Inclusive learning strategies at university: The perspective of Spanish faculty

members from different knowledge areas

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**Abstract** 

This paper explores the most effective methodological strategies used by

inclusive faculty from different knowledge areas to ensure that all students learn

and succeed in their courses. A qualitative study was carried out and interviews

were held with 119 Spanish faculty members from Arts and Humanities, STEM,

Health Sciences, Social and Legal Sciences and Education Sciences. The results

are presented by knowledge area, followed by an analysis of the differences and

similarities between them. The findings reveal that, despite belonging to

different disciplines, inclusive faculty members use similar methodological

strategies that welcome all students and do not differentiate in their practice

between students with and without disabilities. The findings also indicate that

faculty use a variety of methodological strategies, with active and participatory

ones being considered most effective. This study shows that the methodological

strategies that are effective for students in general are also effective for those

with disabilities.

**Keywords**: Higher Education; Inclusive Education; Disability; Faculty

Members; Methodological Strategies

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Promoting more inclusive university classes is a challenge for many university systems. Teaching at university today involves assuming that diversity is common, that students learn differently and that their abilities are multiple (Barrington, 2004). It also involves mastering not only the content of a subject, but also knowing how to teach, adjusting to the needs of students and making use of different resources, including technology (Seale et al., 2020).

International organisations such as UNESCO (2017) have been calling for inclusive teaching practice in higher education (HE) for years. Recent studies have also highlighted the need for faculty members to base their teaching on the principles of inclusive education and universal design for learning (UDL) (Carballo et al., 2021; Currin-Percival & Gulahmad, 2020). Moving towards a university environment in which all students can learn and participate is a matter of law and social justice (Eadens et al., 2021; Svendby, 2021).

However, many studies have concluded that faculty members sometimes fail to facilitate the learning and participation of their students, especially those with disabilities (Fernández-Gámez et al., 2020; Louise & Swartz, 2020). It is not surprising, therefore, that faculty members have been identified as a key player in achieving inclusion (Llorent et al., 2020; Li et al., 2021; Melero et al., 2020).

Studies exploring what inclusive faculty members actually do are rare (Carballo et al., 2021). This is precisely the focus of this paper, which aims to fill a gap identified in the scientific literature by exploring the effective methodological strategies used by inclusive faculty from different fields of knowledge to ensure that all their students learn and succeed in their subjects.

# The inevitable path towards inclusive teaching in HE

University institutions have an obligation to establish inclusive teaching models

which do not exclude any student for any reason (Carballo et al., 2021). It is therefore necessary for faculty to be committed to promoting the learning and participation of all students. Every learner is different and different learning styles need to be accommodated in order to maximise each student's potential.

In this regard, inclusive approaches offer students the opportunity to remain at university and successfully complete their degrees. By placing students centre stage and encouraging their active participation and involvement, this type of strategy fosters a sense of belonging that helps them find meaning in what they learn, motivates them and discourages them from dropping out of university (Fleming et al., 2017).

Courses should be planned so as to be accessible and meet the educational needs of as many learners as possible. The Center for Applied Special Technology (CAST, 2011) recommends offering multiple forms of representation (e.g., presenting information in different ways and in different formats), expression (allowing students to express their knowledge in different ways: presentations, case studies, projects, etc.) and engagement and involvement (e.g., using active methodologies that motivate students or encourage cooperative learning). UDL aims to ensure that all students have access to and can engage with the materials, resources and methodologies used on the course, and that assessment processes enable them to demonstrate their strengths and learning. This approach strives to ensure accessible materials and avoid ex-post accommodations, while benefiting the whole student body (Eadens et al., 2021; Evans et al., 2015).

# Teaching and Learning Theories in HE

Learning is a challenging process that goes further than the simple piling up of information. People learn by connecting new knowledge with the knowledge they already have. We also learn by reading, listening, exploring, researching and enquiring.

