Journal of Inclusive Methodology and Technology in Learning and Teaching
ISSN 2785-5104
Anno 6 n.3 (2026)

EDIZIONI UNIVERSITARIE ROMANE
editoria scientifica dal 1952

School engagement and twice-exceptionality: educational relationships, socio-affective learning and the valorisation of potential in inclusive contexts

Isabella Grazia Bennardi[1,*] and Aurora Fumo[2]

[1] University of Bologna; isabella.bennardi2@unibo.it
[2] University of Palermo; aurora.fumo.pa@gmail.com
* Correspondence: isabella.bennardi2@unibo.it

Abstract

This contribution proposes a theoretical-pedagogical reflection on school engagement as an interpretative and planning framework for the inclusive classroom, with particular reference to students with twice-exceptionality (2e). Drawing on the literature on engagement as a multidimensional construct, articulated in behavioural, emotional and cognitive components, the paper analyses the risk that some school behaviours — such as inattention, withdrawal, inconsistent performance or emotional vulnerability — may be interpreted reductively, thereby obscuring the student's potential. In this light, engagement makes it possible to move beyond an interpretation focused exclusively on individual difficulty, directing attention instead towards the interaction between the student, educational relationships, teaching practices and context. The contribution also explores the role of the school environment as a possible barrier to, or facilitator of, participation, self-regulation and the valorisation of resources. Finally, the CLIS method is considered as a pedagogical-didactic device useful for promoting cooperation, agency, wellbeing and active participation in inclusive contexts.

Keywords: school engagement; twice-exceptionality; inclusive education; CLIS; cooperative learning

Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

This contribution proposes reading school engagement as a pedagogical-didactic key for designing the inclusive classroom, understood not only as a place in which differences are welcomed, but as an environment capable of promoting participation, belonging, self-regulation and cognitive investment (Fredricks et al., 2004). This perspective is situated within the framework of Special Education from an inclusive and co-evolutionary standpoint, according to which differences do not merely represent needs to be addressed, but may also become resources capable of fostering reciprocal transformations among people, educational contexts and teaching practices (Canevaro, 2006; Sandri & Marcarini, 2019). Within this interpretative horizon, attention is not focused exclusively on the student's individual characteristics, but on the facilitators, mediators and pedagogical-didactic devices that can support participation. This shift in

EDIZIONI UNIVERSITARIE ROMANE
editoria scientifica dal 1952

perspective, from individual difficulty to the conditions that make participation possible, is particularly significant when considering students with twice-exceptionality (2e). This expression refers to the co-presence of talent or high potential in one or more domains and one or more disabilities or disorders requiring specific educational support (Foley-Nicpon et al., 2013; Reis et al., 2014). Such a configuration may make it less immediate to identify the student's resources, since difficulties may mask potential and direct the educational gaze towards reductive interpretations. In this process, teachers' perceptions play a particularly relevant role. Studies on twice-exceptionality show that the recognition of these students may be hindered by still partial knowledge of the construct, by an interpretation focused mainly on difficulties, or by readings of school behaviour that fail to grasp the complex relationship between potential and vulnerability (Bianco & Leech, 2010; Foley-Nicpon et al., 2013; Reis et al., 2014). As a result, manifestations such as inattention, withdrawal, slow task execution, inconsistent performance or emotional vulnerability may be interpreted as lack of interest, low commitment or maladjustment, rather than as possible signs of a misalignment between the student's potential, educational needs, relationships, didactic demands and the devices made available by the school environment. For this reason, engagement is understood here not as mere involvement or adherence to proposed activities, but as a multidimensional construct that includes behavioural participation, emotional experiences, cognitive investment, self-regulation and sense of belonging (Fredricks et al., 2004). In this sense, it enables school participation to be read not only in terms of observable behaviour, but as the outcome of the interaction between the student, educational relationships, teaching practices and context. The aim of this contribution is to show how school engagement may represent a special-pedagogical lens for understanding and supporting the participation of students with complex profiles, with particular reference to 2e students. To this end, three main objectives are identified: to examine school engagement as a multidimensional construct; to analyse the role of the educational context as a possible barrier to, or facilitator of, participation, self-regulation and the expression of potential; and to highlight the value of inclusive strategies, with particular reference to the CLIS method. The latter makes it possible to orient the reflection towards the pedagogical-didactic implications of the contribution, by examining devices capable of promoting participation, cooperation, agency, wellbeing and the valorisation of potential.

