Teaching planning and the SAD approach: A model for diversity

Planificación docente y enfoque DUA: Un modelo para la atención a la diversidad

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ABSTRACT

The objective of this study is to analyse the documentary categories related to teaching planning and the UDL approach as a model for attention to diversity. A descriptive methodology was used through a systematic review of 19 scientific articles. Evidence was found of teaching leadership, interdisciplinary collaboration and pedagogical innovation as axes for overcoming institutional barriers and promoting educational equity. The anticipation of barriers and the constant redesign of activities are also highlighted. This vision conceives of student diversity as an extremely valuable resource for teaching. The strategic use of technological resources promotes adapted and accessible learning environments, reinforcing inclusion as a continuous and shared process in different educational contexts.
Descriptors: educational technology; information technology; telematics. (Source: UNESCO Thesaurus).

RESUMEN

Este estudio tiene por objetivo analizar las categorías documentales relacionadas a la planificación docente y enfoque DUA como modelo para la atención a la diversidad. De metodología descriptiva mediante revisión sistemática de 19 articulos científicos. Evidenciándose el liderazgo docente, la colaboración interdisciplinaria y la innovación pedagógica como ejes para superar barreras institucionales y fomentar la equidad educativa. También se destaca la anticipación de barreras y el rediseño constante de actividades. Esta visión concibe la diversidad estudiantil como un recurso sumamente valioso para la enseñanza. El uso estratégico de recursos tecnológicos promueve entornos de aprendizaje adaptados y accesibles, reforzando la inclusión como un proceso continuo y compartido en distintos contextos formativos.
Descriptores: tecnología educacional; tecnología de la información; telemática. (Fuente: Tesauro UNESCO).

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INTRODUCTION

The growing heterogeneity in classrooms and the demand to transform traditional pedagogical practices have driven the adoption of Universal Design for Learning (UDL) and the implementation of inclusive strategies that aim to respond to the diversity of students' styles, needs and contexts (Argüello, 2024; Pazmiño-Vaca et al., 2024). The focus of this study is projected towards the integration of multiple dimensions: inclusive teacher planning, continuous teacher training, the use of Information and Communication Technologies (ICT) and the restructuring of school curricula to ensure coherent management at the macro, meso- and micro-curricular levels (Crespo et al., 2024; Mantilla-Crespo et al., 2024).

In this scenario, various needs and challenges are evident that require new methodological approaches and innovative pedagogical practices. Previous research highlights that the effective implementation of the SAD and the strengthening of teaching competences require not only modifications to curricula, but also a profound transformation in the educational culture, in which diversity is recognised as an enriching resource for the teaching-learning process (Maldonado, 2018; Avellán-Zambrano & Alcívar-Pincay, 2024), the incorporation of audiovisual resources and digital tools has demonstrated their potential to personalise learning, breaking down historical barriers in student accessibility and participation (Guanotuña-Balladares et al., 2024; Gómez-Gómez, 2023).

On the basis of the above, the aim is to analyse the documentary categories related to teaching planning and the SAD approach as a model for diversity.

METHOD

The article was managed from a qualitative descriptive methodological context, aimed at analysing and understanding the multiple dimensions involved in the implementation of inclusive education, with emphasis on teacher planning, teacher training, the use of technologies in the framework of Universal Design for Learning (UDL), the curricular approach and the perception of inclusive practices, which facilitated a description of the educational phenomena analysed, providing a comprehensive perspective that combined theoretical contributions with the empirical results available in the literature (Alía, 2008; Argüello, 2024).

The qualitative descriptive methodology used in this study is based on documentary analysis, a systematic review of 19 scientific articles was carried out in which the main theoretical and empirical contributions concerning educational inclusion were identified, categorised and synthesised. For this purpose, various academic databases and institutional repositories were used to ensure that a representative sample of studies on the subject was obtained. The information collected was organised into thematic categories that allowed the analysis to be structured around the conceptual axes of inclusive teacher planning, professional training, ICT integration and the inclusive curriculum approach.