We learn from each other, with other peers and individually. There is not just one learning pathway, but many possibilities. Student learning depends on background, time, goals and syllabus, and, it, especially relies upon their skills, interests and, needs and upon the faculty members' pedagogical content knowledge (Fraser, 2016; Grossman, 1990). Shulman (2005) pointed out that the manner in which teaching is done is closely linked to the discipline. However, it appears that faculty members' subject knowledge and appropriate teaching approaches may have an impact on the design of transforming learning experiences for their subject and their group of students (Oleson & Hora, 2014).

Since not everyone learns in the same way or has the same learning styles, not all classes can be planned equally. In order to develop effective and inclusive learning environments, it is necessary to be aware of how students learn. The different learning theories are wide (cognitivism, experiential learning, behaviourism, constructivism, etc.) (Bandura, 1986; Kolb, 1984; Skinner, 1953; Vygotsky, 1978). Nowadays, theories are moving from faculty member-centred to learner-centred approaches (Cassidy & Ahmad, 2021).

At present, most international and academic organisations (OECD, 2018; UNESCO, 2017) highlight that students learn more when they feel supported by a faculty member who carries out a learner-centred approach, with an emphasis on collaborative learning, and who helps develop the competences required to change our society and to practice their professional careers (Darling-Hammond & Oakes, 2019; Rolls et al., 2018). Indeed, the inclusive education approach is linked to student-centred, active, participatory and constructed learning (Moriña, 2020).

# Active, participatory, constructed and situated learning

Teaching and learning processes can be an opportunity to foster students' active participation in the construction of their own learning trajectory. As students have different needs, a fortiori they should take responsibility for their own learning and are active creators of knowledge (Bain, 2004).

From this perspective, the role of the faculty member changes from transmitter to facilitator of the teaching-learning process, a shift which entails continuous interaction and cooperation with students (Scarff Seatter & Ceulemans, 2017).

Moreover, students' prior knowledge and experiences must be taken into account in order to build knowledge from them (Postareff & Lindblom-Ylänne, 2008), and as students have different ways of learning, it is also necessary to employ a variety of teaching methods to accompany them in the reworking of new knowledge (Tremblay-Wragg et al., 2019).

It is essential that all these methodological strategies be based on active learning, allowing teaching to focus on learning and encouraging students to be active and take a leading role in their own learning process (Barah & Kirshner, 2009; Currin-Percival & Gulahmad, 2020). This in turn means that we must rethink how we teach, since if our goal is truly active learning, then we should consider alternative teaching methodologies, over and above classic lectures, since although (as these same authors argue) lectures are useful at certain times for teaching specific content, they are not sufficient to promote active, experimental, hands-on learning.

Leaning is considered situated and practical when the learning context offers (or at least reflects) real opportunities for applying the knowledge acquired (Huber, 2008). This means that it is necessary to link contents to a specific situation or relevant context, emphasising the importance of the knowledge to be applied. Learners must

learn by doing, thereby enabling them to adequately perform their profession (Konstantinou & Miller, 2020).

A teaching and learning process based on effective and affective methodological learning strategies

There is broad consensus regarding the need to develop a flexible pedagogy characterised by diverse teaching methodologies that support knowledge construction and respond to different ways of learning (Postareff & Lindblom-Ylänne, 2008; Scarff Seatter & Ceulemans, 2017). It is therefore essential to 'diversify' or use a variety of teaching strategies to achieve student motivation, engagement and learning (Tremblay-Wragg et al., 2019).

We now know that there are a number of different pedagogical approaches that enable effective, inclusive teaching and encourage the participation of all learners. Examples include enquiry approaches (simulations, cooperative learning, case studies linked to reality, discovery learning, the flipped classroom, problem-based learning and project-based learning) and assessment initiatives with students as producers, co-assessors and self-assessors (Evans et al., 2015; Debs et al., 2019; Sagy et al., 2019; Tombak & Altun, 2016).

