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Ecologies of Learning for Inclusive Pedagogy in Spanish Secondary Education

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Abstract: From the theoretical basis of the ecology of learning and inclusive pedagogy, this article explores the activities, resources and interactions practised by 25 Spanish teachers in compulsory secondary education. This qualitative study involved semi-structured and individual interviews. A progressive analysis of the data was carried out using an inductive system of categories and codes. The results show that the activities were varied and all of them put students at the centre of the teaching-learning process. The resources that stood out were technologies and peer support. Interactions were characterised by the need to nurture affection and get to know and motivate students. This paper concludes that these practices can help other teachers, school management teams, counsellors and teacher training centres to rethink the meaning of "diversification of learning" and to transform the curriculum from a more just, democratic and inclusive perspective.

Keywords: Learning ecologies; inclusive pedagogy; secondary education; qualitative research.

Introduction

Eliminating the "one-size-fits-all" curriculum in schools remains a challenge to overcome (Tomlinson, 2017). In fact, in Secondary Education, compared to previous educational stages, there is a frequent increase in exclusionary mechanisms that do not respond to the social and personal demands of all students.

In Spain, Compulsory Secondary Education is the second and last compulsory stage of education from the age of 12 to 16 and is paid for by taxes in public and state-subsidised institutions. This stage covers four academic years and is organised in two cycles: first cycle (1st, 2nd and 3rd) and second cycle (4th), with a preparatory character for post-compulsory education. Researchers in inclusive education (Arnaiz et al., 2020; Kim et al., 2020) emphasise that this is a stage predominated by therapeutic and individualistic support, an academic-centred and highly structured climate, absenteeism and school dropout and the so-called significant curricular adaptations.

This segregating landscape in secondary education is present in Spain, since, in the framework of the Non-university Education Statistics on students with special educational needs, it is shown that, in the academic year of 2021-2022, the number of students who received a different educational attention was 800.409 (10%). In Secondary Education, the

percentage of students receiving educational support was 13.3% and, in other training programmes (16-18 years), such percentages were 20,9% respectively (Spanish Ministry of Education and Vocational Training, 2023). Moreover, in 2022, Spain was the fourth country in the European Union with the largest number of early school leavers from education among 18-24 year olds (National Statistical Institute, 2020). There are many factors that can lead to this complex situation, but it is clear that in the field of inclusive education, secondary school teachers play a key role (Moliner et al., 2011). Therefore, in this article we consider what secondary school teachers can be done, from the perspective of an inclusive learning ecology (through activities, resources and interactions), to promote the retention and success of all students.

Teachers as the Key to Inclusion

Inclusion is understood as a principle that supports and welcomes the diversity of all learners. Following Ainscow (2020), inclusion starts from the belief that education is a basic human right and the pathway to building a more just society and more sustainable communities. In secondary education, numerous studies, both national and international, reveal that teachers often have less positive attitudes toward inclusion due to a lack of resources, time, knowledge about their students' needs, specialist support or teaching materials (Moliner et al., 2011; Porta & Todd, 2022; Woodcock & Marks, 2019). Moreover, these professionals recognise their lack of training, reflect on their practice and feel that the learning and participation of all students is a utopian and highly complex task (Langelaan et al., 2024; Maia & Freire, 2023; Woodcock & Jones, 2020).

In this regard, the European Agency for Development in Special Needs Education (2012) has identified four core values that portray the profile of 'an inclusive teacher': 1) they value the diversity of their students and differences are an asset; 2) they support all their students and have high expectations of their achievements, 3) they work and collaborate with other colleagues, and 4) they take responsibility and commitment to their lifelong learning as teachers.

Teachers must transform the curriculum and establish a student-centred model, with positive relationships that allow for the construction of knowledge based on experiences about reality and negotiated classroom management (López et al., 2006). In other words, teachers are required to develop an inclusive pedagogy that moves toward an unquestioned social justice approach for all learners (Ainscow, 2020).