Documentary review was adopted as the main collection technique, complemented by content analysis, which made it possible to identify patterns, trends and challenges emerging in the implementation of Universal Design for Learning (UDL) and in inclusive practices. This analysis technique allowed for a contextualised interpretation of the available evidence, highlighting both existing barriers and opportunities for improving educational inclusion (Crespo et al., 2024; Mantilla-Crespo et al., 2024).

The information collected was subjected to a content analysis process, in which coding techniques were applied to identify the relevant thematic units. This procedure involved a first phase of reading the selected sources, followed by a segmentation and categorisation of the data according to the following axes of analysis: inclusive teacher planning, teacher training, use of technologies in the framework of the SAD, inclusive curriculum management, perceptions and challenges of the SAD, the role of the teacher, pedagogical innovation and attention to specific educational contexts.

Subsequently, comparisons and contrasts were made between the different categories, identifying convergences and divergences in the proposals and practices described in the literature. This analytical process allowed for a detailed and systematic description of the strategies and challenges in the implementation of inclusive education, integrating the vision of various authors and studies that support the work (Avellán-Zambrano and Alcívar-Pincay, 2024; Pastor et al., 2015; Sánchez-Mendías et al., 2025).

RESULTS

The challenge of educational inclusion in Ecuador and in other countries has become a fundamental issue in order to achieve equity and quality in the education of all students. Contemporary pedagogical reforms demand the transformation of traditional educational practices in order to respond to the diversity present in the classroom. This transformation implies articulating teaching planning strategies based on Universal Design for Learning (UDL), promoting curricular adaptations and creating flexible and accessible environments (Argüello, 2024; Pazmiño-Vaca et al., 2024). It is also necessary to strengthen continuous teacher training, generate specific competences to address diversity, manage macro, meso- and micro-curricular levels in an integrated manner, and foster a culture of innovation and educational improvement that transcends disciplinary boundaries.

Therefore, the plurality of approaches and the variety of references cited show that inclusion cannot be addressed from a single perspective, but requires a systemic and interdisciplinary approach (Crespo et al., 2024; Mantilla-Crespo et al., 2024). In this sense, the integration of contributions from various studies provides a solid basis for identifying challenges and opportunities in SAD implementation and teacher education for inclusion. Throughout this discussion, the potential of ICT and digital resources to transform educational practice and make it more adaptable to the needs of students with different profiles will also be highlighted (Guanotuña-Balladares et al., 2024; Pastor et al., 2015).

The theoretical and empirical journey is structured in thematic sections that address everything from planning to the role of the teacher and educational innovation. Each section is based on recent studies and historical research which, together, provide a glimpse of a path towards the construction of inclusive educational environments in which diversity is recognised as a value and not as a barrier to learning (Alía, 2008; Arrazola et al., 2010). In this way, the following categories of study are analysed:

Inclusive teacher planning

Inclusive educational planning is the starting point for the establishment of an education system that embraces diversity. In this sense, strategies based on Universal Design for Learning (UDL) offer a robust theoretical and methodological framework that enables the creation of learning environments adapted to the individual needs of learners. According to Argüello (2024) and Pazmiño-Vaca et al. (2024), UDL bases its approach on three basic principles: the provision of multiple means of representation, action and expression, and engagement. The application of these principles allows for the design of learning experiences that facilitate the participation and success of every learner, regardless of their particular characteristics or conditions.

SAD-based strategies

SAD-based strategies involve forward planning that takes into account diversity in the classroom from the beginning of the curriculum process. Such planning requires consideration not only of learning objectives, but also of the various routes of access and participation that enable the achievement of these objectives. In this sense, Argüello (2024) highlights the importance of developing activities that offer multiple ways of representing content and assessing learning. Likewise, Pazmiño-Vaca et al. (2024) emphasise that anticipating barriers and foreseeing response mechanisms are essential elements for inclusive planning.