In this scenario of inclusive teaching practices, it is also important to take into account the emotional and affective component of how teaching is carried out. Studies in this field have concluded that, in addition to effective teaching strategies, positive interactions between faculty members and their students are also necessary, as are concern towards students, personal connections, respect and consideration for all (Kezar & Maxey, 2014; Quinlan, 2016). Closer interactions create friendly, welcoming, safe environments for all learners, especially those with a disability. Moreover, research has shown that these interactions have an impact on individuals' motivation, social

competence and general well-being (Moriña, 2020; Clément & Dukes, 2017; Hagenauer & Volet, 2014).

In short, inclusive teaching and learning strategies have the potential to make the curriculum more accessible, while at the same time enriching learning and improving academic outcomes for all students. In the university context, some professionals are eager to make their classes more inclusive, but do not have enough time or do not know how to do so (Williams & O'Dowd, 2021). In the present study, we describe the experience of faculty members who engage in inclusive practices by using different methodological strategies. We also analyse the similarities and differences that exist between knowledge areas (Arts and Humanities, STEM, Health Sciences, Social Sciences and Education Sciences). Two research questions guided the study:

- 1) What are the most effective methodologies that faculty from different areas are familiar with and use to promote the learning and participation of all students?
- 2) What are the most effective methodologies that faculty are familiar with and use to promote the learning and participation of students with disabilities?

#### Method

The results presented in this qualitative study form part of a research project funded by the Spanish Ministry of Science and Innovation (Inclusive university at university: Faculty members' narratives, EDU2016-76587-R). The main aim of this project is to describe, understand and explain what university faculty members do, and how and why they develop inclusive practices.

# Recruitment process and study participants

To access the participants, the disability offices at various Spanish universities acted as intermediaries between the research team and students with disabilities. Thanks to the help provided by these offices, we contacted students with disabilities who then

nominated faculty who had contributed to their inclusion at university. To facilitate the selection process, the research team sent an informative email to the disability offices explaining the purpose of the research.

In order to guarantee the quality of the participants, in the same email, the research team attached a list of characteristics that defined a faculty member as inclusive. Some of these qualities were as follows: believes in the abilities of all students; facilitates the learning process; promotes active teaching; promotes active teaching and learning processes; promotes active teaching; uses different methodological strategies; is flexible and willing to help; and strives to motivate students.

The research team also used the snowball technique (Cohen et al., 2000) to gain access to students with disabilities who were known to them through their participation in previous projects.

As a result of the recruitment process, 119 participants from ten Spanish universities and five different knowledge areas (Arts and Humanities, STEM, Health Sciences, Social and Legal Sciences, and Education) agreed to participate in the study. All had had experience teaching students with disabilities. Table 1 presents the profile of these participants in more detail.

### [Please, include Table 1 here]

# Data collection procedure

Semi-structured individual interviews were conducted to find out which of the methodologies used were considered by participants to be most effective for student learning. Faculty members from different disciplines who did not participate in the study piloted the interview script.

The initial intention was for all interviews to be held face-to-face. However, due to distance, personal circumstances or scheduling incompatibility, 18 of them were conducted via Skype and 12 by telephone. All interviews were audio-recorded and lasted an average of 90 minutes.

# Data analysis

The data analysis was qualitative and progressive. Following the transcription of the interviews, an inductive system of categories and codes was created to identify the key qualities of the phenomenon and generate meaning from the information collected (Miles & Huberman, 2004). Initially, a broad and generic system was created. Subsequently, new sub-codes were established to delimit the different themes and facilitate the identification of links to other codes (Table 2). Data processing was carried out using MAXQDA 12 software.

[Please, include Table 2 here]

# Ethical issues

The research project obtained ethical approval from the Spanish Ministry of Science and Innovation. We used an informed consent document that explained to faculty that their participation in the study was voluntary. Special care was also taken to reassure participants that they could withdraw from the study whenever they wanted, and that the process was confidential and characterised by the fact that the information would be returned to them after data production. In other words, participants all received the transcript of their interview by email so that they could delete or rephrase any sentence or add any data they considered relevant to the study. In order to safeguard participants' anonymity, we used numbers instead of their real names (P1-P119).