Toward an Inclusive Learning Ecology

The "learning ecology" approach provides multiple pathways, possibilities and hybrid contexts (physical and virtual) to enable all individuals to keep a lifelong learning (Barron, 2006). This model helps to ensure the principle of equity and universal accessibility. Following Bruguera et al. (2022) and Sangrá et al. (2021), this comprises a conceptualisation of formal and informal learning environments where personalised and self-initiated learning takes place through multiple pathways, as well as reciprocal relationships and influences.

Brown (2000) introduced the concept of learning ecologies decades ago. These are a set of contexts based on activities, resources and relationships in physical or virtual spaces that facilitate personalised opportunities for learning (Barron, 2006). Furthermore, this term means that it is a rich environment for learners, since they have a variety of activities,

resources, tools and virtual environments that respond to their unique and specific learning needs (Richardson, 2002).

To achieve these aims, it is necessary to have a common framework in which pedagogical principles and strategies are flexible and general enough, in order to benefit all learners and allow for all individual needs to be taken into account (Lewis & Norwich, 2004). A learning ecology requires activities, resources and interactions that promote the learning and participation of all learners.

Making the learning ecology inclusive means recognising the particularities of individual learners and giving each learner what he or she needs, without tagging some as different (Florian & Black-Hawkins, 2011). In this sense, González-Sanmamed et al. (2019) and Bronfenbrenner and Evans (2000) add that the learning ecology of each individual is different and encourages autonomous learning, since it should be up to each individual to decide when and how to learn. Therefore, the learning ecology empowers the learner and helps them to be more proactive with other people and their environment (Manca & Raffaghelli, 2023).

At the same time, as inclusive pedagogy argues, human diversity should be understood as a strength, since all people are important, benefit from mutual interaction and reasonable accommodations if they learn, participate, and succeed together (Florian & Spratt, 2013; Rose et al., 2006). For this reason, planning and teaching practices are required to value difference even more and to promote the preference for working with students rather than acting on them and their communities (Gale & Mills, 2013).

This concept of learning ecology also is closely related to the social model of disability, making it clear that disability or limitations are not individual or biological, but the result of the absence of supports or the presence barriers imposed by society (Oliver, 1988). More current approaches recognising an interaction between individual and social factors, showing that this social model would be improved by taking into account that the barriers experienced by "people with disabilities" are not only social, but also include other dimensions such as bodily, psychological, cultural and political (Shakespeare & Watson, 2001).

Their implementation in educational institutions is crucial, as they provide opportunities for learning beyond their application in formal education, immersing in the information society through ICT, giving a proactive role to learners, focusing knowledge on practical skills to fit work performance and acquiring transversal competences for learning to learn (Hernández-Sellés et al., 2015; Jackson, 2013; Williams et al., 2011).

Levers for Moving Toward an Inclusive Learning Pathway

Current research provides evidence on what kinds of activities, resources and interactions can promote inclusion (Arnaiz, 2020; Woodcock et al., 2022). In this sense, the study by Tkachyk (2013) reveals that the combination of different groupings, peer support, flexibility in timing and optimal use of ordinary resources is a set of guidelines for organising the classroom from an inclusive perspective. Furthermore, experiential learning, play and gamification, dialogical learning, cooperative learning and project-based learning are inclusive strategies that secondary school teachers tend to use in their practice (Orozco & Moriña, 2020). Moliner et al. (2011) corroborated some of these strategies, such as cooperative learning and games. These authors stress the importance of analysing the processes of educational exclusion that exist in secondary education. To this end, they propose a series of strategies that, in the same way, encourage the active participation of students in ordinary classrooms. These strategies are the following: collaborative networks

between teachers and other professionals in the community, use of technologies, simulations, inquiry-based learning, diversification of groupings, and offering co-assessment and self-assessment throughout the course for the self-regulation of learning.

