

CREATIVITY, MOVEMENT AND UNIVERSAL DESIGN FOR LEARNING: PERSPECTIVES FOR INCLUSIVE TEACHING IN TEACHER

CREATIVITÀ, MOVIMENTO E PROGETTAZIONE UNIVERSALE PER L'APPRENDIMENTO: PROSPETTIVE PER UNA DIDATTICA INCLUSIVA NELL'INSEGNAMENTO



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Alessandra Lo Piccolo

Università degli Studi di Enna "Kore"

alessandra.lopiccolo@unikorestudent.it



Letizia Pistone

Università degli Studi di Enna "Kore"

letizia.pistone@unikorestudent.it



Daniela Pasqualetto

Università degli Studi di Enna "Kore"

daniela.pasqualetto@unikorestudent.it



ABSTRACT

Amid the increasing complexity of educational environments, contemporary pedagogy advocates for a culture of diversity, inclusion, and active participation, emphasizing creativity and movement as pivotal drivers for the holistic development of learners. Within this paradigm, Universal Design for Learning (UDL) emerges as a forward-thinking framework. A study conducted at Kore University investigates the implementation of UDL principles in teacher education and explores the new educational challenges that accompany this evolving approach.

Di fronte alla crescente complessità scolastica, l'educazione contemporanea promuove una cultura della diversità, dell'inclusione e della partecipazione attiva, riconoscendo nella creatività e nel movimento leve strategiche per lo sviluppo integrale degli studenti. In questa prospettiva, l'Universal Design for Learning (UDL) si configura come modello innovativo. Un'indagine presso l'Università Kore esplora l'integrazione dell'UDL nella formazione docente e le nuove sfide educative emergenti.

KEYWORDS

Creativity, Universal Design for Learning, educational innovation, teacher training, inclusive learning
Creatività, Universal Design for Learning, innovazione educativa, formazione degli insegnanti, apprendimento inclusivo

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1. Introduction – Foundations for inclusive teaching

The increasing complexity of contemporary educational contexts calls for a profound reconsideration of the teacher's role and of the overall purpose of school-based action. The classroom can no longer be viewed as a mere collection of individuals, but rather as a community to be built through meaningful relationships and intentional practices (Mortari, 2017). Teaching, therefore, cannot be reduced to the application of standardized strategies; it requires a situated approach, grounded in pedagogical sensitivity, critical reflexivity, and the ability to interpret the emerging needs of real-life educational settings.

In this perspective, teaching knowledge assumes a praxeological nature: it becomes operational and transformative, shaped by reflective experience and by the ability to guide educational processes toward inclusion and the recognition of each learner's value. Designing truly inclusive learning environments entails rethinking the entire educational project—going beyond mere content transmission to promote pathways of personal, relational, and emotional growth (Dewey, 1938). Authentic inclusion is realized through the quality of relationships, the organizational flexibility of learning spaces, and the design of formative experiences capable of valuing the plurality of cognitive, emotional, and relational styles.

Within this framework, creativity emerges as an essential pedagogical competence. It is not a supplementary skill but a fundamental driver in constructing flexible and dynamic learning environments that respond to the specific needs of each student (Rossi, 2009). Didactic creativity manifests itself in the capacity to generate original solutions, transform tools and environments, and adopt multiple expressive modalities that foster active participation, critical thinking, and a sense of belonging.

Similarly, movement assumes a primary educational function: the body is not merely a support for learning but a foundational dimension of the school experience (Gómez Paloma & Damiani, 2015). Through movement, emotions are expressed, relationships are built, and deeply integrated cognitive and affective processes are activated.

From this perspective, the Universal Design for Learning (UDL) provides a pedagogical model aligned with an inclusive vision of education. According to Hall, Meyer and Rose (2012), UDL advocates for the proactive design of accessible learning environments through the diversification of representation, expression, and engagement. Within this framework, movement and creativity become central tools for overcoming learning barriers and fostering full, authentic participation for all students.

However, the conscious adoption of inclusive approaches such as UDL requires systematic investment in both initial and in-service teacher education. Significant gaps remain in pedagogical preparation—particularly in the capacity for reflective practice, adaptive action, and the development of robust professional knowledge grounded in real teaching experience (Mortari, 2017). Only by strengthening these competences will it be possible to train teachers capable of designing welcoming, dynamic learning environments that respond to the complexity of diverse learning trajectories.

It is within this context that the present study is situated. It aims to explore the awareness of future special education teachers regarding the principles of Universal Design for Learning, the educational value of movement, and the role of creativity in inclusive instructional planning. The objective is to identify critical areas and training needs in order to promote a professional culture rooted in reflexivity, innovation, and educational care.