#### Learning in Arts and Humanities

All faculty members from this area agreed that methodologies that are effective for all students are also effective for students with disabilities. Indeed, they acknowledged that they do not use different or special strategies for these students. Nor do they opt for any one specific methodology, as they believe strategies should be customised and adapted to the characteristics of each group and person from the beginning. In spite of this, however, most of them identified participatory methodologies as the best means of promoting learning for all students.

P13: The participatory methodology works for any type of learner, whether they have a disability or not. I believe that we are all equal here.

Indeed, a recurring theme among Arts and Humanities faculty was the importance of using more active methodologies alongside lectures. Even those who claimed to use the lecture format acknowledged that it is the least effective methodology for encouraging student participation and progress. However, although they continue to use it, they do not do so in isolation, but rather in combination with other methodological strategies. Moreover, they said that, in the course of their theoretical classes, they use interactive lessons and combine explanations with debates, problem-solving exercises and reflection by the students.

They said it was clear to them that what they taught had to have a practical orientation and to ensure this was the case, they design participatory classes, in which students have to be active, work in teams and construct knowledge together with their

peers. To this end, they use, for example, project work, the flipped classroom technique and problem-based learning.

P11: Let's see; you should think of our degree as a practical degree. So, students learn the theory and then apply it in practice. I try to get them to set up a company; to get into groups of five and set it up.

They claimed that this type of methodology not only encourages critical thinking, but also fosters autonomy, two competencies which they consider fundamental for the future practice of the profession in which students are being trained. In addition to the impact of these methodologies on employability, participants were of the opinion that they are also more effective because they are more relevant to students and encourage them to learn more.

P24: I believe that by making methodologies more practical, more participatory, you learn more.

Only one faculty member in this knowledge area identified technology, specifically augmented reality, as an effective means of fostering the learning of all students, due to its attractive and visual format. This participant stated that she was receptive to lifelong learning in this area and was one of the few faculty members who used this technological resource in her department.

# Learning in STEM

STEM faculty participating in the study began by stating that it is important to use a combination of different methodologies, since each student learns in a different way. They argued that using a diversity of methods enables them to adjust to the different learning styles of their students. Furthermore, they claimed that there is no single methodology that is the most effective for students with disabilities, and that what works for all students is equally valid for those with a disability.

P26: I think we are all different, that everyone has their own method, their own way of learning, and trying to do different things to explain the same thing using different methods can be good, because some people may learn it in one way, others in another way...

The most frequent strategy used by this group of faculty members is to combine lectures with activities in which the students have to put what they learn into practice; activities in which they are forced to investigate or do something and, in short, are encouraged to be active and engaged during class. Interactive lessons were therefore mentioned as frequently-used methods, combined with other methodological strategies, such as case studies, projects and flipped classroom.

P32: Given their response and how they act if they are a bit tired, I think that lectures just cause problems. I tend to alternate more theoretical topics with more practical ones so that classes don't become too tiring.

However, despite their emphasis on lectures, the strategies they considered most effective are those in which students are involved in their own learning process, making and constructing their own learning.

These participants said they consider methodologies that encourage active participation to be the most effective. Moreover, they said they believe that the more practical and experience-based the classes and the more useful they are for life, the more effective the learning carried out in them. For this reason, they said they do not hesitate to ask questions, engage in role-play exercises and analyse practical case studies in laboratory classes.

Of the methodologies that enable participation, cooperative work, mediated and facilitated by faculty, was recognised by most participants as the most effective. The

reasons given for this were that it encourages autonomous learning, and when students interact with their peers and have to explain something to them, they learn more.

P26: Teamwork is more effective. But when you also need to tell others or teach something to someone else, you assimilate the concepts better.

# Learning in the Health Sciences

The 25 participants from this knowledge area said they believe there is no specific methodology that works best for learners with disabilities. Rather, in their opinion, it is a question of how and why the method is used.