2. Engagement, educational relationships and a pedagogical-didactic reading of complex profiles

In order to understand engagement as an inclusive pedagogical lens for reading complex profiles, it is first necessary to recall its multidimensional nature. Fredricks et al. (2004) define school engagement as a construct articulated in three closely interdependent dimensions: behavioural, emotional and cognitive. Behavioural engagement concerns students' involvement in school, social and extracurricular activities and includes aspects such as effort in tasks, perseverance and respect for rules. Emotional engagement refers to positive and negative affective reactions towards teachers, classmates, school subjects and school itself, including feelings of interest, belonging and satisfaction, but also boredom, anxiety or emotional detachment. Finally, cognitive engagement concerns personal investment in learning, the willingness to sustain cognitive effort, the use of cognitive and metacognitive strategies and the intention to understand complex ideas in depth.

In this direction, cognitive engagement implies intentional and sustained mental effort, through which the student perseveres in understanding complex ideas and solving challenging problems. It supports deep understanding of content and the possibility of applying knowledge flexibly to new situations (Blumenfeld et al., 2006; Pellegrino & Hilton, 2012). However, such engagement is not automatic, but situated: it also depends on didactic conditions capable of activating curiosity, interest, links with prior knowledge and meaningful cognitive challenges. This approach makes it possible to move beyond a reductive conception of engagement, understood only as visible participation or adherence to proposed activities. Physical presence in the classroom, task completion or apparently appropriate behaviour are not sufficient to understand the quality of the student's school experience. A student may appear to participate without being genuinely cognitively engaged; may comply with instructions while experiencing feelings of alienation, anxiety or lack of recognition; or may show behaviours that appear inattentive. In this sense, engagement enables school experience to be read as a dynamic interplay of participation, emotional experiences, cognitive investment, self-regulation and sense of belonging. From an inclusive pedagogical perspective, this reading is particularly relevant because it shifts attention from the student's individual characteristics alone to the relational, didactic and organisational conditions that may support or hinder involvement. Fredricks et al. (2004) emphasise that engagement is sensitive to the characteristics of the educational environment and can be promoted through interventions on classroom climate, teaching practices, opportunities for participation and the quality of relationships. Within this framework, the teacher-student relationship assumes a central role: teacher support does not concern only academic help, but also the interpersonal dimension of the educational relationship. Respectful, socially supportive and cognitively challenging environments can foster participation, the use of metacognitive strategies, positive emotional experiences and cognitive investment. Conversely, an environment focused exclusively on performance demands, but insufficiently attentive to relational dimensions, may generate forms of emotional disengagement, especially in students with complex profiles. Teachers' perceived self-efficacy is also relevant, as it affects the way in which teachers interpret students' behaviours, formulate expectations and choose strategies capable of supporting participation, self-regulation and the recognition of potential (Bandura, 1997; Tschannen-Moran & Hoy, 2001). The peer group is also a significant element in the construction of engagement. Relationships among classmates may support or hinder participation, influencing sense of belonging, acceptance, school satisfaction and commitment to tasks (Fredricks et al., 2004; Furrer & Skinner, 2003; Kindermann, 1993). Moreover, when peers discuss ideas, compare points of view, collaborate in problem solving and construct knowledge together, they can also contribute to the development of cognitive engagement. The classroom, therefore, is not merely a space for individual learning, but a relational and co-evolutionary context in which participation takes shape through interactions, mutual recognition and opportunities for cooperation. It follows that inclusion does not concern only the student's adaptation to the context, but also the transformation of the context itself, which is called upon to reorganise practices, relationships and didactic mediators (Canevaro, 2006; Sandri & Marcarini, 2019). This relational and contextual reading is particularly significant for understanding complex profiles and, more specifically, students with twice-exceptionality. In such situations, the co-presence of high potential and vulnerabilities may make it less immediate to interpret the student's school experience: behaviours such as inattention, withdrawal from tasks,