In addition, digital learning resources are taking on an increasingly significant role in lifelong learning, especially for young people. For example, digital games not only develop a sense of belonging to a community or a desire to learn, but their digital (or hybrid) nature allows them to be applied and used in formal or informal settings, or both (Barron, 2006; Persico et al., 2019). In relation to ICT, they are essential to make the curriculum more flexible, as they encourage autonomy and immediate feedback, increase motivation, simulate reality and train students for life off-site (Cabero-Almenara & Ruiz-Palmero, 2017).

Other studies in Secondary Education, such as those by Boyle et al. (2011) or Woodcock and Marks (2019) visualise that the success of inclusion is not only in the teaching attitude or application of certain methodological strategies, but in the culture of ordinary support in their institution, together with leadership, high expectations, collaborative networks and the availability of human resources (including specialised teaching staff and families). These personal resources together with peer interaction, through cooperative work with learners, are vital for an inclusive learning environment (Slavin, 2011).

Messiou et al. (2022) suggests listening to the voices of students at this stage and taking into account what they would like their ideal classroom to be like. Regarding interactions in the learning environment, the study of Messiou highlights the importance of taking care of the interactions between teachers and students, making them feel safe and protected, listened to, coherence between being and doing as a teacher, equal treatment and respect for their opinions. In this sense, in order for students to assume their share of responsibility, teachers must have full confidence in their ability to teach and in their students' ability to learn. They must also see the group as a valuable resource, be critical, be aware of the ethics of justice and make them see that they can speak freely about how they learn (Hart et al., 2010). Other studies have found that the affective and emotional dimension is essential for students to learn (Ruíz-Alfonso & León, 2016).

To date, several studies related to learning ecology have been focused on online teaching, Higher Education, students with disabilities and learning (González-Sanmamed et al., 2018; Rodrigo & Tabuenca, 2020). Despite this, learning and teaching go hand in hand, thus not only optimal conditions must be provided for students to learn, but also useful strategies for teachers to know and feel that they can develop a more inclusive teaching focused on all their students, without exceptions. To this end, based on the definition of Barron (2006) and Jackson (2013), in this article we considered the ecology of learning according to the activities, resources, interactions and relationships that occur in the learning environment of inclusive teachers, from this ecological perspective and from a previously unexplored stage such as Secondary Education. In this way, we aimed to answer the following research questions:

- 1) What activities do teachers plan and develop in order to achieve participation and learning for all learners, and why do they plan and develop these activities?
- 2) What resources do inclusive teachers use for learning, and why do they use these and not others?
- 3) What kind of interactions and relationships do inclusive teachers have with their learners - why?

Method

The results presented in this article are from the first phase of a qualitative multi-case study (Stake, 2006) which aims to describe, understand and explain the beliefs, knowledge, designs and actions that teachers in Early Childhood, Primary, Secondary, and Higher Education take into account to carry out inclusive pedagogy (“Lights for an education without exclusion: Teachers' narratives that teach how to carry out inclusive pedagogy in Early Childhood, Primary, Secondary and Higher Education”).

In this article, we focused exclusively on the designs and actions of teachers in Secondary Education. Specifically, we sought to know and understand what activities, resources and interactions they promoted with all their students within the framework of learning ecologies.

Participants

The participants were selected and recruited through purposive, convenience and criterion sampling. The criteria taken into account for their selection were the following: teachers who were currently carrying out inclusive pedagogy, of different age, gender and years of teaching experience, and available to participate.

In the recruitment process, professionals from two in-service teacher training centres were involved in the study, and they nominated inclusive teachers. Taking the proposal of the European Agency for Development in Special Needs Education (2012) about inclusive teacher profile. At the same time, the non-probability snowball sampling technique was also used. This allowed the initial participants to recommend other colleagues they knew and considered to be inclusive. Thus, face value that these teachers were inclusive is supported because they are teachers who have been endorsed by advisors from the teacher training centres who are aware of their good practices (attendance and participation in joint training, visits to their respective centres, communication with their management team...etc.) and these in turn by colleagues who act in the same way. Specifically, 25 teachers were selected. These professionals were vocational and worked in 15 Spanish schools (14 public and 1 private) In terms of gender, 17 participants were female and 8 were male. The average age was 48 years and the average teaching experience was 19 years. Table 1 presents in more detail the profile of each participant