P43: I don't think any methodologies are better or worse than others per se. It depends on how and in which context they are used. A lecture can be as good as any other methodology. It depends on what the lecture is like and what the other methodology is like.

Although this opinion was shared by the vast majority of participants in this group, one faculty member identified teamwork as one of the methodologies that most benefits students with disabilities, since it motivates them by making them feel they are part of a team:

P45: I believe that students with disabilities feel more supported in a group, not only by the faculty member, but also by the class. The fact that they feel welcome in a group, that they are part of the group in all senses, is the most important thing.

Despite this, however, most participants identified the combination of theoretical explanations and practical activities as the methodology most conducive to student learning:

*P39:* Any methodology that links theory and practice will always be the best.

They recognised the importance of dynamic, active classes, and of placing students at the centre of the teaching and learning process. To this end, they show videos in class, use the flipped classroom technique, ask students to resolve clinical cases and engage in role-playing and practical work in hospitals, among other methodological strategies:

P49: We rely on the hospital's experience, on what they do with patients. The clinical cases are nice because students learn more, as well as remembering a bit of the theory and what they were taught in class.

They said that, whenever possible, they use strategies which encourage participation and offer students the opportunity to interact and explain concepts to their peers.

P53: To my mind, audiovisual content is more attractive. However, I find it more useful to involve students, to turn them into participants. It's very useful for students to realise that it's not the same to think you know something as it is to have to explain it to someone.

Finally, many of the participants in this group said they use technological tools, such as the Internet and audiovisual media, as complementary teaching resources. Only one referred to the importance of 3D elements. Moreover, most considered these resources to contribute to self-assessment and student learning.

# Learning in the Social and Legal Sciences

Participants in this knowledge area coincided in stating that methodologies should be varied in order to suit students' different learning styles. They also said they believed that methodologies are equally effective for students with disabilities as for any other student. They claimed that they teach students with disabilities in the same way as other students and do not believe any specific methodology is required:

P73: I do not distinguish between students with disabilities and the rest of the student body because I believe that this would be detrimental to students with disabilities, as it would mark them out in some way.

Only two participants commented that, although the methodologies that work are the same, what is important is that faculty treat these students just like any other, listening to them, being open and approachable and paying attention to their needs and demands:

P76: I don't differentiate in terms of methodology. I don't treat students with disabilities any differently, because all you really have to do is, in principle, talk to them and learn how you can help them.

Almost all participants said they use participatory, learner-centred strategies, since the best way for someone to learn is to let them experience and investigate things for themselves. They therefore use Service-Learning (SL), research, life stories and case studies. These faculty members claimed that it is important to connect with students' interests and find time in class for them to voice their opinions, debate certain issues, give presentations or solve exercises on the blackboard:

P58: I try to encourage more teamwork, team building and other classroom structures, promoting discussion, problem-solving approaches and joint projects, etc.

According to participants, teamwork is particularly effective for students with disabilities, as it encourages them to participate in class and makes them feel that they belong in the group and, by extension, in the class:

P66: When you form groups, there are always one or two leaders; so someone may be the leader in a certain topic and someone else may be the leader in another topic. Roles change and someone with a disability may become a leader.

This is good, because my goal is for students with disabilities to feel like just another student in the class.

Moreover, this type of active methodology encourages students to feel that they are part of and involved in the learning process. According to the participants in this group, such strategies foster student motivation and attention.

Although the most commonly used strategies are participatory in nature, they are used in conjunction with teaching explanations. In other words, participants said they combine theoretical lessons with practical activities, focusing on active, participatory strategies.

P58: The theory is there, in books. Of course, you need some kind of explanation and it's important to clear up any doubts, but then in class, you have to explore practical questions in more depth and do more work of that nature. You have to work as a team. We shouldn't be reproducing the typical model of coming to university to sit and listen to what an academic tells you. That model will never work.