slow task execution, inconsistent performance or socio-emotional difficulties risk directing the educational gaze mainly towards difficulty, leaving interests, resources and developmental possibilities in the background (Foley-Nicpon et al., 2013; Reis et al., 2014). A reading of engagement attentive to the behavioural, emotional and cognitive dimensions instead makes it possible to grasp more subtle signs of investment, belonging and self-regulation. Educational relationships with teachers and peers therefore become fundamental mediators for recognising the student's resources, supporting wellbeing and building contexts capable of valorising each learner's potential.

3. The educational context as a facilitator of engagement

The multidimensional nature of engagement requires cognitive investment to be considered in relation to the other components that contribute to defining the student's school experience: participation, emotional experiences, self-regulation and sense of belonging (Fredricks et al., 2004). Read in this way, engagement cannot be interpreted exclusively as an individual disposition, nor reduced to observable classroom behaviour alone, but must be understood in relation to the didactic, relational and organisational conditions that make involvement in learning processes possible (Skinner et al., 2009). In this sense, engagement becomes a privileged interpretative key for understanding not only how the student participates in school life, but also the quality of the educational conditions that make such participation possible. The bio-psycho-social model of the ICF makes it possible to explore this perspective further, since it invites us to move beyond an interpretation centred exclusively on the student's individual characteristics and to understand functioning as the outcome of the dynamic interaction between person, activities, participation and environmental factors (World Health Organization, 2001). In light of this interpretative framework, school participation does not depend only on the individual pupil's abilities or difficulties, but also on the relational, didactic, organisational and material conditions made available by the classroom. The context, therefore, is not simply the background against which educational action takes place, but an active dimension that can facilitate or hinder the performance of activities, participation, relationships and access to learning (Fedeli et al., 2022). This change of perspective directly involves teachers' professionalism. It is not merely a matter of adopting new tools or applying guidelines, but of learning to read the student's functioning in relation to learning environments, teaching methods, mediators, timeframes, spaces, relationships with peers and adults, and the opportunities offered by the classroom. In everyday school life, this means that educational planning cannot be limited to the individual pupil, but must also consider the organisation of the group, relational dynamics and the conditions that may support or restrict participation (Malaguti & Augenti, 2022; Pinnelli & Fiorucci, 2022). The link with engagement thus becomes particularly significant. If the student's participation takes shape through the interplay of behavioural, emotional and cognitive dimensions, the classroom context becomes an integral part of the construction of opportunities for learning, belonging and recognition. An accessible environment, positive educational relationships, meaningful tasks, appropriate mediators, cooperative methodologies and flexible timeframes may act as facilitators of engagement; conversely, unclear instructions, inaccessible materials, rigid expectations, isolation during activities or insufficient attention to relationships may become barriers (Fedeli et al., 2022). To make the relationship between context and engagement more explicit, it is useful to observe how classroom conditions affect the

three dimensions of involvement: behavioural, emotional and cognitive. Predictable routines, cooperative activities, a positive relational climate, accessible yet challenging tasks, didactic mediators and metacognitive strategies can support participation, belonging, cognitive investment and self-regulation. Therefore, transforming the classroom context does not simply mean adapting materials or simplifying instructions, but rethinking the whole organisation of the school experience: the way spaces are conceived, time is distributed, activities are constructed, groups are organised, mediators are used and relationships are promoted. The organisation of learning spaces also assumes a pedagogical function in this sense, since it can support sense of belonging, autonomy, wellbeing and a plurality of teaching strategies (Sandri & Marcarini, 2019). The context becomes genuinely inclusive when it allows the student not only to be present, but to act, choose, communicate, collaborate, feel part of the group and invest personal energy in learning (Malaguti & Augenti, 2022). According to this reading, designing inclusively means not stopping at what the pupil can or cannot do, but asking what conditions the class can build in order to enable the pupil to participate, feel recognised, approach activities with confidence and invest their resources in learning processes. In this direction, Hospel and Galand (2016) highlight the role of structure — understood as clarity of instructions, guidance and feedback — and autonomy support, referring to the possibility of choice, initiative and recognition of the student's voice. The transition from educational conditions to concrete teaching practices may find in the CLIS method a pedagogical-didactic device useful for translating structure, autonomy, cooperation and recognition into inclusive experiences capable of supporting active involvement and valorising each student's contribution.