Participant	Gender	Age	Years of teaching experience	Subjects taught
S1	Female	57	30	Maths
S2	Male	36	14	Geography and History
S3	Male	40	18	Language and Literature
S4	Female	45	20	ICT
S5	Male	48	21	ICT
S6	Female	39	14	Language and Literature
S7	Female	48	24	Cooking and Catering
S8	Female	48	19	Language and Literature
S9	Male	53	17	ICT
S10	Female	56	27	Visual arts
S11	Female	55	32	Language and Literature
S12	Female	52	12	Catering and tourism
S13	Male	54	26	Ethics and philosophy
S14	Female	49	24	English
S15	Female	43	12	Maths
S16	Female	50	17	French
S17	Female	54	25	Ethics and philosophy
S18	Male	37	15	English
S19	Female	61	31	French
S20	Male	37	13	Language and Literature
S21	Female	36	11	Geography and History
S22	Female	43	14	Language and Literature
S23	Male	59	36	Business
S24	Female	50	3	Language and Literature
S25	Female	48	14	Physics and Chemistry

Table 1. Profile of participants

Procedure and data collection

In this qualitative study, individual and semi-structured interviews were conducted. These were based on a script with open-ended questions. Almost all the interviews were conducted face-to-face and in relaxed settings (cafeterias, offices, empty classrooms in their educational centre, parks, their own homes...), except for four of them, which were conducted via phone call due to the personal circumstances of the participants and the situation derived from the COVID-19 pandemic. Moreover, considering the idiosyncrasies of each interviewee, the number of meetings and calls varied greatly. They were extensive and lengthy interviews, with an average duration of 4 hours.

Data Analysis

The analysis began with the transcription and deep reading of each of the interviews. Next, a structural analysis of all the information was carried out using an inductive system of categories and codes (Miles & Huberman, 1994). After that, all the information was inserted into the qualitative software MAXQDA 2020, which made it possible to organise the collected data. For the analysis of this article, three categories were selected, based on the

theoretical basis of learning ecology: activities, resources and the teacher’s and students’ roles. Following the theoretical framework underpinning the study, this third category refers to the interactions that teachers aim to attain in the teaching-learning process (Barron, 2006; Jackson, 2013). In this last analysis, new codes emerged of each of the mentioned categories, which allowed analysing and understanding the information in greater depth (Table 2).

Category	Description	Codes
Activities	Types of activities included in planning and their purposes	Dialogic, cooperative, practical and experiential, group cohesion and based on emotional education, community-based, playful and gamified, assessment.
Resources	Types of resources used to enable all learners to learn and participate	Technological, human (peers, co-teaching, family), audio-visual, environment and community, materials
Interactions (Teacher's and students' roles)	Teacher-student interactions	Monitoring processes, empathising and establishing close and affective links, encouraging interaction between equals, motivating

Table 2. System of categories and codes

Ethical Issues

All participants were informed about the purpose of the research and the research procedure by means of an informed consent form, which was signed by each teacher. This document stated that their participation in the study was completely voluntary, confidential and respected their anonymity (S1-S25). This document also specified that the interview would be returned by email to allow each participant to delete, rephrase or add any information they considered appropriate.

Findings

What Activities do Teachers Plan and Develop in Order to Achieve the Participation and Learning of all their Students?

The participants of this study are framed under the approach of inclusive pedagogy by recognizing that students learned differently, but this does not mean that teachers should engage in discriminatory practices according to their needs and particularities. Thus, they designed globalised and interdisciplinary learning situations that recognised diversity and allowed activities to be adjusted to different learning styles and ways of learning. Almost all teachers planned activities with different levels of depth, open and heterogeneous on the same topic with multiple options, which allowed everyone to participate (reflection, readings, field practices, drawings, watching videos, revision and/or extension activities...). In this way, each student could decide autonomously and freely the way in which they preferred to carry out an activity which takes place in community. For example, they created five activities and allowed their students to select three of them. From the learning ecology (LEs) approach, these activities developed personal learning pathways for all learners, allowing each learner to realise his or her strengths and weaknesses.