Curricular adaptations for the attention to diversity

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Another crucial aspect of teacher planning is the implementation of curricular adaptations that allow teaching to be adjusted to the specific needs of each student. Therefore, Alía (2008) argues that curricular adaptations should not be seen as simple modifications, but as a comprehensive process that ensures equal opportunities in access to the curriculum. In the Ecuadorian context, where socio-economic and cultural conditions can vary widely, these adaptations are essential to ensure that diversity is effectively addressed. The implementation of such adaptations allows not only for the inclusion of students with special educational needs, but also for those with alternative learning styles or who come from culturally diverse backgrounds.

Designing flexible and accessible learning environments

Creating learning environments that are both flexible and accessible is fundamental to the practice of inclusive education. Based on research by Argüello (2024) and Pazmiño-Vaca et al. (2024), it is postulated that an adaptive environment facilitates the implementation of diverse methodologies that cater to the individual characteristics of learners. This implies the use of didactic resources that adjust to diverse needs, from the physical structure of the classroom to the use of complementary technologies and materials. The flexibility of the environment also implies the possibility of making adjustments in real time during the teaching process, allowing the teacher to act proactively in the face of unforeseen situations or differences in the pace of learning.

The integration of SAD-based strategies and curricular adaptations favours the creation of classrooms that promote student autonomy and active participation. This approach not only has a positive impact on academic performance, but also contributes to the development of social and emotional competences that are fundamental for coexistence in diverse environments (Argüello, 2024; Pazmiño-Vaca et al., 2024).

Teaching competences for inclusion

Training in specific teaching competences for inclusion has become a priority in the educational field, in this sense, Maldonado (2018) and Sanango & Morejón (2024) argue that training in the use of inclusive methodologies enables teachers to identify and respond to diversity in their classrooms. Key competences include the ability to design flexible learning activities, the use of differentiated assessments and the management of dynamics that encourage the participation of all students. These competences are key elements in the construction of educational environments in which diversity is valued and used as a learning resource.

Continuous training in SAD and attention to diversity

Continuous updating in the use of SAD and in diversity strategies is crucial to keep teachers up to date with pedagogical innovations. Sanango and Morejón (2024) and Avellán-Zambrano & Alcívar-Pincay (2024) highlight the need for training programmes that integrate both theoretical aspects and practical experiences. Continuous training should not be limited to the acquisition of knowledge, but should promote spaces for reflection and analysis in which teachers can share their experiences and challenges. This exchange of knowledge allows for the collective construction of strategies that are adapted to the specific realities of each educational institution.

Perceptions and Challenges in Teacher Education

Although teacher education for inclusion has multiple benefits, it also faces significant challenges. Research by Avellán-Zambrano & Alcívar-Pincay (2024) and Sánchez-Mendías et al. (2025) indicates that there are mixed perceptions among teachers regarding the feasibility and effectiveness of SED training programmes. Challenges identified include lack of resources, resistance to change and shortage of time for training. These barriers, however, can be overcome through institutional policies that promote spaces for continuous training, the provision of resources and the promotion of a culture of innovation and pedagogical improvement. The strengthening of collaborative networks between institutions and the

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articulation with governmental entities are also strategies that can contribute to the consolidation of robust inclusive training in Ecuador.

The implementation of specific competences for inclusion requires a constant review of training methods and approaches, adapting them to the reality of each educational community. In this sense, the integration of practical experiences and the use of technologies for the simulation of learning scenarios have shown promise for comprehensively addressing the challenges faced by teacher education in the inclusive field (Avellán-Zambrano & Alcívar-Pincay, 2024; Sánchez-Mendías et al., 2025).

Technology and Universal Design for Learning (UDL)

The digital revolution in education has brought with it a number of opportunities to strengthen inclusion through the use of information and communication technologies (ICT). The integration of these resources in the framework of the SAD is a strategy to transform teaching and learning, enabling the personalisation of educational processes.