4. CLIS as an integrated method for designing participation

4.1 Value framework and methodological integration

CLIS, an acronym for Cooperation, Learning, Inclusion, Service, is an integrated teaching method devised by Aurora Fumo and presented in the volume *Il Lesson Study: Con cenni all'innovativo metodo CLIS* (Andriano et al., 2026). Its specificity lies in the generative integration of Lesson Study, Cooperative Learning and Service Learning within the framework of the *Index for Inclusion*. The three approaches contribute to the same educational experience: service gives meaning to the pathway, cooperation makes participation practicable, and Lesson Study makes it possible to examine and revise the conditions of learning. Inclusion concerns every person and guides organisational, relational and didactic choices, together with the valorisation of individual resources.

The *Index* directs attention towards cultures, policies and practices that reduce barriers to learning and participation (Booth & Ainscow, 2011). The unit of planning includes the relationship between pupil, task, group and context. CLIS adopts inclusion for all and for each learner as a guiding principle: access to a shared experience, valorisation of potential and recognised responsibilities. This perspective also includes pupils with 2e, for whom opportunities for development and personalised support must be combined.

4.2 The interdependent functions of the three methods

Lesson Study constitutes the recursive structure of shared planning, observation and revision. Teachers identify objectives, anticipate possible difficulties, prepare mediators and observe learning processes during the lesson. Subsequent reflection concerns the relationship between teaching choices and what pupils are able to

understand, express and achieve, according to the collaborative inquiry function that characterises Lesson Study (Lewis et al., 2006). Within CLIS, this analysis also progressively regulates the accessibility of the task, the organisation of cooperation and the meaning of service.

Cooperative Learning structures interactions through positive interdependence, individual accountability, promotive interaction, social skills and group processing (Johnson & Johnson, 2009). Simply placing pupils in groups does not guarantee cooperation. It is necessary to define a common goal that requires reciprocal contributions, understandable responsibilities and accessible modes of participation. Roles are flexible and may be rotated, preventing differences from becoming stable hierarchies. Observation must identify whether each pupil has a real opportunity for initiative and whether the group recognises the value of different contributions.

Service Learning connects curricular learning to a meaningful need and to reflection on the service experience (Bringle & Hatcher, 1995). In CLIS, it permeates the pathway from the planning stage, in generative coexistence with the other two methods (Andriano et al., 2026). The identified need helps to define content, questions, activities and recipients; dialogue with the latter makes it possible to examine usefulness, reciprocity and responsibility. Service may concern the school community or the local area. In both cases, its educational value depends on the intentional connection with the curriculum and on pupils' opportunity to understand the meaning of their actions.