2. Pedagogical innovation and Universal Design for Learning: principles, evidence, and future perspectives

Didactic innovation, understood as a continuous process of re-elaborating and transforming educational practices, today represents an essential pillar in teacher education. It takes the form of a reflective practice that intertwines research and action, with the aim not only of generating knowledge but also of driving change in educational contexts towards greater equity and inclusion (Mortari, 2017). Understanding innovation requires adopting a complex vision, based on principles of historicity, subjectivity, contextuality, globality, reciprocity, and reflexivity (Hopkins, 1989), in which the teacher assumes the role of an active promoter of flexible and creative educational pathways.

Within this framework, the Universal Design for Learning (UDL) model emerges, proposing an instructional design capable of responding to student diversity from the outset, without the need for subsequent adaptations. UDL is based on three core principles: providing multiple means of representation, diversifying modes of action and expression, and broadening strategies for engagement (Hall, Meyer, & Rose, 2012). These principles, supported by neuroscientific evidence (CAST, 2011), acknowledge the active role of recognition, strategic, and affective networks in learning processes, promoting an education that integrates cognitive, emotional, social, and bodily dimensions.

The conscious use of digital technologies offers an additional tool for diversifying modes of representation, expression, and engagement, in coherence with UDL principles (CAST, 2018). Inclusive technologies, when integrated with clear pedagogical objectives, can enhance accessibility, personalize learning pathways, and strengthen active student participation.

In this perspective, the teacher is no longer merely a transmitter of knowledge, but a designer of dynamic, welcoming, and motivating learning environments capable of valuing the plurality of cognitive styles and expressive modes. Movement and creativity assume a central role: through discovery, manipulation, and collaborative problem solving, students are encouraged to develop original solutions, foster critical thinking, and construct personal meaning. Learning thus becomes a participatory process in which autonomy, resilience, and mental flexibility are stimulated and enhanced (Gomez Paloma & Damiani, 2015).

Recent studies (Kennette & Frank, 2013; Bowman, Frame & Kennette, 2013) highlight that students perceive the adoption of UDL principles positively, recognizing flexibility in learning pathways, decision-making autonomy, and the variety of instructional formats as key factors for their academic success. However, significant discrepancies emerge between teachers' and students' perceptions regarding the real presence and usefulness of inclusive strategies: the availability of alternative materials, the clarity of feedback, and the attention to the learning environment are often less evident from the students' perspective, indicating the need for more explicit and transparent educational communication (Lo Piccolo & Pasqualetto, 2024).

Recent research of Al-Azawei, Serenelli e Lundqvist (2016) confirms the effectiveness of UDL as an approach capable of reducing learning barriers and improving students' academic performance, satisfaction, and engagement. The analysis of twelve empirical studies, conducted mainly in North America between 2012 and 2015, shows that the implementation of the UDL framework has proven effective in both traditional and blended or online learning environments. Diversified instructional design has been shown to foster students' active participation, reduce performance anxiety, and promote more autonomous and meaningful learning. Nevertheless, there is a recognized need to expand research to more diverse socio-cultural contexts. Some studies also highlight challenges related to accurately measuring the degree of compliance with UDL checkpoints, as well as the operational complexity involved in fully applying the model.

As Kumar and Wideman (2014) observe, the effective implementation of UDL requires specific training, adequate resources, and a profound shift in instructional design practices. In this perspective, a new study promoted by the authors at Kore

University is currently being launched, aiming to explore the integration of UDL principles into initial and continuing teacher education, and to analyze the main challenges and emerging perspectives in today's evolving educational contexts. Despite some operational difficulties and application challenges identified in the literature, UDL remains a promising and innovative pedagogical approach, capable of redefining the concept of inclusion and effectively responding to the growing heterogeneity of contemporary classrooms. The Universal Design for Learning perspective invites us to move beyond the "one-size-fits-all" paradigm, promoting a school system that recognizes, values, and supports the multiplicity of learning trajectories. Consolidating the impact of this model requires substantial investment in initial and ongoing teacher education, the promotion of educational policies focused on universal accessibility, and the development of a professional culture grounded in reflexivity, research, and ethical commitment to the construction of authentically inclusive educational environments.

3. Educating through creativity and movement: an exploratory study on initial teacher education

Within the context of current reflections on educational innovation and the centrality of the body in learning processes, this exploratory study investigates the level of awareness and preparation among future teachers regarding the integration of creativity, movement, and Universal Design for Learning principles into teaching practices.

The main objective is to understand to what extent initial teacher education and specialization programs (TFA) succeed in conveying a pedagogical vision that recognizes the value of the body, creative expression, and flexible instructional design as fundamental tools for building authentically inclusive educational environments.

To this end, a self-assessment questionnaire was developed and administered to in-service teachers and university students enrolled in degree programs in Education Sciences and specialization courses for support teaching. The instrument explores various dimensions of educational practice, including the perceived value of creativity, the relevance of bodily-kinesthetic intelligence (Gardner, 1983), the knowledge and application of UDL principles (CAST, 2018), the use of active methodologies involving movement, and the willingness to engage in methodological innovation and professional collaboration.

