of the universities, archetype analysis with missing data is used (Epifanio et al., 2020). Using this statistical technique that is similar to cluster analysis, but with important differences (see Cabero et al. 2023 for a discussion of archetype analysis in education), the archetypical universities, those with the most extreme responses, are found and the rest of the universities are expressed as percentage mixtures of these archetypical universities. This helps the interpretation of the results. Three archetypal universities are considered in order to facilitate the visualization and analysis of the results. Table 1 presents the responses to the 13 questions, denoted by P, for the three archetypal universities obtained, where 0 indicates a negative response and 1 a positive response. In the sixth question, 0.5 indicates that awards are given for TFG and TFM with a gender perspective, but not by field. Missing data are denoted by NA ("not available"). The data and the code to reproduce the results are available at http://www3.uji.es/~epifanio/RESEARCH/datoscodigo.zip.

Table 1
Responses from the three archetypal universities.

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
A1	0	NA	NA	1	0	0	0	0	NA	0	0	0	0
A2	0	0	0	0	0	0.5	0	0	NA	NA	1	NA	NA
A3	1	1	1	1	1	0.5	NA	1	1	1	NA	0	1

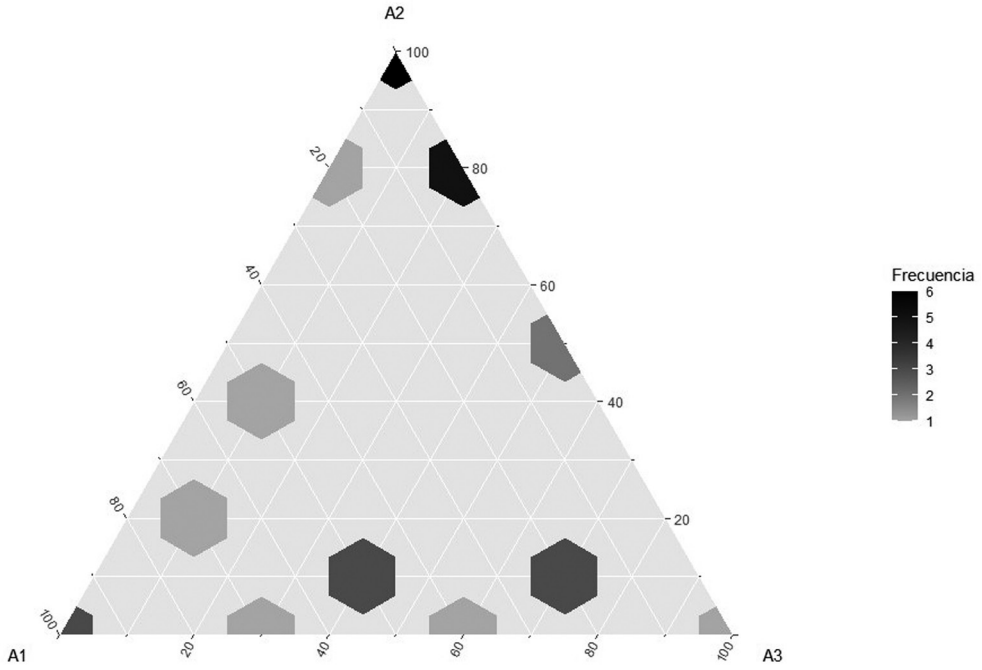
Almost all responses from both A1 and A2 universities are negative, i.e. they are universities with few equality initiatives in the STEM field. Both A1 and A2 were universities that responded after the last reminder. In contrast, almost all the responses from university A3 are positive, i.e. it is a university that is highly involved in implementing equality policies in the STEM field. Universities A1 and A2 would represent the archetype of a university with low involvement, while university A3 represents the opposite archetype.

To visualize the behavior of the universities in the survey, Figure 1 shows a ternary diagram, whose vertices corresponds to the three archetypal universities and the

rest of the universities are represented as a percentage mix of these universities. Only five of 28 universities (18%) are similar to A3, with percentages above 50% in Figure 1. Consequently, the vast majority of universities are more similar to A1 and A2 universities, with low involvement in STEM equality policies.

Figure 1

Ternary diagram of the universities' responses to the three archetypes.



DISCUSSION AND CONCLUSIONS

Although in recent years there have been various legislative reforms to introduce gender equality in education in the university system (Calvo et al., 2022), the results of the survey show that the necessary actions to achieve equality in the STEM field have not been carried out.