Using ICTs to promote inclusion

ICT are essential tools for the implementation of inclusive classroom practices. According to Guanotuña-Balladares et al. (2024) and Pastor et al. (2015), the use of technologies contributes to democratising access to information and facilitates the adaptation of content to the needs of each student. The incorporation of digital devices, interactive platforms and educational applications allows teachers to design diversified activities that respond to the different learning styles present in the classroom. These tools also enable immediate feedback and individualised monitoring, which are essential to ensure the effectiveness of teaching-learning processes in inclusive environments.

Audiovisual and digital resources in the classroom

The use of audiovisual and digital resources in the classroom has shown a positive impact on attention to diversity, therefore, Gómez-Gómez (2023) and Sánchez-Mendías et al. (2025) highlight that the use of videos, infographics and digital simulations favours the understanding of complex concepts, while providing opportunities for students' active participation. These resources not only diversify communication channels, but also stimulate student interest and engagement. The implementation of methodologies that integrate audiovisual resources must be accompanied by adequate teacher training to enable the effective selection and use of these materials in line with curricular objectives.

Technological experiences in diverse educational contexts

Technological experiences in a variety of educational contexts have shown the potential of ICT to transform inclusive education. Pastor et al. (2015) and Guanotuña-Balladares et al. (2024) present cases in which the integration of technologies has facilitated the development of digital skills in students, fostering their autonomy and participation. These experiences indicate that, by adapting technological resources to the characteristics of the students, it is possible to create dynamic and collaborative learning environments. The diversity of educational contexts in Ecuador, ranging from urban to rural areas, demands the implementation of flexible and adaptable solutions that take advantage of ICTs to overcome geographical and socio-economic limitations.

The strategic use of ICT in the framework of the SAD represents one of the most promising lines of action to advance towards educational inclusion. However, it is essential that the integration of these tools is carried out in a planned and contextualised manner, addressing the specific needs of each educational community and ensuring equity in access to digital resources.

Curriculum approach and levels of inclusive management

The inclusive curricular approach aims at transforming content and methodologies to respond to the diversity of students. This process requires coordinated work at different management levels - macro, meso- and micro-curricular - to ensure the coherence and viability of inclusive education policies.

Macro, meso and micro-curricular management with an inclusive approach

Inclusive educational management needs to be developed at multiple levels to ensure effective implementation of inclusive policies and practices, therefore Crespo et al. (2024) and Mantilla-Crespo et al. (2024) stress the importance of coordination between national policies and institutional practices. At the macro level, there is a need for the state and education authorities to establish clear guidelines and adequate resources for inclusion. At the meso-curricular level, institutions need to translate these policies into concrete plans and programmes that take into account the particularities of the local context. Finally, at the micro-curricular level, teachers and pedagogical teams need to develop and implement pedagogical strategies adapted to the individual characteristics of their students.

This articulation of levels allows the integration of policies, programmes and practices in a coherent and sustained proposal over time, the inclusive approach in curriculum management implies not only the adaptation of content, but also the promotion of assessment practices that recognise the diversity of learning processes, valuing the achievements and progress of each student according to their potential.

Curriculum innovation for diversity

Curricular innovation is presented as a necessary response to the challenges imposed by student diversity. Therefore, Alía (2008) and Arrazola et al. (2010) show that the renewal of contents and methodologies is essential to generate learning spaces that allow for the comprehensive development of students. The incorporation of innovative approaches in the curriculum, such as the inclusion of interdisciplinary projects and active methodologies, contributes to making the educational process more dynamic and promoting equity in access to knowledge.

Proposals for improvement from educational practice

The proposals for improvement from educational practice arise from the critical analysis of institutional realities and reflection on the experiences lived in the classroom, in this sense, Azorín-Abellán (2018) and Arrazola et al. (2010) have provided empirical evidence that indicates how the constant adaptation of pedagogical strategies allows each student to be attended to in a differentiated way. These proposals focus on the need to foster an environment of innovation, in which teachers become active agents of change, developing and sharing innovative practices that fit the characteristics and demands of their specific contexts. Educational improvement, from this perspective, is not conceived as an end in itself, but as a permanent process that requires the involvement of all actors in the education system.