Although the majority of the faculty members in this group said they do give lectures, they also claimed to feel that the model does not work and that they prefer to adopt a more practical approach to teaching, using examples and active, participatory methodologies that emphasise peer support.

# Learning in the Education Sciences

Education science faculty members did not identify any single methodological strategy as effective. Rather, they saw the ideal scenario as being one in which a variety of strategies are used. According to these participants, different methodologies should be used in accordance with the moment and the needs of the group, with flexibility for selecting the most appropriate strategy being the key to their ultimate effectiveness.

P100: I believe that every methodology is effective when used at the right moment. I mean, there may be a time when it's better to get students working in small groups, whereas other activities will require larger groups. I haven't discovered any one methodology that is so extraordinary as to be appropriate in all circumstances.

In relation to this, one participant highlighted the advantages of teaching practices that incorporate different methodologies, and the importance of opting for the most participatory and active ones when teaching students with disabilities, not because they are more effective, but because they are more respectful, since they enable faculty to adjust to different learning paces. In contrast, methodologies centred on faculty members themselves are excessively rigid and are not accessible for any student, regardless of whether or not they have a disability.

P94: I believe that active methodologies allow students with disabilities to participate, not because they are more effective, but because they are more respectful. In other words, they allow students to learn the content at their own pace and to contribute in class. In contrast, a directive methodology does not, in my opinion, benefit anyone, because it's much more limiting, especially for a person with a disability.

All the participants in this group coincided in stating that they do not use any specific methodology for students with disabilities, emphasising that the ones they do use are equally effective for all students.

P91: It's true that all students benefit from a dynamic class in which they have to interact. Not only those with disabilities, but all students in general.

The methodological strategies mentioned most often in this group were studentcentred, participatory, active and constructivist. The strategies identified by participants as effective for ensuring all students learned were diverse, and included SL, the flipped classes, problem-based learning, projects and case studies, among others.

P90: The most effective strategies are those in which the learner constructs. They are often linked to discovery learning, but require an action on the part of the learner, a construction of something.

Participants also said they considered this type of methodology to be more inclusive because it allows them to adapt to different learning paces and to plan for diversity. Indeed, they said it enables them to diversify how learning takes place, either by not planning the same thing for all students, or by giving everyone the same opportunity and planning the same thing for the whole class, but then developing it in a different way:

P101: I think that participatory classes are generally more effective, because they are more enjoyable and, of course, more inclusive. When you delegate responsibility, everyone has the opportunity to learn at their own pace. So, I don't think you should set everyone the same task, or if you do, you should at least allow them to develop it in different ways.

Participatory strategies are also effective because they foster autonomy and make learning more meaningful. Overall, of all the learner-centred methodological strategies mentioned, the one most frequently identified as effective was cooperative learning. In the opinion of the participants in this group, working in heterogeneous teams benefits all students. Moreover, learning in this way is consistent with the teaching profession that students will pursue in the future, since it trains them to work in cooperative teams with their future students. The role of faculty in this strategy is that of facilitator, supervising the work carried out in the different teams:

P95: I think that cooperative work in heterogeneous groups is the most effective method, because I believe that everyone benefits, including students with disabilities.

Faculty members said they combine these participatory methodologies, in which students are at the centre of the teaching and learning process, with theoretical explanations. At certain times, and if the content so requires, explanations by faculty are viewed as the most effective methodology. However, such explanations must always be interspersed with activities that allow students to be active:

P107: In general, the participatory methodology is the most effective, but I do think you have to adapt the methodology to the content. There are some classes that simply have to be lectures. This is the case, for example, when we talk about the cognitive processes involved in reading. But there are also other moments in which control is shared or I hand the class directly over to the students.

One final aspect of the learning process that a few participants highlighted is the use of strategies that nurture affection. These participants spoke about 'the pedagogy of smiling', horizontal relationships, teaching with emotion and passion to motivate their students and the need to treat them well. In short, they emphasised methodologies that contribute to generating a welcoming, participatory classroom climate.