For some projects, the students work with a computer, others do it by hand, others create murals, others write a report... I let them choose the working procedure that best suits them. (S25)

Specifically, the participants planned and implemented seven types of activities: 1) dialogic, 2) cooperative, 3) practical and experiential, 4) group cohesion and emotional education-based, 5) community/citizen participation, 6) playful and gamified, and 7) assessment.

Most of the teachers used dialogical activities to encourage self-learning, active listening and critical thinking among pupils. These took the form of debates, colloquiums, assemblies and classroom tasks or moments that allowed them to share their opinions, reflect and value those of others.

Talking about technology and globalisation in a theoretical way makes no sense, so I told the students to do different searches on the Internet to reflect and draw conclusions. Afterwards, I asked them to imagine the world without technology and, together, we talked about this. (S17)

Another majority of participants engaged in cooperative activities that fostered social and interpersonal skills, as well as conflict resolution. They emphasised peer tutoring, varied and changing groupings (large groups, individual, pairs...), and the assignment of specific roles in any teamwork to motivate the students and make them feel represented in the group.

I try to design activities in which we work as a group; everyone has to contribute something and, with everyone's ideas, we can do something together. For example, I ask them to make a comic and everyone says possible scenarios and characters. Each spokesperson presents their final products and, all together, we give opinions. (S14)

Half of the teachers also made use of practical and experiential activities, since, as they said, these were useful for life and would always be remembered by their students. These were classroom situations that were based on experience through workshops, simulations, trips, case solving or the creation of materials. For example, one teacher explained what salmonella was through videos and workshops, in order for her students to experience it in situ. Moreover, an English teacher simulated an airport journey in the classroom to provide meaningful language practice.

I set a timer, so we marked one minute and they had to do different tests. Everyone had a role (flight attendant, passengers' children, passengers...) and a task. This is fun because it is supposed to be reality and what they are going to take with them for their future lives. Why do I want them to learn the table of irregular verbs? That's not going to help them (S18).

Other participants used group cohesion and emotional education-based activities to work on self-esteem, make their students happy and get to know themselves and each other better. For example, they asked them to draw up lists of priorities they had in their lives, interpret their dreams or describe their classmates.

In the first semester, when we talk about Freud and so on, we also interpret dreams. I start by giving them some little tricks and they learn strategies in an interactive way. Little by little, they see that it helps them to know themselves (S17).

Some teachers used community participation activities that were part of wider research projects linked to territorial improvement. It was essential for them that their students knew their neighbourhood, felt supported by their group and became aware of how to improve their environment and other contexts. For example, in English lectures, they went to the oncology ward of a hospital to tell stories to children with cancer, and, in Language

and Literature, they were empowered through activities with their local council on gender violence.

I do an activity to get them to think about where they come from and what our neighbourhood is like. We start with the individual and then we open up to the world. We do small workshops, we take photographs, we go out into the street... (S8)

Other teachers used playful and gamified activities. According to the participants, this type of dynamics generated a good atmosphere in the classroom, broke the monotony and kept students motivated in the subject. To this end, they used interactive quizzes, challenges, bonuses and the development of traditional games.

They had to watch a small piece of the trailer and find out which film it was. Then, the challenge I set was that the first one to send it in would get a bonus to use a dictionary in the next English test. If I put something funny, I know they will learn better. (S14)

Finally, only a few participants emphasised assessment activities. Perhaps the most overlooked curriculum component was assessment. Therefore, the learning ecology principles teach us the need for authentic and inclusive assessments that allow students to build their learning and teachers to reflect on and improve their practice. According to the participants of this study, these were reflective activities involving a process of metacognition and self-assessment. Through the rubrics and portfolios, the aim was for students to detect their weaknesses and strengths, value their learning process and learn how to improve in the future in order to be more successful.