The inclusive curriculum approach is closely related to the idea of forming communities of practice which, through collaboration and exchange of knowledge, can constantly update their methodologies and teaching strategies. This strengthens the idea that inclusion is a dynamic and constantly evolving process and underlines the importance of articulated curriculum management at all levels.

Teachers' perceptions of the SAD

Teachers' perceptions of the SAD have a decisive influence on its application in the classroom. Studies by Avellán-Zambrano & Alcívar-Pincay (2024) and Sánchez-Mendías et al. (2025) reveal a diversity of opinions, in which the usefulness of SAD is recognised but doubts about its complexity and the adequacy of the available training resources are also evident. In many cases, SAD implementation is hampered by a lack of in-depth knowledge of its principles, which

leads to initial resistance on the part of some educators. However, those teachers who have received specific training and experienced its benefits highlight its ability to transform teaching and respond in a differentiated way to students' needs.

Barriers and opportunities in SAD implementation

The implementation of SAD faces various barriers ranging from lack of resources to limited teacher training, therefore, Avellán-Zambrano & Alcívar-Pincay (2024) along with Muñoz-Ortiz et al. (2023) point out that, despite the opportunities offered by the model, there are structural and cultural barriers to its full adoption. These challenges include a shortage of time for training, inadequate technological infrastructure and resistance to change in some educational environments. However, these studies also highlight that, through investment in training and the development of appropriate resources, it is possible to overcome these barriers and make the most of the opportunities offered by SAD for truly inclusive education.

Training needs to implement the SAD

In order to effectively implement the SAD, it is imperative that teachers receive comprehensive training that covers both the theoretical aspects and the practical applications of the model. Avellán-Zambrano & Alcívar-Pincay (2024), as well as Parody et al. (2022) suggest that training should go beyond the simple transmission of knowledge, also encompassing the construction of pedagogical strategies adapted to the realities of each context. This training implies the constant updating of teachers through workshops, specialised courses and learning communities, so as to achieve a higher degree of appropriation of SAD in daily practice. The identification of the specific training needs of each institution and the promotion of collaborative networks among teachers are key strategies to improve the implementation of the model.

The Role of the Teacher in Inclusion

The role of the teacher is central to the process of educational inclusion. Their attitude, training and capacity to innovate are crucial to the creation of learning environments that meet the diverse needs of students:

Creating inclusive environments

The creation of inclusive environments is one of the fundamental tasks of the teacher in the framework of educational inclusion. According to Vera-Rivera et al. (2024), the role of the teacher must go beyond the transmission of knowledge, becoming involved in transforming learning spaces so that they are accessible, participatory and sensitive to the diversity of students. This process requires careful planning, integrating strategies that allow active participation and adaptation of content to individual needs. The use of active methodologies and the promotion of autonomy are strategies that, when implemented in a coherent manner, contribute to the configuration of environments that favour meaningful learning for all.

Teacher leadership in diversity

Classroom leadership is a critical element in promoting inclusion. Maldonado (2018) and Vera-Rivera et al. (2024) stress that teachers must take a leading role in guiding and motivating the educational community towards the adoption of inclusive practices. Teacher leadership is manifested in the ability to drive change, to manage inclusive classroom dynamics and to generate collaborative spaces that foster the exchange of ideas and the development of innovative strategies. Effective leadership not only improves the quality of the educational process, but also acts as a motivating factor for the transformation of traditional practices towards more inclusive models.

Pedagogical innovation for inclusion

Pedagogical innovation is an essential tool to respond to the challenges of inclusion, therefore, Arrazola et al. (2010) and Vera-Rivera et al. (2024) show that the implementation of innovative methodologies, such as project-based learning and the use of interactive technologies,

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enhances the teacher's ability to address diversity in the classroom. This innovative approach implies the adoption of practices that favour creativity, critical thinking and problem solving, allowing each student the opportunity to develop their competences in an environment of equity and respect. Innovation is not only understood as the incorporation of new tools, but as a comprehensive transformation of educational practice that reflects a deep commitment to inclusion and continuous improvement.