P90: I work with the pedagogy of smiling; I sometimes don't feel much like smiling, but I make an effort to come to class with a smile on my face and sometimes students say to me 'P90, do you always feel like laughing?' and I say, 'no, sometimes I don't, but when I come here, I make an effort to make it happen'.

#### **Discussion**

This paper reveals that, despite belonging to different disciplines, inclusive faculty members employ similar methodological strategies that make all students feel

welcome. This is contradictory to Shulman's (2005) study, since the faculty members did not apply a unique teaching approach due to their discipline. Likewise, in a recent work, Williams and O'Dowd (2021) conclude that there are STEM faculty members who would like to make their classes more inclusive, but do not have enough time or do not know how to do so. The results of our study, however, indicate the opposite, showing that participants are familiar with and apply methodological strategies to ensure the learning, participation and success of all their students. Therefore, teaching in one knowledge area or another is no longer an excuse for not being an inclusive professional who promotes active, situated, group and student-centred learning. In other words, it is not only professionals working in knowledge areas related to pedagogy who should be familiar with inclusive methodological strategies and know how to apply them; all faculty members should do so (UNESCO, 2017).

One key point that emerges from the interviews held with these professionals is the need to move away from a single teaching method and the use of methodological strategies that work for 'some' or 'most students'. The participants in our study recognise that different people learn in different ways. In light of this, for methodological strategies to be effective, they need to be based on the principles of UDL (Rolls et al., 2018; Scarff Seatter & Ceulemans, 2017; Tremblay-Wragg et al., 2019). It would therefore be advisable for universities to run diversity awareness workshops and provide practical training on how to apply UDL in degree courses (Carballo et al., 2021; Currin-Percival & Gulahmad, 2020). Training would contribute to reflect on how teaching and learning take place, since, as previous studies on teaching knowledge have shown, it is faculty members' knowledge what governs the methodological strategies used and the right educational response adapted to each student (Oleson & Hora, 2014).

Based on this premise, the voices of the faculty participating on our study show how the use of inclusive methodological strategies constitutes a decisive factor in preventing dropout among all students, but especially among those with disabilities (Fleming et al., 2017; Li et al., 2021; Melero et al., 2020).

One of the findings observed in all disciplines is that, in order to be relevant and reach all students, traditional lectures need to be merged on a daily basis with other, more participatory, dialogical, cooperative and active methodological strategies, using emerging technologies (Rolls et al., 2018; Seale et al., 2020). Indeed, faculty from two knowledge areas (Arts and Humanities and Social and Legal Sciences) consider lectures to be the least effective method, as by themselves they do not fully cater for diversity (Currin-Percival & Gulahmad, 2020).

The participants in this study are convinced that, in order to be effective, teaching has to be student-centred (Cassidy & Ahmad, 2021), practical and based on cooperative learning, work and research projects, case studies and the flipped classroom, among others (Debs et al., 2019; Sagy et al., 2019). These same strategies promote not only greater student learning and motivation, but also autonomous and lifelong learning, focused on the reality and development of their profession (Darling-Hammond & Oakes, 2019; Evans et al., 2015; Konstantinou & Miller, 2020).

The methodological strategy that stands out in all areas is cooperative learning related to mentoring and peer support (Tombak & Altun, 2016). Although all strategies are equally beneficial for learners with disabilities, in this case, peer support is the best means of ensuring their inclusion. In other educational stages, it is more common for teachers to be trained in cooperative learning; in HE, however, it is less frequent. Faculty members should therefore be provided with training in cooperative techniques (Hebles et al., 2021).

The voices of the inclusive faculty members who participated in our study also suggest that training should be continuous and oriented towards the use of technologies (Seale et al., 2020). Participants identify these strategies (augmented reality, 3D, audiovisual media, etc.) as fundamental, as they make it possible for them to include all students and encourage their participation.