I give them rubrics. They see the grade, but then they do an analysis to know what they have done well and how to do better next time. (S4)

The analysed activities are diverse and show that the teaching skills repertoire must be multiple. It is not necessary for a teacher to master and carry out all these activities at the same time, but it is recommended that he/she is sufficiently trained to master some of them to respond successfully to the reality and needs of each group of students.

What Resources do Inclusive Teachers use for Learning?

The participants agreed that there was a shortage of resources for inclusion in their schools, although they used all the resources they knew and had at their disposal. Learning ecology values material and human resources as well as technological resources. While the participants in the study were aware of the need for more resources, they were creative and used a variety of resources.

The resource that stood out for almost all teachers was technology. Some mentioned the digital whiteboard and the mobile phone, and almost all participants mentioned applications that allowed fluid communication with their students as they carried out tasks (ClassDojo, Plicker, Corubrics, blogs and Google Classroom), and other more playful ones that gave them the opportunity to learn about previous ideas or create questions to review a topic or discuss it (WebQuest, Mentimeter, Kahoot! and Jeopardy). They also used Instagram to disseminate information and get into the lives of their students, Trello to share material with students, Stop Motion Studio to create short films and Moodle to provide additional resources.

I use Mentimeter a lot for interactive presentations. For example, when we are going to decide the phrase for our project slogan, each group comes up with a phrase. This way, I make sure that everyone participates, and the whiteboard displays the sentences of all the teams. (S14)

Another resource widely used by teachers was the human resource. Some teachers highlighted that the best resource for their students' learning was the teacher him/herself (trust, experience, listening, support, accompaniment, empathy...).

You have to have the personal resources and ask the students how you can help them. The first thing is your own resources, your own experience. The second thing is to lead the students to help each other. (S23)

The participants also identified the students and peer support as human resources. These teachers had learned that mutual support was highly effective for the construction of learning (resolution of doubts, successful completion of a task...) and the sense of belonging.

When they talk to each other, they learn more. Many times I have asked if I they wanted me to explain such and such a thing on the blackboard and they have told me that they understand it better when a classmate explains it to them. (S15)

In addition, another human resource was co-teaching. For these professionals, the support teacher or any other colleague offered value to the learning environment. They enjoyed this resource within the classroom, who supported all students and, in turn, helped them to become better teachers.

When there is another adult, it is a support for the class... I can be attentive to one thing, but when there is another person, the learning process is better and more details are taken into account. (S25)

Family as a human resource was also mentioned, although only by a minority of the participants. They acknowledged that, at this educational stage, it was difficult to establish strong links and communication due to time availability and institutional culture. What is more, some teachers reported that family was a crucial resource regarding joint tutoring to get to know their students better.

Another resource that half of the teachers pointed out was the audiovisual resource. For them, this resource was very close and attractive to the students, and it was also essential to keep their students engaged. Specifically, the resources were multiple: audio, current music, YouTube videos with subtitles, films, or presentations with audio description.

Resources from the environment and the community were also mentioned in this study. Half of the teachers emphasised the importance of these resources for linking what is done in the school with real life. Among these, they frequently used the radio station to broadcast podcasts that they themselves had recorded, visits by experts who created seminars and gave examples of life in the classroom, trips, the library or the civic centre for different events.

I constantly try to relate things in their lives to what we are seeing. Maybe we are talking about speed cameras, so I ask if their parents have ever been fined for bringing them to school. I do the same with an electricity bill, a water bill... (S25)

Finally, a few teachers highlighted material resources. These participants often used online resources as examples to be adapted to their classroom context, recycled materials, the traditional blackboard, digital books, notes with statements containing the names of the students in the class, diagrams and mind maps, and interactive notebooks. For example, one teacher commented that the latter were very visual and manageable resources that helped her to personalise learning, since each student decided how they wanted to represent the content of a topic, learn it, review it and even explain it to another classmate.