4.3 Planning, implementation and revision of the pathway

The teaching team begins the pathway by identifying a curricular core and a meaningful need, through dialogue with pupils and, where appropriate, with local stakeholders. Students' interests, prior knowledge and expressive possibilities enter into the planning process, so that the pathway does not merely reduce barriers, but also maintains a meaningful cognitive demand. The lesson plan sets out objectives, activities, group organisation, mediators, forms of support, the service contribution and observation priorities. During implementation, clear instructions and predictable routines are accompanied by opportunities for choice regarding questions, resources and modes of expression. Oral, visual, written and practical mediators may offer different ways of accessing the same objective, while narration, bodily experience and circle time may support the elaboration of content, experiences and relationships. The choice of strategies depends on the barriers observed and on the characteristics of the task, avoiding the attribution of a single way of learning to a diagnostic category. This flexibility is consistent with the Universal Design for Learning guidelines, understood as a complementary resource for planning (CAST, 2024). A narrative pathway may connect the interpretation of relationships between characters to the cooperative construction of a space for welcome and listening; an artistic pathway may link the reading of an artwork to a cultural contribution involving older people. In both cases, it is necessary to make explicit the needs, learning processes and forms of participation of the recipients in defining the experience. Observers document concrete episodes of participation and the conditions in which they occur. In the subsequent discussion, teachers compare observations, products and pupils' reflections, identifying facilitators and critical issues. Revision may concern instructions, timeframes, mediators, group composition or the distribution of responsibilities. Preserving the initial project, the evidence collected and the reasons for changes makes the process understandable and adaptable to other contexts.

4.4 Engagement and the valorisation of complex profiles

For students with twice-exceptionality, the relevance of the proposal lies in the possibility of holding together the development of potential and support for difficulties, in line with the need highlighted by Reis et al. (2014). Slow written production or inconsistent performance does not exhaust the interpretation of cognitive resources. It is necessary to observe what the student understands, which demands produce obstacles and which modes make their thinking visible. Didactic inquiry guides planning without replacing specialist processes of identification and assessment. The behavioural dimension of engagement may be supported by providing accessible tasks and real responsibilities; the emotional dimension requires belonging, trust and the possibility of expressing difficulties without losing recognition; the cognitive dimension requires challenging questions, tools for planning and reflection, and support proportionate to the task (Fredricks et al., 2004). CLIS offers a framework for designing and observing these conditions together. It is a theoretical-methodological connection that needs to be empirically verified. Cooperation requires particular attention: the student with high competences should not be permanently turned into a tutor, while the pupil who needs help should not be relegated to peripheral tasks. Flexible responsibilities and plural forms of expression make it possible to explore different contributions. The teacher also observes imbalances in workload, relational difficulties and signs of fatigue or discomfort. Behaviour that conforms to expectations may in fact coexist with low investment or distress. Service, in turn, must allow pupils to act as competent subjects in a reciprocal relationship with the recipients.

4.5 Documentation, initial evidence and research developments

The documentation of the CLIS pathway may be organised around the four dimensions considered: motivation and learning; inclusion and wellbeing; participation and cooperation; and responsible solidarity. The relationship with engagement must be made explicit without overlapping different constructs: observations, pupils' work and pupils' voices can help identify task initiation, persistence, requests for help, use of strategies, reciprocity and quality of participation. Initial CLIS evidence appears promising, but calls for interpretative caution. The small number of participants, the non-equivalence of groups and the asynchronous nature of the measurements make it necessary to extend the experimentation to larger samples and diversified contexts, with a greater presence of students with 2e identified through explicit criteria.

5. Conclusions

Designing engagement in the inclusive classroom means constructing educational conditions capable of holding together participation, recognition, learning and wellbeing. From this perspective, engagement does not concern only the student's individual motivation, but takes shape in the interaction between educational relationships, teaching practices, the organisation of the context and real opportunities to contribute to classroom life. The CLIS method may offer a pedagogical-didactic framework consistent with this approach, since it integrates planning, cooperation and service through shared processes of observation and revision. This integration orients didactic action towards inclusion for all and for each learner, in which participation means assuming a role and contributing to a shared experience. For students with 2e, this implies holding together the valorisation of potential and support for difficulties,

avoiding reductive readings of school behaviours. Further studies should extend the experimentation to diversified contexts and include a greater presence of 2e profiles.

References

Andriano, V., Bardelli, M., & Fumo, A. (Eds.). (2026). *Il Lesson Study: Con cenni all'innovativo metodo CLIS*. In Riga Edizioni.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.