Finally, faculty from two knowledge areas (Social and Legal Sciences and Education Sciences) highlight the importance of strategies based on affection and emotion in order to welcome and recognise all students as essential in the classroom (listening to them, paying attention to their needs and interests, treating them with respect and forming close, horizontal relationships, etc.). In other words, the best methodological strategy is often not associated with any 'one specific technique', but rather with the human approach adopted by faculty. The same conclusion has been drawn by Moriña (2019), Clément and Dukes, (2017), Kezar and Maxey (2014) and Quinlan (2016). This prompts us to think about the need for other knowledge areas to use these strategies also, and for universities to offer their teaching staff training opportunities in the field of emotional education.

# Implications for the practice

Faculty members are a key element of inclusion. For this reason, HE institutions should take care of, recognise and value the essential work they do to contribute to the learning and success of all students. For example, faculties should promote some kind of annual prize to honour the best inclusive faculty members in each area of knowledge and encourage other colleagues to follow in their footsteps.

Furthermore, to improve inclusive practices, universities could design and develop training actions based on what this study teaches us about what inclusive faculty members do. It has been concluded that, in the study, there is no single

methodological strategy that enables inclusion per se; instead, it is fostered by the use and combination of different strategies. Training policies that are committed to protecting the rights of all students, particularly those of students with disabilities, must be mobilised to help faculty members in this regard.

In this sense, faculty members should receive training in active and participatory methodologies through seminars or workshops in which they exchange best practices with other colleagues. However, they should also be encouraged to carry out independent research and find out for themselves that there are other ways of teaching.

Therefore, it would be advisable for university training centres to provide faculty (from all disciplines) with guidelines on how to use accessible technologies in their classes. Another key aspect of the training should be practical strategies which train faculty members in how to teach through emotion and affections, looking after relationships and considering students at the centre of the learning process.

If we wish to transform teaching practices for all students and invest in teacher training, this training should be carefully planned with the support of communities of practice and serve as an example for further application in the classroom. This is why teacher training should help to rethink how we learn and how we teach, but always trying to be as practical as possible. For instance, one way could be to have real testimonies of these inclusive faculty members who have been nominated by their own university students.

#### Limitations and further research

This study has some limitations that should be taken into consideration by future research. Firstly, although our research group has a long history of conducting studies which give voice to students with disabilities, in this paper we have only included the voice of faculty members. However, future studies should consider including the

narratives of students with and without disabilities from different fields of knowledge, in order to hear what they have to say about the various methodologies used in university classrooms.

Secondly, it would also have been interesting to have held discussion groups with faculty members from different knowledge areas, in order to delve more deeply into the reasons prompting each one to develop the methodological strategies identified. In our study, there was a larger number of faculty members from Education. This is because most members of our research team work in this knowledge area, a circumstance which facilitated access to the sample. Nevertheless, as this is a qualitative piece of research, we do not consider this overrepresentation to be particularly significant, since all participants in the study (all which have their own idiosyncrasies, regardless of the subject they teach) provide a holistic overview of how to engage in inclusive pedagogy in different areas of knowledge. Nevertheless, future studies may wish to conduct in-depth analyses for each specific area.

#### **Conclusions**

This study shows that the methodological strategies that are effective for students in general are also effective for those with disabilities. The methodological strategies used by participants, who were nominated by their students with disabilities, reveal that if faculty diversify how they teach in the classroom, using multiple, flexible, accessible, respectful, fair and motivating methodologies, then it is possible for all students to learn, participate and succeed in their degrees. No strategy impedes the performance of other students, but all maximise the learning of everyone in the class, providing they are designed with everyone in mind from the beginning. Moreover, there is no such thing as a 'perfect' strategy, as it is the faculty member's use of the strategy and the combination of different strategies that render them effective and help facilitate

learning. However, it is also true that active, participatory and student-centred strategies work better than those that are directive or teacher-centred. In short, what this study teaches us is that ensuring that students with disabilities learn does not imply giving them 'special' treatment or using different teaching strategies. What works for all learners is equally beneficial for people with disabilities.

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