Particular emphasis was placed on the relationship between movement, creativity, and the development of divergent thinking, acknowledging that the body is not merely a functional support but a primary vector for self-construction and interaction with the world (Shusterman, 2008; Dewey, 1938). From this perspective, corporeality emerges as a constitutive element of the educational experience and as a space for identity, social, and emotional development.

The study also examined participants' familiarity with flexible instructional design based on UDL and their attitude towards the systematic integration of corporeality into educational contexts, within the framework of inclusive education understood as a "transformative practice capable of recognizing and supporting differences" (Slee, 2011).

The methodological approach adopted is exploratory and descriptive (Creswell, 2013), aiming to collect both qualitative and quantitative data to identify emerging trends, perceptions, and training needs, without claiming statistical generalization. The analysis of the responses will focus on identifying strengths and critical issues within initial and continuing teacher education pathways, with particular attention to the recognition of the educational value of the body, the adoption of active and flexible methodologies, and the expressed interest in further professional development opportunities.

Investigating the role attributed to creativity, movement, and universal instructional design means exploring a conception of learning as a dynamic process of constructing shared meanings, where mind, body, and emotions are inseparably intertwined (Varela, Thompson, & Rosch, 1991).

In this perspective, valuing bodily-kinesthetic intelligence and overcoming uniform teaching models emerge as essential elements for recognizing and promoting the plurality of learning styles.

Corporeality thus becomes the original language through which identities are built, relationships are woven, and shared values are learned (Merleau-Ponty, 1945; Isidori, 2009). Overcoming the mind-body dichotomy requires acknowledging the foundational role of movement in cognitive, emotional, and social development, as highlighted by the studies of Piaget (1964) e Gessel (1925). The centrality of non-verbal communication, which according to Mehrabian (1971) accounts for over 90% of emotional message transmission, further confirms the importance of the bodily dimension in learning and social interaction processes.

Movement not only facilitates the acquisition of cognitive skills but also supports the construction of a positive personal identity, strengthening self-efficacy and self-esteem (Bandura, 1977), and contributing to the development of socio-emotional competencies essential for both school life and adulthood.

In light of these findings, school inclusion cannot disregard the systematic integration of corporeality into educational processes. The principles of Universal Design for Learning provide an effective theoretical framework for designing accessible, flexible environments capable of diversifying modes of representation, expression, and engagement.

Integrating motor and creative practices into everyday teaching means offering personalized and authentic learning pathways. Motor and sports activities, approached from an educational and non-competitive perspective, emerge as effective tools for social inclusion, promoting solidarity and the recognition of diversity (Bertagna, 2001).

Promoting the integration of corporeality in education represents a strategic priority for building genuinely inclusive learning environments. Investing in initial and continuing teacher education thus appears essential to developing a school system capable of embracing complexity, supporting the holistic development of students, and fostering the full realization of their potential (Nussbaum, 2011).

Conclusions

This contribution represents the initial stage of a broader research project aimed at fostering critical reflection on both pre-service and in-service teacher education, with specific reference to the integration of creativity, movement, and the principles of Universal Design for Learning into educational practice. Grounded in a solid theoretical framework and supported by a robust body of scholarly literature, the study seeks to investigate emerging perceptions, attitudes, and training needs, with the ultimate goal of outlining professional development pathways aligned with an inclusive vision of teaching.

Although data analysis is still ongoing, preliminary expectations suggest that the results may reveal a widespread pedagogical awareness of the educational value of creativity and corporeality, alongside a fragmented and still partial understanding of UDL principles. A positive disposition toward active and dynamic methodologies is expected to emerge, along with growing recognition of the emotional-relational dimension of learning and a clear demand for training programs capable of supporting flexible and personalized instructional design.

The operational implications of this research are particularly significant: the anticipated findings may inform a rethinking of university curricula and professional development frameworks, encouraging the systematic integration of modules dedicated to Universal Design for Learning, movement-based education, and

creative instructional planning. In this light, the teacher profile that emerges is that of a reflective practitioner, able to integrate design, relational, and embodied competencies to effectively address the growing complexity and diversity of contemporary educational settings (Lo Piccolo & Passaniti, 2020).

Re-centering the body and moving beyond rigidly cognitive and verbocentric didactic models entails the adoption of an integrated pedagogy that acknowledges the body as a foundational dimension of education. As Gómez (2012) states, “to educate also means to educate the body, for it is through the body that experiences are lived, meanings are constructed, and knowledge takes shape.” Fostering dynamic, accessible, and participatory learning environments—where mind, emotion, and movement coexist in synergy—is today an educational imperative to support the full development of each student’s potential.

Author contributions

The contribution is the result of a joint work whose paragraphs 1 and conclusion are to be attributed to Alessandra Lo Piccolo, paragraph 2 to Letizia Pistone and paragraph 3 to Daniela Pasqualetto.

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