Innovation projects for the attention to diversity

Experience in innovation projects is fundamental for the attention to diversity. Arrazola et al. (2010) and Azorín-Abellán (2018) have shown that the implementation of interdisciplinary initiatives promotes the development of competences in students, while enriching teaching work. These projects allow experimentation with active methodologies and the implementation of strategies that facilitate curricular adaptation in a dynamic and contextualised way. The integration of different areas of knowledge in the solution of real problems fosters creativity and collaboration, essential aspects for comprehensive training in an inclusive environment.

Interdisciplinary collaboration in teacher training

In this sense, Arrazola et al. (2010) highlight that the integration of different perspectives in teacher training not only enriches the theoretical background, but also allows the development of practical skills that facilitate the adoption of inclusive strategies. The implementation of workshops, seminars and interdisciplinary meetings has been shown to be an effective mechanism for fostering the exchange of experiences and the development of competences in heterogeneous educational contexts.

Potential and limitations of innovative proposals

The analysis of innovative proposals in inclusive education reveals both significant potential and certain limitations, in consideration of which Arrazola et al. (2010) and Azorín-Abellán (2018) point out that, although pedagogical innovation opens up opportunities for the development of more equitable and participatory environments, it also faces restrictions in terms of resources, infrastructure and resistance to change. Critical reflection on these proposals makes it possible to identify areas for improvement and generate strategies that optimise the implementation of innovative practices, maximising the benefits for students and minimising the challenges inherent in transforming traditional practices.

Inclusion in higher education

Inclusion in higher education stands as a critical area, where historical barriers and contextual conditions demand innovative policies and practices. In this sense, Caguana-Baquerizo et al. (2024) and Maldonado (2018) stress that attention to diversity in university contexts goes beyond the adaptation of content, encompassing aspects of accessibility, cultural diversity and the need to generate environments conducive to autonomous learning. The implementation of inclusive strategies in higher education must consider the heterogeneity of students, promoting support programmes, tutorials and the use of digital resources that facilitate the assimilation of knowledge from different perspectives.

Experiences in University Contexts

Experiences in university contexts, documented by Pastor et al. (2015) and Caguana-Baquerizo et al. (2024), reveal that the integration of inclusive strategies in higher education has a positive impact on academic performance and institutional climate. Innovation projects and adaptive pedagogical practices, implemented in several universities, have shown improvements in student participation and retention, especially for students from diverse socio-economic backgrounds. These experiences demonstrate the feasibility of transferring strategies developed in basic education to higher levels, adapting them to the particularities of university education.

Attention to students with high abilities

Attention to students with high abilities constitutes a particular aspect of inclusion that demands differentiated strategies. In this sense, Alía (2008) states that these students, often marginalised in homogeneous teaching models, require specialised attention that enhances their abilities and favours their comprehensive development. Early identification and the design of personalised educational pathways are fundamental strategies to ensure that these students can make the most of their potential. In the Ecuadorian context, attention to high abilities is part of a process that must be articulated with inclusion policies at all levels, guaranteeing that the diversity of talents and aptitudes is recognised and valued in the educational environment.

Theoretical integration

The integration of SAD in teacher planning and continuous training represents an essential strategy for designing adaptive and flexible environments that respond to the diversity of students and strengthen their learning process (Argüello, 2024; Pazmiño-Vaca et al., 2024; Sanango & Morejón, 2024; Avellán-Zambrano & Alcívar-Pincay, 2024). Similarly, the strategic use of ICT and audiovisual resources in the classroom has been shown to be an effective tool for making teaching more dynamic and achieving greater student participation and engagement (Guanotuña-Balladares et al., 2024; Gómez-Gómez, 2023; Pastor et al., 2015).