If we compare the survey responses to questions 1-3, on actions to favor access and permanence in the PECS areas, with those found in the literature, we can see that most of the actions are aimed at secondary education, although there are also specific initiatives in primary education, such as that described by Ayuso et al

(2021). These initiatives are not without resistance, since, as Castaño and Vázquez-Cupeiro (2023) report, some universities opposed them with arguments associated with the supposed discrimination of men. For example, Resa's study (2023), after analyzing the teaching guides for subjects in the Primary Education degree at 38 universities in the 2019-20 academic year, shows that only 6% of the guides contain content related to gender equality. In addition, the study by Miralles-Cardona et al. (2020) notes:

> greater receptiveness to equality training among students of the undergraduate degrees in early childhood and primary education than among students of the master's degree in secondary education, as well as a much more favorable perception of gender training among female students. (p. 247)

Therefore, it is still necessary to promote coeducation in kinder and primary education and in the master's degree in secondary education, as can be deduced both from the survey data and from the studies by Miralles-Cardona (2020) and Resa (2023) mentioned in the previous paragraph. Furthermore, "the emphasis given by the LOMLOE to gender equality must undoubtedly be reflected in the training of students in the faculties of education, i.e. the future teachers responsible for putting these regulations into practice" (García-Lastra, 2022, p. 35). Therefore, it would be important to carry out actions to try to involve especially the male students who are studying for a Master's degree in secondary education and come from the PECS areas.

In relation to questions 4 and 5, on actions to favor access and permanence in the PECS areas, we observe that actions to favor access are more important than those to favor permanence. Although we can find publications on mentoring programmes such as the one promoted by the Royal Academy of Engineering of Spain which has been carried out in different universities (Calvo-Iglesias, 2022a). When promoting university degrees, it would be interesting that universities would consider that the motivations of men and women are different. For example, for women, social utility seems to be an important factor (Sáinz et al., 2020). The changes made by universities such as Carnegie Mellon University and Harvey Mudd College in the USA to adapt the academic culture to women should also be analyzed in order to move from 10%-15% of female students enrolled in computer science degrees, as is currently the case in Spain, to 50% (Díaz, 2021).

The lack of recognition of students' work carried out with a gender perspective, as shown in the answers to questions 6 and 7, is in line with the results of a recent review of the TFGs awarded for integrating the gender perspective in disciplines related to the STEM field in different universities (Calvo-Iglesias, 2022b). Even so, we would like to highlight that more and more universities are implementing these awards and giving them visibility through repositories, so we can find TFGs that

incorporate this perspective in degrees such as Physics, or engineering degrees such as Computer Science (Calvo-Iglesias, 2022b).

There is also no recognition of teaching and research with a gender perspective (questions 8 to 10). Different investigations show that both educational innovation projects in the field of PECS and publications on teaching experiences or research projects with a gender perspective are still insufficient (Calvo-Iglesias, 2022a; Unidad Mujer y Ciencia, 2023), although there have been important projects such as that of the Polytechnic University of Catalonia (Calvo et al., 2022). And to reverse this situation, mandatory training should be provided to teaching and research staff and institutional incentives should be created (Lombardo et al., 2021). For example, including the assessment of teaching with a gender perspective or attendance at gender training courses could help the involvement of teachers, especially male teachers whose participation in gender training courses is reduced (Unit of Women and Science, 2023). This involvement of male teachers in PECS areas is fundamental since they are masculinized and therefore more focus should be placed on their role as allies to achieve equality. As recent research highlights, it is essential to know what men's motivations are to become allies and plan strategies to involve them in equity issues, showing them that their efforts are important (Nash et al., 2021).

The answers to question 11 show that there is still much to do in recognizing women as honorary doctors (RUIGEU, 2022; García, 2023), although there are universities that have chosen women from PECS fields such as Wendy Hall, Margaret Hamilton, Lisa Randall, Jocelyn Bell or Inmaculada Paz Andrade.

And finally, we want to comment that the little involvement of universities in response to the effect of the pandemic on the careers of researchers is striking, taking into account that there are studies that prove the stoppage in scientific production that they experienced during this period (Izquierdo- Useros et al., 2022). Furthermore, to combat harassment it is necessary to take measures and it would be advisable that they be the same throughout the university system, as is already done in the Catalan university system (Generalitat de Catalunya, 2023).

All these responses show us, as we have commented at the beginning of this section, that there is a low involvement of universities in equality policies. Furthermore, it is striking that in numerous cases the response reflected a lack of knowledge of the situation on the part of the equality unit, which may be due to changes in management and the lack of stable personnel, for example, an equality technician. We want to highlight that it is not enough to have a gender equality unit, but rather it is necessary to provide it with the necessary means, both in human and economic resources, to give visibility to the actions and support them without resistance. In this sense, we highlight the opposition to using inclusive language, for example, School of Engineering instead of School of (male in Spanish) Engineers (Castaño & Vázquez Cupeiro, 2023).

The analysis of archetypes confirms this low involvement and shows us that only five of the universities that participated in this study are committed to equality in the scientific-technical field and carry out actions to achieve it. We hope that soon more universities will join these actions following the example of the most committed ones and to do so it is necessary for the Ministry of Universities, the Conference of Rectors of the Spanish University System or the National Accreditation Agency to take appropriate measures, incentives and sanctions, not just recommendations, so that equality is a priority. A clear example of action would be for ANECA and other quality agencies to establish that to accredit degrees or DOCENTIA programs, the gender dimension must be considered, following the line undertaken by the Agency for the Quality of the University System of Catalonia (AQU). Likewise, the focus of action should be changed, which is highly directed at women, and think about actions to involve male teachers and students of these degrees so that they participate in equality actions.

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