The variety of resources used shows that the willingness and involvement of teachers makes up for the lack of resources. These teachers make use of all the resources available to them to make the most of them and facilitate their students' learning. The results reveal that one of the main resources that any teacher can rely on is the students. For this purpose, the

participants tend to use both methodological and mutual support strategies in which the students play an active role in the learning environment.

What Kind of Interactions do Inclusive Teachers have with their Students?

Some teachers stated that, depending on the group, the time and the learning situation, they played one teaching role or another in class. A large majority made it clear that, despite this, their role was characterised by monitoring the processes of the group as a whole. In this way, rather than directing, they coordinated, united work teams, guided, facilitated, gave brief explanations and created the conditions for the classroom to be a space where their students felt welcome and learned to investigate for themselves. This teaching role, as recommended by the learning ecology approach, includes components such as motivation, expectations, values and beliefs about learning and the profession. For these reasons, the participants took care of the interactions, since affective and emotional relationships were key to place the students at the centre of the learning process.

I try to be as much of an enabler as possible. I like to arrive, give them a few guidelines and get them to work in small groups. At the end, I go through the different teams, I let them go on their own, I accompany them and I see what doubts they have. (S6)

Another large number of teachers said that they were very close and caring, believed in their pupils and empathised with the lives of each of them without prejudice. For these professionals, humane treatment came before the curriculum. They recognised that they made a point of getting to know the pupils and their environment (hobbies, family and economic situation, games, routines, future projections, friendships...), talking to them on a daily basis, taking them seriously, listening to them and putting themselves in their shoes.

I know the children very well. They trust me and then they tell me. I know that they are going through a very hard time in their lives. When I'm with them, I try to remember when I was a teenager; the silly things I did, the things that I was worried about... (S17)

More than half of the participants also pointed out that another one of their roles was to encourage interaction among their students so that no one was left out of the classroom dynamics. This kind of human support ensured that students with more difficulties were not taught in parallel to the mainstream classroom and, at the same time, maximised learning, since all students were able to feel that they were the protagonists by participating in the class.

When I see that a student is very supportive, I try to get him or her to sit next to a classmate who is a little more difficult to help. I finish the course with five or six tutors of other children. This makes my work easier and they feel good. (S10)

Finally, another majority of teachers indicated that they played a motivating role to keep students active at all times. On the one hand, they indicated that they used to encourage and value everyone's contribution, but also stimulated the class dynamics with questions. Likewise, they were regarded as supportive, since they continually showed the students that they could count on their moral support and that each of the students had a talent to discover and show to others. On the other hand, the participants positioned themselves as agents that promoted learning linked to the outside world and the working reality.

These findings are closely aligned with the approaches of the learning ecology theory, showing us the need to use multiple educational environments and agents, as well as to focus on a curriculum that cares for social relationships and develops basic skills, allowing people to learn from their singularity and lifelong learning.

Discussion

The inclusive teachers in our study knew and used multiple activities, resources and interactions that welcome student diversity. However, other studies have identified teachers as a barrier to the inclusion of all students, as they claimed training, support or specific resources (Maia & Freire, 2023; Woodcock & Jones, 2020). These participants provide clues as to how human, responsive, ecological, personalised and reality-linked learning environments can be designed, which, through horizontal relationships and varied experiences, enable all learners to continue learning throughout “Life-Long Learning” (Barron, 2006; Jackson, 2013; Richardson, 2002).

The varied activities they create are inspired by the principles of UDL (CAST, 2018; Rose & Meyer, 2000). These are activities that exclude no learner, as they are based on dialogue and cooperation, experience, group cohesion and emotional education, community transformation, play and assessment (Authors, 2020; Persico et al., 2019; Slavin, 2011). All of these encourage playful and autonomous learning, involve a change in the teaching role and accommodate the different ways of feeling, thinking and acting that can coexist in any learning environment. Consequently, it would be advisable for both management and teaching staff to receive in-service training in schools on UDL and inclusive methodological strategies through practical workshops (Galkienė & Monkevičienė, 2021). In this type of training, the participants could plan didactic sessions together with other colleagues, implement them, analyse the results and evaluate the impact they had on their learners, as well as to reflect with other teachers.