Bianco, M., & Leech, N. L. (2010). Twice-exceptional learners: Effects of teacher preparation and disability labels on gifted referrals. *Teacher Education and Special Education, 33*(4), 319–334. https://doi.org/10.1177/0888406409356392

Blumenfeld, P. C., Kempler, T. M., & Krajcik, J. S. (2006). Motivation and cognitive engagement in learning environments. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 475–488). Cambridge University Press. https://doi.org/10.1017/CBO9780511816833.029

Booth, T., & Ainscow, M. (2011). *Index for inclusion: Developing learning and participation in schools* (3rd ed.). Centre for Studies on Inclusive Education.

Bringle, R. G., & Hatcher, J. A. (1995). A service-learning curriculum for faculty. *Michigan Journal of Community Service Learning, 2*(1), 112–122. https://hdl.handle.net/1805/4591

Canevaro, A. (2006). *Le logiche del confine e del sentiero: Una pedagogia dell'inclusione (per tutti, disabili inclusi)*. Erickson.

CAST. (2024). *Universal Design for Learning Guidelines version 3.0* [Graphic organiser]. https://udlguidelines.cast.org/

Fedeli, D., Bechere, L., Bragatto, L., Costa, F., Veronese, D., & Zossi, A. (2022). Analysis and documentation of facilitators and barriers at school: An analysis model from an ICF perspective. *QTimes – Journal of Education, Technology and Social Studies, 14*(1), 47–60. https://doi.org/10.14668/QTimes_14106

Foley-Nicpon, M., Assouline, S. G., & Colangelo, N. (2013). Twice-exceptional learners: Who needs to know what? *Gifted Child Quarterly, 57*(3), 169–180. https://doi.org/10.1177/0016986213490021

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109. https://doi.org/10.3102/00346543074001059

Furrer, C., & Skinner, E. A. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), 148–162. https://doi.org/10.1037/0022-0663.95.1.148

Hospel, V., & Galand, B. (2016). Are both classroom autonomy support and structure equally important for students' engagement? A multilevel

analysis. *Learning and Instruction, 41*, 1–10. https://doi.org/10.1016/j.learninstruc.2015.09.001

Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher, 38*(5), 365–379. https://doi.org/10.3102/0013189X09339057

Kindermann, T. A. (1993). Natural peer groups as contexts for individual development: The case of children's motivation in school. *Developmental Psychology, 29*(6), 970–977. https://doi.org/10.1037/0012-1649.29.6.970

Lewis, C., Perry, R., & Murata, A. (2006). How should research contribute to instructional improvement? The case of lesson study. *Educational Researcher, 35*(3), 3–14. https://doi.org/10.3102/0013189X035003003

Malaguti, E., & Augenti, M. A. (2022). From the person to the learning environment, through an ecological social human approach: The IEP as a real planning tool to promote inclusive education through multiple pluralistic proposals. *QTimes – Journal of Education, Technology and Social Studies, 14*(1), 121–133. https://doi.org/10.14668/QTimes_14112

Pellegrino, J. W., & Hilton, M. L. (Eds.). (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. National Academies Press. https://doi.org/10.17226/13398

Pinnelli, S., & Fiorucci, A. (2022). ICF at school: Application and experimentation of the PEI-ICF UniSalento model. *QTimes – Journal of Education, Technology and Social Studies, 14*(1), 312–325. https://doi.org/10.14668/QTimes_14125

Reis, S. M., Baum, S. M., & Burke, E. (2014). An operational definition of twice-exceptional learners: Implications and applications. *Gifted Child Quarterly, 58*(3), 217–230. https://doi.org/10.1177/0016986214534976

Sandri, P., & Marcarini, M. (2019). Inclusione e ambienti di apprendimento innovativi. *Italian Journal of Special Education for Inclusion, 7*(2), 95–109. https://doi.org/10.7346/sipes-02-2019-10

Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement, 69*(3), 493–525. https://doi.org/10.1177/0013164408323233

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*(7), 783–805. https://doi.org/10.1016/S0742-051X(01)00036-1

World Health Organization. (2001). *International classification of functioning, disability and health: ICF*. https://iris.who.int/handle/10665/42407