On the other hand, the transformation of the curriculum and the comprehensive management of teaching requires the coordination of policies at macro, meso and micro levels, where proposals for curricular innovation and improvement practices show the need for a comprehensive approach that integrates both the technical and human aspects of the educational process (Crespo et al., 2024; Mantilla-Crespo et al., 2024; Alía, 2008; Arrazola et al., 2010; Azorín-Abellán, 2018). The perspective adopted in teacher education, in which the perceptions and challenges of SAD become constructive elements to overcome traditional barriers, allows for a reinterpretation of the educational function in a context of change and transformation (Avellán-Zambrano & Alcívar-Pincay, 2024; Sánchez-Mendías et al., 2025; Muñoz-Ortiz et al., 2023; Parody et al., 2022).

The role of the teacher, conceived as a leader and innovative agent in the construction of inclusive environments, is of central importance; the ability to create dynamic learning spaces and implement strategies that respond to diversity is the axis on which the quality of inclusive education is built (Vera-Rivera et al., 2024; Maldonado, 2018; Arrazola et al., 2010). In this sense, interdisciplinary collaboration and the generation of educational innovation projects strengthen teaching practice, allowing experience and knowledge to be shared horizontally and collaboratively. Therefore, inclusion in specific contexts, such as higher education and attention to students with high abilities, broadens the horizon of educational inclusion, showing that the challenge is not limited to basic education. The diversity of contexts and needs at different educational levels demands continuous reflection and institutional commitment to ensure equity and educational quality in each sphere (Caguana-Baquerizo et al., 2024; Maldonado, 2018; Pastor et al., 2015; Alía, 2008).

Application of the SAD in Diversity Care

The implementation of the SAD as a model for addressing diversity involves, in practice, a series of strategies that connect theoretical principles with curriculum design and pedagogical practice:

Inclusive Educational Planning

Adapting the curriculum under SAD principles requires advance planning in which potential barriers are identified and alternatives for representation, action and engagement are established. This involves redesigning activities and assessments to be flexible and responsive to the needs of all learners. By incorporating these strategies, teachers transform their role from transmitters of knowledge to facilitators of learning experiences that value diversity (Argüello, 2024; Pazmiño-Vaca et al., 2024).

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Integration of Information and Communication Technologies (ICTs)

The use of digital and audiovisual resources is a fundamental tool in the implementation of the SAD. ICT allows the creation of personalised learning environments, where students can interact with the content through different media. The development of educational platforms that integrate videos, infographics, interactive simulations and specific applications facilitates the diversification of the means of representation and expression, thus enhancing inclusion (Guanotuña-Balladares et al., 2024; Gómez-Gómez, 2023).

Continuous Training and Development of Teaching Competences

The effective implementation of SAD depends to a large extent on the training and constant updating of teachers. Specific SAD training enables teachers not only to understand the theoretical foundations, but also to acquire practical tools to transform their teaching methods. This training continues to strengthen inclusive competences, enabling dynamic curriculum adaptation and optimal use of ICT (Sanango & Morejón, 2024; Avellán-Zambrano & Alcívar-Pincay, 2024).

Formative and Innovative Evaluation

A distinctive feature of the SAD is the continuous re-evaluation of the pedagogical strategies implemented. The aim is to implement diversified assessments that not only focus on academic performance, but also consider student participation, engagement and holistic development. These evaluations make it possible to adjust teaching practices and ensure that curricular adaptations are relevant and effective in real time (Crespo et al., 2024; Mantilla-Crespo et al., 2024).

CONCLUSION

The adoption of Universal Design for Learning, supported by continuous teacher training and the strategic integration of technologies and audiovisual resources, is an essential pillar to generate flexible environments that recognise the diversity of learners as a didactic resource. In this process, the articulation of inclusive policies at macro, meso- and micro-curricular levels, as well as interdisciplinary collaboration, is essential to ensure coherent practices and curriculum redesign. In turn, teacher leadership, reflected in the creation of accessible learning spaces and the constant search for innovation, reinforces the need to conceive inclusion as a process of continuous improvement in all educational settings.

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