The resources used show that the "scarcity" (material) that usually exists in educational institutions can be solved by being a proactive professional, involved and committed to people. In this study, technological, audiovisual and material resources were mentioned, due to their multiple benefits, such as motivation and extrapolation to other real contexts (Hernández-Sellés et al., 2015; Mngo & Mngo, 2018; Persico et al., 2019). Nevertheless, these have not been the only resources. For these teachers, human resources are also the gears for making all people feel represented and important as they learn together (Florian & Spratt, 2013; Rose et al., 2006). For these reasons, one of the key resources that teachers frequently mention and, at the same time, consider valuable and effective is peer support and teachers themselves (Hart et al., 2010; Slavin, 2011). Therefore, this shows that the main resource that schools have is the human resource. That is why people should be valued and teaching and learning processes ought to be designed to take advantage of these resources.

In addition, it would be highly recommended for schools to provide training in accessibility and ICT (Williams et al., 2011). However, this would be meaningless if teachers are not trained in advance on how to teach cooperatively and actively, and how to organise support so that no one feels excluded. This is the only way to contribute to developing the competences of independent, autonomous and creative citizens who are able to cope in any context and at any time of their lives.

Despite the value placed on human resources by these inclusive teachers, we found that family is rarely part of the life of the school. If this is the case with vocational professionals who feel responsible for the learning and participation of all students, what can happen to teachers who do not practice inclusive education? Consequently, school inspection could supervise the strategies that schools use to involve families and ensure that they are complied with. It would also be useful, from a research perspective, to analyse the risk factors that trigger their lack of participation at this stage. Likewise, greater leadership by management teams and training for both teachers and students in Project-Based Learning,

Service-Learning, interactive groups or any other student-centred strategy could be useful to begin to germinate more community and collaborative practices (Moliner et al., 2011).

Finally, in terms of interactions, participants build relationships with their students through monitoring, care and group cohesion, closeness, affection, empathy and motivation. These gentle, non-directive bonds allow the teacher to be one in the classroom and to work with, rather than act on, their students (Gale & Mills, 2013). Each of their roles reveals that true inclusion lies in human simplicity and the support between people (Slavin, 2011). Indeed, teachers themselves have been defined as the best resource for their outreach.

In this study, we learned that the professional who manages the classroom has to recognise that "the classroom" belongs to the students, and that the teacher must be at their service. In this way, our study coincides with the research of Barron (2006) and Messiou et al. (2022), since these participants not only designed multiple activities and resources connected to reality, but they were also coherent with their way of relating to their students: with respect, affection, fairness and responsibility.

Limitations and Future Research

The selection of participants was a complex and time-consuming process. Some teachers who were recommended to us for participation in the study were working in special units. This resulted in their exclusion from the sample and a new search for inclusive teachers in mainstream classrooms. Interviews were also lengthy and, in most cases, required constant meetings and new telephone arrangements until they were fully completed. Moreover, health alarms due to the pandemic delayed data collection and some interviews had to be conducted online rather than face-to-face.

In future research, the selection of participants could be extended to other national and international schools. We refer to a future research line that includes cross-country comparative studies. Similarly, for a better understanding of inclusive educational practices, these interviews would need to be complemented by observations, student voices, in-depth documentary analysis and a presentation of the results using digital ethnography.

Conclusions

With the aim of increasing the motivation among professionals to carry out inclusive ecological practices, it is essential to implement sensitive training in universal accessibility, otherness and emotional education, which can dismantle prejudices about diversity. It would also be necessary to organise activities where students themselves can give their opinions on how they want to learn and can participate in the assessment process, in order to freely expose the weaknesses and strengths of teachers, always in the interest of improving as professionals.

In conclusion, we consider that the analysed narratives can help teachers at this stage, management teams, professionals from educational guidance departments and training centres to rethink the value of providing sufficiently varied resources, activities and interactions, and transform the curriculum from a more humane, democratic and inclusive perspective.

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